

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



EC-XXII & CoP-XIII

May 22-24, 2006

Venezuela

Report of the SAC-XXIII - Toronto

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23rd Meeting of the IAI Scientific Advisory Committee (SAC)
19-21 April, Toronto, Canada

Participants:

SAC Members: Walter Fernández (Chair), René Capote, Luiz F. Legey, Michael Brklacich, Telma Castro, Silvia Garzoli (Absent Wed. April 19), Rana Fine (Absent Wed. April 19)
Absent: Luiz Mata, Vicente Barros

Observers: Paul Filmer (NSF), Don MacIver (EC), Bruce Angle (EC) Jerry Melillo (NSF - Ubatuba), Vaughn Turekian (NSF) (All observers only present Wed. April 19)

IAI Directorate: Holm Tiessen (Director) (Present only Wed. April 19), Gerhard Breulmann (Scientific Officer)

Wednesday, April 19, 2006 (Open Session)

1. Welcome

The SAC Chair, Walter Fernandez, welcomed all participants and invitees to the meeting and thanked IAI Canada members for their help in organizing the meeting.

2. Agenda for SAC 23 Mtg

The agenda for the XXIII SAC meeting was agreed upon as follows:

1. Welcome
2. Agenda for SAC 23 Mtg
3. Chair's Remarks & Meeting's purpose
4. Reports from IAI, NSF, Canada, EC, Ubatuba meeting & the SAC, AAAS
5. Human Subject/Informed Consent (what is it? SAC responsibilities?)
6. CRN II: Allocation of Remaining Funds (priorities & process)
7. Other business

3. Chair's Remarks & Meeting's purpose

The Chair stressed the importance of this meeting for the purpose of working on a strategic plan representing the SAC position. This strategic plan would have implications for the CoP meeting in Caracas 23, 24 of May (location not confirmed). A letter was sent to EC members and other IAI contacts (Appendix A) asking the following questions:

1. What should be the over all mission for the IAI
2. What are the main challenges and opportunities the IAI will face over the next 10 years.

The responses submitted were distributed to the attendees and the context of the discussion set:

- 1) IAI's primary objective: to understand climate change on regional & continental environments in Americas
- 2) IAI approach is to pursue scientific excellence, and
- 3) the science agenda should be dynamic to incorporate the 4 main topics

For further insight the observers were asked to make presentations to stimulate discussion.

4. Reports from: IAI Directorate, Environment Canada, NSF, Ubatuba meeting, AAAS

Report from Don MacIver (Environment Canada – IAI and Canada)

Spoke of Canada's involvement with the IAI including:

- Hosting 20th IAI EC mtg (Montreal, May 2005)
- Hosting IAI CoP XII (Montreal, May 2005)
- Organizing and hosting Science Symposium (Montreal, May 2005)
- Participation in IAI Training Institute (Jamaica, Nov. 2005)
- Hosting CoP in Dec. 2005 – important and helped set work plan for future directions of CC decisions.

Canada's support of IAI thematic areas:

- A Canadian report accepted at Helsinki re: climate change, adaptation and biodiversity were all approved as key themes and their interconnectivity was highly stressed. Report is good foundation b/w these interlinkages for IAI.
- Environmental predictions are a major theme expanding beyond atmospheric predictions
- Space-based observation system (Global Environmental Multiscale Forecasting & Modelling – GEM) will be used quite aggressively by EC, in building models with info. Ability to use system for large areas (ie. Canada, regions of the Americas). GEM will be backbone to many forecasting and CC models and is, at the time, increasing through space and time scales in Canada.
- Models for emergency preparedness have enjoyed success by enhancing protection and improving early warning systems.
- Canada working on better understanding linkages between climate change and biodiversity: Organizing a symposium on subject (May 2007, Panama), sharing of results, exchanging information will take place. It was recognized as being a great opportunity for IAI and IAI has been invited to attend.
- Coupling of thematic areas important (i.e. climate change and biodiversity) as it allows effective communication to policy decision makers, otherwise difficulty in understanding science relevancy in economic terms.

How Canada is linking science to policy:

- Proactive approach to Risk Management and Emergency Preparedness in response to recent rising economic costs from severe weather events are already recognized. (Canada eg. 446 municipalities engaged and have each identified top 10 risks list and developed emergency plan. Effective and simple, www.hazards.ca)
- Exporting wind energy forecasting software to China, all of Canada already mapped
- Working with Smithsonian on assessments which explore linkages between forest biodiversity in Canada and climate change.

Report from Bruce Angle (Environment Canada)

- Emphasized importance of capitalizing on synergy between collaborating groups and interest in GEC by the general public. The new joint IOCWMO head, Dr. Hellers is tailoring an approach to translate scientific goals into community benefits
- Encourages the IAI to take advantage of the opportunities for IAI meetings with the Canadian Ambassador for the Environment and the science advisor for the Canadian Prime Minister. He also suggests the IAI garner more support as IAI principles cover a range of biodiversity and strategic plans present in many Canadian government departments.
- Call for papers by IHDP and others was noted for Beijing Earth Systems Science Partnerships mtg in Nov 2006.
- Gordon McBain, Director of the Institute for Catastrophic Loss Reduction, University of Western Ontario, has along with other scientists, have written the Canadian Prime Minister urging he specify the made-in-Canada approach to addressing climatic change (mitigation and research). There is concern amongst the scientific community that Canada has begun a process of disinvestment in climatic change. This letter will be forwarded to the SAC.

Report from Jerry Melillo on the IAI-SCOPE-NSF w/s on Linking the Sciences of Environmental Change to Society and Policy - lessons from 10 years of research networks in the Americas: Ubatuba, Brazil: 27 Nov – 2 Dec 05.

- The w/s investigated GEC science – policy linkages that occurred during CRNI activities as a basis for determining past successes and opportunities for enhancing science-policy linkages under CRNII.
- 40 invited guests including CRN I & II PIs
- Background papers were distributed prior to meeting for context, though not discussed

- Meeting's objective was to discuss opportunities for bridging the gap between GEC sciences and environment-related policies. and 4 cross-cutting topics were investigated in detail:
 1. Science policy – generating and steering policy
 2. Making science credible, practical, and operationally valuable
 3. Stakeholders: who they are and how to integrate them into
 4. Communications
- Ensuing discussions were excellent and illustrated universal interests in communicating science to policy-interested agencies
- The w/s also provided insight into the many and varied approaches for expanding the GEC science community and venues for GEC science products that have been underreported in traditional science reports.
- Strategic themes emerging from the w/s included (a) the importance of developing multiple reporting venues ranging from peer reviewed papers to reports designed for resource managers and policy analysts (b) the value-added stemming from the bridging of science and policy (c) the potential usefulness of the Mas ecosystems services approach (ie focus on the provision of services rather than biodiversity) & (d) globalization and the consequences for the environment and GEC
- A white paper produced out of mtg, being edited to be released as an IAI “lessons learned” book in 2006

Holm Tiessen (IAI - Directorate)

IAI – mission, challenges & opportunities

- Highlighted increasing demand for science assessments and implications for IAI as assessments are derived products of research where as IAI's mission has focused on research. Some CRNII application were rejected on the basis they were too focused on assessment but recognizing that engagement with the science assessment communities is an important component of communicating IAI's mandate and product.
- Identified setbacks in communication and adopting of results stemming from opposing interests. This was said to be the most important issue for a regional organization with tremendous energy consumers, part of this discussion is globalization, finding issues within social and natural sciences.
- Taking advantage of comparability of societies within the continent of America was suggested, something not possible in many parts of the world. Questions rose included: What should we discuss, how does SAC generate environment policy with a background in science? Previous belief was that IAI lacked in application of results, Ubatuba outcome proved different. The discussion was suggested to be centered on: what is strategic and unique about the IAI and whom is audience?
- A balance between research and assessment was suggested as the Ubatuba mtg and also exposed PIs to framing policy relevant questions. The timing of briefing notes to officials was stressed as an important practice

Report from Paul Filmer (NSF)

US – IAI, NSF support

- Stated the US support for work of IAI, which is congruent w/ Millennium development goals
- Quality of peer-review science that is central to IAI and enables credibility should be ensured during policy relevance discussion – US believes IAI exemplifies best practices in this area
- IAI received \$595,000 / year donated between NSF and NOAA, Science program – 5 years running, \$2 million / year, capacity building = \$300K (IAI), \$400K (NCAR)
- Upcoming Activities:
 - Advanced Studies Program (ASP) – 2 IAI Post-Docs participating
 - 2 IAI-NCAR two-week long colloquia (20-25 participants), 1st in Q3 of 2006
 - NCAR / CPTEC short course (Brazil, 2006)
 - NCAR / CTI course (Costa Rica, 2007)
 - GIS Workshop
- 2006 & 2007 Goals and Priority Areas of Climate Change Science Program were identified
- 1/3 of research will be renewed every 5 years. IAI has led the way.

Present environmental, political situation:

- It was noted that governments are starting to acknowledge environmental changes and their impact (water, food, hazards), and though discovery is still important, are looking for help with solutions in order to enhance relevancy in science

Science as part of the solution

- Activities and communities are coming together to define needs, response from development, water management and urban planning communities. Donors also focused on defining needs and will increase pressure to connect GEC issues to decision-making. Science has to be part of the solution or risk losing relevancy
- It was noted that Science can be easily misunderstood and left out due to highly iterative processes & time scale. Other fields (engineering, science) better able to take on challenge and responding to crisis. Budgets being lost to these fields after extreme events, and science needs to recapture those funds.

Bridging Social and Natural Sciences

- Requires huge amounts of coordination, but required
- NSF mandate to support fundamental scientific research, IAI still within this
- Policy interface deemed an important issue for the IAI CoP mtg in May 2006
- Ecosystems services was identified as a bridging theme because it combines science and application, as was planning strategies for adaptation, resilience inhuman and scientific systems, reliability versus trends, change versus variation, linking of science observations, monitoring towards assessment.
- An additional dimension to the existing science agenda can tie in these functional themes
- It was suggested the IAI have a stronger effort to link IAI to ongoing activities

Report from Vaughn Turekian (NSF)

AAAS Report Status

- AAAS report will assess whether the IAI contributed to / enhanced well being of people of West. Hem.
- Money for IAI assessment study still available, though no current progress on actual report
- Committee waiting to fill one member for completion, Gerry will chair the committee
- ToR will not change from those approved
- 2-3 visits around the region by Dr. Robert Swap (AAAS) will take place to build on the report
- Draft by the end of 2006, final copy early 2007
- Comments welcomed to correct any factual errors (only)
- Will find an AAAs member present at Ubatuba mtg to review the book

Summary of Submissions to SAC Chair letter and Wed presentations by M Brk

- IAI In position of strength after 1st 10 yrs
- IAI's broad portfolio (*Credible Science, Capacity Bldg, Training, Networking*) has been key
- BUT many changes since IAI initiated science agenda (*GEC science & urgency, Funding agency expectations*)
- Continued shift towards enhanced policy relevance underpinned by credible science programs (*Env Can, Ubatuba mtg, NSF, Many responses to WFs letter*)
- Need clearer definition of IAI audience(s) & research niche within Americas & internationally (e.g, GEC science programs, conventions, etc)
- Communication of science achievements: uneven, planned activities required to build an enduring knowledge partnerships
- Revised IAI vision: messages for SAC to distill
 - International science in support of national & regional policy in the Americas
 - Premiere GEC science – policy institute in the Americas

–Integrated & interdisciplinary science as basis for addressing complex environmental problems in socio-ecological systems

–Science in support of reducing vulnerability to GEC & preparation for GEC

•IAI Strategic Plan (SP) potential building blocks

–Core Interdisciplinary Science Themes (*Potential Candidate Themes: Ecosystem services, Vulnerabilities & adaptation, Urban-centered GEC issues, Water & food security, GEC-Globalization nexus, etc*)

–Assessment & Synthesis Activities in Support of Policy Relevance (*Ex's: CRN Integration, Links to other international GEC science & conventions*)

–Science Communication (*Ex's: Policy briefings, Communication to national & regional audiences, IAI position statements*)

–Capacity Building

•Current Reality:

–IAI scientific & policy niche amongst other GEC efforts in the Americas & internationally needs to be clarified (value-added vs duplication)

–Open discussion of opportunities followed by SP consistent with IAIs current capacity

–Need to diversify funding-base in order to respond to new challenges & “grow” the Institute

5. Human Subject/Informed Consent (what is it? SAC responsibilities?)

- A shift in Global Change research to include the human dimensions requires a policy towards human subject research. Declarations at the international level (i.e. Helsinki) resulted in a set of national laws in almost every member country stipulating policies and procedures towards human subject research.
- IAI funding may be tied to having a policy in place, the Canadian university research context requires ethics approval prior to the release any of funds. Most member countries have similar requirements.
- It is possible that some IAI funding (CRNs) is granted to a body that is not a recognized funding institution or research office (i.e. CRNII: Naval Institution). There will be increasing pressure from funding agencies (i.e. NSF) to prove topic is monitored.
- To ensure compatibility among countries, projects, PIs, etc, it was suggested the IAI develop a policy that places the onus of evaluating human subject / informed consent elements of projects on having the PIs follow existing regulations as per a local regulating body as well as meet any NSF requirements.

The following draft statement was submitted by Michael Brklacich:

Proposed Human Subjects

1. IAI recognizes the importance of Human Subject standards as applied to GEC Science and will ensure application of international standards are applied to all IAI funded Research.
2. Responsibility for #1 rests with PI, ensuring international Standards and local (i.e. National) standards are met prior to release funds.
3. PIs to provide IAI with documentation of their approval of compliance with regulations

** Exception: when a PIs home institution does not adhere to international human subject regulations or does not have the capacity to ensure human subject regulations are applied, , then this responsibility will be assumed by a co-PIs institution which has the proper mechanism in place.

6. CRN II: Allocation of Remaining Funds (priorities & process)

- The IAI Directorate has reworked the budgets of CRNII projects to complement some projects, strengthen weaker areas and bridge some projects together. Of particular concern was balancing the social and natural sciences. Urban area was also determined to be a weakly represented theme area.
- IAI has approximately USD 1.0 million available. Due to annual budgets, funds must be allocated in a timely manner and in accordance with the NSF proposal Greater flexibility in meeting proposed tasks for use of funds as a result of NSF approving funds as package

- It was suggested some funds kept for synthesis activities (such as Ubatuba) and/or establishing mini-CRNs in year 3 to fill gaps in the CRNII research portfolio

7. Other business

It was suggested to identify a spokesperson with a background in science to communicate IAI positions and produce timely briefings,.

To increase IAI visibility, the SAC recommends that the EC/CoP representative of the country where a SAC meeting is held be invited as an observer.

Chair Walter thanked everyone, including the observer for attending and participating in the discussion.
The Wednesday meeting is adjourned.

Thu 20 & Fri 21: Partially closed SAC sessions (SAC members only)

1. Review of SAC mandate & responsibilities

The SAC mandate was reviewed and was found to be a useful exercise. Discussion of SAC involvement in the CoP in Venezuela ensued, in particular the content of the presentation.

Also discussed the possibility of organizing directed annual workshops as under mandate point a), and determining the possibility of setting up an advisory panel to advise the SAP on assessments of the scientific results, as per agenda point e).

2. Discussion & decision re new SAC Chair

After considerations and discussion, new chair Michael Brklacich and co-chair Luiz Legey were elected. Current Chair Walter to inform absent members. From this point on MB & WF shared chairing the meeting and Walter was presented with a token of appreciation for all his work serving as a SAC Chair.

3. IAs Future: Vision, Challenges & Opportunities

A roundtable discussion regarding the future SAC role in IAI was conducted. Comments focused on the importance of separating politics from policy relevance and ensuring the SAC role is to provide reputable, good quality information, through an IAI rep.

The possibility of strengthening the SAC relevance to member countries was identified, noting the relationship should expand from monetary links to asking member countries to contribute through involvement of their respective science programs.

A review of gaps in theme areas and geographic areas from CRNI was recommended (and CRNII at a future time) to help chart the course for future projects. This was also encouraged to be undertaken before launching a new project so as to combine relevant themes and projects beforehand for strategic ends. This was identified as the appropriate time to discuss the division of funds and selecting policy-oriented research.

4. Prioritization of Future Opportunities & Challenges (i.e SAC priorities & activities)

It was decided that to determine future opportunities & challenges necessarily required review of past activities. Committee developed a brief set of performance measurements to evaluate the fulfillment of SAC mandate:

1. Integrated Science

Expanding the science enterprise (leveraging funds)
Participation in int. conferences
CRNI sustainability

2. Collaboration

New Stakeholders
Participation in int. conferences

3. Informed Actions

Scientific publications
outreach: briefing notes
Participation in int. conferences

Capacity Building: (as a cross cutting theme)

What happened to the students?
Any recommendations resulting from research (to levels of government)
How many of CRNs report to policy circles

This exercise helped determine useful inputs into a SAC strategic document, in part by encouraging evaluation of the results of CRNIs

The Science Agenda was analyzed and discussions surrounded its modification. Future opportunities, such as the growth of the organization, were recognized as possible goals achievable by diversifying sources of funding. It was also determined best for the SAC to prepare a document for input into overall IAI strategic plan, including recommendations and action items.

5. Strategic Plan Process, SACs Role

After much discussion, it was decided the SAC would produce a briefing note for EC/CoP for input into a comprehensive IAI strategic plan. The role of the SAC was debated and it was decided that the SAC's role is to advise the IAI on the strategic science to pursue in the 10+ years. Evaluation protocols to help clarify strategic areas worthy of pursuit were discussed and will be outlined in the briefing note.

6. Draft briefing note for EC/CoP/SAC

A briefing note for the EC / CoP commenting on SAC input for IAI Strategic Plan recommendations was drafted. Michael and Luiz to rework the draft and send out to SAC members prior to May 2006 CoP meeting.

Silvia, Luiz and Michael formed committee to prepare the draft presentation for the CoP mtg May 2006, to be circulated among all SAC members.

7. CRN II: continued discussion re rounding out the program, SAC recommendations

The SAC recommends the remaining CRNII funds (est. \$1M) be reserved until the SAC has had the opportunity to review funded CRN2 projects (as of Apr 06) and identify gaps in the current research portfolio that is needed to be addressed.

Then the SAC will provide advice for allocation of remaining funds. The intent is to initiate a focused (i.e. not open) call for one or two strategic areas.

8. Additional SAC member

The last EC has decided that the position of the 10th SAC member be filled ideally before the meeting in Porlamar, however so far no nomination have been made.

It was decided the ideal candidate would be from thematic areas 2 and 4 and active in science and policy relevance. The CVs of potential candidates to be sent amongst all SAC members, and Michael and Luiz to follow up with a recommendation to the committee.

9. Previous Minutes

Minutes from the XXII SAC meeting were conditionally approved, pending some corrections

10. Next SAC Mtg

The XXIV SAC mtg will be held 28 Nov. to 1 Dec. 2006 in Cuernavaca, Mexico, Telma Castro to decide best venue. A ¼ or ½ day on science research being conducted in area was suggested, as well as hosting the meeting in strategic areas for capacity building and increasing interest.

11. Other Business

An invitation to the Mexican officials (host contacts) to attend the Nov 06 SAC XXIV mtg was suggested

Also suggested: invitations be sent to local PIs from CRN projects near future SAC meetings (when and where possible)

The SAC Chair closed the meeting with thanks to Michael Brklacich and Luiz Legey for agreeing to serve an upcoming term. A warm thank you was then given to Walter for his effort and dedication in serving as former Chair.

The SAC XXIII meeting is adjourned.

Appendix A

Xx March 2006

Letter to:

IAI SAC Members

Directorate Staff (HT, GB, MO, others?)

EC Members (CoP reps as well)

NSF (ML, PF, VR)

Ubatuba: Chairs & Rapporteurs of the 4 groups, x-cut chapter authors

CRN I & II PIs

IAI has had considerable success since 1996 in building GEC science capacity in the Americas and a recent IAI/SCOPE meeting on Science & Policy revealed the multiple ways in which IAI-funded science has begun to contribute to the formulation and delivery of environmental policies and programs from local to multi-national levels. In addition, IAI is currently launching CRN2 projects with the expectation there will be opportunities to support new science initiatives via SGPs program over the next 5 years.

With the context for science funding changing and clear signals the demand for policy-relevant science will continue to grow, IAI will need to adjust its science programs. As an initial step in the process in developing a new strategic plan that will guide IAI's science activities over the decade, IAI's SAC is requesting your input into this process and asking you address the following two questions:

1. What should be the overall vision for IAI over the next +10 years.
2. What are the main challenges & opportunities IAI will face over the next +10 years.

The IAI SAC will commence its 23rd meeting on 19 April & your responses would be appreciated no later than 10 April. Please send your replies to the IAI Program Manager, Ione Anderson at ianderson@dir.iai.int

Yours sincerely

WF, SAC Chair.