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**CONFERENCE OF THE PARTIES TO THE
INTER-AMERICAN INSTITUTE FOR GLOBAL
CHANGE RESEARCH
Twenty-sixth meeting
Antigua, Guatemala, 20-21 June 2018
Agenda item 15**

**Report of the Directorate
Capacity Building**

1. This document has been prepared by the IAI Directorate.

Background

2. The preamble of the *Agreement establishing the Inter-American Institute for Global Change Research (IAI)* states:

Concerned that research on global issues requires cooperation among research institutes, among states and among the different parts of the Inter-American region, and with regional and international global change research programs.

3. Article II, Paragraphs a), d), f) and g) of the *Agreement establishing the Inter-American Institute for Global Change Research (IAI)* state:

- a) Promote regional cooperation for interdisciplinary research on aspects of global change related to the sciences of the earth, ocean, atmosphere, and the environment and to social sciences, with particular attention to impacts on ecosystems and biodiversity, socio-economic impacts, and technologies and economic aspects associated with the mitigation of and adaptation to global change;
 - d) Improve the scientific and technical capabilities and research infrastructure of the States of the region by identifying and promoting the development of facilities for the implementation of data management and by the scientific and technical training of professionals;
 - f) Improve public awareness and provide scientific information to government for the development of public policy relevant to global change;
 - g) Promote cooperation among the different research institutions of the region.
4. The Conference of the Parties, at its 12th meeting (Montreal, 2005), adopted Decision XII/11, Affiliated Institutions, which states:
- The CoP approved CPTEC/INPE's proposal to become an affiliated institution of the IAI for the Program on Climate Variability in the Americas.*
5. The Conference of the Parties, at its 25th meeting (Bogota, 2017) adopted Decision XXV/25, Enhancing activity of IAI Member Country Representatives which states:
- The CoP encourages proactive participation by country representatives in IAI meetings, reporting on IAI research project results in their countries, and working for the timely payment of country contributions.*
6. The Conference of the Parties, at its 25th meeting (Bogota, 2017) adopted Decision XXV/28, Augmenting science communication capacities of IAI research projects, which states:
- The CoP directed the Directorate to find ways to enhance the capacity of IAI research projects to communicate their results to stakeholders.*

Introduction

7. Chapter 4, *Capacity Building: Detailed Findings and Recommendations of the Report of the External Review Committee Assessment of the Inter-American Institute for Global Change Research*¹ states:

Finding 1: There is strong evidence that IAI capacity building activities are some of the most valuable contributions that the Institute has made to both science and society in the Americas. The IAI Directorate has employed a variety of approaches to capacity building, including short courses, workshops, and apprenticeships.

Finding 2: It will be difficult to evaluate the long-term impact of these approaches, because specific mechanisms are not in place to track outcomes.

Finding 3: Recently, progress has been made toward developing capacity in scientific program management across the region.

Recommendation 1: Continue to offer a broad range of capacity-building activities, including developing additional innovative approaches such as apprenticeships with government agencies, NGOS, and industry to broaden the range of opportunities for IAI-trained graduates.

Recommendation 2: Develop a tracking mechanism of capacity building efforts to, (1) aid in the future planning of capacity building activities and (2) effectively use the human and financial resources of the Institute.

Recommendation 3: Continue building capacity in science program management, because it is critical to the IAI's functioning effectively in the region.

8. In support of the above, during the intersessional period of CoP-25 (Bogota, 2017) and CoP-26 (Antigua, 2018), a broad range of capacity-building activities was developed by the Directorate. These activities contributed to the training of scientists, policy makers and other professionals from IAI Parties in many areas, including, but not limited to: inter and transdisciplinary proposal development; networking building; science-policy collaboration; communication of science to society; among others.

Capacity building in inter and transdisciplinary approaches to integrating policy and science

9. The Directorate engaged in a partnership with the University of São Paulo (USP) and the Interdisciplinary Climate Investigation Center (INCLINE) for the development of the "São

¹ American Association for the Advancement of Science Chapter 4, *Capacity Building: Detailed Findings and Recommendations. Report of the External Review Committee Assessment of the Inter-American Institute for Global Change Research*. Washington, D.C. International Office, 2007.

http://www.iai.int/wp-content/uploads/2013/10/aaas_IAIreport_0607.pdf

Paulo School of Advanced Science on Climate Change: Scientific basis, adaptation, vulnerability and mitigation", which was held 3-15 July 2017 in São Paulo, Brazil. Results from this event include:

- Directorate staff, the chair of the Scientific Advisory Committee, and several principal investigators served as lecturers to the 119 graduate students who attended the school.
- The School content was an overview of the Intergovernmental Panel on Climate Change (IPCC) reports, for young scientists to better understand climate change in an integrated manner and to foster interdisciplinarity.
- Participants also visited Brazil's Center for Weather Forecasting and Climate Studies (CPTEC), and the Center for Natural Disaster Monitoring and Alert (CEMADEN), two key institutions in the State of São Paulo conducting climate change research with policy applications.
- An IAI activity that is world-wide in scope and participation, 119 participants from 30 countries.
- Diversification of IAI funding sources. The School was funded by the São Paulo Research Foundation (FAPESP) with resources of approximately US\$ 200,000.²

10. The Directorate organized the "*Professional Development Seminar (PDS) on Transdisciplinary Approaches to Integrating Policy and Science for Sustainability*", which was held in two parts (November 2016 in the Dominican Republic and October 2017 in Canada), hereafter referred to as PDS Dominican Republic/Canada. Results from these events include:

- Participants came from governments, the private sector, NGOs, indigenous communities, and academia. Four transdisciplinary collaborative networks were established. Networks developed projects on socio-economic environmental themes: water governance; improving the livelihoods and resilience of cocoa producers; and native grassland sustainability for biodiversity conservation and livelihood security³.
- Two projects are in the process of receiving financial support from the private sector to undertake research, which reflects from the value of the IAI training in strengthening participants' skills in proposal development and in establishing transdisciplinary research teams.
- The seminar gave prominent participation to Canada's First Nations and special recognition of indigenous knowledge as an important type of knowledge to be integrated into transdisciplinary research. First Nations representatives led and hosted the seminar field trip and discussed with participants collaboration among different communities.
- PDS Dominican Republic/Canada evaluation indicated that participants, collaborators and other co-organizers and funders considered the seminar unique and innovative in its approach. The seminar addressed multiple goals and provided training in various skills. Participants appreciated training in interdisciplinary and transdisciplinary team-building, network development, proposal development, engagement of scientists with policy makers and with indigenous communities, development of press releases and communication of science to society. Participants also praised the PDS for its practical approach. Seminar program included state of the art scientific lectures, conceptual and

² For more information, access the School webpage at: <http://www.iai.int/sao-paulo-climate-change-2017/>

³ For more information see IAI/COP/26/Info.10

methodological approaches, and fostered the application of the knowledge and skills imparted from the training through project proposal development.

-Co-funding of approximately US\$ 45,000 was leveraged by the Directorate for the PDS Dominican Republic/Canada with partner organizations, such as the Dominican Republic's Ministry of Environment and Natural Resources, Canada's University of Calgary, the American Association for the Advancement of Sciences, FAPESP and several universities⁴.

11. In November 2017, the Directorate co-organized a session workshop “*On speaking a transdisciplinary language: Pathways for knowledge integration and cross-sector collaboration*” which was held at the II Conference of the Programme on Ecosystem Change and Society (8-10 November 2017 in Oaxaca, Mexico). Results from this event include:
 - A Training Seed Grant team with researchers from the University of Calgary, Canada and California State University, United States of America co-organized this workshop with the Directorate. As a result of this initiative, alumni are collaborating with the IAI as host and leaders of training activities based on IAI training models and on the seed grant research conducted under the IAI funding.
 - This workshop was funded by the University of Calgary Research Across Borders Grant.
 - The workshop was commended by many participants who were impressed by the practical IAI training model which combines training seminars with seed grant projects.
12. In August 2017, the Directorate and the Oceanographic Institute of the University of São Paulo (USP) submitted a proposal to hold a “*São Paulo School of Advanced Science on Ocean Interdisciplinary Research and Governance*”. The proposal was approved for funding by FAPESP and the School will take place 13-25 August 2018 in São Paulo, Brazil. Over 100 graduate students, from all over the world, will participate in this event and will advance their knowledge on interdisciplinary ocean research and integrated science and governance, including issues related to public policy.
13. In reply to a request from Panama made on 22 January 2018, the Directorate is organizing a course on Science and Diplomacy for scientists and policy makers from Central America. The course, to be held in October 2018, will be developed in collaboration with the American Association for the Advancement of Science (AAAS) and Panama's Secretaría Nacional de Ciencia y Tecnología e Innovación (SENACYT). This activity seeks to enhance the participation of professionals, from IAI Parties and non-Parties in Central America and Spanish speaking nations, in the Caribbean (Cuba and the Dominican Republic), in IAI activities.
14. The Directorate will also organize a similar course for English speaking countries in the Caribbean and Suriname to encourage adhesion of Caribbean nations to the IAI agreement and promote the participation of these countries in IAI programs. This activity will be held in Jamaica in 2019.

⁴ For more information, access the seminar webpage at: <http://www.iai.int/transdisciplinary-approaches-to-integrating-policy-and-science-canada/>

15. These activities should also be understood as part of the IAI Directorate's strategic effort to enhance membership in the IAI.
16. The Directorate is working on the planning of a "*Seminar on the Impacts of Climate Change and Variability on Water Resources in the MERCOSUR region: an Interdisciplinary Approach*". The seminar will be held 5-13 November 2018 in Santa Fe, Argentina. The difference of this activity from other IAI seminars is that it will focus on interdisciplinary curriculum development for a master and doctoral program. The seminar will be hosted by the Faculty of Engineering and Water Sciences of the Universidad Nacional del Litoral. Other collaborators are the World Meteorological Organization and the government of the province of Santa Fe.

Science-policy collaboration and science communication

17. The Directorate participated in the program sponsored by the AAAS on "*Science Diplomacy and Leadership*" (11-15 September 2017 in Washington, DC) as part of its efforts to strengthen the activities at the science and policy interface. The IAI contributed to an activity hosted by the Embassy of Costa Rica in Washington, D.C., where a panel discussion provided young scientists an introduction to government and international officials with experience in bilateral and multilateral negotiations. Participants in the panel included H.E. Román Macaya, Costa Rican Ambassador to the United States, Dr. Marcos Regis da Silva, IAI Executive Director, Mr. John Maisto, former U.S. Ambassador to Nicaragua, Venezuela, and the Organization of American States, and Mr. Ernesto Fernández-Polcuch, Chief of Section, Science Policy and Partnerships, UNESCO.
18. "*Throwing away the Lab Coat: Communicating science across borders - Canada's Panel Dialogue*" was the title of a science-policy activity of the PDS Dominican Republic/Canada hosted by famous Discovery Channel TV host Jay Ingram. Mr. Ingram and expert guests explored innovative ways to communicate science across sectors, borders, and cultures. The guests came from different sectors: indigenous communities and energy and mining sectors, legislative government, private sector and academia.
19. The Directorate played an important role in the "*First Mexican Congress on Science-Informed Policy*" organized by the Science Advisory Council of Mexico, the Office of Science, Technology, and Innovation of the Presidency of Mexico and the AAAS (19-20 October 2017 in Mexico City, Mexico). Along with high-level government officials from Mexico, Nobel Laureate Dr. Mario Molina, AAAS Chief Executive Officer, the IAI Executive Director, presented the IAI as an intergovernmental mechanism that supports decision-making and facilitates the integration of science into national, regional and international processes and agendas.
20. The Directorate also had prominent participation at the training symposium held at the Universidad Nacional Autónoma de Mexico (UNAM) held back to back with the First Mexican Congress on Science-Informed Policy. Students were introduced to successful examples of training programs and immersive mechanisms for engaging scientists with policy processes.

21. The Directorate has submitted a proposal to hold a session on “Ciudades Sostenibles: la construcción de enfoques operativos para América Latina” at the Latin America and the Caribbean Open Forum for Sciences - CILAC 2018 (22-24 October 2018 in Panama City, Panama). Partner organizations are: Panama’s SENACYT, AAAS, the IPCC, and Mexico’s Colegio de la Frontera Norte.
22. The Directorate was invited to participate in the AAAS Annual Meeting (15-18 February 2018 in Austin, USA) session on Science Diplomacy. The IAI was presented as AAAS’s partner in Latin America which represents an excellent example of scientific collaboration under a multilateral framework. Other important speakers at this session were Dr. Franklin Carrero-Martínez, Acting Deputy Science and Technology Adviser to the United States Secretary of State; Ambassador Jimmy Kolker, former US ambassador to Burkina Faso, Uganda, and chief of the HIV/AIDS Section at UNICEF’s New York Headquarters; and Mr. Ernesto Fernández-Polcuch, Chief of Section, Science Policy & Partnerships, UNESCO.
23. The Directorate will participate in the meeting of the PDS Dominican Republic/Canada water governance Seed Grant project to be held 3-6 April 2018 in Chile. The meeting will gather IAI researchers from Argentina, Brazil, Chile, Canada and Colombia, other scientists from Europe, and representatives from indigenous communities, from the government of Chile, and the mining company BHP Billiton. One discussion item to be addressed at the meeting is the establishment of a knowledge platform on science and policy for the Americas, such as mining – climate change – and community participation. Another discussion item to be addressed is the fostering of collaboration among indigenous communities from Chile and Canada. This activity is the result of discussions held between representatives from the Cree and Blackfoot First Nations of Canada and Chile’s Quechua of Quipisca during the IAI seminar in Canada and reflects the Directorate’s efforts to take into account the views of indigenous peoples and local communities.

Party representatives participation in IAI events

24. Mexico IAI focal point, Dr. María Amparo Martínez, collaborated with the Directorate in the Open Symposium held at the Universidad Nacional Autónoma de México (UNAM) held back to back with the First Mexican Congress on Science-Informed Policy.
25. Colombia IAI focal point, Mr. Omar Franco, was invited to participate in the First Mexican Congress on Science-Informed Policy (October 2017).
26. Panama IAI focal points, Ms. Milagro Mainieri and Ms. Luz Cruz, are collaborating with the Directorate in the planning of a training course on Science Diplomacy for Central American scientists and policy makers. The course will be held 17-20 October 2018 in Panama City, Panama.
27. Chile IAI focal point, Ms. Gladys Santis, will participate with the Directorate in the meeting of the PDS Dominican Republic/Canada water governance research team in Chile on 4 April 2018.

28. Paraguay IAI focal point, Dr. Fernando Mendez, is working with the Directorate in the planning of the Seminar: the Impacts of Climate Change and Climate Variability on Water Resources in the MERCOSUR Region: an Interdisciplinary Approach. The seminar will be held 5-14 November 2018 in Santa Fe, Argentina.
29. Uruguay IAI focal points, Mr. Jorge Rucks and Mr. Ignacio Lorenzo, are collaborating with the Directorate in planning several joint-events, to be held in Uruguay: 1) Future Earth - IAI - Uruguay Science for Policy event to be held in April 2018. Future Earth scientists, IAI investigators from Uruguay, and government authorities will present and discuss priority themes for the host country, such as Renewable Energy and Sustainable Agriculture; 2) Uruguay's Ministry of Foreign Affairs, the Embassy of Brazil, and the Embassy of Canada will host a meeting with all diplomatic representations of IAI Parties in Uruguay to present the IAI and its programs; 3) Uruguay's coordination group of the National System for Climate Change Response will hold a meeting with the Directorate to discuss IAI new strategies for science to support national policy needs for global agreement frameworks.

Capacity Building Outreach

30. Capacity building opportunities are some of the most viewed announcements on the IAI social media (Twitter and Facebook). Over 10,666 people accessed training announcements last year.
31. In 2017 the IAI launched the development of webinars and broadcast its seminars. This initiative increased the visibility of the IAI. Webinars were accessed by a large number of scientists, students and other professionals. They reached an audience of 8,259 people. Viewers attended the IAI seminars on ecosystems services, transdisciplinary approaches, and the São Paulo school on climate change.
32. More than 85 videos of seminar lectures, interviews and testimonies were produced of the PDS Costa Rica/Chile on ecosystems services and of the Dominican Republic/Canada. To date over 2,625 users have accessed these videos at the IAI YouTube Channel and social media.
33. A video entitled "*The Transdisciplinary Approach*" resulting from the first part of the PDS Dominican Republic (November 2016) was developed by Michigan Technological University in collaboration with the IAI in August 2017. Nearly 900 people have watched this video on the IAI social media and website.
34. A special issue of Ecuador's Universidad de las Fuerzas Armadas *Vínculos Magazine* will be published on "*Transdisciplinary Approaches to Integrating Policy & Science for Sustainability*" in April 2018. This entire issue is dedicated to the IAI PDS Dominican Republic/Canada participants and speakers. It presents the IAI seminar as an initiative among scholars and professionals working collaboratively under a transdisciplinary, geographically diverse and multi-sectoral approach.

Recommendation:

35. The Conference of the Parties is invited to encourage Parties to collaborate with the Directorate in the development of capacity building and science-policy activities on

global change relevant to national priorities. The Directorate would welcome further collaboration with Parties to strengthen the scientific and policymaking capacities of professionals from the Americas.

36. The Conference of the Parties is invited to support the development of future IAI Seed Grant Programs associated with capacity building activities. To date, two Seed Grant programs have been implemented by the Directorate with high impact and low cost. Seed Grants include professionals from all 19 Parties and non-Parties from universities, government agencies, NGOs and the private sector. Furthermore, these programs provide practical experience in inter and transdisciplinary research, multinational network building, science-policy interactions, and international science program management. The IAI Seed Grant model has been replicated by other organizations, such as the International Council for Science (ICSU).
37. The Conference of the Parties is invited to encourage Parties to collaborate with the Directorate, the Scientific Advisory Committee and the Science Policy Advisory Committee in the design and implementation of two new capacity building programs aimed at strengthening the science-policy training of early career scientists from the Americas, subject to the availability of external resources:
 - a) A Science & Technology Policy Fellowships program that provides opportunities for outstanding scientists to learn about national policymaking while using their knowledge and analytical skills to address pressing societal challenges. This program could follow the successful model implemented by the AAAS, which has been replicated by many countries around the world;
 - b) The Research Internship Program that offers fellowships for young scientists to develop a research project at prestigious national and international research centers for a period of 6-12 months. The Directorate successfully implemented research internship programs with Brazil's National Institute for Space Research (INPE) through the Center for Weather Forecast and Climate Studies (CPTEC), and the United States National Center for Atmospheric Research (NCAR) during the period 2006-2012.
38. The Conference of the Parties is invited to consider adopting the draft decisions contained in the Annex to the present document.

Annex

Draft decisions of the Conference of the Parties

Capacity Building

Directed to the IAI Directorate

XXVI/xx. The IAI Directorate is instructed to continue the development of capacity building programs and activities for professionals from the Americas; to engage with strategic partners, and support Parties by providing training in areas of national and regional interest, subject to the availability of external financial resources.

XXVI/xx. The IAI Directorate is instructed to develop a new Seed Grant Program associated with the Professional Development Seminars to be implemented in 2019-2020, subject to the availability of external financial resources.

XXVI/xx. The IAI Directorate is instructed to develop the IAI Science and Technology Policy Fellowships Program and submit it to the 27th meeting of the Conference of the Parties for review and possible adoption, subject to the availability of external financial resources.

XXVI/xx. The IAI Directorate is instructed to invite Parties to participate in the IAI Research Internship Program as research host organizations and report back at the 27th meeting of the Conference of the Parties.
