



ORIGINAL: ENGLISH

7 March 2018

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

**Decision XXV/6: Open data policy and principles**

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

Background

2. Article II of the *Agreement establishing the Inter-American Institute for Global Change Research* states, in part:

*The Institute shall pursue the principles of scientific excellence, international cooperation, and the full and open exchange of scientific information, relevant to global change.*

3. The Conference of the Parties (CoP), at its 25th meeting (Bogota, 2017) adopted Decision XXV/6 on *Open data policy and principles*, which states:

*The CoP directed the IAI Directorate to define and establish open data policy and principles taking into account the data policy document approved at IAI CoP 2. The document will be presented at the next CoP.*

4. The Conference of the Parties, at its 2nd meeting (Rio de Janeiro, 1995) adopted the *Data policy statements of the Inter-American Institute for Global Change Research*

which is intended to facilitate the full and open exchange of data between the Parties of the Institute pursuant to Article II of the Agreement<sup>1</sup>.

5. The IAI Directorate also notes that grants under the Collaborative Research Network (CRN) projects stipulate that:

*The IAI requires a continuing commitment from the Grantee and the PI to the establishment, maintenance, validation, description, accessibility, and distribution of high-quality data that results from research supported by the grant. PIs and Grantees shall act to facilitate exchange of data among researchers. International standards shall be used to the greatest extent possible for media and for processing and exchange of data sets. By accepting this grant from the IAI, the PI and the Grantee accept their responsibility to adhere to the IAI policy for the free and open Dissemination of Results.*

*Where applicable, a fully documented data set shall be submitted to the IAI for distribution on the IAI Data and Information System (IAI-DIS), or alternatively, the Grantee shall supply electronic metadata to the IAI-DIS.*

## Definition

6. *Open Data* is defined as *structured data that is machine-readable, freely shared, used and built on without restrictions*<sup>2</sup>. It has also been defined as *...digital data that is made available with the technical and legal characteristics necessary for it to be freely used, reused, and redistributed by anyone, anytime, anywhere*<sup>3</sup> and as *...to publicly available data structured in a way that enables the data to be fully discoverable and usable by end users*<sup>4</sup>.
7. Care is taken by many organizations to ensure restrictions or non-access to sensitive, private or confidential data. For example, the Center for International Earth Science Information Network's (CIESIN) *Open data policy*<sup>5</sup> stipulates that:

*Where there may be legal or other constraints on fully open redissemination, e.g., due to privacy or security issues, CIESIN will explore opportunities to make anonymized or public-use datasets available or to provide access to qualified users on a non-discriminatory basis, e.g., through usage agreements.*

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<sup>1</sup> *Data policy statements of the Inter-American Institute for Global Change Research (IAI/4.WD/March 27, 1995)*. See Information document IAI/COP/26/Info.1

<sup>2</sup> *Open Data 101* (Government of Canada). Accessed on 22 January 2018: <http://open.canada.ca/en/open-data-principles>

<sup>3</sup> *International open data charter, Principles*. Accessed on 22 January 2018: <https://opendatacharter.net/principles/>

<sup>4</sup> United States Office of Management and Budget. *Memorandum for the heads of executive departments and agencies: Open Data Policy-Managing Information as an Asset*. 9 May 2013. Accessed on 25 January 2018: [https://www.nsf.gov/attachments/128229/public/OMB\\_Memo\\_Open\\_Data\\_Policy.pdf](https://www.nsf.gov/attachments/128229/public/OMB_Memo_Open_Data_Policy.pdf)

<sup>5</sup> *Open Data Policy* (Center for International Earth Science Information Network (CIESIN), Columbia University). See Information document IAI/COP/26/Info.3

## Implementation of Decision XXV/6

8. In light of the above, the IAI Directorate communicated with experts working to establish open data catalogs to understand the financial and human requirements of such Policies and documentation. Consequently, policies and documentation from the Belmont Forum<sup>6</sup>, the CIESIN and the NSF were used in the updating and re-drafting of the *Data policy statements of the IAI (CoP-2)* into the new *IAI Open data policy and principles*, which is attached as an Annex 2 to the present document.
9. In support of work related to the conceptualization of a new *IAI Open data policy and principles*, the IAI sought advice from the Government of Uruguay Agency for Electronic Government and Information and Knowledge Society (AGESIC). As a result of these discussions, AGESIC generously offered the IAI Directorate use of its open data catalog<sup>7</sup> to begin the development of a similar system for use by Parties.
10. This joint initiative will provide much needed information on the requirements to develop, implement and administer such a system and offer the Directorate the means to better understand the technical and human short-term and long-term requirements needed to administer and sustain an open data catalog.
11. The IAI Directorate has also dedicated internal human resources to implement open data activities in support of Decision XXV/6. The Executive Assistant to the Executive Director, in addition to her regular duties, has assumed responsibility in the Directorate for coordination of activities related to open data.
12. The National Science Foundation (NSF), the Center for Earth Observation Sciences (CEOS), the University of Alberta and the IAI are jointly funding a post-doctorate researcher to assist in the technical development of the IAI Open Data Catalog. Part of her responsibilities include, but are not limited to: establishing metadata standards for data and information generated by IAI sponsored projects; design the structure of the IAI open data platform using the AGESIC system; design the appropriate open data architecture to accommodate a hybrid metadata registry using push and pull technologies; design appropriate web services for use by Principal Investigators to assist in making their project data available through the IAI Open Data portal; advise on long-term data archival, curation and management; and, advise on appropriate open data access policies to ensure full and open access by the IAI community.
13. The IAI Directorate is grateful for the generous financial contribution by the NSF and CEOS that made the above technical work possible.

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<sup>6</sup> Belmont Forum Data Policy and Principles. See Information document IAI/COP/26/Info.2

<sup>7</sup> <https://catalogodatos.gub.uy/>

## Recommendation

14. The Conference of the Parties is invited to consider adopting the draft decision contained in the Annex 1 to the present document.

Annex 1

## **Draft decisions of the Conference of the Parties**

### **Open data policy and principles**

#### ***Directed to the IAI Directorate***

XXVI/xx. The IAI Directorate is directed to adopt the *IAI Open data policy and principles* to provide open access, as appropriate, to data and information generated by IAI funded research.

**OPEN DATA POLICY AND PRINCIPLES  
OF THE  
INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH**

**Purpose**

This open data policy and principles document is intended to facilitate the full and open exchange of data and information between the Parties, Principal Investigators (PIs) and other stakeholders of the Institute pursuant to Article II of the *Agreement Establishing the Inter-American Institute for Global Change Research* (IAI), signed on 13 May 1992, in Montevideo, Uruguay. This document also notes that the IAI requires a continuing commitment from Grantees and PIs to the establishment, maintenance, validation, description, accessibility, and distribution of high-quality data that results from research supported by IAI grants.

This policy and principles were prepared in consonance with the goals of the IAI, and represent the IAI's view concerning the access of investigators and institutions participating in IAI programs and projects to global change data generated by IAI funded projects. This document fully acknowledges that such data and information belong to the Parties. This document also acknowledges that some information contained herein originated from the Belmont Forum *Data policy and principles*, the Center for International Earth Science Information Network (CIESIN), Columbia University *Open data Policy*, and the *International Open Data Charter*.

**Policy**

1. The IAI requires an early and continuing commitment to the: establishment, maintenance, validation, description, accessibility, and distribution of high-quality, long-term data sets.
2. Full and open sharing of the full suite of global change data sets between the Parties to the IAI Agreement is a fundamental objective.
  - a) Access to databases, information, and results obtained by institutions and scientists during activities previous to or external to programs funded by the IAI may be facilitated on a case-by-case basis among the Parties by a Memorandum of Understanding, taking into account the fundamental objective of the Institute: the full and open sharing of data related to global change research.
3. Data, information and results generated by IAI-funded programs and projects should be fully described and submitted to the IAI Directorate for inclusion in the IAI Open Data Catalog.
4. A fundamental principle of the IAI shall be a reciprocal relationship that will allow Parties the use of data, information, and results on an equal basis.

5. Preservation of data needed for global change research is required. Procedures and criteria for setting priorities for data acquisition, retention, and purging should be developed by the Parties. The Scientific Advisory Committee (SAC), the Science Policy Advisory Committee (SPAC) in collaboration with the IAI Executive Director shall develop an Action Plan in order to achieve such preservation.
6. Principal investigators may request initial periods of exclusive data use. In each particular case, the Institute shall explicitly define the duration of the exclusive use period.
7. Data should be provided at the lowest possible cost to global change researchers in the interest of full and open exchange of data. This cost should be no more than the marginal cost of fulfilling a specific user request. Associates of the Institute should act to streamline administrative arrangements for exchanging data among researchers.
8. Data archives must include easily accessible information about the data holdings, including quality assessments, supporting ancillary information, and guidance for locating and obtaining the data.
9. International standards should be used to the greatest extent possible for media and for processing and exchange of data sets.

## **Principles**

10. Whenever possible, and as appropriate, data and information should be published according to the following principles:
  - a) Open by default:  
Data should be open by definition unless otherwise specifically restricted due to privacy, security or other such criteria.
  - b) Timely and comprehensive:  
Timeliness increases the value of the data. As much as possible data should be provided in its original, unmodified form.
  - c) Accessible and usable:  
Data should be described using metadata. Adherence to international metadata standards is strongly encouraged. Data should be machine readable. Data should be free of charge, under an open license, as appropriate and subject to national legislation.
  - d) Comparable and interoperable:  
Data should adhere to international data and information exchange standards.
  - e) Improved governance and citizen engagement:  
Data and information should be available to policy makers and the public to assist in the adoption of better informed public policies.

- f) Inclusive development and innovation:  
Data should spur inclusive sustainable development.