

Inter-American Institute for Global Change Research

Data and Information Policy Recommendations

Panama, February 29, 2008

Working Group

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Introduction

The ultimate objective for the IAI data and information system (DIS) is to make data and information available and accessible to various audiences. These audiences vary from scientists to policy-makers to the general public.

In making data available to these audiences, the guiding principle is that the system is designed for the good of society in general and more specifically for the good of science. The system must also account for requirements arising from intellectual property rights in several areas: the rights of donors, grantees, investigators and publishers.

General Recommendations

- IAI projects represented at the Feb. 25-29, 2008 training workshop in Panama will need to consult with the full group of PIs and collaborators on many of these policy issues.
- IAI Directorate needs to act on this list of recommendations for decision by PIs, Strategic Planning Group, Scientific Advisory Committee, and Executive Council.
- IAI should make official the relationship with the Oak Ridge National Laboratory (ORNL) in order to be fully integrated in the Mercury Consortium and have the DIS system updated on a regular basis.

Thematic Recommendations from Working Groups

Translating Scientific Knowledge to Support Decision Making

Recommendation: The IAI staff, in consultation with its research constituents and stakeholders, should develop a comprehensive strategic plan for influencing policy makers and supporting decision makers (e.g., the white paper mentioned below) consistent with its organizational mission and capabilities.

Fact: Integrating socioeconomic data and information with environmental data is likely to make the information more interesting, relevant, and useful, especially to policy makers.

Recommendation: Both the IAI collectively and each IAI-funded project should identify potential users among decision makers and policy makers, and then prioritize communications with them and monitor the outcomes.

Fact: The IAI at the project and staff levels, however, does not have all the expertise or resources needed to pursue the objective of interacting with and influencing policy and decision makers.

Recommendation: IAI should establish partnerships with organizations and individuals that have the expertise, activities, and resources focused on translating scientific knowledge to support decision making and policy action.

Fact: Data visualization is just one way of using data to support decision-making and influence policy makers.

Recommendation: There needs to be a strong effort to link IAI-funded projects to decision and policy makers in order to establish ongoing channels of communication to get science results to support decision making.

Global Data Policy

Fact: Free and open access is not "exchange" in negotiated terms. Mercury will distribute the metadata to GCMD, Google, GEO One Stop, etc.

Recommendation: The IAI Directorate needs to allocate additional resources for DIS stewardship, maintenance, checking keyword hits, visualization tools, developing the interface with the DIS Working Group, etc.

Opportunities, Impediments, and Availability of Data in Developing Countries

Recommendation: Write a white paper based on the lines of this report for decision-makers at the country level. The paper should address data management and policy, representing a wider vision, and indicating lines of action adapted to local, country and regional conditions. Issues that need to be addressed include but may not be limited to:

- Evaluation of potential economic impacts of open data policies (documenting successful examples).
- Specific workshops/meetings with policy makers to support open access.
- Identify opportunities for partnerships among projects and institutions to strengthen open access.

Integration of Socio-Economic and Physical Data in a Geographic Context

Recommendation: Form an IAI DIS Working Group composed of data and data policy experts, IAI investigators, data managers, active data users, metadata standards specialists, the IAI DIS manager and the IAI Director, with a total of 8 to 12 participants. The responsibilities of this working group are:

- Improve integration and data discovery.
- Improve data management and interconnectivity.
- Start data sharing within and among IAI-funded projects as a first step to universal public metadata access via the DIS.
- Implement metadata result display and visualization tools (with ORNL Mercury).
- Explore interdisciplinary thesaurus.
- Document best-practices at IAI level for data and metadata sharing.
- Implement multi-lingual training (including needs identification) and documents, although metadata will remain exclusively in English.
- Suggest directions and actions for the DIS.
- Consider data policy criteria and check what can be applied to the IAI.

Recommendation: Spatio-temporal data should be organized in a spatial referencing framework, with exceptions for socio-economic data that may not be spatial in nature.

Recommendation: IA should continue using FGDC (Federal Geographic Data Committee) metadata standards.

Recommendation: Identify metadata standards for qualitative data.

Fact: Need utilities to map metadata across different standards.

Recommendation: IAI must evaluate whether the IAI DIS manager has time to coordinate these activities across all funded projects.

Intellectual Property

Recommendation: Projects that produce an integrated database should be encouraged to upload on the IAI DIS both the entire database (preferably in non-proprietary format) and the component data, preserving third party rights.

Facts: Scientific products from IAI-funded projects could benefit from Creative Commons licensing.

Fact: The PIs may not own the rights to products, for example, giving the IAI a pdf of a paper could be an infringement of copyright law where no “fair use” clauses apply.

User’s Manual for IAI Science

Recommendation: The IAI in conjunction with the grantee needs to be more explicit in defining the “information”, “work”, “data”, and “product” (see preliminary list of definitions in the appendix, below) that must be made available to constitute contractual compliance.

Recommendation: For each project’s annual report to be approved, data and products (including publications) listed must have metadata uploaded and searchable on the IAI DIS even if the data and products are not yet available.

Fact: PI has responsibility to ensure data are made available at the end of the project, including negotiating with partners not funded by IAI.

Recommendation: IAI and PIs must agree on where data will be stored and when.

Recommendation: IAI will assess the quality and reliability of data repositories, and suggest a list of

alternatives to project PIs (including ORNL DAAC and CIESIN). LBA has kindly offered to serve as a temporary repository until a final determination is made.

Recommendation: PIs must include relevant links to metadata and/or data in the policy and practice briefs produced as part of the IAI's overall communications strategy.

Appendix - Definitions

Note: The following may not be 100% legally accurate; after all, I am not a lawyer. They are my understanding of the terms. Please read a more detailed description (http://punkish.eidesis.org/index.cgi?page_name=Scientific_Data_License) but, consult your lawyer to really be on the safe side.

Data:

At its raw-est, data straight out of instruments, or raw data as collected via surveys and questionnaires. It is difficult to always correctly distinguish between raw data and processed data, and what is processed data for one may be raw data for someone else. As such, decision on what is raw data has to be made on a case-by-case basis by the researcher.

Metadata:

Literally, data about data, metadata allows a potential user of data to learn more about the data before using it. At its most minimal, metadata would include information on where, how, by whom, in what format, and for what reason were the data collected, and information on if the data are available, under what kind of terms and conditions of use, and how to get them.

Information:

Processed data implying some level of usefulness. The processing can be minimal and routine to complicated and proprietary. Information almost always has copyright restrictions attached to it. Information at one level can be data at another level. Distinction between information and data has to be made on a case-by-case basis (see "Data" above).

License:

A license specifies the terms and conditions under which something can be used. A license does not require any reciprocal action on the part of the licensee.

Contract:

A contract is like a license, but involves a reciprocal action required on the part of the user.

Protocol:

A protocol is a suggestion for a way of doing things. It is not legally binding, but is usually adopted and propagated through norms. For example, the protocol in science is to always credit the source. The social penalties for not crediting are usually enough deterrent.