



Data Management Plan Guidelines and Template

1. Introduction

The full and open exchange of scientific information is an explicit element of the objectives of the Inter-American Institute for Global Change Research (IAI). This involves a number of conditions and processes: the scientific data and information must be of reliably high quality; the information must be accessible across disciplines, institutions and countries; it must be in formats that facilitate access, analysis and meta-analysis; it must be accompanied by tools that facilitate the generation of knowledge, communication and visualization from data and information; and it must be governed by secure and reliable protocols of storage, access, use and distribution.

One of the tools of achieving the required high quality standards is to plan data stewardship from the beginning to the end of the project and beyond. In practice, this can be achieved by carefully writing a Data Management Plan (DMP). A DMP is required in some of the programs of the IAI. In these programs, 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 *Open data policy and principles*.

The Data Management Plan should help researchers manage their data during the full life cycle of a research project. This data management plan should be updated before, during and after the completion of the research project when a need arises.

The questions listed below are given as guidelines to researchers who are preparing a data management plan for IAI-funded projects. Should there be questions missing from the list, relevant to an individual research project, the final content of the data management plan should be complemented by addressing those questions.

2. The template

Row	Description
<i>Samples, data and data processing</i>	
1.	<p>What kind of physical samples will be collected, if any? Where will these samples be stored and how many are there expected to be? Please indicate the origin of the samples (country and place) and the person responsible for taking said samples.</p> <p><i>Data collection activities of IAI grantees are the responsibility of grantees, and IAI support of a project does not constitute IAI approval of the survey design, questionnaire content or data collection procedures. Note that the collection, management, and storage of data of your project must comply with the regulations in force in the corresponding countries, in addition to the IAI standard.</i></p>
2.	<p>What type(s) of data will be collected (e.g. text data, image data)? What are the expected data formats (e.g. .txt, .jpg)? Are some of the data formats proprietary?</p>
3.	<p>How much data do you expect to collect in the course of the project? How often will these data change or be updated? How will changes be managed?</p>
4.	<p>What folder and file naming conventions will be used for storing research files?</p>
5.	<p>Are you expecting to use third-party data in your research? If yes, what steps have been taken to use these data?</p>
6.	<p>What kind of software will be needed to process the data? Are these software packages open or commercial? Do you hold licenses for commercial software being used? (See Notes below).</p>
7.	<p>Where do you plan to store the data? Will the data be regularly backed up? How will the privacy and security of the data be guarded?</p>
8.	<p>Who can access (insert, update and delete) the data once it is stored?</p>
9.	<p>How will you document the data to make it understandable to other researchers?</p>
10.	<p>What quality checks/assurances will you adopt (e.g. data entry validation, calibration)?</p>
11.	<p>If other than the Information Technology Manager, who is responsible for managing specific categories of data?</p>

Row	Description
<i>Privacy, ethics and confidentiality</i>	
12.	<p>Do you expect to have data that contains confidential aspects? If yes, describe if parts or all of the data cannot be openly shared with other researchers and/or if steps are needed to be taken to treat the data in such ways for it to be shared (e.g. anonymize the data).</p> <p><i>Note that the collection, management, and storage of data of your project must comply with the regulations in force in the corresponding countries, in addition to the IAI standard. Also, should the IAI be provided with research data that has confidential aspects and these data need to be desensitized by the IAI e.g. for third-party auditing, these expenses will be charged from the research group that initially provided the data.</i></p>
13.	<p>If you have confidential data, how will it be stored and who can access it?</p> <p><i>Grantees are to ensure that project outcomes for the general public do not contain any confidential, proprietary business information; or invention disclosures that might adversely affect the patent rights or those of the organization, in a subject invention under the award. Project outcomes accessible to general public are not to contain any personally identifiable information such as home contact information, individual demographic data or individually identifiable information collected from human research participants.</i></p>
14.	<p>For how long will confidential data be stored?</p>
<i>Sharing and archiving data</i>	
15.	<p>Who holds the intellectual property rights to your research data?</p> <p><i>By default, the researchers hold intellectual property rights to their own research data. However, by signing a grant agreement, researchers agree to give the IAI full and transferable rights to reproduce, publish and distribute their data.</i></p>
16.	<p>Will the data to be developed within the research project use information inputs developed outside of IAI grants? In such a case, how will you ensure that the data resulting from the research project complies with the <i>IAI Open data policy and principles</i>, and that it will contribute to the IAI Open Data Portal?</p>
17.	<p>Will you use copyrighted or licensed material? If yes, do you have a permission to disseminate such data?</p>
18.	<p>Are there patent or licensing -related restrictions to sharing the data?</p> <p><i>Please identify any potential limitations on the data requestor's ability to re-use or re-distribute the data or materials produced under the research grant (i.e., because the source of some of the data collected for the project has placed limitations on the re-distribution of those data and materials). Be sure to review any applicable agreements with such parties to determine the extent of re-use and re-distribution you are allowed to guarantee in your Data Management Plan.</i></p>
19.	<p>In addition to the Open Data Portal of the IAI, do you expect to share your data with other data repositories? If yes, what are these repositories expected to be?</p>

Row	Description
20.	<p>In addition to the Open Data Portal of the IAI do you expect to share your data via publications, institutional agreements or other means?</p> <p><i>Please note that the IAI encourages investigators to sign agreements on sharing of and access to data, and on mutually agreed publication and dissemination policies for the project teams at the beginning of the grant period. Such agreements shall reflect IAI policies of open access and full attribution. Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work. Grantees are expected to encourage and facilitate such sharing. Privileged or confidential information should be released only in a form that protects the privacy of individuals and subjects involved. General adjustments and, where essential, exceptions to this sharing expectation may be specified by the funding program or Division/Office for a particular field or discipline to safeguard the rights of individuals and subjects, the validity of results, or the integrity of collections or to accommodate the legitimate interest of investigators.</i></p>
21.	<p>Does the project require an initial period of exclusive data use, for instance, until a paper is published, or a thesis defended?</p> <p><i>Only under special circumstances Principal Investigators may request initial periods of exclusive data use. For such exceptional cases, the IAI shall negotiate the duration of the exclusive use period. Rules on the temporary protection of data and information contained in student thesis pertaining to the period prior to a thesis defense, shall be honored. Students should also be aware of the source of their support, and abide by the requirements regarding acknowledgments and the open exchange of data and information.</i></p>
22.	Who will manage the data after the completion of the project?
23.	How will you select the data for sharing and archiving?

Notes

- If funds are needed for acquiring, processing (incl. steps to desensitize the data) or storing data, list these needs in the budget section of the funding scheme.
- If internal computer service costs are charged to the project, a justification based on established institutional data processing costs will be necessary.