



# Data Management Plan (DMP) Data Repositories & Data Citation

Research Informatics Unit - RIU



# Outline



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Data Management Plan (DMP)

Data Repositories & Data Citation





According to Article 4.1.9
 of the Open Access and
 Data Management Policy:
 "Open Access and Data
 Management Plans should
 be prepared in order to
 ensure implementation of
 this Policy. Such Plans
 shall, in particular, outline
 a strategy for maximizing
 opportunities to make in
 formation products Open
 Access "

## Open Access and Open Data



CGIAR Centers and Research Programs have been leaders in agricultural development for decades, producing valuable outputs that are generally considered to be global public goods. Recognizing the need to make these outputs discoverable, accessible, interoperable, and reusable, CGIAR has made a strong commitment to Open Access and Open Data (OA-OD), with all 15 Centers signing on to the Open Access and Data Management Policy in 2013.

Implementing OA-OD in a harmonised manner across CGIAR will not only enable us to comply with an increasing number of key donor policies (e.g. **Bill and Melinda Gates Foundation Open Access Policy, USAID's Open Data Policy**), it will empower researchers to improve efficiencies and enhance innovation and impact in an era of complex and large data sets ("big data") backed by proven technological infrastructure.

This page is designed to offer public access to key documents relevant to Open Access, including the Phase I Open Access – Open Data project proposal: CGIAR Open Access and Open Data Phase I (Years 1-2): Assessment, Prioritization, and Coordination of CGIAR's Current Open Environment. This proposal to support coordinated implementation of OA-OD across CGIAR received USD 2.38 million for a one-year Phase 1. For details, please see the proposal; for progress made so far see associated resources.

For questions, comments, concerns, or ideas, please contact us at open[AT]cgiar.org.

#### Official Resources

CGIAR Open Access and Data Management Policy (approved by Consortium Board October 2013) 
from the CGIAR Library

CGIAR Principles on the Management of Intellectual Assets → from the CGIAR Library

#### Resources

CGIAR Library

CGIAR Annual Reports

Legal

Finance

Communication Materials

Shared Services

#### Meetings and Workshops

#### Past:

- CGIAR CSI annual meeting, September 2014
- CCAFS Hackathon, December 2014
- 2015 GODAN Meeting
- DMTF annual meeting, Abu Dhabi, 9-11 March 2015
- Regional Workshops on OA implementation:
- Asia (April 2015)
- EMEA (April 2015)
- OAWG annual meeting, Geneva, 15-16 June 2015

#### To come:

 Regional workshop for the Americas region, 18-21 August 2015, CIAT, Cali



STRATEGIC PROCESSES The Data Management Plan is the starting point in the Data Life Cycle. However the plan should be revisited often throughout Annex 9. Data Management Checklist the project to ensure proper data PROJECT MANAGEMEN documentation and management. **PROJECT** I. Creating data Annex 4. Documentation and Metadata SJSZJOORT PROCESSES II. Processing VI. Re-using data data Annex 1. Research **Protocols** Data Annex 5. Data Quality Life Cycle Annex 2. Data Management Plan (DMP) V. Giving access III. Analyzing Annex 3. Budgeting and Planning to data data Annex 8. Data Repositories IV. Preserving data Annex 7. Privacy & Annex 6. Data Confidentiality Storage and Archiving



## What is a Data Management Plan?

- Formal document
- At project start-up meeting all new projects are required to have a DMP
- Outlines what you will do with your data <u>during</u> and <u>after</u> you complete your research
- Ensures your data is safe and open for the <u>present</u> and the <u>future</u>



 This DMP outlines what you will do with your data during and after a research project.

#### Data Management Plan Template

Data Management Plan Template						
Project Title:	Sweetpotato based Job Opportunity for Youth					
Sub program (if relevant):	RTB					
' ' ' '	Productive varieties and quality seed					
Project Lead Center:	International Potato Center					
Project Investigator:	Temesgen Bocher					
Individual responsible for Data Management:	Temesgen Bocher					
Donor	(GIZ) GmbH					
Agreement Id or cost Center	1351-GIZ0					
BUS	1351-GIZ: 1391-1000:1351-1000-10					

#### I. SUMMARY:

Describe your approach to Open Access and Data Management and any arrangements already in place to assist implementing the CIP Open Data and Data Management Policy

#### II. DATA AND DATABASES:

- Describe the nature and scope of the data that will be generated under the project.
- 2. Describe your anticipated way of data storage and archiving that will be generated under the project.
- 3. Set out your plan for regular metadata capture using CG core metadata and the standards you will use and the steps you will take to ensure data quality control.

5. Description of the data to be generated and anticipated timing for making the project data and metadata available?

Output or Outcome milestone	Description of data to be generated	File types	Primary investigator for datasets	Expected research outputs type [type of datasets]	Deadline for metadata creation and data public access
Milestone #1: Project Planning Report:	o Baseline Data Collection	Dataset	Sindi Kirimi	March, 2018	December, 2018
'Milestone #2: First Performance Report.	<ul> <li>GPS and baseline data collected from cooperatives participating in the seed trial/bulking activity.</li> </ul>	Dataset	Sindi Kirimi	March, 2018	December, 2018

6. Explain whether any of the project data will not be made publicly available and why (e.g., ownership or access to pre-existing data; license rights to project data; personal privacy concerns; competitive advantages; data sovereignty). Describe the anticipated benefits and uses that could be achieved by making the project data available in the manner you describe above:

Not applicable for this project. All the datasets will be open.

#### III. VIDEO, AUDIO

Set out any repositories (finalized and in working progress) you will use for storing and sharing these information products.

Not applicable for this project.

#### IV. IMAGES

Set out any repositories (finalized and in working progress) you will use for storing and sharing these information products.

Not applicable for this project.

#### V. COMPUTER SOFTWARE:

Set out any repositories you will use for storing and sharing your software codes.

Not applicable

#### VI. RESOURCES AND BUDGETING:

Describe the anticipated total costs involved with making data widely available (if any):
 Roughly 3,000 USD per manuscript.
 Roughly 620 USD per dataset.



## Outline

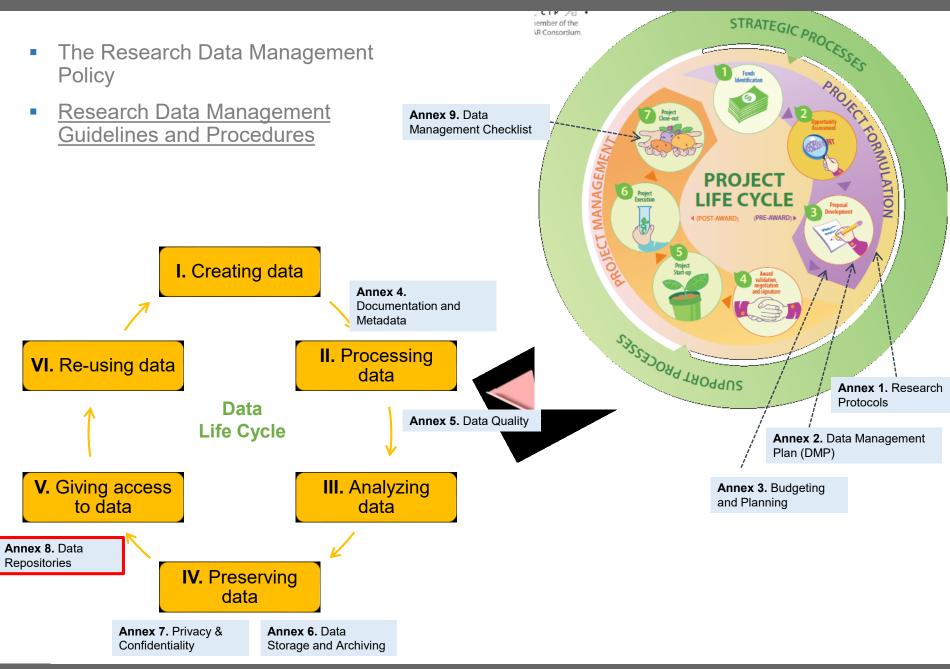


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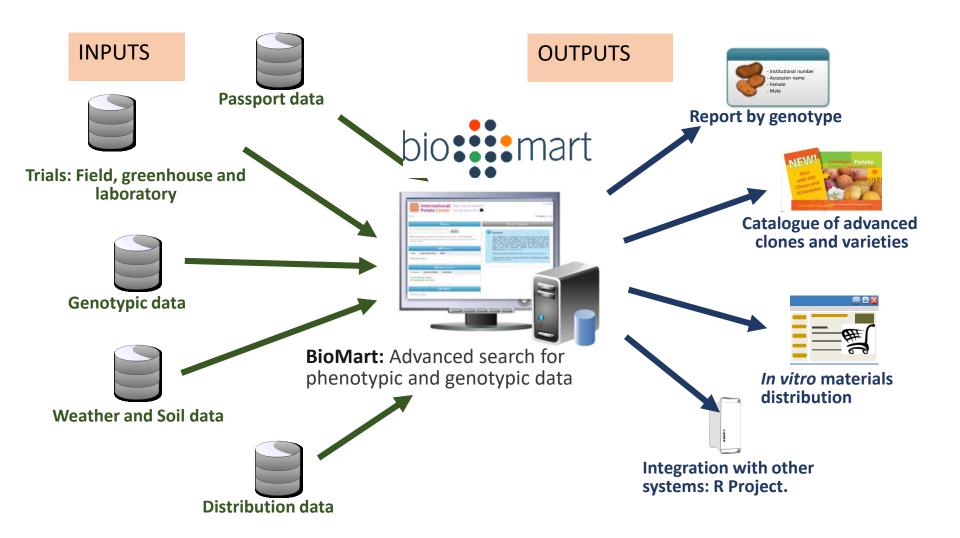
Data Management Plan (DMP)

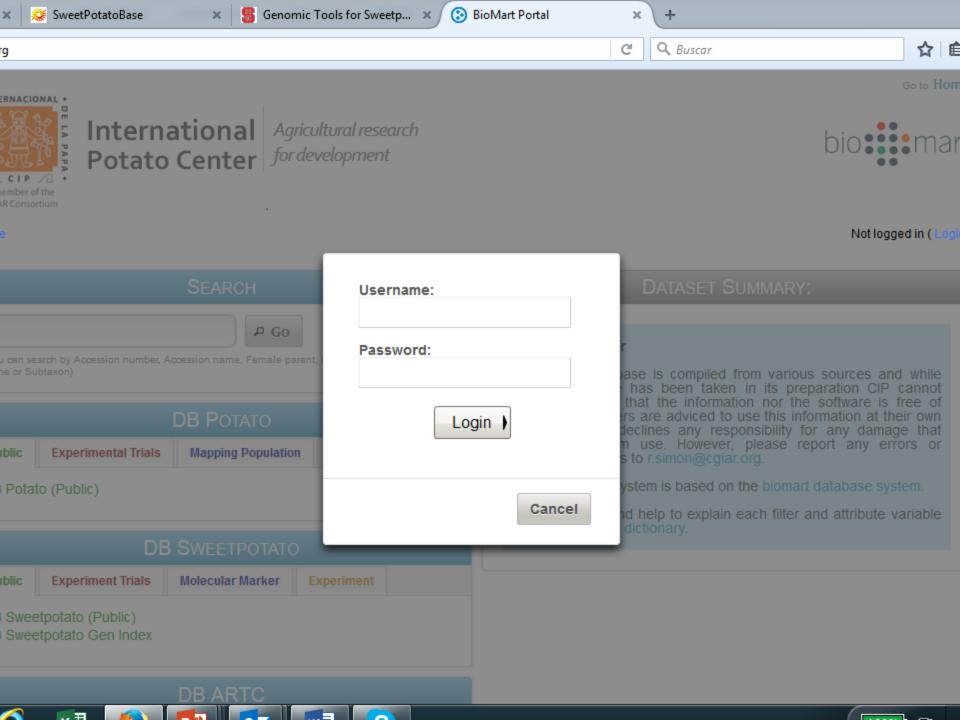
Data Repositories & Data Citation





## **BioMart:** Institutional Warehouse for Research Data







Findable (partially)

Accessible (partially)

nteroperable (yes)

Re-usable (partially)

### The decision about CIP's Dataverse:

- ✓ Information products must be all "FAIR"
- ✓ Data must be deposited and shared via suitable repositories for all types of datasets.
- ✓ The repositories have to provide future preservation, permanent identifier (DOI / Handle) and author recognition.
- ✓ CIP has implemented a locally-hosted Dataverse installation to be compliant with CG Core and to allow for more customization.



# What is Dataverse?

- Dataverse is an open source web application to share, preserve, cite, explore and analyze research data.
- Data authors, and affiliated institutions receive academic credit and web visibility.

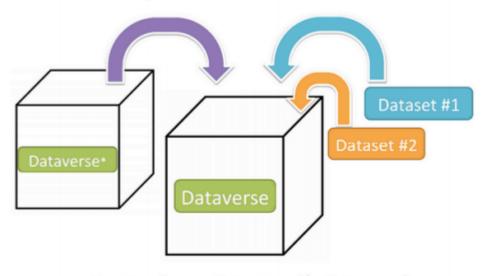
#### Provides incentives for researchers to share:

- Recognition & credit via data citations
- Control over data & branding
- Fulfill Data Management Plan requirements



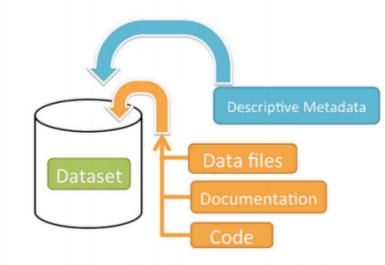
# What is a Dataverse and Dataset?

#### Schematic Diagram of a Dataverse in Dataverse 4.0



Container for your Datasets and/or Dataverses\*

#### Schematic Diagram of a **Dataset** in Dataverse 4.0

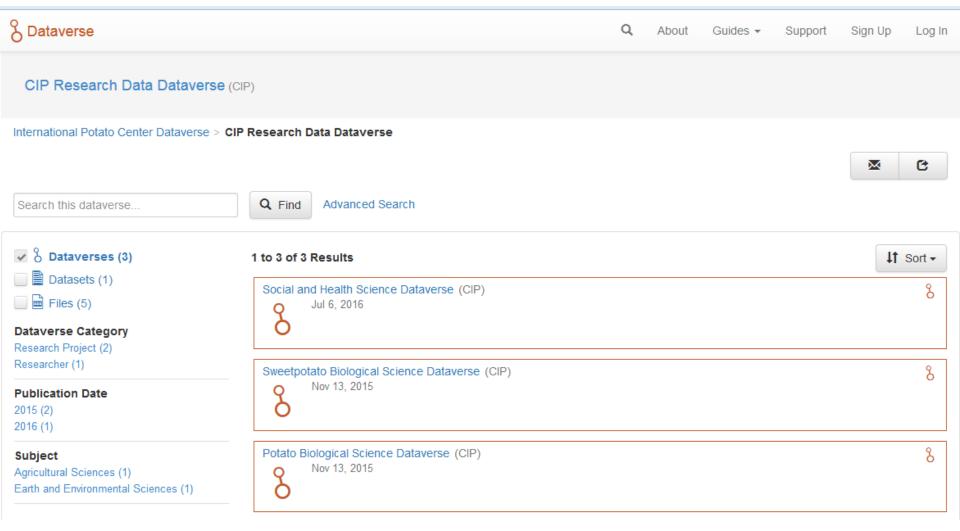


Container for your data, documentation, and code.

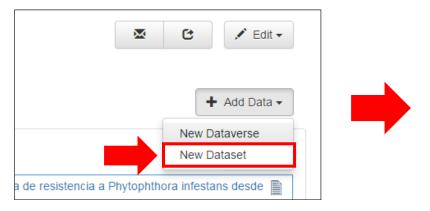
- ✓ A Dataverse is a container for Datasets, but also can contain more Dataverses.
- ✓ A Dataset is a container of <u>Data + Metadata + Supplementary Files</u>, etc

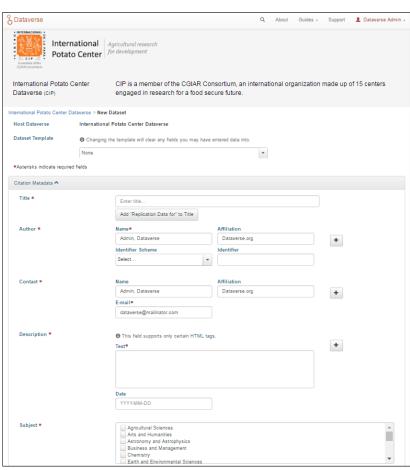
<sup>\*</sup> Dataverses can now contain other Dataverses (this replaces Collections & Subnetworks)

# How Dataverse is organized at CIP?



# Create a dataset



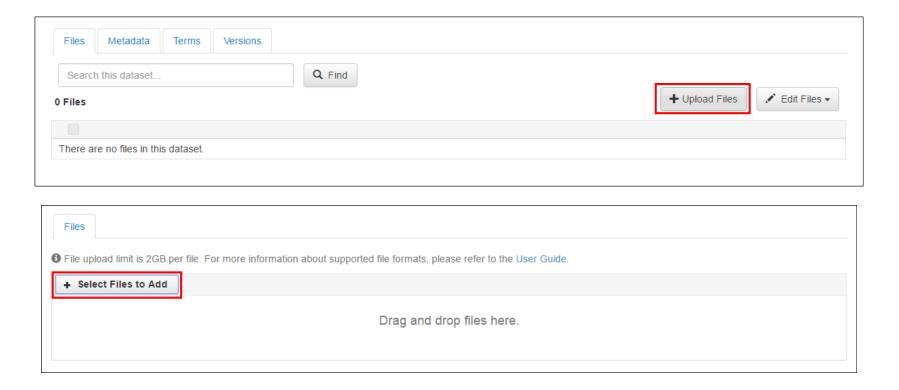


After creating a Dataset container we use the information from our CG Core Metadata template...



# Upload files to the dataset container

Once done you need to upload the files to the dataset container. Data, data dictionaries, and supplementary files...





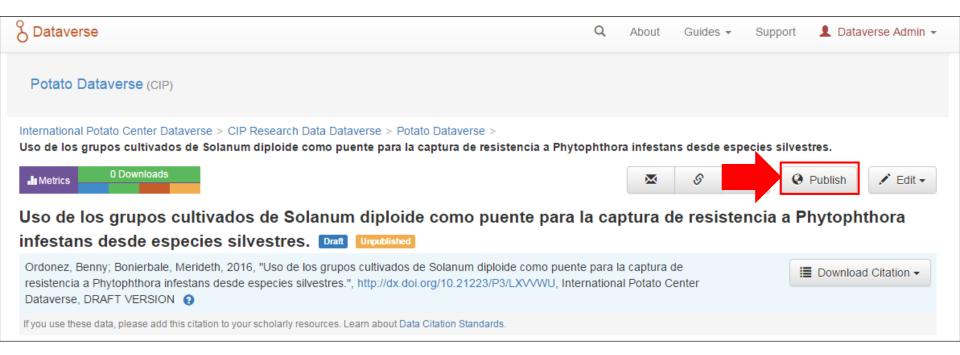
# Click "Save Dataset" button when you are done. Your unpublished dataset is now created.



# **Publish Dataset**

When you publish a dataset you make it available to the public so that other users can browse or search for it.

Once a dataset is made public it can no longer be unpublished

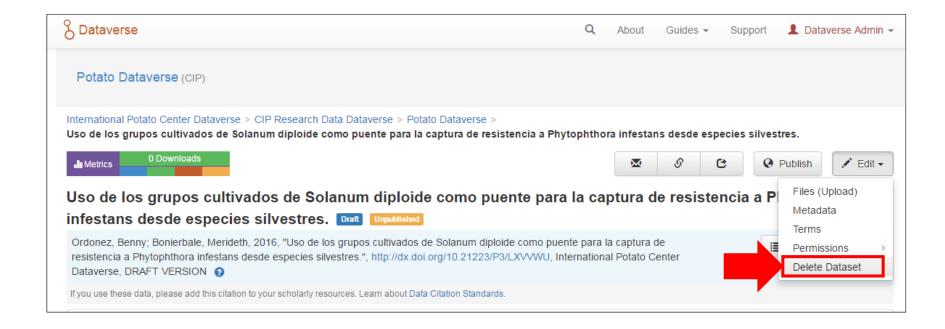




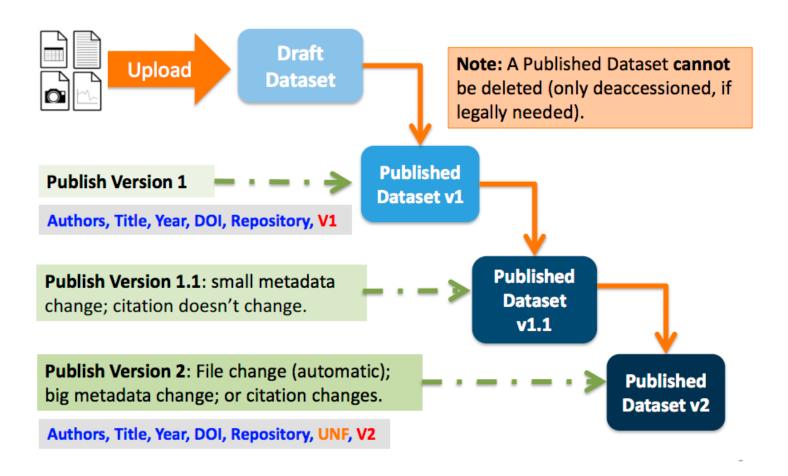
# Delete Dataset

You are able to delete your dataset as long as it is not published.

Important: A published dataset cannot be deleted.



# **Dataset Versioning**





# Data citation in Dataverse

- ✓ Dataverse standardizes the citation of datasets to publish data and get credit as well as recognition for the work.
- ✓ The citation standard offers proper recognition to authors as well as permanent identification DOI



# Data citation in Dataverse

## 1. Data belonging to publications

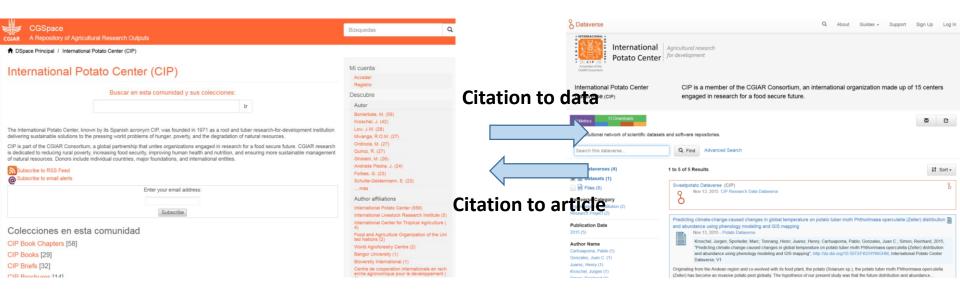
Andrade, Maria I.; Naico, Abdul; Ricardo, Jose; Eyzaguirre, Raul; Makunde, Godwill S.; Grüneberg, Wolfgang J.; Ortiz, Rodomiro, 2016, "Replication Data for: Genotype x environment interaction and selection for drought adaptation in sweetpotato (Ipomoea batatas [L.] Lam.) in Mozambique.", <a href="http://dx.doi.org/10.21223/P3/M0HGJ4">http://dx.doi.org/10.21223/P3/M0HGJ4</a>, International Potato Center Dataverse, V1

## 2. Datasets from projects and legacy data

Naico, Abdul; Andrade, Maria I.; Zano, Filipe; Andre, Higino, 2016, "Dataset for: The Viable Sweetpotato Technologies in Africa (VISTA)-Mozambique: The Baseline Survey for Nampula and Zambezia Provinces", <a href="http://dx.doi.org/10.21223/P3/NN00OC">http://dx.doi.org/10.21223/P3/NN00OC</a>, International Potato Center Dataverse, V1



# CGSpace integration with Dataverse



Track # of article downloads and # of data sets downloads.





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