



Food and Agriculture
Organization of the
United Nations



The International Treaty
ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE

Introduction to DOIs for the Global Information System: GLIS Descriptors

**Strengthening national capacities on plant genetic resources in
the context of the Global Information System of the
International Treaty**

12 – 14 December 2017, Cape Town, South Africa

Our session

- Introduction
- Background
- Development process
- Next steps

Introduction

GLIS needs

- To *uniquely* identify PGRFA samples to improve their access to further their utilization.
- To include all PGRFA, namely, material under development, genebank accessions, farmers' material, etc. (i.e. *ex situ*, *in situ*, on-farm).
- To use the DOI, considered the most appropriate identifier type as resulting from consultation of the PUIDs Task Force.

Why descriptors?

GLIS descriptors should:

- Facilitate access to sources of PGRFA and associated information to increase utilization.
- Promote and facilitate interoperability among existing systems.
- Define user-oriented entry points to PGRFA information in order to create a web-based platform.

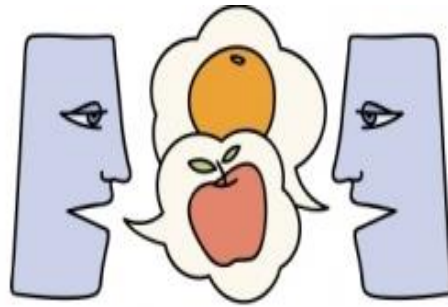
Background

Our current situation in PGRFA documentation...



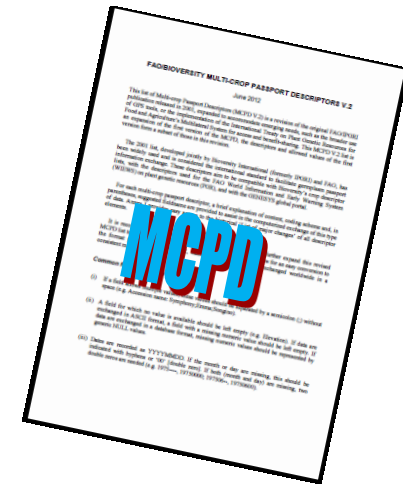
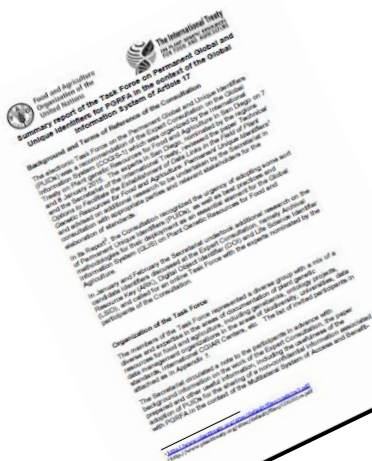
A critical aspect for PGRFA documentation

GLIS needed a 'common' language to share PGRFA information



Development process of GLIS descriptors 1st version

- Created a baseline; identified experts; prepared survey, analyzed and shared survey results.
- ✓ Results of the Task Force set up by the Secretariat
- ✓ International Crop Information System (ICIS)
- ✓ FAO/Bioversity Multi-Crop Passport Descriptors (MCPD)



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GLIS descriptors for PGRFA – 1st version

- Global survey with over 200 participants from 61 countries held in July-August 2015;
- Focus group of 15 experts followed to validate survey results;
- 1st version of the descriptors was published in Oct 2016 for comments;
- The 1st round of review was completed.

Agreed upon key descriptors

But, it is an evolving document!

Validating results, Treaty's and SAC'S role...



"Ok, how about this motto: 'If you are unhappy for any reason, we will feel really bad'."

GLIS descriptors for PGRFA v.2.1

Update on progress

- Version 2.1 of the descriptors was published (July 2017)
- Descriptors and guidelines are being defined with in *situ*/on farm, breeders and other user communities.
 - Indonesia BSF project was the first opportunity

GLIS DESCRIPTORS (MCPD + 1)

Data required for the assignation of DOIs in the Global Information System v.2.1

- It describes data to be provided when registering PGRFA in GLIS through a service that assigns DOIs.
- Only five mandatory descriptors are needed to register material in GLIS.
- It does not include detailed formatting instructions.

MANDATORY DESCRIPTORS

- ❖ Values for these descriptors must be provided for every PGRFA material in GLIS.
- ❖ There is no option to enter “unknown”, “not applicable” or “other”, or to leave the field empty.
- ❖ The PGRFA cannot be registered until the five valid values have been entered for the mandatory fields.

THE FIVE MANDATORY DESCRIPTORS

- **Organization/individual conserving the PGRFA**
- **PGRFA unique identifier**
- **Date**
- **Method****
- **Scientific or common name**

Method **

What event occurred on that date that resulted in you becoming the PGRFA holder?

- 1. Acquisition**
- 2. In-house copy**
- 3. In-house variant**
- 4. Novel distinct PGRFA**
- 5. Observation - Natural**
- 6. Inherited**

HIGHLY RECOMMENDED DESCRIPTORS (8)

- ❖ These descriptors should be provided whenever available to support GLIS's more advanced functions.
- ❖ Valid values must be entered if known, but missing values are allowed.

Examples: Biological status; Additional taxonomic category; Other identifiers; MLS status, Links to associated information.

ADDITIONAL DESCRIPTORS

- ❖ These descriptors are relevant in the appropriate context, depending on the values assigned to some core descriptors.
- ❖ Values should be provided if available. Missing values are allowed.

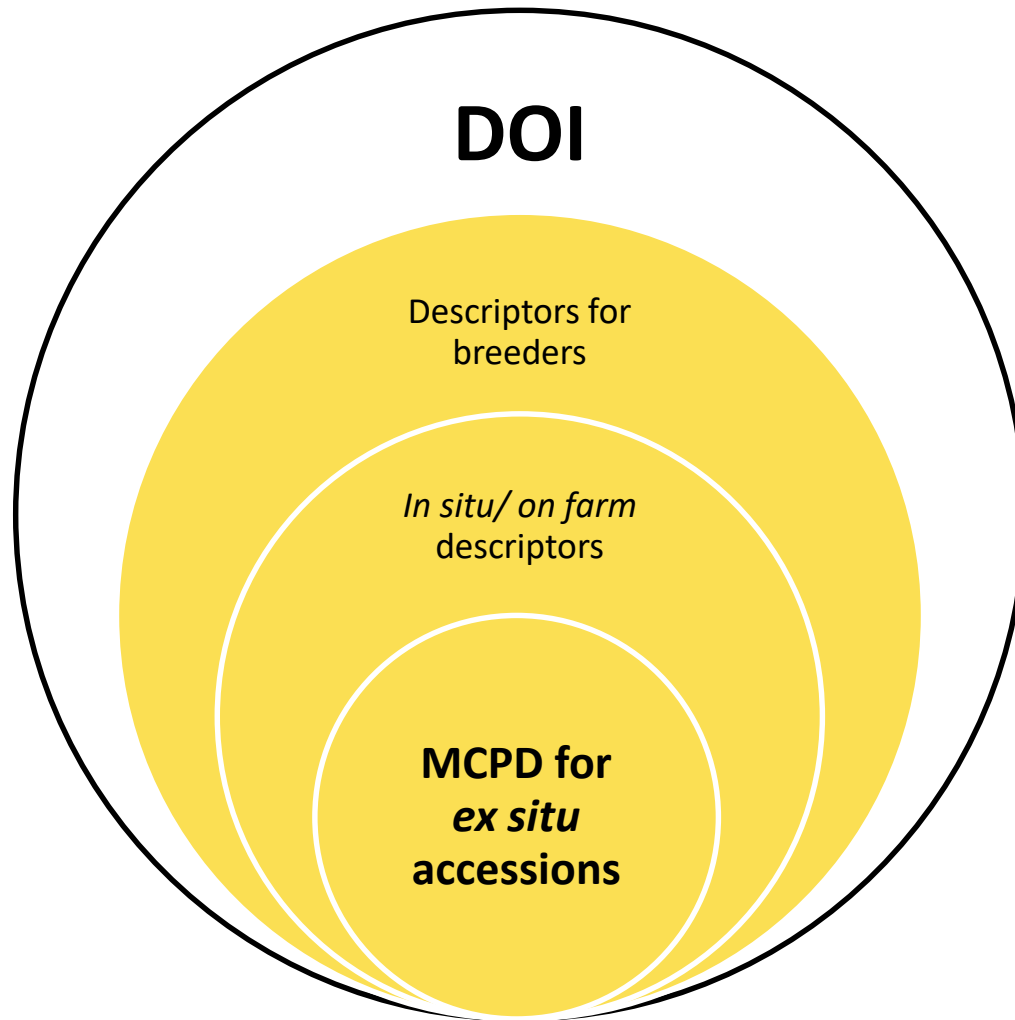
Examples: Country of provenance, Collector's identifier, Collector's location; Collecting source; Geographical coordinates; Breeders location and pedigree

1ST USE CASE: GENE BANKS

Table 1. Use case for genebanks: Mapping to MCPD V.2.1 descriptors

1. CORE DESCRIPTORS		
1a. MANDATORY DESCRIPTORS		
GLIS descriptor	GLIS Description	MCPD equivalent for genebanks
M01. Organization/individual conserving the PGRFA	The location where the PGRFA is maintained	Institute Code [<i>INSTCODE</i>]
M02. PGRFA unique identifier	The identifier that you use to identify your PGRFA material to distinguish it from other PGRFA conserved by you	Accession Number [<i>ACCENUMB</i>]
M03. Date	Date on which you became the holder of the PGRFA	Acquisition date [<i>ACQDATE</i>]
M04. Method	Considering the date given for field M03 ('Date'), what event occurred on that date that resulted in you becoming the PGRFA holder	N/A
M05. Genus or crop name	Genus or common crop name. Specify one or both	Genus [<i>GENUS</i>] Common crop name [<i>CROPNAME</i>]

GLIS descriptors for DOIs in Genebanks = MCPD + 1



GLIS website

Online-help

- Descriptors and Guidelines for DOIs
- FAQs
- Selected documentation
- Presentations and videos about descriptors, and
- **The GLIS Portal!!**

<http://www.fao.org/plant-treaty/areas-of-work/global-information-system/en/>

Next steps on GLIS descriptors development

- Based on users' feedback, improve documentation and data quality;
 - Define use cases for other communities (i.e. *in situ*/on farm, breeders)
 - Promote descriptors for DOIs through capacity building.
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- For further information, please contact the Treaty Secretariat PGRFA-treaty@fao.org



Thank You!

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