PRO-GRACE

PROMOTING A PLANT GENETIC RESOURCE COMMUNITY FOR EUROPE

DELIVERABLE 2.3

Methods and minimum quality standards for *in situ* management of PGR

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Abbreviations

CBD	Convention on Biological Diversity	IUCN	International Union for the Conservation of Nature and Natural Resources
C x E	Characterization and evaluation	LR	Crop landrace
CWR	Crop wild relative	OECM	Other effective conservation measure
ECPGR	European Cooperative Programme for Crop Genetic Resources Networks	PA	Protected area
EURISCO	European Search Catalogue for Plant Genetic Resources	PGR	Plant genetic resource
FAO	Food and Agriculture Organization of the United Nations	PGRFA	Plant genetic resource for food and agriculture
GIS	Geographic information system	WHP	Wild harvested plant

Summary

This project deliverable describes the essential data types required to effectively document *in situ* conservation of PGR, focusing on their conservation planning and implementation, population management and monitoring, and promoting conserved resource availability. These basic data types form the foundation for the development of standardized descriptors for *in situ* conservation of PGR. The document presents a brief overview of the *in situ* conservation process (section 1), summarising past literature and proposals on *in situ* conservation and demonstrating where data is generated and analysed. These elements feed into section 2 where the detailed requirements are described at each stage of the *in situ* conservation process. This section incorporates previous knowledge on the use of descriptors but collates them into specific categories based on the data required for *in situ* conservation. Section 3 describes the approach used to collate the existing descriptors and the generation of new descriptors into the novel list of descriptors for *in situ* conservation - this is the first time such an extensive and detailed analysis of descriptors for *in situ* conservation has been done before. These data types form the basis of descriptors to aid in the gathering and formatting of *in situ* conservation data to maximise information content. There are 171 descriptors of which 64 are defined as the minimum required for *in situ* conservation of PGR. Finally, recommendations for the most effective use and future development of the minimum standards for *in situ* conservation are presented.

1. Introduction

In situ conservation is the maintenance of the plant genetic resources (PGR) where they occur, either cultivated on-farm / in garden or as wild populations in wild / semi-natural habitats (Maxted *et al.*, 2020). In these conditions PGR populations continue to evolve and respond to environmental changes within their natural habitat or on-farm systems retaining their adaptive diversity. This contrasts with *ex situ* conservation, where evolutionary development is "frozen" as conserved resources are stored in genebanks and regenerated only as necessary to renew germination levels. While *ex situ* conservation techniques are well both in terms of the methodology applied to conserve PGR but also to facilitate the use of conserved resource in an effective and efficient way. The application of *in situ* PGR conservation techniques is thus far limited, but the associated science and its implementation is advancing rapidly, and it is recognised that wider *in situ* implementation has the potential to at least double the PGR diversity available to breeders and other users (Maxted and Magos Brehm, 2023). Consequently, a dual complementary approach to conservation is recommended that combines the application of *ex situ* and *in situ* techniques in parallel (CBD, 1992; FAO, 1998).

Due to long-term implementation of *ex situ* conservation techniques, there are well developed systems for data description and management. Such data infrastructures make resources and associated data easier to manage, monitor and use, the latter being a key reason for PGR conservation. The relatively less established *in situ* PGR data infrastructure means that the associated processes for data management are currently unavailable or under-developed. This is a short-term problem but also provides an opportunity to plan *de novo in situ* data acquisition, management and interoperability with established data systems, from first principles rather than letting it evolve *ad hoc* over an extended time scale – hopefully providing a basis for more efficient and effective systems design.

The application of *in situ* techniques focuses on two types of PGR: crop wild relatives (CWR) (+ wild harvested plants, WHP[1]) and landraces (LR), and each has two established conservation techniques available (Maxted *et al.*, 2020):

- CWR *in situ* conservation techniques:
    - ***Genetic reserve conservation*** – the location, management and monitoring of genetic diversity in wild populations within defined areas protected areas designated for active, long-term conservation.
    - ***Other effective area-based conservation measures (OECM)*** – the location, management and monitoring of genetic diversity of wild populations in informally managed *in situ* conservation sites other than protected areas (CBD 2018).
- LR *in situ* conservation techniques:
    - ***On-farm conservation*** – the sustainable management of genetic diversity of locally developed traditional landraces with associated wild and weedy species or forms by farmers within traditional agricultural, horticultural, agri-silvicultural or agroecological cultivation systems.
    - ***Home garden*** – the location, management and monitoring of genetic diversity of locally developed traditional landraces and heirloom varieties or forms by the householder within their individual garden, backyard or orchard cultivation systems for home consumption.

The process of *in situ* conservation is summarized in Figure 1 and expounded in PRO GRACE deliverable D1.3 (Maxted *et al.*, 2024). Figure 1 shows several components associated with data

[1] Note: Both CWR and WHP are wild plant taxa found in nature without any intrinsic distinction other that their human use, therefore it is assumed the conservation techniques and their data foundation requiring no specific adaptation for either. However, with so few examples of WHP conservation published and increased usage the validity of this assumption should to be tested.

generation and information management, some apply to both *in situ* and *ex situ* applications, e.g. target population sampling, *ex situ* duplication, characterization and evaluation, and germplasm utilization, while others are specifically associated with *in situ* activities, e.g. *in situ* conservation implementation and monitoring. This information about i*n situ* PGR may often be present within a country however it may be scattered across various sources or not present at all (van Hintum and Iriondo, 2022). This heterogeneity of cases is one of the reasons why it is difficult for users (plant breeders and crop scientists) to find out about and access these resources (van Hintum and Iriondo, 2022).

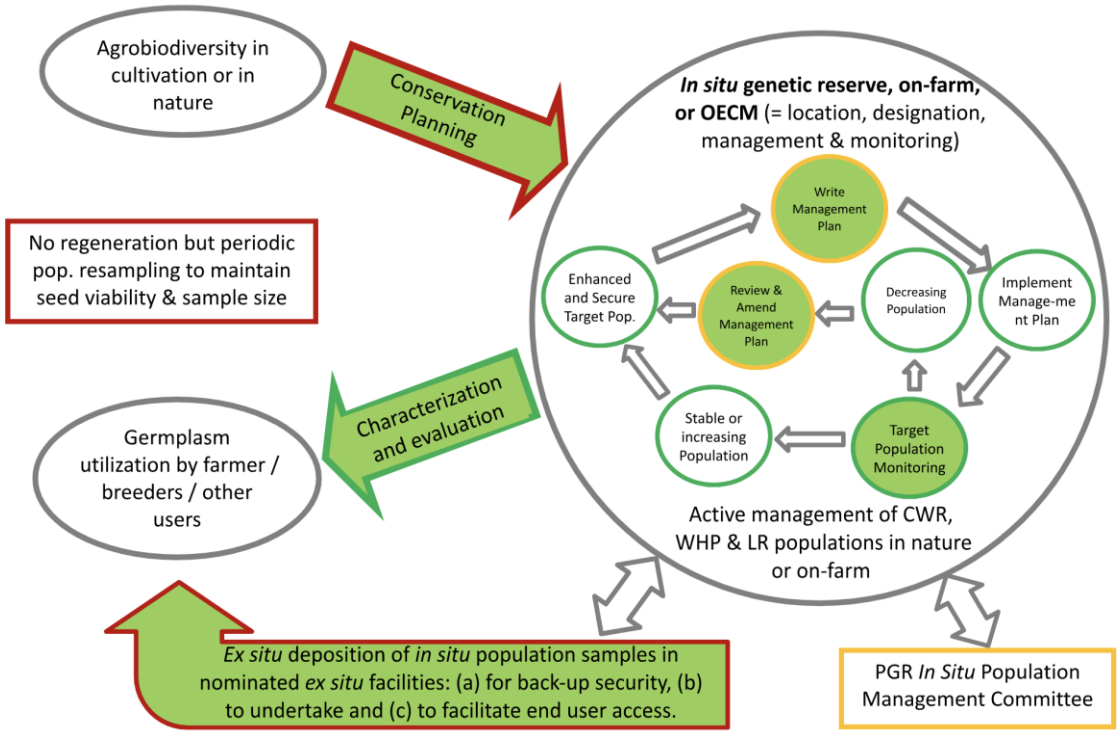

Figure 1. Schematic description of key elements of *in situ* conservation, with those processes that generate data and information highlighted in green (Maxted *et al.*, 2024).

This deliverable builds on D1.3 by describing the minimum data types required to effectively manage *in situ* conservation of PGR, focusing on their documentation, planning, management, monitoring, and utilization. These data requirements form the foundation for the collation and creation of standardized descriptors, as described in Section 3.

2. Quality standards for *in situ* PGR conservation and management

To be able to manage and promote *in situ* conservation requires an effective data and informatics foundation. In fact, lack of access to data and the scarcity or absence of exchange of information as well as decision-support tools, which simplify complex tasks are key factors affecting the effectiveness of PGR conservation and use of PGRFA (Bioversity International, 2007; Maxted *et al.*, 2020). Furthermore, the absence of shared data management and analysis tools creates significant challenges in conservation, particularly in data collection and monitoring. Such data management tools and analysis packages can help significantly in ensuring that different countries operate in comparable manners further facilitating ease of data exchange and integration (Stephenson and Stengel, 2020). The *in situ* description, management and resource accessing activities shown in Figure 1, highlight this need for *in situ* component and multi-national integration. Such integration also helps ensure data and information adhere to the 'FAIR principles' (Wilkinson *et al.*, 2016; 2022), which are

further associated with minimum sets of descriptors to facilitate resource description and management.

There is a critical characteristic of PGR data and information, which affects the type and kind of data being produced, critically CWR, WHP or LR data can be generated at two levels, taxon and population. The taxonomic data is often linked to the creation of the checklist including the scope of description of species, such as: infra-specific taxa, or crop diversity (i.e. the taxonomy), crossability of the species, related crop, threat status and legislative protection. The population data is more linked to the characteristics, such as: individual population, accession or record, collection site descriptors, population size descriptors, population management descriptors, etc. (van Hintum and Iriondo, 2022) as well as characterization or observational data and experimental or evaluation data related to the population being monitored (Maxted *et al.*, 2020). The taxon and population level distinction is not mutually exclusive, in that although PGR will be predominantly either taxon or population based, most PGR data sets will contain both taxon and population data (i.e., Characterization and Evaluation data sets, some descriptors will be fixed for a taxon / crop and others will vary individual to individual).

There are several standards and descriptors associated with *in situ* conservation PGR data that developed in recent years for CWR (= WHP in terms of data management) and LR, including: Moore *et al*., 2008; Negri *et al*., 2012; Thormann *et al*., 2013; FAO/Bioversity, 2015; Magos Brehm *et al*., 2017b; Alericia *et al*., 2022; van Hintum and Iriondo., 2022. The aim of this deliverable is: (a) to compile a consolidated list of all standards and descriptors related to the documentation and management of *in situ* conserved taxa and populations of PGR (CWR, WHP and LR) based on the previously mentioned references; (b) review the consolidated list to identify descriptor gaps and where gaps exit propose new descriptors; and (c) to recommend an interrelated system that helps describing, managing and accessing *in situ* conserved population data allowing the interface between national databases and EURISCO (2025a), a vital access point for valuable PGR data and user germplasm access. Each of the components of the *in situ* conservation process, as with *ex situ* activities, will be built in compliance with the 'FAIR principles' of findable, accessible, interoperable and reusable data (Wilkinson *et al.*, 2016). Below, we highlight the specific data requirements that are generated from this process, and which are required for the efficient conservation of PGR. These data requirements are then used to develop the product a consolidated *in situ* descriptor list for the PGR conservation and use. The level at which the descriptors relate to, taxon or population, is also assigned to each section.

2.1 Data management identifiers

- Data management identifiers - (taxon or population level) Data associated with documentation are those that help to identify the inventory, population or accession. They help to keep associated data organised and provide a key reference linking datasets to each other. Information may include: National checklist / inventory code, regional checklist / inventory code, managing body information (for both *in situ* and *ex situ*), population code and DOI information.

2.2 Conservation planning:

- Selection of target taxa – (taxon level) These data are recorded not for individual accession or populations but are focused on the taxonomic level and usually related to national level information. Taxonomic level PGR information is particularly associated with *in situ* or on-farm conservation, where there are potentially numerous populations that could be actively conserved.
    - ❖ Initially a taxon checklist is developed of all PGR taxa within a defined area. A checklist could be produced at different levels, such as: global, regional, national (the most common), local, or based on a particular area (i.e. a protected area). The checklist contains a list of core taxon information, including: taxon ID, taxon name, family, genus, species, authority of the taxon name, rank, synonyms and photo or image.

- ❖ An annotated checklist is created next which includes ancillary information for each of the taxa in the checklist. The additional information may include: related crop information, gene pool or taxon group concept type, breeding use, general distribution, socioeconomic data and threat assessment information.
- ❖ The inventory is based upon the taxonomic checklist and is a prioritized list of taxa. This is a subset of PGR for active conservation measures. The inventory will include the following additional data: common name of the taxon, related crop use, taxon biology details, taxon conservation action information (both *in situ* and *ex situ*).

- Ecogeographic survey – (population level) Ecogeographic surveys collect information about the ecological aspect of a taxon, that is then synthesised to predict and help clarify conservation priorities (Castañeda Álvarez *et al*., 2011).
  - ❖ In addition to the previous descriptors the ecogeographic survey information will include: detailed location information of the *in situ* population and / or *ex situ* accession, presence within a PA, *ex situ* storage information, ecological and habitat information (such as soil type), genomic genetic diversity data
  - ❖ This information is utilised to conduct the following analyses to produce more targeted conservation planning, usually utilising GIS. These analyses may include the following: taxon richness, surveying effort, *in situ* and *ex situ* gap analyses, complementarity analyses, ecogeographic/genetic analyses and climate change analysis.

2.3 *In situ* conservation implementation:

- Management plan – (population or taxon level) The outcomes from the monitoring will determine the management strategies used to maintain the population *in situ*. In addition to the previous information which will form the background of the management plan, other data generated may include: the managing body, or maintainer information, management interventions, conservation actions taking place, *ex situ* regeneration and population resampling.
- Population monitoring – (population level) Once sites or populations have been identified for conservation, then monitoring will need to take place. Data generated from this process may include: loss risk of LR, continuity of growing LR, cultivation period, status on farm, regeneration *ex situ*, herbivore impacts, vegetation height, negative habitat features, habitat availability, pop cover, population information (numbers, frequency), threats to population, genetic monitoring (including molecular marker data), habitat monitoring, threat category (IUCN Red list).
- *In situ* networking – (population level) - *In situ* conservation networks should be established where possible to ensure the range of diversity of a taxon (as recorded in previous data collection) is appropriately conserved. The network can be at a local, national, regional and global scale. Data associated with the creation of a network will include: the number of sites in a network and the scale of the network.

2.4 Population sampling and *ex situ* duplication:

- (Population level) *Ex situ* descriptors have been widely developed and utilised (FAO/Bioversity, 2015) with a recent project producing descriptors that bridge the gap between *in situ* conservation and *ex situ* back up (van Hintum and Iriondo, 2022; EURISCO, 2025b). These descriptors cover *ex situ* data which include information on: *ex situ* institute and *ex situ* accession number.

2.5 Characterization and evaluation:

- (Taxon and population level) Characterization consists of recording those characters that are highly heritable, can be seen easily by eye and are expressed in all environments. Evaluation consists of recording those characters that are susceptible to environmental differences. Characterization and evaluation data will be highly specific to the taxon being studied, therefore these descriptors are not included in the *in situ* PGR conservation descriptors. There will also be no distinction between CxE descriptors for *in situ* or *ex situ* activities. A more comprehensive list of taxon specific descriptors can be found on the Bioversity website (https://alliancebioversityciat.org/publications-data). Characterisation and evaluation data have been reviewed in PRO-GRACE Deliverable *D1.1 Standards for collecting and displaying phenotypic data and images* and *D1.2 Standards for collecting and displaying genetic data* and are being developed by the Documentation and Informatics Working Group of ECPGR.

2.6 Germplasm utilization:

- (Taxon and population level) Plant genetic resources (PGR) conservation is unique, in terms of conservation, in that the raison d'être is not solely the conservation of the biodiversity resource alone but, it is also the use of the conserved resource (Maxted *et al.*, 1997). The main reason for the conservation of PGR is so that they can be utilised. This is the final step in the cycle of PGR conservation, with use of PGR often contributing to the conservation of some taxa and populations. For utilisation of the resource the following data may be collected: any geographical designation or variety registration, breeding use, market demands, product use, part of plant used, reasons for growing or harvesting the taxon.

3. Methods for collating and developing descriptors

Descriptor lists for PGR constitute the basis for a standardized documentation system that provides an internationally agreed format and universally understood 'language' for PGR data (Bioversity International 2007). *In situ* descriptors are less well developed than the already extensively applied *ex situ* descriptors, such as passport data, ecogeographic data, *ex situ* conservation and characterization and evaluation (e.g., MCPD; Alercia *et al.*, 2015) and there was not previously a consolidated *in situ* descriptor list. The preparation of this list necessitated gathering descriptors information from a wide range of sources, including general biodiversity and ecological monitoring domains (Table 1), and where descriptors were missing new ones were proposed and referenced as Phillips and Maxted (2025). Also included are key *ex situ* descriptors which are directly relevant to *in situ* conservation activities. The collated descriptors were edited to prevent duplication, to be concise and explicit in their application. The descriptor list was reviewed by a panel of experts from leading research and conservation institutions (primarily experts from the PRO-GRACE project consortium and ECPGR Documentation, CWR and On-farm Working Groups), with changes made where appropriate based on their feedback.

Table 1 provides an overview of the categories, and the number of descriptors identified with key references used for the consolidated *in situ* descriptor list (see Annex 1). Annex 1 is an Excel table of the full list of descriptor names, descriptor category, descriptor level (taxon, population), descriptor description and whether it is part of the minimum, LR, CWR and WHP descriptors and references. The total number of descriptors is 171, with 64 defined as the minimum required descriptors for *in situ* conservation of PGR. The reference list is included in Annex 1 and indicates which descriptors were used from which references. Some descriptors were taken directly from the references, others were changed slightly (such as a change in the description of the descriptor to better describe its use in *in situ* conservation) and some were novel (see Phillips and Maxted, 2025). The inclusion of the references allows the user to consult original sources if needed and ensures that it is clear that the new list builds upon past descriptor iterations, therefore fostering future collaboration. This list is comprehensive, too comprehensive to be applied in its entirety for each CWR, WHP or LR taxon or population. The user is expected to use the filter provided to select subset of descriptors appropriate for the *in situ* application in hand and subsets of descriptors are indicated in the different descriptor categories, level and minimum LR, CWR and WHP descriptors.

Table 1. Categories of descriptors for PGR *in situ* conservation activities. The category of descriptors includes a general description about the category; key references for where the descriptor was derived; and the number of descriptors in each category. Some references are used in more than one category. Some descriptors fit into more than one category e.g. 'Accession collecting information' is in both the ecogeographic and *ex situ* category.

Category of descriptor	Key references	Total number of descriptors	Number of minimum descriptors required
Data management identifiers - Key descriptors which aid in identification and organization of *in situ* population or accession data, e.g. the managing institution, ID number of the inventory	Almeida, M.J., 2024; Negri *et al*., 2012; Magos Brehm *et al*., 2017b; Caproni *et al*., 2020; EURISCO, 205b4; Phillips and Maxted, 2025.	17	12
Passport data - Taxon and population identification information e.g taxon biology and prioritisation criteria (i.e. genepool concept level)	JNCC, 2004; Bioversity International, 2007; Moore *et al*., 2008; Bioversity and The Christensen Fund, 2009; Negri *et al*., 2012; Thormann *et al*., 2013; FAO/Bioversity, 2015; Magos Brehm *et al*., 2017b; IUCN Red List Technical Working Group, 2018; Caproni *et al*., 2020; Darwin Core Maintenance Group, 2021; Alericia *et al*., 2022; Armstrong *et al*., 2023; EURISCO, 2025b; Phillips and Maxted, 2025. Wieczorek, J., *et al*., 2012	41	12
Ecogeographic survey - Ecogeographic information is the broad scale ecological information and location information of the accession or *in situ* population e.g. GPS coordinates, topography and soil type.	JNCC, 2004; Bioversity International, 2007; Moore *et al*., 2008; Bioversity and The Christensen Fund, 2009; Negri *et al*., 2012; Thormann *et al*., 2013; FAO/Bioversity, 2015; Magos Brehm *et al*., 2017b; IUCN Red List Technical Working Group, 2018; Caproni *et al*., 2020; Darwin Core Maintenance Group, 2021; Alericia *et al*., 2022; Armstrong *et al*., 2023; EURISCO, 2025b; Phillips and Maxted, 2025.	42	18
Monitoring - Information related to population monitoring parameters e.g. population size and threats	Almeida, M.J., 2024; Moore *et al*., 2008; IUCN Red List Technical Working Group, 2018; Phillips and Maxted, 2025.	21	7
Management - interventions and conservation actions for the population or taxon	Negri *et al*., 2012; Thormann *et al*., 2013; Alericia *et al*., 2022; EURISCO, 2025b; Phillips and Maxted, 2025.	8	5
***In situ* networking** - presence of populations or sites in a network	Maxted, N., *et al*., 2016; Phillips and Maxted, 2025.	25	15
***Ex situ* conservation** - data related to the *ex situ* duplicated accession	FAO/Bioversity, 2015; EURISCO 2025b.	7	6

Utilization - includes information on how the taxa may be used and *in situ* access	Negri *et al*., 2012; Thormann *et al*., 2013; FAO/Bioversity, 2015; Caproni *et al*., 2020; EURISCO, 2025b; Phillips and Maxted, 2025. Wieczorek, J., *et al*., 2012	31	1

4. Conclusions and recommendations

The consolidated *in situ* descriptor list presented is built on existing diverse descriptor lists and where gaps were identified further descriptors were added. It constitutes a timely resource to enhance future, practical implementation of *in situ* PGR at national and regional levels and so both mitigate the challenges of environmental and sustainably increasing food security; data and information management is at the heart of such vital PGR activities. It is widely accepted that using standardised descriptors avoids unnecessary repetitive data input, facilitates data exchange, allows multiple uses of the same dataset, reduces any problem of text synonyms, provides greater consistency and automatic checks for data integrity, easier comparison of results and quicker data searching (Maxted *et al.*, 2020). Therefore, having a full set of appropriate descriptors will help ensure effective and efficient *in situ* conservation.

The potential of the *in situ* minimum data standards for PGR conservation, will help to identify and make use of PGR materials that are currently not accessible for users. This could at least double the available germplasm available to the European PGR user community. This goal is part of the vision of the GRACE RI, "*Our vision is to ensure that plant genetic resources are conserved and shared, and the associated knowledge is improved and made available for future generations*." GRACE RI could help to facilitate the application of the descriptors developed here is D2.3 and thus provide existential support for i*n situ* PGR conservation in Europe. Furthermore, through the GRACE-RI facilitation of interactions with other research infrastructures would be more feasible, allowing the sharing of data and descriptors for monitoring of *in situ* populations across domains. Collaboration with the following infrastructures could be possible; EU observatory on deforestation and forest degradation; and the Integrated European Long-Term Ecosystem, critical zone and socio-economic Research (eLTER).

There is a need to develop the consolidated *in situ* descriptor listed into an ontology. An ontology would describe the relationships between descriptors and allow the user to find information more easily, enhancing the effectiveness of data and information management for *in situ* conservation. This should usefully build upon the PGR Diversity Gateway (Škofič and Dias, 2014), which was developed in the EC funded PGR Secure project, and despite not currently being maintained, includes a detailed PGR ontology.

The consolidated *in situ* descriptor list is comprehensive but to have on-going usefulness it will require revision following practical application and subsequent periodic updating. Therefore this 2025 PRO GRACE project deliverable and associated publication should be viewed as the initial version to be replaced by improved future iterations. To be a living practical tool to aid *in situ* PGR conservation and not of pure historic and academic interest it will require amendments as the evidence gained from practical application accrues, which implies changes to the full list and those identified as the minimum descriptor set appropriate or required for each for application. Application should be at the regional and national levels.

Currently the data and information included in EURISCO are being expanded to include those specifically related to facilitating use of *in situ* conserved CWR resources based on the descriptors proposed by van Hintum and Iriondo (2022)[2]. Characterisation and evaluation descriptors are also being included in EURISCO, and these could relate equally to either *ex situ* or *in situ* conserved resources. However, the question is what further descriptors listed here should also be included in EURISCO alongside the existing *in situ* 28 descriptors? Which of the other descriptor category sets included in the consolidated *in situ* descriptor list (Annex 1) might also usefully be made available via EURISCO and those not, which might usefully be made available via another ECPGR associated online database? These issues require further discussion between the ECPGR Doc&Info, CWR and On-farm WGs and such discussion should be a priority action. This is because practical *in situ* conservation application for CWR populations on a broader scale, at national and regional level, appears imminent

[2] A minor amendment was agreed with the authors concerning the addition of genetic reserves to descriptor 21: Site Protection.

due to the EC funding of three research projects in this topic through Horizon Europe Research and Innovation Programme (Table 2).

Table 2. The three projects funded by the EC Horizon Europe Research and Innovation Programme, which are related to CWR conservation and use.

Project name	Project Aim	Crop Group	Coordinator	Website
Cousin: CWR utilization and conservation for sustainable agriculture	Identify pathways to use CWR to strengthen sustainable agriculture; Recognize preferred *in situ* genetic reserves; Determine stakeholder-demanded characteristics of CWR; Implement promote use of CWR into breeding and farming activities, Provide information about CWR in an accessible format to stakeholders and potential users; Train and raise awareness about the value of CWR in the society.	Wheat, barley, pea, lettuce, Brassicas	Christian Schöb	https://cousinproject.eu/
PRO-WILD: Protect and promote CWR	*In situ* conservation, which involves the characterization and protection of genetic resources in their natural habitats; *Ex situ* conservation, to propagate, conserve, and catalogue CWR outside their natural environments with the goal of safeguarding their genetic material; Pre-selection activities through which it aims to identify desirable traits of CWRs and incorporate them into in elite breeding programs to improve the genetic diversity and resilience of cultivated crops.	Wheat, sugar beet and oilseed rape	Jacques Le-Gouis	https://www.pro-wild.eu
FRUITDIV: Sustainable agriculture to preserve nature's treasures	Monitoring CWR in European gene banks; Characterizing CWR genetically; Share and develop new high-throughput phenotyping tools; Integrate CWR into plant genetic resource collections and breeding programs; Promote sustainable data sharing; develop pre-selection material and selection methodologies adapted to CWR; Foster more efficient and sustainable PGR conservation and use of first-generation pre-selection material.	Fruit tree GR focusing on pome (*Malus, Pyrus*) and stone fruit (*Prunus*).	Veronique Decroocq	https://fruitdiv.eu

Although the three projects each focus on a narrow subset of European crops, they each recognize the need to "Provide information about CWR in an accessible format to stakeholders and potential

users" and therefore, the consolidated *in situ* descriptor list will help them achieve their aims in an effective and efficient way. It would be beneficial for the ECPGR CWR WG to establish an active dialogue with the Cousin, PRO-WILD and FRUITDIV projects to discuss how the *in situ* descriptor might be used in their project and any other mutually beneficial collaboration might be developed.

With the funding of the 'Extension of EURISCO for CWR *in situ* data and preparation of pilot countries' data sets' in several countries (Albania, Bulgaria, Cyprus, Czech Republic, Georgia, Germany, Italy, Lithuania, The Netherlands, Poland, Portugal, Romania, Slovenia, Spain, and the United Kingdom) and the production of the initial iteration of the consolidated *in situ* descriptor list there is a need for capacity building for users (both *in situ* and *ex situ* practitioners) around training on how to use and apply these descriptors, their value and importance for conservation of PGR. Such training might be offered jointly by the ECPGR Doc&Info, CWR and On-farm WGs.

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Annex 1. Consolidated *In Situ* PGR Descriptor Lists

See associated EXCEL table containing the Consolidated *In Situ* PGR Descriptor Lists (Phillips, J., *et al*., 2025)

PRO-GRACE
PROMOTING A PLANT GENETIC RESOURCE COMMUNITY FOR EUROPE

UNIVERSITY OF BIRMINGHAM

Plant Genetic Resource *in situ* descriptors v1

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Overview

This document was created as part of Deliverable 2.3 in the EC funded project PRO-GRACE.

What this file contains

WORKSHEET [All_descriptors]

et al., 2016); GR = in situ genetic reserve criteria (Iriondo, J., *et al*., 2022) - please note these are not full lists of descriptors for each of these categories.

WORKSHEET [Minimum_required_in_situ_descriptors]

This worksheet contains the same columns as the worksheet [*All_descriptors*], but only contains those descriptors which are considered the minimum required for *in situ* PGR conservation.

WORKSHEET [*All_descriptors_references*]

are able to see where the descriptors originated from and the original descriptions that were used from those sources.

WORKSHEET [ADM_fields_per_country]

(www.gadm.org).

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All_descriptors								
Descriptor category	**Descriptor level (taxon / population)**	**Descriptor**	**Description**	**CWR descriptor**	**LR descriptor**	**WHP descriptor**	**Minimum descriptors**	**RL = red listing; LRT = landrace threat assessment; IN = *in situ* network criteria; GR = *in situ* genetic reserve**
Data management identifiers	Taxon / Population	NI_CODE	National Inventory code: Code identifying the National Inventory; the Three-letter ISO 3166-1 code of the country preparing the National Inventory. Exceptions are possible if agreed with EURISCO, such as NGB. Example: NLD	X	X	X	X	
Data management identifiers	Taxon / Population	NI_NAME	National Inventory Name. Name of the national inventory…	X	X	X	X	
Data management identifiers	Taxon / Population	NI_URL	National Inventory URL: Include like to the National Inventory	X	X	X		
Data management identifiers	Taxon / Population	NC_URL	National Checklist URL: Include link to the National Checklist	X	X	X		
Data management identifiers	Taxon / Population	RI_CODE	Regional Inventory Code. Code identifiying the regional inventory the taxon occurs in. The code is composed of the M49 region name, the M49 region code from https://unstats.un.org/unsd/methodology/m49/, the edition of the Checklist and the year. Example: Europe_150_001_2024. Possible regions and codes are: Africa 002 Americas 019 Antartica 010 Asia 142 Europe 150 Oceania 009 New region codes may be used if region not listed in M49 list.	X	X	X		
Data management identifiers	Population	PUID	*In situ* DOI. Any persistent, unique identifier assigned to the in situ population so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one INSITUDOI for each CWR in situ population that the National Focal Point considers as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS). Note: for ex situ accessions the ACCEDOI or ACCENUMB is used as a unique identifier.	X	X	X	X	
Data management identifiers	Population	POPID	Population identifier. The identifier (sequential number or code) that the National Inventory uses to identify each population. Each distinct population should be given a population unique identifier.	X	X	X	X	
Passport data	Taxon	FAMILY	Family. Family name for taxon in latin. Initial uppercase letter required.	X	X	X		
Passport data	Taxon	GENUS	Genus. Genus name for taxon, in Latin. Initial uppercase letter required. Example 1: Vigna Example 2: Vicia	X	X	X	X	

Passport data	Taxon	SPECIES	Species. Specific epithet portion of the scientific name, in Latin, in lower case letters. Example 1: unguiculata Example 2: faba	X	X	X	X	
Passport data	Taxon	SPAUTHOR	Species authority. The authority for the species name. Example 1: (L.) Wald.	X	X	X	X	
Passport data	Taxon	SUBRANK_1	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form). Example: subspecies; subsp	X	X	X	X	
Passport data	Taxon	SUBTAXA_1	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: sesquipedalis	X	X	X	X	
Passport data	Taxon	SUBTAUTHOR_1	Subtaxon authority. The subtaxa authority at the most detailed taxonomic level. Example 1: (L.) Verdc. Example 2: (hort. ex Alef.) Mansf.	X	X	X	X	
Passport data	Taxon	SUBRANK_2	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form), 'Group' (for cultivar group). Example: variety	X	X	X	X	
Passport data	Taxon	SUBTAXA_2	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: minuta	X	X	X	X	
Passport data	Taxon	SUBAUTHOR_2	Sbtaxon authority. The subtaxon authority at the specified subspecific rank level.	X	X	X	X	
Passport data	Taxon	SUBRANK_3	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form), 'Group' (for cultivar group). Examples: subvariety, forma, subforma	X	X	X		
Passport data	Taxon	SUBTAXA_3	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Examples: name of a subvariety, name of forma, name of subforma	X	X	X		
Passport data	Taxon	SUBAUTHOR_3	Subtaxon authority. The subtaxon authority at the specified subspecific rank level.	X	X	X		
Passport data	Taxon	TAX_REF	Taxon reference. Taxonomy reference used, if known and applicable.					
Passport data	Taxon	SYNONYMS	Synonyms. Synonym(s) of the taxon, in Latin. Enter the synonym along with the repository it is listed in i.e Repository:Synonym. Multiple names are separated by a semicolon (;) without space. Enter 'NA' (not applicable) or 'Unknown' if there are no synonyms or if synonym was not checked.	X	X	X		
Passport data	Taxon	COMMON_NAME	Name(s) of the taxon in colloquial language (if applicable). Multiple entries are separated by a semicolon (;) without space. If no common name is known, enter 'Unknown'. (https://npgsweb.arsgrin.gov/gringlobal/taxon/abouttaxonomy.aspx?chapter=common). Name(s) of the taxon (including landraces and wild harvest plants) in colloquial language (if applicable). Multiple entries are separated by a semicolon (;) without space. If no common name is known, enter 'Unknown'.	X	X	X		
Passport data	Taxon	COMMON_NAME_LAN	Language of common name. Language of common name (Standard: ISO 639-2; https://www.iso.org/iso-639-language-codes.html; http://www.loc.gov/standards/iso639-2/php/code_list.php). Provide the ISO code. Multiple values are separated by a semicolon (;) without space.	X	X	X		
Passport data	Taxon	IMAGE	Image. Photo or illustration of the taxon	X	X	X	X	

Passport data	Taxon	TAXON_REMARKS	Taxon remarks. Additonal remark(s) regarding taxon descriptors, including any unique taxon identifiers (which should be added as "Repository:TaxonIdentifier") or clarifications. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X	X	
Passport data	Taxon	CROP_NAME	Related crop. The scientific name(s) of the crop(s) to which the taxon is related, in Latin. Multiple values are separated by a semicolon (;) without space. The use of GRIN Taxonomy is recommended: https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearchcwr. Common name of the crop. Example: 'buckwheat'. In order to increase the comparability of data from different conservation sites/organisations, it is recommended to use the common names as provided by GRIN Taxonomy	X	X	X	X	
Passport data	Taxon	CROP_USE	Crop use. The use type(s) of the crop(s) to which the taxon is related.	X	X	X		
Passport data	Taxon	CROP_USE_REF	Crop use reference. The reference(s) used for identifying the crop use. This could be a link to website or a reference to a document	X	X	X		
Passport data	Taxon	CONCEPT_TYPE	Concept type(s). Concept type(s) to which the taxon belongs (see Maxted et al., 2006). Permitted values are: Gene Pool, Taxon Group, and Unknown. Multiple values are separated by a semicolon (;) without space and should correspond to those entries in RELATED_CROP.	X	X	X		
Passport data	Taxon	CONCEPT_LEVEL	Concept level(s). Concept level(s) to which the taxon belongs (see Maxted *et al*., 2006). Permitted values are: 1A, 1B, 2, 3 (for both Gene Pool and Taxon Group), 4, 5 (for Taxon Group only), and Unknown. Multiple values are separated by a semicolon (;) without space and should correspond to those enteries in RELATED_CROP and CONCEPT_TYPE.	X	X	X		
Passport data	Taxon	CONCEPT_REF	Concept reference(s). The reference(s) for the applied Gene Pool or Taxon Group concept. Multiple entries are separated by a semicolon (;) without space and should correspond to those entries in RELATED_CROP, CONCEPT_TYPE and CONCEPT_LEVEL	X	X	X		
Passport data	Taxon	GENE_POOL_REMARKS	Gene pool remarks. Additional remarks regarding the taxon Gene Pool or Taxon Group. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X		
Passport data	Taxon	MATE_SYSTEM	Mating system. The mating system of the taxon. Permitted values are: Allogamous, Autogamous, Unknown. Multiple values are allowed, seperated by a semi-colon (;)	X	X	X		
Passport data	Taxon	REP_SYSTEM	Reproductive system. Permitted values are: Allogamous, Autogamous, Mixed mating, Clonal, Unknown. Multiple values are allowed, seperated by a semi-colon ;	X	X	X		
Passport data	Taxon	SEX_STRUCT	Sex structure. The sex structure of the taxon. Permitted values are: Hermaphrodite, Monoecy, Andromonoecy, Gynomonoecy, Polygamomonoecy, Dioecy, Androdioecy, Gynodioecy, Polygamodioecy, Apomictic, Other, and Unknown.	X	X	X		
Passport data	Taxon	POLLINATION	Pollination. The pollination method(s) of the taxon. Permitted values are: Ants, Bats, Bees (and other flying Hymeoptera), Beetles, Birds, Butterflies and moths (and other Lepidoptera), Flies (and other Diptera), Moths, Wind, Water, Other, Unknown, and Not applicable. Multiple values are separated by semicolons (;) without space.	X	X	X		

Passport data	Taxon	LIFE_FORM	Life form. The life form of the taxon. Permitted values are: Phanerophytes, Nanophanerophytes, Herbaceous phanerophytes, Chamaephytes, Hemicryptophytes, Geophytes, Therophytes, Epiphytes, Helophytes, Hydrophytes, and Unknown.	X	X	X		
Passport data	Taxon	LIFE_SPAN	Life span. The life span of the taxon. Permitted values are: Annual, Perennial, Biennial, Annual and Biennial (for combined forms) and Unknown.	X	X	X		
Passport data	Taxon	SEED_DISPERSAL	Seed dispersal. The seed dispersal mechanism of the taxon. Permitted values are: Animal (zoochory), Wind (anemochory), Water (hydrochory), Methods originating from the parent plant or diaspore (autochory), Unassisted (barochory), Dispersal prevented (atelochory, antitelochory), Unknown, and Not applicable.	X	X	X		
Passport data	Taxon	CHROMOS_NUM	Chromosome number. The chromosome number(s) of the taxon. Multiple values are separated by a semicolon (;) without space.	X	X	X		
Passport data	Population	GEN_TIME	Generation time. Number of years from germination to maturity for the population being sampled or surveyed.	X	X	X		
Passport data	Taxon	HABIT	Growth habit. Most common growth habit of the taxon. 10 Herb 15 Vine 20 Shrub 30 Tree	X	X	X		
Passport data	Taxon	BIOLOGY_REMARKS	Remarks on biology. Additional remarks regarding the biology of the taxon. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X		
Passport data	Population	FL_CODE	Flowering status. Are there individuals in flower? 1 = in flower or in bud; 0 = not in flower or in bud. NA is applicable when there is no information available.	X	X	X		
Passport data	Population	FR_CODE	Fruiting status. Are thre individuals in fruit or seed? 1 = in fruit or in cones, or with seeds; 0 = not in fruit or in cones, without seeds. NA is applicable when there is no information available.	X	X	X		
Passport data	Taxon	SEED_DORMANCY	Seed dormancy. Is seed dormancy detected in this species? Yes or No. Seed dormancy is important in the formation of a soil seed bank and influences their dispersal and therefore conservation.	X	X	X		
Passport data	Taxon	SEED_DORMANCY_REF	Seed dormancy reference. References related to seed dormancy if detected.	X	X	X		
Ecogeographic survey	Population	ORIGCTY	Country of Occurrence. Country where the CWR population was observed or inventoried. Use the Three-letter ISO 3166-1 code of the country where the site is located.	X	X	X	X	
Ecogeographic survey	Population	SITE_NAME	Site name. The name of the *in situ* maintenance site where the material is found or was collected from. Should only be filled in if no FAO WIEWS code exists. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X		

Ecogeographic survey	Population	SITE_ID	Site identification. The *in situ* site identification code. This should be unique to the site and decided by the surveyor. Multiple popoulations may have the same SITE_ID.	X	X	X		
Ecogeographic survey	Population	SITEADDRESS	Site address. The *in situ* site maintenance address where the material is found or was collected from. This is more appropriate for areas under cultivation. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X		
Ecogeographic survey	Population	ADM1	Administration level one. Name of the primary administrative subdivision of the country where the site is located, or where the population was collected from. Free text. Example: Umbria Region Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X		
Ecogeographic survey	Population	ADM2	Administration level two. Name of the secondary administrative subdivision (within the primary administrative subdivision) of the country where the site is located, or where the population was collected from. Free text. Example: Perugia Province Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X		
Ecogeographic survey	Population	ADM3	Administration level three. Name of the third administrative division where the site is located or where the popualtion was collected from. Free text. Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X		
Ecogeographic survey	Population	ADM4	Administration level four. Name of the fourth administrative division where the site is located or where the population was collected from. Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X		
Ecogeographic survey	Population	OCCURSITE	Occurrence site. Location information below the country level that describes the site where the population sample was observed, inventoried, preferably in English. This might include the distance in km and direction from the nearest town, village or map grid reference point, (e.g. 7km south of Curitiba in the state of Parana).	X	X	X	X	

Ecogeographic survey	Population	DECLATITUDE	Decimal degrees latitude. Latitude of the site expressed in decimal degrees. Positive values are North of the Equator; negative values are South of the Equator (e.g., -44.6975).	X	X	X	X	
Ecogeographic survey	Population	DECLONGITUDE	Decimal degrees longitude Longitude of the site expressed in decimal degrees. Positive values are East of the Greenwich Meridian; negative values are West of the Greenwich Meridian (e.g., -120.9123).	X	X	X	X	
Ecogeographic survey	Population	COORDUNCERT	Coordinate uncertainity [m]. Uncertainity assoicated with the coordinates in meters. Leave the value empty if the uncertainity is unknown	X	X	X	X	
Ecogeographic survey	Population	ELEVATION	Elevation. Elevation of the occurrance site expressed in meters above sea level e.g. the centrum height of height range. Negative values are allowed	X	X	X	X	
Ecogeographic survey	Population	POP_AREA	Population area. Area of population being assessed (ha)	X	X	X	X	
Ecogeographic survey / *In situ* networking	Taxon	DIST_STATUS	Distribution status. The distribution status of the taxon within the geographic area of the checklist or inventory. Note: 'Regional' is defined here as a geographic area comprising different countries (e.g. Europe, the Mediterranean region, the SADC region, Sub-Saharan Africa, Mesoamerica) rather than a sub-unit within a country (Magos Brehm *et al*., 2017). 10 Native 11 National endemic 12 Regional endemic 20 Introduced 30 Archeophyte 40 Neophyte 90 Unknow 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN
Ecogeographic survey	Taxon	DIST_REF	Distribution reference.The reference(s) to the information source(s) describing the distribution of the taxon. Multiple references are separated by a semicolon (;) without space.	X	X	X	X	
Ecogeographic survey	Taxon	DIST_REMARKS	Distribution remarks. Additonal remarks regarding the taxon distribution. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by a semicolons (;) without space.	X	X	X	X	
Data management identifiers / *In situ* networking	Population	MAINTAINER_CODE	Maintainer code: FAO WIEWS code of the institution responsible for, and/or organization or individual, that holds rights or is responsible for the *in situ* population (e.g. farmer, protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. Research organisations can use codes from https://ror.org/.	X	X	X	X	IN
Data management identifiers	Population	MAINTAINER_CODE_REF	Reference use for the MAINTAINER_CODE. i.e. "FAO WIEWS"	X	X	X	X	

Data management identifiers / *In situ* networking	Population	MAINTAINER_NAME	Maintainer name: Name of the institute, organisation or individual that holds rights or is responsible for the *in situ* population. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X	IN
Data management identifiers	Population	MAINTAINER_ADDRESS	Maintainer address: Managing institute, organisation or individual individual address related to MAINTAINER_CODE or MAINTAINER_NAME. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X	
Data management identifiers / *In situ* networking	Population	MAINTAINER_ID	Maintainer ID. Unique number identifier of the maintainer of the *in situ* population. It is assigned by the institute that is responsible at the national level for the production of the inventory database. It is suggested that any personally identifiying data that is subject to GDPR should be kept in a seperate database and not made public. The MAINTAINERID should correspond to the seperate database]	X	X	X		IN
Data management identifiers	Population	MAINTAINER_AGE	Maintainer age. Age of the person who maintains the *in situ* population, in years. Use the appropraite code below: 10 less than or equal to 25 20 Age between 26 to 40 30 Age between 41 to 55 40 Age between 56 to 69 50 Age 70 or above		X	X		LRT
Data management identifiers	Population	MAINTAINER_T	Maintainer tenancy of the land. Multiple options are allowed and should be seperated by semicolons (;) without space. 10 Owner 20 Tenant 30 Life tenant 40 Cultivating public land 50 Managing land only 99 Other (elaborate in REMARKS)	X	X	x	X	
Data management identifiers	Population	INSITU_ACCESS	*In situ* access. Access to the *in situ* resource from the site being surveyed. How can the resource be accessed? 10 Via a genebank accession 20 Direct from wild *in situ* source 30 Direct from on-farm source	X	X	X	X	
Utilisation / *In situ* networking	Population	MLSSTAT_INSITU	Multilateral System status of the *in situ* material. The status of the PGRFA with regard to the Multilateral System of Access and Benefit-Sharing (MLS) of the international Treaty on PGRFA. Applicable if there is direct access to the in situ material. Leave the value empty if the status is not know. 0 No (not available under the MLS) 1 Yes (available under the MLS) 99 Other (elaborate in REMARKS field, e.g. 'under development')	X	X	X	X	IN, GR

Data management identifiers	Population	LIAISONCODE	Liasison institute code. FAO WIEWS code of the institution that can liaise between the organization managing the CWR population and the interested user. Research organisations can use codes from https://ror.org/. For those institutes not yet having a FAO WIEWS code, or for those with 'obsolete' codes, see section 'General formatting rules'	X	X	X	X	
Data management identifiers	Population	LIAISONNAME	Liaison institute name. Name, and brief address, of the institution that can liaise between the organization managing the CWR population and the interested user.	X	X	X	X	
Ecogeographic survey	Population	OBSDATE	Observation date [YYYYMMDD]: The most recent date the *in situ* population was observed, where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero]. (e.g. 2024-06-10)	X	X	X	X	
Ecogeographic survey	Population	FIRST_OBSDATE	First observation date. Date [YYYYMMDD] of the first observation of the *in situ* popoulation and its inclusion into the nationa inventory. This may be the same as the OBSDATE if it is the first time recording the popoulation.	X	X	X	X	
Ecogeographic survey	Population	PRESENCE_IN_PA	Presence in a protected area. Indicate whether the population is known to be present in a protected area. This can include the whole population or just part of a population. 10 Present in a protected area 20 Not present in a protected area	X	X	X	X	GR
Ecogeographic survey	Population	PA_NAME	Protected area name. Name of protected area the surveyed or sampled population is found within. Only applicable if the popualtion being surveyed is within a PA	X	X	X	X	GR
Ecogeographic survey	Population	PA_CODE	Protected area code. Code of protected area, if available	X	X	X	X	GR
Ecogeographic survey / *In situ* networking	Population	SITEPROT	Site protection. Indicate whether the site is under any legal or offical legislation. Following these guidelines: https://portals.iucn.org/library/node/30018 0 No (not protected) 1 Strict nature reserve 2 Wilderness area 3 National park 4 Natural monument or feature 5 Habitat/species management area 6 Protected landscape/seascape 7 Protected area with sustainable use of natural resources 8 Other effective conservation measures (OECM) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, GR
In situ networking	Population	INSITU_NET	*In situ* network. Is the population / site part of an *in situ* network. Yes/No	X	X	X	X	IN
In situ networking	Population	INSITU_NET_SCALE	Scale of *in situ* network. What geogrpahic scale of a network does it belong too? Local / National / Regional / Global	X	X	X		IN
Monitoring	Population	INSITU_MON_ORG	*In situ* monitoring organisation. Organisation/s responsible for the demographic monitoring of the *in situ* population. Multiple values seperated by a semicolon.	X	X	X	X	GR

Monitoring	Population	INSITU_MON_INT	Demogaphic monitoring interval. How often the popualtion is monitored, in years. Inlcude information on demographic monitoring and genetic diversity monitoring e.g. demographic:5 years ; genetic:15 years. Leave blank if not monitored	X	X	X	X	GR
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON	*In situ* genetic monitoring. Is there any *in situ* genomic genetic diversity monitoring taking place on the popualtion? Yes/No	X	X	X	X	IN, GR
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON_URL	*In situ* genetic monioring URL. Include links to genetic diversity monitoring plans related to the in situ population	X	X	X	X	IN, GR
Monitoring / *In situ* networking	Population	INSITU_GENETIC_TREND	Population trend. Measured according to the IUCN classification: 10 Increasing 20 Decreasing 30 Stable 99 Unknown This descriptor is useful for IUCN red listing.	X	X	X		GR
Monitoring / *In situ* networking	Population	THREAT_INSITU	Threat to the *in situ* population. List any threats apparent to the *in situ* population, using the IUCN threats classification scheme. Main threats listed below with more information here: https://www.iucnredlist.org/resources/threat-classification-scheme. 01 Residential and commercial development 02 Agriculture and aquaculture 03 Energy production and mining 04 Transportation and service corridors 05 Biological resource use 06 Human intrusions and disturbance 07 Natural system modifications 08 Invasive and other problematic species, genes, diseases 09 Pollution 10 Geological events 11 Climate change and sever weather 99 Other (elaborate in REMARKS)	X	X	X	X	RL
Monitoring	Population	SAMPSTAT_INSITU	Biological status of the *in situ* population. The coding scheme proposed can be used at different levels of detail, either by using the general codes (in boldface), such as 100 or 200, or by using the more specific codes such as 110, 120 or 130. 100 Wild 110 Natural 120 Semi-natural/wild 130 Semi-natural/sown 200 Weedy 999 Other (elaborate in REMARKS field)	X	X	X	X	

Monitoring / *In situ* networking	Population	NUM_IND	Number of individuals in the *in situ* popuation (being assessed). See codes below 001 - 1 to 50 005 - 51 to 150 010 - 151 to 300 025 - 301 to 500 050 - 501 to 750 060 - 751 to 1,000 070 - 1,001 or more This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT, GR
Monitoring / *In situ* networking	Population	NUM_MAT_IND	Number of MATURE individuals in the *in situ* popuation (being assessed). See codes below 001 - 1 to 50 005 - 51 to 150 010 - 151 to 300 025 - 301 to 500 050 - 501 to 750 060 - 751 to 1,000 070 - 1,001 or more This descriptor is useful for IUCN red listing.	X		X		RL, GR
Monitoring / *In situ* networking	Population	NUM_INDI_REMARKS	Remarks on the number of individuals recorded. This can sometimes be difficult to interpret especially if the species is clonal, therefore provide comments if necessary. this descriptor is useful for IUCN red listing.	X	X	X		RL
Monitoring / *In situ* networking	Population	POP_TREND	Population trend. Measured according to the IUCN classification: 10 Increasing 20 Decreasing 30 Stable 99 Unknown This descriptor is useful for IUCN red listing.	X	X	X		RL

Ecogeographic survey	Population	POPSRC	Status of the occurrence site. Status of the occurrence site of the population. The coding scheme proposed can be used at different levels of detail: either by using the general codes (in boldface) such as 10, 20 etc., or by using the more specific codes, such as 11.12, etc. Multiple vlaues are seperated by a semicolon without space. 10) Wild habitat 11) Forest or woodland 12) Shrubland 13) Grassland 14) Desert or tundra 15) Aquatic habitat 20) Farm or cultivated habitat 21) Field 22) Orchard 23) Backyard, kitchen or home garden (urban, peri-urban or rural) 24) Fallow land 25) Pasture 28)Park 60) Weedy, distrubed or ruderal habitat 61) Roadside 62) Field margin 99) Other (Elaborate in REMARKS field)	X	X	X	X	
Ecogeographic survey	Population	HABITAT_OTHER	Other habitat. If used, a different habitat classification to the site than POPSRC.	X	X	X		
Ecogeographic survey	Population	HABITAT_OTHER_REF	Reference for the HABITAT_OTHER. Include a reference or URL to the different classification used if HABITAT_OTHER was used.	X	X	X		
Ecogeographic survey	Population	DOM_PLANT_SPP	Dominant plant species. What are the dominant or keystone plant species at the site? (Excluding the population being assssed)	X	X	X		
Ecogeographic survey	Population	VEGETATION_HEIGHT	Vegetation height. What is the dominant height of the vegetation surrounding the population: 010 - Less than 10cm 020 Between 10cm and 30cm 030 Between 30cm to 100cm (1m) 040 Between 100cm (1m) and 200cm (2m) 050 Between 200cm (2m) to 500cm (5m) 060 Above 500cm (5m)	X	X	X		
Ecogeographic survey	Population	ROCK_TYPE	Rock type. Dominant type of rock at the site: 10 Igneous 20 Metamorphic 30 Sedimentary	X	X	X		
Ecogeographic survey	Population	SOIL_DOM	Soil dominant type. What is the dominant soil type at the site? 10 Acidic 20 Alkaline 30 Neutral 90 Unknown	X	X	X		

Ecogeographic survey	Population	SOIL_DETAIL	Soil details. Include further details about the soil type, such as colour, salinity, depth etc. Referencing the World Reference base for Soils, if appropriate: https://www.isric.org/explore/wrb	X	X	X		
Ecogeographic survey	Population	WATER_AVAIL	Water availability. 10 Rain-fed 20 Irrigated 30 Flooded 40 River bank 50 Sea coast 99 Other (specify in appropriate section's Notes)	X	X	X		
Ecogeographic survey	Population	SITE_ASPECT	Site aspect. What is the aspect of the site? 10 North 11 North east 12 North west 20 South 21 South east 22 South west 30 East 40 West 90 No dominant aspect 99 Other (elaborate in REMARKS)	X	X	X		
Ecogeographic survey	Population	TOPOGRAPHY	Topography. The profile levation of the land surface on a braod scale (FAO1990) 10 Flat 0 – 0.5% 20 Almost flat 0.6 – 2.9% 30 Gently undulating 3 – 5.9% 40 Undulating 6 – 10.9% 50 Rolling 11 – 15.9% 60 Hilly 16 – 30% 70 Steeply dissected >30% moderate elevation range 80 Mountainous >30% great elevation range (>300 m) 99 Other	X	X	X		
Ecogeographic survey	Population	LANDFORM	Landform. The shape of the land surface in the area in which collecting site is located (FAO 1990) 1 Plain 2 Basin 3 Valley 4 Plateau 5 Upland 6 Hill 7 Mountain	X	X	X		

Ecogeographic survey	Population	LAND_ELEMENT	Land element. Description of the geomorphology of the immediate surroundings of the collecting site (Bioversity Internationl (2007) Guidelines for the development of crop descriptor lists.) 1 Plain level 2 Escarpment 3 Interfluve 4 Valley 5 Valley floor 6 Channel 7 Levee 8 Terrace 9 Floodplain 10 Lagoon 11 Pan 12 Caldera 13 Open depression in flat or almost-flat terrain) 14 Closed depression 29 Coral reef 15 Dune 16 Longitudinal dune 17 Interdunal depression 18 Mangrove 19 Upper slope 20 Midslope 21 Lower slope 22 Ridge 23 Beach 24 Beachridge 25 Rounded sumit 26 Summit 27 Coral atoll 28 Drainage line (bottom position 99 Other	X	X	X		
Ecogeographic survey	Population	SLOPE	Slope. Slope angle in degrees. Example: 25	X	X	X		
Ecogeographic survey	Population	SLOPE_FORM	Slope form. General shape of the slope in both vertical and horizontal directions: 01 Straight 02 Concave 03 Convex 04 Terraced 05 Complex (irregular) 99 Other	X	X	X		
Ecogeographic survey	Population	CLIMATIC_ZONE	Climatic zone. Dominant climatic zone the population is found within at survey site. Example: Temperate	X	X	X		
Ecogeographic survey	Population	CLIMATIC_ZONE_REF	Climatic zone reference. Reference used for identifying the climatic zone	X	X	X		

Ecogeographic survey	Population	LIGHT	Light. Is the population in full-sun or not? 10 Shady 15 Partial shade 20 Sunny	X	X	X		
Ecogeographic survey	Population	POPURL	Population URL. URL linking to additional ecogeographic data about the *in situ* population.	X	X	X	X	
Managment / *In situ* networking	Population	CONSACTION	Population conservation actions. Conservation actions in place for the population. Indicate whether conservation actions related to the population are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN, GR
Managment / *In situ* networking	Taxon	CONSACTION_TAXON	Taxon conservation actions. Conservation actions in place for the taxon. Indicate wheater conservation actions related to the taxon are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT
Managment	Population	CONS_URL	Conservation URL. Provide the link(s) and reference(s) related to the conservation actions (CONSACTIONPOP, CONSACTIONTAXON). Multiple entries are separated by a semicolon (;) without space.	X	X	X	X	
Managment	Population	CONORG	Conservation organisation. Name of the conservation organisation/s responsible for the conservation action, as described in CONSACTIONPOP and/or CONSACTIONTAXON. Free text.	X	X	X	X	
Managment / *In situ* networking	Taxon	LEGSTATUS	Legal status: Informs whether the taxon is legally protected at the European, national or subnational levels. HD: Habitats Directive; NAT: National level; SUB: Subnational level; NLP=Not legally protected. Multiple values allowed, separated by semi-colon, without space. This descriptor is useful for IUCN red listing.	X	X	X		RL

Managment	Taxon / Population	CONS_REMARKS	Conservation remarks. Additional remarks regarding conservation descriptors. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space. Reference CONSACTION or CONSACTION_TAXON categories if appropriate	X	X	X	X	
Managment / *In situ* networking	Population	INSITU_MANAGE_INTER	Management interventions: What interventions are being done to manage the population e.g. buring, grazing	X	X	X		LRT, IN, GR
Managment	Population	INSITU_MANAGE_URL	Management URL. Any links to management plans and activties related to the *in situ* population. May be the same as CONSACTION	X	X	X		
Ex situ	Population	COLLSITE	Collecting site. Location information below the country level that describes where the accession was collected. This may be the same as OCCURSITE. preferable in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana). If a smaple was not collected for *ex situ* conservation leave this field blank.	X	X	X	X	
Ex situ	Population	INSTCODE	Institute code. Code of the institute where the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number. The current set of Institute Codes is available from the FAO website (http://apps3.fao.org/wiews/).	X	X	X	X	
Ex situ	Population	INSTNAME	Institute name. Name of the institute, legal entity, herbarium, or individual where collected population samples are held (e.g., local or national genebank, herbarium or landowner). If the Managing institute holds the material, the holding institute name should be the same as the Managing institute	X	X	X	X	
Ex situ / *In situ* networking	Population	ACCENUMB	Accession number. This is the unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. 'PI 113869').	X	X	X	X	LRT, IN
Ex situ / *In situ* networking	Population	ACCEDOI	Accession DOI. This is the unique identifier for accessions or specimens collected (e.g., genebank, herbarium, etc.) and is assigned when a sample/specimen is entered into the collection. Ex situ accession DOI	X	X	X	X	LRT, IN
Ex situ	Population	ACCEURL	Accession URL. URL linking to additional data about the ex situ accession, which isn't included above	X	X	X		
Ex situ / *In situ* networking	Population	STORAGE	Type of germplasm storage. 60 *In situ* wild populations 70 *In situ* landrace 80 *In situ* Wild Harvest Plant (WHP)	X	X	X	X	LRT, IN
Monitoring / *In situ* networking	Taxon	NATIONAL_CAT	National red list category. The Red List category according to national criteria. CR: Critically endangered; EN: Endangered; VU: Vulnerable; NT: Near threatened; LC: Least concern; DD: Data deficient; NE: Not evaluated. NOTE: Use the most recent assessment. Enter 'NA' if no national category is used. This descriptor is useful for IUCN red listing.	X	X	X		RL, IN
Monitoring / *In situ* networking	Taxon	REGIONAL_CAT	Regional red list category. The regional Red List category for the taxon. CR: Critically endangered; EN: Endangered; VU: Vulnerable; NT: Near threatened; LC: Least concern; DD: Data deficient; NE: Not evaluated. NOTE: Use the most recent assessment. Enter 'NA' if no national category is used. This descriptor is useful for IUCN red listing.	X	X	X		RL, IN

Monitoring / *In situ* networking	Taxon	THREAT_URL	Threat URL. URL link to the NATIONAL_CAT or REGIONAL_CAT for the Red List. Record information in the format "NATIONAL_CAT:REF or REGIONAL_CAT:REF" I.e. REGIONAL_CAT: https://www.iucnredlist.org/species/162327/5574104 . This descriptor is useful for IUCN red listing.	X	X	X		RL, IN
Monitoring	Population	LRCULTPER	Landrace cultivation period. The length of time the LR was cultivated on that farm as from farmer memory, i.e. cultivated for an unknown number of years, over 50 years, less than 50 years; in the latter case it can be specified the time. See codes in the table below: Code Specific code Does not answer 10 Over 50years 20 Under 50years 30 Less than 10 years ago 31 11-25 years ago 32 26-50 years ago 33		X			
Monitoring	Population	LRSTATUS	Landrace status. The status of the LR on that farm, i.e. whether inherent the farm or reintroduced in the farm as from farmer statement. For 'inherent the farm' a cultivation period over 25 years in that farm should be intended. If introduced/reintroduced from other farms it can be specified from where. See codes in the table below. To be eventually elaborated in REMARKS. Code: 10 Does not answer 20 Inherent (should match with LRCULTPER 20 or 33) 30 Reintroduced by the family which presently cultivates the LR from a different estate belonging to the same family. Provide details under REMARKS. 40 Introduced/Reintroduced from gene bank. Provide Gene Bank name in REMARKS 50 Introduced/Reintroduced from other farms: 51 Neighbouring farm 52 Farm in the same district 53 Farm in different district/country 60 Introduced/Reintroduced from the seed market 99 Other (elaborate in REMARKS)		X			LRT
Monitoring	Population	MOD_CULT	Modern cultivars. The extent of modern cultivars grown near to the LR / CWR or WHP. 10 - 10% area 20 - 20% area 30 - 30% area 40 - 40% area 50 - 50% area 60 - 60% area 70 - 70% area 80 - 80% area 90 - 90% area. or more	X	X	X		LRT

Utilisation	Population	LRSSS	Landrace seed / propogation material supply system. From where the seed (or propagation material in general) initially came, as from farmer statement. See codes in the table below. Code: Informal sector 10 Own family harvest 11 Exchanges with relatives, neighbours 12 Exchanges between close villages via barter system 13 Local / regional market 14 Formal sector 20 Certified material from the seed market 21 Genebank (to be specified from which genebank in REMARKS) 22 Does not answer 30 Other (elaborate in REMARKS) 99		X			
Monitoring	Population	LRCONT	Landrace continuity. Whether the LR maintainer plans to continue to grow LR for the foreseeable future. See codes in the table below. Undecided 10 Will stop next year 20 Will continue, but considers changing within a few years 30 Will continue as long as possible 40 Other (elaborate in REMARKS) 99		X			LRT
Monitoring	Population	WHPCONT	Wild Harvested Plant continuity. whether the person / people harvesting the wild species plan to continue to do this. 10 Undecided 20 Will stop next year 30 Will continue, but considers changing within a few years 40 Will continue as long as possible 99 Other (elaborate in REMARKS)			X		
Utilisation	Population	LRDISTR	Landrace distribution. Whether the LR maintainer plans to give/exchange the LR to/with other growers. If 'Yes', fields related to 'to whom' can be filled in. See codes in the table below. Yes 10 To whom: relative 11 friend or neighbour 12 another grower 13 seed/seedlings-swap event 14 plant genebank 15 No 20 Undecided 30		X			

Monitoring	Population	LRTHREATF	Loss risk as for the maintainer. Risk of losing this LR or WHP as perceived by the interviewed farmer/harvester. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Does not answer/know 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99		X	X		
Monitoring	Population	LRTHREATCT	Loss risk as assessed by the surveying team: Risk of losing this LR or WHP as perceived by the team recording data. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Unable to judge/assess 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99		X	X		
Utilisation	Population	MOTIVE_GH	Motivations for growing or harvesting the taxon. Agronomical traits 10 Easy/simple cultivation required 11 Precocity (early development or maturity) 12 Lateness 13 Lodging resistance 14 High yield 15 Stable yield 16 Resistance to stresses 20 Abiotic factors 21 cold 211 drought 212 high humidity 213 salinity 214 Biotic factors 22 fungal/bacterial/virus 221 insect/nematode/etc 222 Cultural and religious motivations 30 Personal affection 31 Special family food preparations 32 Special family ceremonies 33 Ritual or religious use of the community 34 Local fairs/festivals 35 Historical/collector/amateur interest 36 Quality traits(taste, fragrance, colour, etc.) 40 Market traits (good storability, easy transformation etc.) 50 Other (Elaborate in REMARKS) 99		X	X		

Utilisation	Population	LRSELCRI	Landrace selection criteria. The main criteria used when selecting material for propagation. See codes in the table below. Code Yield 10 Organ size 20 Taste 30 Colour 40 Shape 50 Uniformity 60 Other (Elaborate in REMARKS) 99		X			
Utilisation	Taxon	PPU	Part of the plant used. Part/s of the plant used. See codes in the table below. Multiple choices are allowed separated by a semicolon (;) without space. Code Entire plant 10 Branch 20 Seedling/germinated seed 30 Gall 40 Stem/trunk 50 Bark 60 Leaf 70 Flower/inflorescence 80 Fruit/infructescence 90 Seed 100 Root/corm 110 Exudate 120 Other (Elaborate in REMARKS) 999		X	X		

Utilisation	Taxon	TAXON_PROD_USE	Product use. Type of use of the product obtained from the taxon (excluding use as a genetic resources in breeding for crop improvement): if as direct product or as processed product for larger use. Multiple choices are allowed separated by a semicolon (;) without space. As direct product 10 Food - human 11 Food - animal 12 Spice - aromatic 13 Medicinal purpose 14 Fuel 15 Ornamental purpose 16 As processed product 20 Bakery product 21 Long term storage culinary product (e.g. canned food) 22 Distillery product 23 For oil extraction 24 For textile fibers production 25 Other household goods 26 Construction material 27 Research 40 Unknown 90 Other(elaborate in REMARKS) 99		X	X		
Utilisation	Taxon	PRODEST	Main destination of the product. Where the product from the harvested plant is mainly destined for use. See codes in the table below. Owner's household 10 Market 20 in local market 21 in district / regional markets 22 national markets 23 international sale 24 Other (elaborate in REMARKS) 99		X	X		
Utilisation	Taxon	MARKTDEMAND	Market demand. Demand for the product. See codes in the table below. Does not answer 10 Strong existing market demand 20 Growing market demand 30 Stable market demand 40 Falling market demand 50 Other (elaborate in REMARKS) 99		X	X		LRT
Utilisation	Taxon	BREED_USE	Breeding use. Description of the use the taxon has had or potentially can have in plant breeding for crop improvement, or of the traits known to exist or already donated to the crop. E.g. 'Resistance to broom rape', 'Improved protein content', 'Tolerance of water-logging', 'Bridge species for further taxon crossing'. If no breeding use is known, enter ‘Unknown’.	X	X	X		

Utilisation	Taxon	POTENTIAL_CONFIRMED	Potential confirmed. Whether the taxon has been used to successfully improve crops, or has traits which have the potential to improve crops in the future. Permitted values are: Potential, Confirmed, and Unknown.	X	X	X		
Utilisation	Taxon	BREED_REF	Breeding use reference. The reference(s) to the data source describing the actual or potential use of the taxon in breeding for crop improvement. Multiple references are separated by a semicolon (;) without space.	X	X	X		
Utilisation	Taxon	BREED_RELATED_CROP	Breeding use related crop. The scientific name(s) of the crop(s), which has/have been or potentially could be improved using the CWR taxon, in Latin. Multiple entries are separated by a semicolon (;) without space.	X	X	X		
Utilisation	Taxon	BREED_COMMON_CROP_NAME	Breeding common crop name. The common name(s) of the crop(s) which has/have been or potentially could be improved using the CWR taxon. Multiple entries are separated by a semicolon (;) without space.	X	X	X		
Utilisation	Taxon	PROP_ORGAN	Propagation organ Part of the plant used for propagation. Bulb, cloves, cuttings, offshoots of he main root, root, root sprouts, scion wood, seed or tuber		X			
Utilisation	Taxon	MULTI_ACTOR	Multiplication actors Who multiplies the material? A single person, public body or seed company		X			
Utilisation	Taxon	MAT_EX	Material exchange Multiplication material exchange among farmers/gardeners within the cultivation area. Yes/No		X			
Utilisation	Taxon	CHARACTERIZATION	Characerization. Does the related crop have characterization descriptors? Check https://cgspace.cgiar.org/collections/835fa638-0167-4669-9532-ffc488facc94 0 NO 1 YES	X	X	X		
Utilisation	Taxon	CHARACTERIZATION_URL	Characterization URL. Include link to characterization documentation	X	X	X		
Utilisation	Taxon	USE_REMARKS	Use remarks. Additional remarks regarding the taxon uses. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X		
Utilisation	Taxon	SOCIOECO_CROP	Socioeconomic crop. The common name of the crop or crop group to which the socio-economic data is provided.	X	X	X		
Utilisation	Taxon	SOCIOECO_CRITERION	Socio-economic criterion. The socioeconomic criterion used to define the value of the related crop or crop group. A number of criteria can be used, just two are listed here as examples: (i) calorific value: average annual contribution of crop/crop groups to dietary energy per capita per day over a certain period of time (e.g. last 10 years); (ii) production value: average annual production value over a certain period of time (e.g. last 10 years). Multiple values can be entered, seperated with a semicolon (;) without space	X	X	X		
Utilisation	Taxon	SOCIOECO_VALUE	Socioeconomic value. The numerical value of the socio-economic criterion described in SOCIOECO_CRITERION	X	X	X		

Utilisation	Taxon	SOCIOECO_VALUE_UNIT	Socio-economic value unit. The numerical value unit of of the socio-economic criterion described in SOCIOECO_CRITERION. For monetary value units use the monetary standards at http://www.currency-iso.org/en/home/tables/table-a1.html to indicate the currency.	X	X	X		
Utilisation	Taxon	SOCIOECO_VALUE_LEVEL	Socioeconomic value level. The level at which the socio-economic value of the related crop or crop group in SOCIOECO_VALUE is provided. E.g. global, regional (which region), national (which country).	X	X	X		
Utilisation	Taxon	SOCIOECO_VALUE_REF	Socio-economic value reference. The reference(s) for the socio-economic value of the related crop or crop group. Multiple entries are separated by semicolon (;) without space.	X	X	X		
Utilisation	Taxon	SOCIOECO_REMARKS	Socio-economic remarks. Additional remarks regarding the socio-economic criteria, values, units or levels used. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X		
Utilisation	Taxon	PRODUCT_DESIG	Product designation. Type of geographical designation label PDO, PGI and other national designations		X	X		
Utilisation	Taxon	PRODUCT_LABEL	Product label. Type of other label or brands Commercial brand, quality label		X	X		
Utilisation	Taxon	TAXON_REG	Taxon register.Type of register in which the landrace or WHP is listed. 10 National register 20 Other registers		X	X		
Utilisation	Taxon	TAXON_PROMO	Taxon promotion. Extent of taxon promotion activities. Specific to LR and WHP Local, national or international		X	X		
Other	Taxon / Population	REMARKS	Remarks. The remarks field is used to add notes or to elaborate on descriptors. Prefix remarks with the field name they refer to and make them follow by a colon (:). Distinct remarks referring to different fields are separated by semicolons (;) without space. Examples: The farmer often observes flower colour instability; PRODUCTUSE: chaff also used for fuel pellet and pillow filling; LRMARKTDEMAND: falling locally but growing in the district nearby.	X	X	X	X	
Other	Taxon / Population	COMMENTS	Comments. Comments on data recording issues. The surname and initials of the person making the comment should be written followed by the comment (e.g. J Magos Brehm: the record was...)	X	X	X	X	

Minimum_required_in_situ_descriptors								
Descriptor category	**Descriptor level (taxon, population)**	**Descriptor**	**Description**	**CWR descriptor**	**LR descriptor**	**WHP descriptor**	**Minimum descriptors**	**RL = red listing; LRT = landrace threat assessment; IN = *in situ* network criteria; GR = *in situ* genetic reserve criteria**
Data management identifiers	Taxon / Population	NI_CODE	National Inventory code: Code identifying the National Inventory; the Three-letter ISO 3166-1 code of the country preparing the National Inventory. Exceptions are possible if agreed with EURISCO, such as NGB. Example: NLD	X	X	X	X	
Data management identifiers	Taxon / Population	NI_NAME	National Inventory Name. Name of the national inventory...	X	X	X	X	
Data management identifiers	Population	PUID	*In situ* DOI. Any persistent, unique identifier assigned to the in situ population so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one PUID for each CWR *in situ* population that the National Focal Point considers as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS). Note: for *ex situ* accessions the ACCEDOI or ACCENUMB is used as a unique identifier.	X	X	X	X	
Data management identifiers	Population	POPID	Population identifier. The identifier (sequential number or code) that the National Inventory uses to identify each population. Each distinct population should be given a population unique identifier.	X	X	X	X	
Passport data	Taxon	GENUS	Genus. Genus name for taxon, in Latin. Initial uppercase letter required. Example 1: Vigna Example 2: Vicia	X	X	X	X	
Passport data	Taxon	SPECIES	Species. Specific epithet portion of the scientific name, in Latin, in lower case letters. Example 1: unguiculata Example 2: faba	X	X	X	X	
Passport data	Taxon	SPAUTHOR	Species authority. The authority for the species name. Example 1: (L.) Wald.	X	X	X	X	
Passport data	Taxon	SUBRANK_1	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form). Example: subspecies; subsp	X	X	X	X	
Passport data	Taxon	SUBTAXA_1	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: sesquipedalis	X	X	X	X	
Passport data	Taxon	SUBTAUTHOR_1	Subtaxon authority. The subtaxa authority at the most detailed taxonomic level. Example 1: (L.) Verdc. Example 2: (hort. ex Alef.) Mansf.	X	X	X	X	
Passport data	Taxon	SUBRANK_2	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form), 'Group' (for cultivar group). Example: variety	X	X	X	X	
Passport data	Taxon	SUBTAXA_2	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: minuta	X	X	X	X	
Passport data	Taxon	SUBAUTHOR_2	Sbtaxon authority. The subtaxon authority at the specified subspecific rank level.	X	X	X	X	
Passport data	Taxon	IMAGE	Image. Photo or illustration of the taxon	X	X	X	X	
Passport data	Taxon	TAXON_REMARKS	Taxon remarks. Additonal remark(s) regarding taxon descriptors, including any unique taxon identifiers (which should be added as "Repository:TaxonIdentifier") or clarifications. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X	X	

Passport data	Taxon	CROP_NAME	Related crop. The scientific name(s) of the crop(s) to which the taxon is related, in Latin. Multiple values are separated by a semicolon (;) without space. The use of GRIN Taxonomy is recommended: https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearchcwr. Common name of the crop. Example: 'buckwheat'. In order to increase the comparability of data from different conservation sites/organisations, it is recommended to use the common names as provided by GRIN Taxonomy	X	X	X	X	
Ecogeographic survey	Population	ORIGCTY	Country of Occurrence. Country where the CWR population was observed or inventoried. Use the Three-letter ISO 3166-1 code of the country where the site is located.	X	X	X	X	
Ecogeographic survey	Population	OCCURSITE	Occurrence site. Location information below the country level that describes the site where the population sample was observed, inventoried, preferably in English. This might include the distance in km and direction from the nearest town, village or map grid reference point, (e.g. 7km south of Curitiba in the state of Parana).	X	X	X	X	
Ecogeographic survey	Population	DECLATITUDE	Decimal degrees latitude. Latitude of the site expressed in decimal degrees. Positive values are North of the Equator; negative values are South of the Equator (e.g., -44.6975).	X	X	X	X	
Ecogeographic survey	Population	DECLONGITUDE	Decimal degrees longitude Longitude of the site expressed in decimal degrees. Positive values are East of the Greenwich Meridian; negative values are West of the Greenwich Meridian (e.g., -120.9123).	X	X	X	X	
Ecogeographic survey	Population	COORDUNCERT	Coordinate uncertainity [m]. Uncertainity assoicated with the coordinates in meters. Leave the value empty if the uncertainity is unknown	X	X	X	X	
Ecogeographic survey	Population	ELEVATION	Elevation. Elevation of the occurrance site expressed in meters above sea level e.g. the centrum height of height range. Negative values are allowed	X	X	X	X	
Ecogeographic survey	Population	POP_AREA	Population area. Area of population being assessed (ha)	X	X	X	X	
Ecogeographic survey / *In situ* networking	Taxon	DIST_STATUS	Distribution status. The distribution status of the taxon within the geographic area of the checklist or inventory. Note: 'Regional' is defined here as a geographic area comprising different countries (e.g. Europe, the Mediterranean region, the SADC region, Sub-Saharan Africa, Mesoamerica) rather than a sub-unit within a country (Magos Brehm *et al.*, 2017). 10 Native 11 National endemic 12 Regional endemic 20 Introduced 30 Archeophyte 40 Neophyte 90 Unknow 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN
Ecogeographic survey	Taxon	DIST_REF	Distribution reference.The reference(s) to the information source(s) describing the distribution of the taxon. Multiple references are separated by a semicolon (;) without space.	X	X	X	X	
Ecogeographic survey	Taxon	DIST_REMARKS	Distribution remarks. Additonal remarks regarding the taxon distribution. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by a semicolons (;) without space.	X	X	X	X	

Data management identifiers / *In situ* networking	Population	MAINTAINER_CODE	Maintainer code: FAO WIEWS code of the institution responsible for, and/or organization or individual, that holds rights or is responsible for the *in situ* population (e.g. farmer, protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. Research organisations can use codes from https://ror.org/.	X	X	X	X	IN
Data management identifiers	Population	MAINTAINER_CODE_REF	Reference use for the MAINTAINER_CODE. i.e. "FAO WIEWS"	X	X	X	X	
Data management identifiers / *In situ* networking	Population	MAINTAINER_NAME	Maintainer name: Name of the institute, organisation or individual that holds rights or is responsible for the *in situ* population. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X	IN
Data management identifiers	Population	MAINTAINER_ADDRESS	Maintainer address: Managing institute, organisation or individual individual address related to MAINTAINER_CODE or MAINTAINER_NAME. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X	
Data management identifiers	Population	MAINTAINER_T	Maintainer tenancy of the land. Multiple options are allowed and should be seperated by semicolons (;) without space. 10 Owner 20 Tenant 30 Life tenant 40 Cultivating public land 50 Managing land only 99 Other (elaborate in REMARKS)	X	X	x	X	
Data management identifiers	Population	INSITU_ACCESS	*In situ* access. Access to the *in situ* resource from the site being surveyed. How can the resource be accessed? 10 Via a genebank accession 20 Direct from wild *in situ* source 30 Direct from on-farm source	X	X	X	X	
Utilisation / *In situ* networking	Population	MLSSTAT_INSITU	Multilateral System status of the *in situ* material. The status of the PGRFA with regard to the Multilateral System of Access and Benefit-Sharing (MLS) of the international Treaty on PGRFA. Applicable if there is direct access to the *in situ* material. Leave the value empty if the status is not know. 0 No (not available under the MLS) 1 Yes (available under the MLS) 99 Other (elaborate in REMARKS field, e.g. 'under development')	X	X	X	X	IN, GR
Data management identifiers	Population	LIAISONCODE	Liasison institute code. FAO WIEWS code of the institution that can liaise between the organization managing the CWR population and the interested user. Research organisations can use codes from https://ror.org/. For those institutes not yet having a FAO WIEWS code, or for those with ‘obsolete’ codes, see section ‘General formatting rules’	X	X	X	X	
Data management identifiers	Population	LIAISONNAME	Liaison institute name. Name, and brief address, of the institution that can liaise between the organization managing the CWR population and the interested user.	X	X	X	X	

Ecogeographic survey	Population	OBSDATE	Observation date [YYYYMMDD]: The most recent date the *in situ* population was observed, where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero]. (e.g. 2024-06-10)	X	X	X	X	
Ecogeographic survey	Population	FIRST_OBSDATE	First observation date. Date [YYYYMMDD] of the first observation of the *in situ* popoulation and its inclusion into the nationa inventory. This may be the same as the OBSDATE if it is the first time recording the popoulation.	X	X	X	X	
Ecogeographic survey	Population	PRESENCE_IN_PA	Presence in a protected area. Indicate whether the population is known to be present in a protected area. This can include the whole population or just part of a population. 10 Present in a protected area 20 Not present in a protected area	X	X	X	X	GR
Ecogeographic survey	Population	PA_NAME	Protected area name. Name of protected area the surveyed or sampled population is found within. Only applicable if the popualtion being surveyed is within a PA	X	X	X	X	GR
Ecogeographic survey	Population	PA_CODE	Protected area code. Code of protected area, if available	X	X	X	X	GR
Ecogeographic survey	Population	SITEPROT	Site protection. Indicate whether the site is under any legal or offical legislation. Following these guidelines: https://portals.iucn.org/library/node/30018 0 No (not protected) 1 Strict nature reserve 2 Wilderness area 3 National park 4 Natural monument or feature 5 Habitat/species management area 6 Protected landscape/seascape 7 Protected area with sustainable use of natural resources 8 Other effective conservation measures (OECM) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, GR
In situ networking	Population	INSITU_NET	*In situ* network. Is the population / site part of an *in situ* network. Yes/No	X	X	X	X	IN
Monitoring	Population	INSITU_MON_ORG	*In situ* monitoring organisation. Organisation/s responsible for the demographic monitoring of the *in situ* population. Multiple values seperated by a semicolon.	X	X	X	X	GR
Monitoring	Population	INSITU_MON_INT	Demogaphic monitoring interval. How often the popualtion is monitored, in years. Inlcude information on demographic monitoring and genetic diversity monitoring e.g. demographic:5 years ; genetic:15 years. Leave blank if not monitored	X	X	X	X	GR
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON	*In situ* genetic monitoring. Is there any *in situ* genomic genetic diversity monitoring taking place on the popualtion? Yes/No	X	X	X	X	IN, GR
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON_URL	*In situ* genetic monioring URL. Include links to genetic diversity monitoring plans related to the in situ population	X	X	X	X	IN, GR

Monitoring	Population	THREAT_INSITU	Threat to the *in situ* population. List any threats apparent to the *in situ* population, using the IUCN threats classification scheme. Main threats listed below with more information here: https://www.iucnredlist.org/resources/threat-classification-scheme. 01 Residential and commercial development 02 Agriculture and aquaculture 03 Energy production and mining 04 Transportation and service corridors 05 Biological resource use 06 Human intrusions and disturbance 07 Natural system modifications 08 Invasive and other problematic species, genes, diseases 09 Pollution 10 Geological events 11 Climate change and sever weather 99 Other (elaborate in REMARKS)	X	X	X	X	RL
Monitoring	Population	SAMPSTAT_INSITU	Biological status of the *in situ* population. The coding scheme proposed can be used at different levels of detail, either by using the general codes (in boldface), such as 100 or 200, or by using the more specific codes such as 110, 120 or 130. 100 Wild 110 Natural 120 Semi-natural/wild 130 Semi-natural/sown 200 Weedy 999 Other (elaborate in REMARKS field)	X	X	X	X	
Monitoring	Population	NUM_IND	Number of individuals in the *in situ* popuation (being assessed). See codes below 001 - 1 to 50 005 - 51 to 150 010 - 151 to 300 025 - 301 to 500 050 - 501 to 750 060 - 751 to 1,000 070 - 1,001 or more This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT, GR

Ecogeographic survey	Population	POPSRC	Status of the occurrence site. Status of the occurrence site of the population. The coding scheme proposed can be used at different levels of detail: either by using the general codes (in boldface) such as 10, 20 etc., or by using the more specific codes, such as 11.12, etc. Multiple vlaues are seperated by a semicolon without space. 10) Wild habitat 11) Forest or woodland 12) Shrubland 13) Grassland 14) Desert or tundra 15) Aquatic habitat 20) Farm or cultivated habitat 21) Field 22) Orchard 23) Backyard, kitchen or home garden (urban, peri-urban or rural) 24) Fallow land 25) Pasture 28)Park 60) Weedy, distrubed or ruderal habitat 61) Roadside 62) Field margin 99) Other (Elaborate in REMARKS field)	X	X	X	X	
Ecogeographic survey	Population	POPURL	Population URL. URL linking to additional ecogeographic data about the *in situ* population.	X	X	X	X	
Managment / *In situ* networking	Population	CONSACTION	Population conservation actions. Conservation actions in place for the population. Indicate whether conservation actions related to the population are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN, GR
Managment	Taxon	CONSACTION_TAXON	Taxon conservation actions. Conservation actions in place for the taxon. Indicate wheater conservation actions related to the taxon are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT
Managment	Population	CONS_URL	Conservation URL. Provide the link(s) and reference(s) related to the conservation actions (CONSACTIONPOP, CONSACTIONTAXON). Multiple entries are separated by a semicolon (;) without space.	X	X	X	X	

Managment	Population	CONORG	Conservation organisation. Name of the conservation organisation/s responsible for the conservation action, as described in CONSACTIONPOP and/or CONSACTIONTAXON. Free text.	X	X	X	X	
Managment	Taxon / Population	CONS_REMARKS	Conservation remarks. Additional remarks regarding conservation descriptors. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space. Reference CONSACTION or CONSACTION_TAXON categories if appropriate	X	X	X	X	
Ex situ	Population	COLLSITE	Collecting site. Location information below the country level that describes where the accession was collected. This may be the same as OCCURSITE. preferable in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana). If a smaple was not collected for *ex situ* conservation leave this field blank.	X	X	X	X	
Ex situ	Population	INSTCODE	Institute code. Code of the institute where the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number. The current set of Institute Codes is available from the FAO website (http://apps3.fao.org/wiews/).	X	X	X	X	
Ex situ	Population	INSTNAME	Institute name. Name of the institute, legal entity, herbarium, or individual where collected population samples are held (e.g., local or national genebank, herbarium or landowner). If the Managing institute holds the material, the holding institute name should be the same as the Managing institute	X	X	X	X	
Ex situ / *In situ* networking	Population	ACCENUMB	Accession number. This is the unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. 'PI 113869').	X	X	X	X	LRT, IN
Ex situ / *In situ* networking	Population	ACCEDOI	Accession DOI. This is the unique identifier for accessions or specimens collected (e.g., genebank, herbarium, etc.) and is assigned when a sample/specimen is entered into the collection. Ex situ accession DOI	X	X	X	X	LRT, IN
Ex situ / *In situ* networking	Population	STORAGE	Type of germplasm storage. 60 *In situ* wild populations 70 *In situ* landrace 80 *In situ* Wild Harvest Plant (WHP)	X	X	X	X	LRT, IN
Other	Taxon / Population	REMARKS	Remarks. The remarks field is used to add notes or to elaborate on descriptors. Prefix remarks with the field name they refer to and make them follow by a colon (:). Distinct remarks referring to different fields are separated by semicolons (;) without space. Examples: The farmer often observes flower colour instability; PRODUCTUSE: chaff also used for fuel pellet and pillow filling; LRMARKTDEMAND: falling locally but growing in the district nearby.	X	X	X	X	
Other	Taxon / Population	COMMENTS	Comments. Comments on data recording issues. The surname and initials of the person making the comment should be written followed by the comment (e.g. J Magos Brehm: the record was...)	X	X	X	X	

All_descriptors_references																		
Descriptor category	**Descriptor level (taxon, population)**	**Descriptor**	**Description**	**CWR descriptor**	**LR descriptor**	**WHP descriptor**	**Minimum descriptors**	**RL = red listing; LRT = landrace threat assessment; IN = *in situ* network criteria; GR = *in situ* genetic reserve criteria**	**EURISCO, 2025. Descriptors for uploading *in situ* CWR passport data to EURISCO**	**FAO/Bioversity, 2015. Multi Crop Passport Descriptors**	**Alercia *et al.*, 2022. Descriptors for Crop Wild Relatives conserved *in situ***	**Magos Brehm. J., *et al*, 2017. Occurrence data collation template V1.**	**Thormann *et al.*, 2017. CWR inventory and checklist template**	**Moore *et al.*, 2008. CWRML: representing CWR conservation and use data in XML**	**Caproni, L., *et al., 2020. In situ* landrace propagation mangement and access guidelines**	**Negri, V., *et al., 2012.* Descriptors for web-enabled national *in situ* inventories**	**Phillips, J., *et al.*, (2025)**	**Other**
Data management identifiers	Taxon / Population	NI_CODE	National Inventory code: Code identifying the National Inventory; the Three-letter ISO 3166-1 code of the country preparing the National Inventory. Exceptions are possible if agreed with EURISCO, such as NGB. Example: NLD	X	X	X	X		Code identifying the National Inventory; the Three-letter ISO 3166-1 code of the country preparing the National Inventory. Exceptions are possible if agreed with EURISCO, such as NGB. Example: NLD						X	X		
Data management identifiers	Taxon / Population	NI_NAME	National Inventory Name. Name of the national inventory...	X	X	X	X										X	
Data management identifiers	Taxon / Population	NI_URL	National Inventory URL: Include like to the National Inventory	X	X	X											X	
Data management identifiers	Taxon / Population	NC_URL	National Checklist URL: Include link to the National Checklist	X	X	X											X	
Data management identifiers	Taxon / Population	RI_CODE	Regional Inventory Code. Code identifiying the regional inventory the taxon occurs in. The code is composed of the M49 region name, the M49 region code from https://unstats.un.org/unsd/methodology/m49/, the edition of the Checklist and the year. Example: Europe_150_001_2024. Possible regions and codes are: Africa 002 Americas 019 Antartica 010 Asia 142 Europe 150 Oceania 009 New region codes may be used if region not listed in M49 list.	X	X	X											X	

Data management identifiers	Population	PUID	*In situ* DOI. Any persistent, unique identifier assigned to the in situ population so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one PUID for each CWR *in situ* population that the National Focal Point considers as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS). Note: for *ex situ* accessions the ACCEDOI or ACCENUMB is used as a unique identifier.	X	X	X	X		PUID. Any persistent, unique identifier assigned to the **accession** so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one PUID for each accession. The Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA) is facilitating the assignment of a persistent unique identifier (PUID), in the form of a DOI, toPGRFA at the accession level (http://www.fao.org/plant-treaty/areas-of-work/global-information-system/DOI/en/). Note: This descriptor should be assigned only to those CWR populations that the National Focal Pointconsiders as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS).	PUID. Any persistent, unique identifier assigned to the **accession** so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one PUID for each accession. The Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA) is facilitating the assignment of a persistent unique identifier (PUID), in the form of a DOI, toPGRFA at the accession level (http://www.fao.org/plant-treaty/areas-of-work/global-information-system/DOI/en/). Note: This descriptor should be assigned only to those CWR populations that the National Focal Pointconsiders as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS).	*In situ* PUID. Any persistent, unique identifier assigned to the *in situ* population so it can be unambiguously referenced at the global level and the information associated with it harvested through automated means. Report one PUID for each CWR *in situ* population that the National Focal Point considers as long-term available sources of germplasm (e.g. the population is being monitored and potentially available under the terms of the MLS). Note: for ex situ accessions the ACCEDOI or ACCENUMB is used as a unique identifier.							
Data management identifiers	Population	POPID	Population identifier. The identifier (sequential number or code) that the National Inventory uses to identify each population. Each distinct population should be given a population unique identifier.	X	X	X	X				Population identifier. The identifier (sequential number or code) that you use to i**dentify the population.** Each distinct population should be given a unique population identifier.	ID. The occurrence record unique identifier – it corresponds to consecutive numbers that identify accessions default auto-increment. All cells in this field must be filled with a code. NA code is not allowed.					X	
Passport data	Taxon	FAMILY	Family. Family name for taxon in latin. Initial uppercase letter required.	X	X	X							FAMILY. Taxon family, in Latin. Initial uppercase letter required.					
Passport data	Taxon	GENUS	Genus. Genus name for taxon, in Latin. Initial uppercase letter required. Example 1: Vigna Example 2: Vicia	X	X	X	X		X	X	**X**	X	X	Genus	X	X		Wieczorek. J., *et al*. (2012) Darwin Core.

Passport data	Taxon	SPECIES	Species. Specific epithet portion of the scientific name, in Latin, in lower case letters. Example 1: unguiculata Example 2: faba	X	X	X	X		X	X	**X**	X	X	FirstEpithet	X	X		Wieczorek. J., *et al.* (2012) Darwin Core.
Passport data	Taxon	SPAUTHOR	Species authority. The authority for the species name. Example 1: (L.) Wald.	X	X	X	X		X	X	X	X	SPECIES_AUTHORITY	AuthorTerm		SPAUTHOR		Wieczorek. J., *et al.* (2012) Darwin Core.
Passport data	Taxon	SUBRANK_1	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form). Example: subspecies; subsp	X	X	X	X					RANK1. The rank of the final accepted subtaxon epithet if there is one. FORCED STANDARDS for subsp., var., f., convar., subvar., subconvar., nothovar., nothosubsp., subforma, race, aff., cf. NA is applicable when there is no subtaxon epithet.	SUB_RANK_1. The subspecific rank (for example: subspecies, variety, form). The following abbreviations are allowed: 'subsp.' (for subspecies); 'var.' (for variety); 'subvar.' (for subvariety); 'f.' (for form); and 'Group' (for cultivar group)	Rank				Wieczorek. J., *et al.* (2012) Darwin Core.
Passport data	Taxon	SUBTAXA_1	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: sesquipedalis	X	X	X	X		SUBTAXA	SUBTAXA	SUBTAXA	SUBTAXA	SUB_TAXON_1. Subspecific epithet portion of the scientific name, in Latin, in lowercase letters.	SecondEpithet		X		Wieczorek. J., *et al.* (2012) Darwin Core.
Passport data	Taxon	SUBTAUTHOR_1	Subtaxon authority. The subtaxa authority at the most detailed taxonomic level. Example 1: (L.) Verdc. Example 2: (hort. ex Alef.) Mansf.	X	X	X	X		SUBAUTHOR	SUBAUTHOR	SUBAUTHOR	SUB_AUTHOR	SUB_AUTHOR_1. The subtaxon authority at the specified subspecific rank level.			X		
Passport data	Taxon	SUBRANK_2	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form), 'Group' (for cultivar group). Example: variety	X	X	X	X					RANK2	SUB_RANK_2. The subspecific rank (for example: subspecies, variety, form). The following abbreviations are allowed: 'subsp.' (for subspecies); 'var.' (for variety); 'subvar.' (for subvariety); 'f.' (for form); and 'Group' (for cultivar group)					
Passport data	Taxon	SUBTAXA_2	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Example: minuta	X	X	X	X					SUB-SUBTAXA	SUB_TAXON_2Subspecific epithet portion of the scientific name, in Latin, in lowercase letters.					
Passport data	Taxon	SUBAUTHOR_2	Sbtaxon authority. The subtaxon authority at the specified subspecific rank level.	X	X	X	X					SUB-SUBTAUTHOR	SUB_AUTHOR_2. The subtaxon authority at the specified subspecific rank level.					

Passport data	Taxon	SUBRANK_3	Subrank. The following abbreviations are foreseen for the rank: 'subsp.' (for subspecies); 'convar.' (for convariety); 'var.' (for variety); 'f.' (for form), 'Group' (for cultivar group). Examples: subvariety, forma, subforma	X	X	X							SUB_RANK_3. The subspecific rank (for example: subspecies, variety, form). The following abbreviations are allowed: 'subsp.' (for subspecies); 'var.' (for variety); 'subvar.' (for subvariety); 'f.' (for form); and 'Group' (for cultivar group)					
Passport data	Taxon	SUBTAXA_3	Subtaxa. This field can be used to an additional taxonomic identifier (in Latin, in lower case letters). Rank is recorded in SUBRANK. Examples: name of a subvariety, name of forma, name of subforma	X	X	X							SUB_TAXON_3. Subspecific epithet portion of the scientific name, in Latin, in lowercase letters.					
Passport data	Taxon	SUBAUTHOR_3	Subtaxon authority. The subtaxon authority at the specified subspecific rank level.	X	X	X							SUB_AUTHOR_3. The subtaxon authority at the specified subspecific rank level.					
Passport data	Taxon	TAX_REF	Taxon reference. Taxonomy reference used, if known and applicable.										he taxonomic reference(s) used to identify the taxon. Multiple references are separated by a semicolon (;) without space.					
Passport data	Taxon	SYNONYMS	Synonyms. Synonym(s) of the taxon, in Latin. Enter the synonym along with the repository it is listed in i.e Repository:Synonym. Multiple names are separated by a semicolon (;) without space. Enter 'NA' (not applicable) or 'Unknown' if there are no synonyms or if synonym was not checked.	X	X	X							Synonym(s) of the taxon, in Latin. Multiple names are separated by a semicolon (;) without space. Enter 'NA' (not applicable) or 'Unknown' if there are no synonyms or if synonymy was not checked.	Principal Synonyms				Wieczorek. J., *et al.* (2012) Darwin Core.
Passport data	Taxon	COMMON_NAME	Name(s) of the taxon in colloquial language (if applicable). Multiple entries are separated by a semicolon (;) without space. If no common name is known, enter 'Unknown'. (https://npgsweb.arsgrin.gov/gringlobal/taxon/abouttaxonomy.aspx?chapter=common). Name(s) of the taxon (including landraces and wild harvest plants) in colloquial language (if applicable). Multiple entries are separated by a semicolon (;) without space. If no common name is known, enter 'Unknown'.	X	X	X							Name(s) of the taxon in colloquial language (if applicable). Multiple entries are separated by a semicolon (;) without space. If no common name is known, enter 'Unknown'.	Vernacular Name				
Passport data	Taxon	COMMON_NAME_LAN	Language of common name. Language of common name (Standard: ISO 639-2; https://www.iso.org/iso-639-language-codes.html; http://www.loc.gov/standards/iso639-2/php/code_list.php). Provide the ISO code. Multiple values are separated by a semicolon (;) without space.	X	X	X							LAN_COMMON_NAME. Language of common name (Standard: ISO 639-2; https://www.iso.org/iso-639-language-codes.html; http://www.loc.gov/standards/iso639-2/php/code_list.php). Provide the ISO code. Multiple values are separated by a semicolon (;) without space.					

Passport data	Taxon	IMAGE	Image. Photo or illustration of the taxon	X	X	X	X							Photo / Illustration			X	
Passport data	Taxon	TAXON_REMARKS	Taxon remarks. Additonal remark(s) regarding taxon descriptors, including any unique taxon identifiers (which should be added as "Repository:TaxonIdentifier") or clarifications. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X	X						Additonal remark(s) regarding taxon descriptors. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.					
Passport data	Taxon	CROP_NAME	Related crop. The scientific name(s) of the crop(s) to which the taxon is related, in Latin. Multiple values are separated by a semicolon (;) without space. The use of GRIN Taxonomy is recommended: https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearchcwr. Common name of the crop. Example: 'buckwheat'. In order to increase the comparability of data from different conservation sites/organisations, it is recommended to use the common names as provided by GRIN Taxonomy	X	X	X	X			CROPNAME. Common crop name. Common name of the crop. Example: 'malting barley', 'macadamia', 'maïs'.			RELATED_CROP. The scientific name(s) of the crop(s) to which the taxon is related, in Latin. Multiple values are separated by a semicolon (;) without space.	CultivatedPlantName				Wieczorek. J., *et al.* (2012) Darwin Core. "Closest relative"
Passport data	Taxon	CROP_USE	Crop use. The use type(s) of the crop(s) to which the taxon is related.	X	X	X							CROP_USE. The use type(s) of the crop(s) to which the taxon is related according to Level 1 states adapted from Cook (1995). Multiple entries are separated by a semicolon (;) without space. E.g. Food					
Passport data	Taxon	CROP_USE_REF	Crop use reference. The reference(s) used for identifying the crop use. This could be a link to website or a reference to a document	X	X	X											X	
Passport data	Taxon	CONCEPT_TYPE	Concept type(s). Concept type(s) to which the taxon belongs (see Maxted et al., 2006). Permitted values are: Gene Pool, Taxon Group, and Unknown. Multiple values are separated by a semicolon (;) without space and should correspond to those entries in RELATED_CROP.	X	X	X							CONCEPT_TYPE. Concept type(s) to which the taxon belongs (see Maxted *et al.*, 2006). Permitted values are: Gene Pool, Taxon Group, and Unknown. Multiple values are separated by a semicolon (;) without space. E.G. Taxon group					
Passport data	Taxon	CONCEPT_LEVEL	Concept level(s). Concept level(s) to which the taxon belongs (see Maxted *et al.*, 2006). Permitted values are: 1A, 1B, 2, 3 (for both Gene Pool and Taxon Group), 4, 5 (for Taxon Group only), and Unknown. Multiple values are separated by a semicolon (;) without space and should correspond to those enteries in RELATED_CROP and CONCEPT_TYPE.	X	X	X							CONCEPT_LEVEL. Concept level(s) to which the taxon belongs (see Maxted *et al.*, 2006). Permitted values are: 1A, 1B, 2, 3 (for both Gene Pool and Taxon Group), 4, 5 (for Taxon Group only), and Unknown. Multiple values are separated by a semicolon (;) without space. E.g. 4					

Passport data	Taxon	CONCEPT_REF	Concept reference(s). The reference(s) for the applied Gene Pool or Taxon Group concept. Multiple entries are separated by a semicolon (;) without space and should correspond to those entries in RELATED_CROP, CONCEPT_TYPE and CONCEPT_LEVEL	X	X	X							CONCEPT_REF. The reference(s) for the applied Gene Pool or Taxon Group concept. Multiple entries are separated by a semicolon (;) without space.					
Passport data	Taxon	GENE_POOL_REMARKS	Gene pool remarks. Additional remarks regarding the taxon Gene Pool or Taxon Group. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X							GENE_POOL_REMARKS. Additional remarks regarding the taxon Gene Pool or Taxon Group. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space. CROP_USE: Food – fruits (savoury)					
Passport data	Taxon	MATE_SYSTEM	Mating system. The mating system of the taxon. Permitted values are: Allogamous, Autogamous, Unknown. Multiple values are allowed, seperated by a semi-colon (;)	X	X	X							BREED_SYSTEM: The breeding system of the taxon. Permitted values are: Allogamous, Autogamous, Mixed mating, and Unknown.	Breeding system. Allogamous, autogamous, auto-allogamous	Mating system Mating system of the landrace species. Allogamous; autogamous, clonal			
Passport data	Taxon	REP_SYSTEM	Reproductive system. Permitted values are: Allogamous, Autogamous, Mixed mating, Clonal, Unknown. Multiple values are allowed, seperated by a semi-colon ;	X	X	X							REP_SYSTEM. The reproductive system of the taxon. Permitted values are: Sexual, Vegetative, and Unknown.	Reproductive system. Sexual, vegetative				
Passport data	Taxon	SEX_STRUCT	Sex structure. The sex structure of the taxon. Permitted values are: Hermaphrodite, Monoecy, Andromonoecy, Gynomonoecy, Polygamomonoecy, Dioecy, Androdioecy, Gynodioecy, Polygamodioecy, Apomictic, Other, and Unknown.	X	X	X							SEX_STRUCT. The sex structure of the taxon. Permitted values are: Hermaphrodite, Monoecy, Andromonoecy, Gynomonoecy, Polygamomonoecy, Dioecy, Androdioecy, Gynodioecy, Polygamodioecy, Apomictic, Other, and Unknown.	Flower / plant sex struture. Hermaphrodite, monoecious, dioecious				
Passport data	Taxon	POLLINATION	Pollination. The pollination method(s) of the taxon. Permitted values are: Ants, Bats, Bees (and other flying Hymeoptera), Beetles, Birds, Butterflies and moths (and other Lepidoptera), Flies (and other Diptera), Moths, Wind, Water, Other, Unknown, and Not applicable. Multiple values are separated by semicolons (;) without space.	X	X	X							POLLINATION. The pollination method(s) of the taxon. Permitted values are: Ants, Bats, Bees (and other flying Hymeoptera), Beetles, Birds, Butterflies, Flies (and other Diptera), Moths, Wind, Other, Unknown, and Not applicable. Multiple values are separated by semicolons (;) without space.	Pollination. Wind pollinate, insect pollinated				

Passport data	Taxon	LIFE_FORM	Life form. The life form of the taxon. Permitted values are: Phanerophytes, Nanophanerophytes, Herbaceous phanerophytes, Chamaephytes, Hemicryptophytes, Geophytes, Therophytes, Epiphytes, Helophytes, Hydrophytes, and Unknown.	X	X	X							LIFE_FORM. The life form of the taxon. Permitted values are: Phanerophytes, Nanophanerophytes, Herbaceous phanerophytes, Chamaephytes, Hemicryptophytes, Geophytes, Therophytes, Epiphytes, Helophytes, Hydrophytes, and Unknown.	Life form				
Passport data	Taxon	LIFE_SPAN	Life span. The life span of the taxon. Permitted values are: Annual, Perennial, Biennial, Annual and Biennial (for combined forms) and Unknown.	X	X	X							LIFE_SPAN. The life span of the taxon. Permitted values are: Annual, Perennial, Biennial, and Unknown.	Life span. Annual, biannual, winterannual, perennial				
Passport data	Taxon	SEED_DISPERSAL	Seed dispersal. The seed dispersal mechanism of the taxon. Permitted values are: Animal (zoochory), Wind (anemochory), Water (hydrochory), Methods originating from the parent plant or diaspore (autochory), Unassisted (barochory), Dispersal prevented (atelochory, antitelochory), Unknown, and Not applicable.	X	X	X							SEED_DISPERSAL. The seed dispersal mechanism of the taxon. Permitted values are: Animal (zoochory), Wind (anemochory), Water (hydrochory), Methods originating from the parent plant or diaspore (autochory), Unassisted (barochory), Dispersal prevented (atelochory, antitelochory), Unknown, and Not applicable.						
Passport data	Taxon	CHROMOS_NUM	Chromosome number. The chromosome number(s) of the taxon. Multiple values are separated by a semicolon (;) without space.	X	X	X							CHROMOS_NUM. The chromosome number(s) of the taxon. Multiple values are separated by a semicolon (;) without space.					
Passport data	Population	GEN_TIME	Generation time. Number of years from germination to maturity for the population being sampled or surveyed.	X	X	X								Generation time. Number of years from germination to maturity.				
Passport data	Taxon	HABIT	Growth habit. Most common growth habit of the taxon. 10 Herb 15 Vine 20 Shrub 30 Tree	X	X	X								Habit. Herb, srub, tree, climber				

Passport data	Taxon	BIOLOGY_REMARKS	Remarks on biology. Additional remarks regarding the biology of the taxon. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X							BIOLOGY_REMARKS. Additional remarks regarding the biology of the taxon. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.					
Passport data	Population	FL_CODE	Flowering status. Are there individuals in flower? 1 = in flower or in bud; 0 = not in flower or in bud. NA is applicable when there is no information available.	X	X	X						X						
Passport data	Population	FR_CODE	Fruiting status. Are thre individuals in fruit or seed? 1 = in fruit or in cones, or with seeds; 0 = not in fruit or in cones, without seeds. NA is applicable when there is no information available.	X	X	X						X						
Passport data	Taxon	SEED_DORMANCY	Seed dormancy. Is seed dormancy detected in this species? Yes or No. Seed dormancy is important in the formation of a soil seed bank and influences their dispersal and therefore conservation.	X	X	X											X	
Passport data	Taxon	SEED_DORMANCY_REF	Seed dormancy reference. References related to seed dormancy if detected.	X	X	X											X	
Ecogeographic survey	Population	ORIGCTY	Country of Occurrence. Country where the CWR population was observed or inventoried. Use the Three-letter ISO 3166-1 code of the country where the site is located.	X	X	X	X		Three-letter ISO 3166-1 code of the country where the CWR population was observed or inventoried. NOTE: The name and description of this descriptor have been changed to apply to in situ CWR.	Country of Origin. 3-letter ISO 3166-1 code of the country in which the sample originated.	Country where the CWR population was observed or inventoried. Use the Three-letter ISO 3166-1 code of the country where the site is located.	ORIGCTY. The country of origin: 3-letter ISO 3166-1 code of the country in which the herbarium specimen/geneb ank accession was originally collected OR the taxon was observed in the field OR the taxon was referred to in a bibliographic reference OR internet OR in a personal communication. If you need to know what code correspond to each country, please see 'worksheet adm_field_per_country'.		CountryName / Code (ISO2letter, ISO3letter)				
Ecogeographic survey	Population	SITE_NAME	Site name. The name of the *in situ* maintenance site where the material is found or was collected from. Should only be filled in if no FAO WIEWS code exists. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X											X	
Ecogeographic survey	Population	SITE_ID	Site identification. The *in situ* site identification code. This should be unique to the site and decided by the surveyor. Multiple popoulations may have the same SITE_ID.	X	X	X											X	

Ecogeographic survey	Population	SITEADDRESS	Site address. The *in situ* site maintenance address where the material is found or was collected from. This is more appropriate for areas under cultivation. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X												X	
Ecogeographic survey	Population	ADM1	Administration level one. Name of the primary administrative subdivision of the country where the site is located, or where the population was collected from. Free text. Example: Umbria Region Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X						ADM1		AdministrtiveUnit. Name, code		X			
Ecogeographic survey	Population	ADM2	Administration level two. Name of the secondary administrative subdivision (within the primary administrative subdivision) of the country where the site is located, or where the population was collected from. Free text. Example: Perugia Province Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X						ADM2				X			
Ecogeographic survey	Population	ADM3	Administration level three. Name of the third administrative division where the site is located or where the popualtion was collected from. Free text. Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X						ADM3				X			
Ecogeographic survey	Population	ADM4	Administration level four. Name of the fourth administrative division where the site is located or where the population was collected from. Each country has different structure of administrative levels, however all structures are hierarchical. The hierarchical structure used is the Global Administrative Database (www.gadm.org) structure. See worksheet 'adm_field_per_country' of this Excel file for the administrative structure you must use for your country.	X	X	X						ADM4							

Ecogeographic survey	Population	OCCURSITE	Occurrence site. Location information below the country level that describes the site where the population sample was observed, inventoried, preferably in English. This might include the distance in km and direction from the nearest town, village or map grid reference point, (e.g. 7km south of Curitiba in the state of Parana).	X	X	X	X		COLLSITE. Location information below the country level where the population sample was observed. This might include the distance in km and direction from the nearest town, village or map grid reference point (e.g. 7km east of Wageningen in the province of Gelderland). NOTE: The name and description of this descriptor have been changed to apply to in situ CWR.		Location of occurrence site. Location information below the country level tha describes the site where the popualtion sample was observed or inventoried. This might include the distance in km and direction from the nearest place, town, village or map grid reference point.	COLLSITE. The location of the occurrence site [herbarium specimen OR genebank accession OR the field observation OR the site referred to in a bibliographic reference OR internet OR from a personal communication]: location information below the lowest administrative level (for each country) that describes where the accession was collected, preferably in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana).		NearestNamedPlace.				
Ecogeographic survey	Population	DECLATITUDE	Decimal degrees latitude. Latitude of the site expressed in decimal degrees. Positive values are North of the Equator; negative values are South of the Equator (e.g., -44.6975).	X	X	X	X		Latitude expressed in decimal degrees. Positive values are north of the Equator; negative values are south of the Equator (e.g. -44.6975). NOTE: The name of this descriptor has been changed to apply to in situ CWR. The accuracy of this information that is going to be disseminated may be adjusted as considered appropriate by each country.	Decimal degrees format. Latitude expressed in deceimal degrees. Positive values are North of the equator; negative values are South of the equator(e.g. -44.6975)	Latitude of the site expressed in decimal degrees. Positive values are North of the Equator; negative values are South of the Equator (e.g., -44.6975).	The final latitude (in decimal degrees) of the occurrence site [from herbarium specimen/genebank accession/field observation/database/bibliographic reference/internet/personal communication]. Final cross-checked latitude, either from original data (COORD_SOURCE=original) OR from georeferencing (COORD_SOURCE=georef). If original data (COORD_SOURCE=original) is used and it is in the 'degrees, minutes, seconds' format then it has to be converted to decimal degrees. Positive values are north of the Equator; negative values are south of the Equator (e.g. -44.6975). Please check decimal separator are points (not commas). Probably you should change the OS' decimal separator.		LatitudeDecimal				

Ecogeographic survey	Population	DECLONGITUDE	Decimal degrees longitude Longitude of the site expressed in decimal degrees. Positive values are East of the Greenwich Meridian; negative values are West of the Greenwich Meridian (e.g., -120.9123).	X	X	X	X		Longitude expressed in decimal degrees. Positive values are east of the Greenwich Meridian; negative values are west of the Greenwich Meridian (e.g. +120.9123). NOTE: The name of this descriptor has been changed to apply to in situ CWR. The accuracy of this information that is going to be disseminated may be adjusted as considered appropriate by each country.	Decimal degrees format. Longitude expressed in deceimal degrees. Positive values are East of Grennwich Meridian; negative values are West of the Greenwich Meridian (e.g. +120.123)	Longitude of the site expressed in decimal degrees. Positive values are East of the Greenwich Meridian; negative values are West of the Greenwich Meridian (e.g., -120.9123).	The final longitude (in decimal degrees) of the occurrence site [from herbarium specimen/geneb ank accession/field observation/data base/bibliographi c reference/interne t/personal communication]. Final cross-checked longitude, either from original data (COORD_SOURCE =original) OR from georeferecing (COORD_SOURCE =georef). If original data (COORD_SOURCE =original) is used and it is in the 'degrees, minutes, seconds' format then it has to be converted to decimal degrees. Positive values are east of the Greenwich Meridian; negative values are west of the Greenwich Meridian (e.g. +120.9123). Probably you should change the OS' decimal separator.		LongitudeDecim al				
Ecogeographic survey	Population	COORDUNCERT	Coordinate uncertainity [m]. Uncertainity assoicated with the coordinates in meters. Leave the value empty if the uncertainity is unknown	X	X	X	X		Uncertainty associated with the coordinates in metres. Leave the value empty if the uncertainty is unknown. Can also be used to indicate the size of the distribution area of the CWR. NOTE: The description of this descriptor has been changed to apply to in situ CWR. The coordinate uncertainty should be adjusted if the accuracy of the geographic coordinates is reduced	Uncertainty associated with the coordinates in metres. Leave the value empty if the uncertainty is unknown.		The coordinate uncertainty [m]: uncertainty associated with the final coordinates of the occurrence site (DECLATITUDE and DECLONGITUDE) in metres. This field is directly related to (a) uncertainty associated to coordinate taking by old GPS devices, or (b) uncertainty estimated when using georeferencing tools, such as GEOLocate (http://www.mus eum.tulane.edu/g eolocate/), to convert free-text descriptions of places (such as "twenty miles northeast of Jalalabad") into geographic coordinates expressed as latitude and longitude.		CoordinateError DistanceInMeter s				

Ecogeographic survey	Population	ELEVATION	Elevation. Elevation of the occurrance site expressed in meters above sea level e.g. the centrum height of height range. Negative values are allowed	X	X	X	X		Elevation of maintence site [masl]. Elevation of maintenance site expressed in meters above sea level e.g. the centrum height of height range. Negative values are allowed	Elevation of collecting site expressed in metres above sea level. Negative values are allowed.	Elevation of site [masl]. Elevation of site expressed in metres above sea level. Negative values are allowed.	X		Altitudianl zone. planer, coline, montane, alpine, nivale. Altitudinal range. in m.a.s.l				
Ecogeographic survey	Population	POP_AREA	Population area. Area of population being assessed (ha)	X	X	X	X							Informed by similar descriptors from here			X	
Ecogeographic survey / *In situ* networking	Taxon	DIST_STATUS	Distribution status. The distribution status of the taxon within the geographic area of the checklist or inventory. Note: 'Regional' is defined here as a geographic area comprising different countries (e.g. Europe, the Mediterranean region, the SADC region, Sub-Saharan Africa, Mesoamerica) rather than a sub-unit within a country (Magos Brehm *et al*., 2017). 10 Native 11 National endemic 12 Regional endemic 20 Introduced 30 Archeophyte 40 Neophyte 90 Unknow 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN					The distribution status of the taxon within the geographic area of the checklist or inventory, indicating whether it is a National endemic, Regional endemic, Cosmopolitan, or Unknown. Note: 'Regional' is defined here as a geographic area comprising different countries (e.g. Europe, the Mediterranean region, the SADC region, Sub-Saharan Africa, Mesoamerica) rather than a sub-unit within a country (Magos Brehm *et al*., 2017).	STATUS: Native/introduced, archeophyte, neophyte...				
Ecogeographic survey	Taxon	DIST_REF	Distribution reference.The reference(s) to the information source(s) describing the distribution of the taxon. Multiple references are separated by a semicolon (;) without space.	X	X	X	X						The reference(s) to the information source(s) describing the distribution of the taxon. Multiple references are separated by a semicolon (;) without space.					
Ecogeographic survey	Taxon	DIST_REMARKS	Distribution remarks. Additonal remarks regarding the taxon distribution. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by a semicolons (;) without space.	X	X	X	X						Additonal remarks regarding the taxon distribution. Prefix remarks with the field name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by a semicolons (;) without space.					

Data management identifiers / *In situ* networking	Population	MAINTAINER_CODE	Maintainer code: FAO WIEWS code of the institution responsible for, and/or organization or individual, that holds rights or is responsible for the *in situ* population (e.g. farmer, protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. Research organisations can use codes from https://ror.org/.	X	X	X	X	IN	INSTCODE. Institute code. FAO WIEWS code of the institution responsible for, and/or organization that **manages the CWR population** (e.g. protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. For those institutes not yet having a FAO WIEWS code, or for those with 'obsolete' codes, see section 'General formatting rules'. NOTE: This description deviates from the ex situ upload format.		MNGINSTCODE. Managing institute, legal entity or individual name. Name of the managing institute, legal entity, herbarium, or individual holding rights or respoknsible of the popualtion (e.g. protected area authority, nature reserve manager, national park manager, private landowner etc)						X	
Data management identifiers	Population	MAINTAINER_CODE_REF	Reference use for the MAINTAINER_CODE. i.e. "FAO WIEWS"	X	X	X	X		INSTCODE. Institute code. FAO WIEWS code of the institution responsible for, and/or organization that **manages the CWR population** (e.g. protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. For those institutes not yet having a FAO WIEWS code, or for those with 'obsolete' codes, see section 'General formatting rules'. NOTE: This description deviates from the ex situ upload format.		MNGINSTCODE. Managing institute, legal entity or individual name. Name of the managing institute, legal entity, herbarium, or individual holding rights or respoknsible of the popualtion (e.g. protected area authority, nature reserve manager, national park manager, private landowner etc)						X	

Data management identifiers / *In situ* networking	Population	MAINTAINER_NAME	Maintainer name: Name of the institute, organisation or individual that holds rights or is responsible for the in situ population. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X	IN	INSTNAME. Institute name. Name and short address of the organization that manages the CWR population (e.g. protected area authority, nature reserve manager, national park manager, private landowner, etc.). This descriptor should be used only if INSTCODE has the value 'DUMMY' because the FAO WIEWS code for this institute is not available. NOTE: This descriptor is new and did not occur in the ex situ EURISCO format yet.		MNGINSTNAME: Managing institute, legal entity or individual name. Name of the managing institute, legal entity, herbarium, or individual holding rights or respoknsible of the popualtion (e.g. protected area authority, nature reserve manager, national park manager, private landowner etc)			Owner. Private, state run, other, unknown			X	
Data management identifiers	Population	MAINTAINER_ADDRESS	Maintainer address: Managing institute, organisation or individual individual address related to MAINTAINER_CODE or MAINTAINER_NAME. IMPORTANT: GDPR may apply to this information. Release of this information should follow the regualtions in place at the institute / organisation who is collecting this information. Or if in doubt, this information should not be pubically available if not approved by the population miantainer of the material / site / population.	X	X	X	X				MNGINSTADDRESS: Managing institute, legal entity or individual address							X	

Data management identifiers / *In situ* networking	Population	MAINTAINER_ID	Maintainer ID. Unique number identifier of the maintainer of the *in situ* population. It is assigned by the institute that is responsible at the national level for the production of the inventory database. It is suggested that any personally identifiying data that is subject to GDPR should be kept in a seperate database and not made public. The MAINTAINERID should correspond to the seperate database]	X	X	X		IN									FARMERID: Farmer identification number: Unique number identifier of the farmer who maintains the LR and provides information (Landrace maintainer unique ID to be held in database). It is assigned by the institute that is responsible at the national level for the production of the National LR in situ Inventory. This number should not be duplicated or reassigned to other unit. This number should be composed of the 'National Inventory Code (NICODE 1.1.)' + 'National Inventory Edition Number (1.2.NIENUMB)' + 'Landrace number (3.2. LRNUMB)' Example: NLD001/2012 00010 (Note: it is suggested that farmer details (i.e. farmer name, surname, postal address, email address, phone number/s, etc.) are recorded in a separated and not public database. FARMERID should then correspond to FARMERID of the above mentioned separate database to link the two databases).	X	
Data management identifiers	Population	MAINTAINER_AGE	Maintainer age. Age of the person who maintains the in situ population, in years. Use the appropraite code below: 10 less than or equal to 25 20 Age between 26 to 40 30 Age between 41 to 55 40 Age between 56 to 69 50 Age 70 or above		X	X		LRT											Almeida, M.J., (2024)

Data management identifiers	Population	MAINTAINER_T	Maintainer tenancy of the land. Multiple options are allowed and should be seperated by semicolons (;) without space. 10 Owner 20 Tenant 30 Life tenant 40 Cultivating public land 50 Managing land only 99 Other (elaborate in REMARKS)	X	X	x	X									FARMHT: Holding / tenancy of the farm/estateSe e codes in the table below. Multiple choices are allowed since the farm can be made of several types of holdings. Multiple choices are allowed separated by a semicolon (;) without space. Code Owner 10 Tenant 20 Life tenant 30 Cultivating public land 40 Other (elaborate in REMARKS) 99	X	
Data management identifiers	Population	INSITU_ACCESS	*In situ* access. Access to the *in situ* resource from the site being surveyed. How can the resource be accessed? 10 Via a genebank accession 20 Direct from wild *in situ* source 30 Direct from on-farm source	X	X	X	X								Access to the in situ resource. How the resource can be accessed. Via a genebank accession, direct from in situ source			
Utilisation / *In situ* networking	Population	MLSSTAT_INSITU	Multilateral System status of the *in situ* material. The status of the PGRFA with regard to the Multilateral System of Access and Benefit-Sharing (MLS) of the international Treaty on PGRFA. Applicable if there is direct access to the in situ material. Leave the value empty if the status is not know. 0 No (not available under the MLS) 1 Yes (available under the MLS) 99 Other (elaborate in REMARKS field, e.g. 'under development')	X	X	X	X	IN, GR	The status of the in situ accession of the CWR population with regards to the Multilateral System of Access and Benefit-Sharing (MLS) of the International Treaty, if available. 0: Not available under the MLS 1: Available under the MLS NOTE: The definition of this descriptor in Alercia et al. (2021)1 refers to the ex situ accession, but in the CWR-NI and in EURISCO is applied to the *in situ* accession.	MLS status of the accession. The status of an accession with regards to the Multilateral System (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture. Leave the value empty if the status is not known 0 No (not included) 1 Yes (included) 99 Other (elaborate in REMARKS field, e.g. 'under development')	The status of the material with regards to the Multilateral System of Access and Benefit-sharing of the International Treaty, if available. 0 Not available under the MLS 1 Available under the MLS							
Data management identifiers	Population	LIAISONCODE	Liasison institute code. FAO WIEWS code of the institution that can liaise between the organization managing the CWR population and the interested user. Research organisations can use codes from https://ror.org/. For those institutes not yet having a FAO WIEWS code, or for those with 'obsolete' codes, see section 'General formatting rules'	X	X	X	X		Liasison institute code. FAO WIEWS code of the institution that can liaise between the organization managing the CWR population and the interested user. NOTE: This descriptor is new and did not occur in the EURISCO ex situ format yet.									

Data management identifiers	Population	LIAISONNAME	Liaison institute name. Name, and brief address, of the institution that can liaise between the organization managing the CWR population and the interested user.	X	X	X	X		Liaison institute name. Name, and brief address, of the institution that can liaise between the organization managing the CWR population and the interested user. NOTE: This descriptor is new and did not occur in the EURISCO ex situ format yet.									
Ecogeographic survey	Population	OBSDATE	Observation date [YYYYMMDD]: The most recent date the *in situ* population was observed, where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero]. (e.g. 2024-06-10)	X	X	X	X		ACQDATE[YYYYMMDD]: The most recent **date the population was observed,** where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero]. NOTE: The name and description of this descriptor have been changed to apply to *in situ* CWR.	ACQDATE: Date on which the accession entered the collection where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero]. COLLDATE. Collecting date of sample. Collecting date of the sample, where YYYY is the year, MM is the month and DD is the day. Missing data (MM or DD) should be indicated with hyphens or '00' [double zero].	The most recent date the **population was observed**. Accepted format is ISO 8601, where YYYY is the year, MM is the month and DD is the day (e.g. 1994-12-15, or 1994-12, or 1994).							
Ecogeographic survey	Population	FIRST_OBSDATE	First observation date. Date [YYYYMMDD] of the first observation of the *in situ* popoulation and its inclusion into the nationa inventory. This may be the same as the OBSDATE if it is the first time recording the popoulation.	X	X	X	X										X	
Ecogeographic survey	Population	PRESENCE_IN_PA	Presence in a protected area. Indicate whether the population is known to be present in a protected area. This can include the whole population or just part of a population. 10 Present in a protected area 20 Not present in a protected area	X	X	X	X	GR					PRESENCE_IN_PA. Indicate whether the taxon is known to be present in one or more protected areas or the distributional range of the taxon overlaps with one or more protected areas. Permitted values are: Known presence in PA, Overlap with PA, No, and Unknown.						
Ecogeographic survey	Population	PA_NAME	Protected area name. Name of protected area the surveyed or sampled population is found within. Only applicable if the popualtion being surveyed is within a PA	X	X	X	X	GR						NamedAreaClass (Protected Area)			X	
Ecogeographic survey	Population	PA_CODE	Protected area code. Code of protected area, if available	X	X	X	X	GR						NamedAreaCode (NSG345)			x	

Ecogeographic survey	Population	SITEPROT	Site protection. Indicate whether the site is under any legal or offical legislation. Following these guidelines: https://portals.iucn.org/library/node/30018 0 No (not protected) 1 Strict nature reserve 2 Wilderness area 3 National park 4 Natural monument or feature 5 Habitat/species management area 6 Protected landscape/seascape 7 Protected area with sustainable use of natural resources 8 Other effective conservation measures (OECM) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, GR	Site protection. Indication wheather the site is under any legal or offical protection. 0 No (not protected) 1 Strict nature reserve 2 Wilderness area 3 National park 4 Natural monument or feature 5 Habitat/species management area 6 Protected landscape/seascape 7 Protected area with sustainable use of natural resources 8 Other effective conservation measures (OECM) Following these guidelines: https://portals.iucn.org/library/node/30018		Indicate whether the site is under any legal or official legislation. Follow IUCN Guidelines available at https://www.iucn.org/theme/protected-areas/about/protected-area-categories 0 Not protected by legislation 1 Strict nature reserve 2 Wilderness area 3 National park 4 Natural monument or feature 5 Habitat/species management area 6 Protected landscape or seascape 7 Protected area with sustainable use of natural resources 8 Other effective conservation measures (OECM)							IUCN (2018)
In situ networking	Population	INSITU_NET	*In situ* network. Is the population / site part of an *in situ* network. Yes/No	X	X	X	X	IN									X	
In situ networking	Population	INSITU_NET_SCALE	Scale of *in situ* network. What geogrpahic scale of a network does it belong too? Local / National / Regional / Global	X	X	X		IN									X	
Monitoring	Population	INSITU_MON_ORG	*In situ* monitoring organisation. Organisation/s responsible for the demographic monitoring of the *in situ* population. Multiple values seperated by a semicolon.	X	X	X	X	GR									X	
Monitoring	Population	INSITU_MON_INT	Demogaphic monitoring interval. How often the popualtion is monitored, in years. Inlcude information on demographic monitoring and genetic diversity monitoring e.g. demographic:5 years ; genetic:15 years. Leave blank if not monitored	X	X	X	X	GR						Monitoring detail		Monitoring interval: To be compiled if MONIT is 'Yes'. Indicate who is in charge of monitoring. Free text.		
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON	*In situ* genetic monitoring. Is there any *in situ* genomic genetic diversity monitoring taking place on the popualtion? Yes/No	X	X	X	X	IN, GR									X	
Monitoring / *In situ* networking	Population	INSITU_GENETIC_MON_URL	*In situ* genetic monioring URL. Include links to genetic diversity monitoring plans related to the in situ population	X	X	X	X	IN, GR									X	
Monitoring / *In situ* networking	Population	INSITU_GENETIC_TREND	Population trend. Measured according to the IUCN classification: 10 Increasing 20 Decreasing 30 Stable 99 Unknown This descriptor is useful for IUCN red listing.	X	X	X		GR									X	

Monitoring	Population	THREAT_INSITU	Threat to the *in situ* population. List any threats apparent to the *in situ* population, using the IUCN threats classification scheme. Main threats listed below with more information here: https://www.iucnredlist.org/resources/threat-classification-scheme. 01 Residential and commercial development 02 Agriculture and aquaculture 03 Energy production and mining 04 Transportation and service corridors 05 Biological resource use 06 Human intrusions and disturbance 07 Natural system modifications 08 Invasive and other problematic species, genes, diseases 09 Pollution 10 Geological events 11 Climate change and sever weather 99 Other (elaborate in REMARKS)	X	X	X	X	RL						Threats. IUCN authority file			X	IUCN (2018)
Monitoring	Population	SAMPSTAT_INSITU	Biological status of the *in situ* population. The coding scheme proposed can be used at different levels of detail, either by using the general codes (in boldface), such as 100 or 200, or by using the more specific codes such as 110, 120 or 130. 100 Wild 110 Natural 120 Semi-natural/wild 130 Semi-natural/sown 200 Weedy 999 Other (elaborate in REMARKS field)	X	X	X	X		SAMPSTAT. Biological stsus of the accession. The coding scheme proposed can be used at two different levels of detail: either by using the general codes (in boldface) such as 100, 200, or by using the more specific codes such as 110, 120, etc. 100: Wild 110: Natural 120: Semi-natural/wild 130: Semi-natural/sown 200: Weedy 999: Other (Elaborate in REMARKS field) NOTE: The description of this descriptor has changed (less allowed values).	Biological status of the accession. The coding scheme proposed can be used at 3 different levels of detail: either by using the general codes (in boldface) such as 100, 200, 300, 400, or by using the more specific codes such as 110, 120, etc. 100) Wild 110) Natural 120) Semi-natural/wild 130) Semi-natural/sown 200) Weedy 300) Traditional cultivar/landrace 400) Breeding/research material 410) Breeder's line 411) Synthetic population 412) Hybrid 413) Founder stock/base population 414) Inbred line (parent of hybrid cultivar) 415) Segregating population 416) Clonal selection 420) Genetic stock 421) Mutant (e.g. induced/insertion mutants, tilling populations) 422) Cytogenetic stocks (e.g. chromosome addition/substitution, aneuploids, amphiploids) 423) Other genetic stocks (e.g. mapping populations) 500) 999) Advanced or improved cultivar (conventional breeding methods) 600) GMO (by genetic engineering) Other (Elaborate in REMARKS field)	SAMPSTAT. Biological status of the population. The coding scheme proposed can be used at different levels of detail, either by using the general codes (in boldface), such as 100 or 200, or by using the more specific codes such as 110, 120 or 130. 100 Wild 110 Natural 120 Semi-natural/wild 130 Semi-natural/sown 200 Weedy 999 Other (elaborate in REMARKS field)	SAMPSTAT. The biological status of the herbarium specimen/genebank accession/field observation/database/bibliographic reference/internet/personal communication: the coding scheme proposed can be used at three different levels of detail: either by using the general codes such as 100, 200, 300, 400, or by using the more specific codes such as 110, 120, etc. 100 = Wild 110 = Natural 120 = Semi-natural/wild 130 = Semi-natural/sown 200 = Weedy 300 = Traditional cultivar/landrace 400 = Breeding/research material 410 = Breeder's line 411 = Synthetic population 412 = Hybrid 413 = Founder stock/base population 414 = Inbred line (parent of hybrid cultivar) 415 = Segregating population 416 = Clonal selection 420 = Genetic stock 421 = Mutant (e.g. induced/insertion mutants, tilling populations) 422 = Cytogenetic stocks (e.g. chromosome addition/substitution, aneuploids, amphiploids) 423 = Other genetic stocks (e.g. mapping populations) 500 = Advanced or improved cultivar (conventional breeding methods) 600 = GMO (by genetic engineering) 999 = Other (Elaborate in REMARKS field). NA is applicable when there is no information available.		Status. Native/introducde d, archeotype, neophyte				

Monitoring	Population	NUM_IND	Number of individuals in the *in situ* popuation (being assessed). See codes below 001 - 1 to 50 005 - 51 to 150 010 - 151 to 300 025 - 301 to 500 050 - 501 to 750 060 - 751 to 1,000 070 - 1,001 or more This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT, GR				FREQUENCY. observation/database/bibliographic reference/internet/personal communication.		Population size			X	
Monitoring	Population	NUM_MAT_IND	Number of MATURE individuals in the *in situ* popuation (being assessed). See codes below 001 - 1 to 50 005 - 51 to 150 010 - 151 to 300 025 - 301 to 500 050 - 501 to 750 060 - 751 to 1,000 070 - 1,001 or more This descriptor is useful for IUCN red listing.	X		X		RL, GR										IUCN (2018)
Monitoring	Population	NUM_INDI_REMARKS	Remarks on the number of individuals recorded. This can sometimes be difficult to interpret especially if the species is clonal, therefore provide comments if necessary. this descriptor is useful for IUCN red listing.	X	X	X		RL										Comment from reviewer
Monitoring	Population	POP_TREND	Population trend. Measured according to the IUCN classification: 10 Increasing 20 Decreasing 30 Stable 99 Unknown This descriptor is useful for IUCN red listing.	X	X	X		RL									X	IUCN (2018)

Ecogeographic survey	Population	POPSRC	Status of the occurrence site. Status of the occurrence site of the population. The coding scheme proposed can be used at different levels of detail: either by using the general codes (in boldface) such as 10, 20 etc., or by using the more specific codes, such as 11.12, etc. Multiple vlaues are seperated by a semicolon without space. 10) Wild habitat 11) Forest or woodland 12) Shrubland 13) Grassland 14) Desert or tundra 15) Aquatic habitat 20) Farm or cultivated habitat 21) Field 22) Orchard 23) Backyard, kitchen or home garden (urban, peri-urban or rural) 24) Fallow land 25) Pasture 28)Park 60) Weedy, distrubed or ruderal habitat 61) Roadside 62) Field margin 99) Other (Elaborate in REMARKS field)	X	X	X	X		Status of occurrence site. Habitat of the occurrence site of the population(s). The coding scheme can be applied either by using the general codes (in boldface) or the more specific codes. Multiple values are separated by a semicolon without space. 10: Wild 11: Forest or woodland 12: Shrubland 13: Grassland 14: Desert or tundra 15: Aquatic habitat 20: Farm or cultivated area 21: Field 22: Orchard 23: Backyard, kitchen or home garden 24: Fallow land 25: Pasture 28: Park 60: Weedy, disturbed or ruderal habitat 61: Roadside 62: Field margin 99: Other (elaborate in REMARKS field) NOTE: This descriptor is new and did not occur in the EURISCO ex situ format yet.	COLLSRC. Collecting/acquisition source. The coding scheme proposed can be used at 2 different levels of detail: either by using the general codes (in boldface) such as 10, 20, 30, 40, etc., or by using the more specific codes, such as 11, 12, etc. 10) Wild habitat 11) Forest or woodland 12) Shrubland 13) Grassland 14) Desert or tundra 15) Aquatic habitat 20) Farm or cultivated habitat 21) Field 22) Orchard 23) Backyard, kitchen or home garden (urban, peri-urban or rural) 24) Fallow land 25) Pasture 26) Farm store 27) Threshing floor 28) Park 30) Market or shop 40) Institute, Experimental station, Research organization, Genebank 50) Seed company 60) Weedy, disturbed or ruderal habitat 61) Roadside 62) Field margin 99) Other (Elaborate in REMARKS field)	Status of the occurrence site of the population. 10 Wild (11 Forest or woodland, 12 Shrubland, 13 Grassland, 14 Desert or tundra, 15 Aquatic habitat) 20 Farm or cultivated area (21 Field, 22 Orchard, 23 Backyard, kitchen or home garden, 24 Fallow land, 25 Pasture, 28 Park) 60 Weedy, disturbed or ruderal habitat (61 Roadside, 62 Field margin) 99 Other (for example coastal habitats, elaborate in REMARKS field)	COLLSRC. The occurrence habitat source: the coding scheme proposed can be used at two different levels of detail: either by using the general codes such as 10, 20, 30, 40, etc., or by using the more specific codes, such as 11, 12, etc. 10 = Wild habitat 11 = Forest or woodland 12 = Shrubland 13 =Grassland 14 = Desert or tundra 15 = Aquatic habitat 20 = Farm or cultivated habitat 21 = Field 22 = Orchard 23 = Backyard, kitchen or home garden (urban, peri-urban or rural) 24 = Fallow land 25 = Pasture 26 = Farm store 27 = Threshing floor 28 = Park 30 = Market or shop 40 = Institute, Experimental station, Research organization, Genebank 50 = Seed company 60 = Weedy, disturbed or ruderal habitat 61 = Roadside 62 = Field margin 99 = Other (Elaborate in REMARKS field). NA is applicable when there is no information available.		Habitat. EUNIS category and/or IUCN category				
Ecogeographic survey	Population	HABITAT_OTHER	Other habitat. If used, a different habitat classification to the site than POPSRC.	X	X	X						HABITAT_TXT: The description of habitat if provided in the original data from the herbarium specimen/genebank accession/field observation/database/bibliographic reference/internet/personal communication.		Habitat status. Increase, decrease in area or quality				
Ecogeographic survey	Population	HABITAT_OTHER_REF	Reference for the HABITAT_OTHER. Include a reference or URL to the different classification used if HABITAT_OTHER was used.	X	X	X											X	
Ecogeographic survey	Population	DOM_PLANT_SPP	Dominant plant species. What are the dominant or keystone plant species at the site? (Excluding the population being asssed)	X	X	X											X	

Ecogeographic survey	Population	VEGETATION_HEIGHT	Vegetation height. What is the dominant height of the vegetation surrounding the population: 010 - Less than 10cm 020 Between 10cm and 30cm 030 Between 30cm to 100cm (1m) 040 Between 100cm (1m) and 200cm (2m) 050 Between 200cm (2m) to 500cm (5m) 060 Above 500cm (5m)	X	X	X								Vegetation			X	JNCC (2004)
Ecogeographic survey	Population	ROCK_TYPE	Rock type. Dominant type of rock at the site: 10 Igneous 20 Metamorphic 30 Sedimentary	X	X	X								Geology			X	Bioversity International (2007)
Ecogeographic survey	Population	SOIL_DOM	Soil dominant type. What is the dominant soil type at the site? 10 Acidic 20 Alkaline 30 Neutral 90 Unknown	X	X	X						SOIL. The description of soil conditions at the occurrence site if provided in original data from the herbarium specimen/geneb ank accession/field observation/data base/bibliographi c reference/interne t/personal communication.		Soil description. e.e. shallow sandy soil / pH / Soil type / Soil texture /Soil moisture regime / Soil depth / % organic matter / Salinity /Derived soil evaluation				
Ecogeographic survey	Population	SOIL_DETAIL	Soil details. Include further details about the soil type, such as colour, salinity, depth etc. Referencing the World Reference base for Soils, if appropriate: https://www.isric.org/explore/wrb	X	X	X								Soil type / Soil texture. Reference to classification that is used.				
Ecogeographic survey	Population	WATER_AVAIL	Water availability. 10 Rain-fed 20 Irrigated 30 Flooded 40 River bank 50 Sea coast 99 Other (specify in appropriate section's Notes)	X	X	X											X	
Ecogeographic survey	Population	SITE_ASPECT	Site aspect. What is the aspect of the site? 10 North 11 North east 12 North west 20 South 21 South east 22 South west 30 East 40 West 90 No dominant aspect 99 Other (elaborate in REMARKS)	X	X	X						ASPECT. The aspect of the occurrence site if provided in the original data from the herbarium specimen/geneb ank accession/field observation/data base/bibliographi c reference/interne t/personal communication.		Aspect. Orientation, outlook or aspect of slope			X	
Ecogeographic survey	Population	TOPOGRAPHY	Topography. The profile levation of the land surface on a braod scale (FAO1990) 10 Flat 0 – 0.5% 20 Almost flat 0.6 – 2.9% 30 Gently undulating 3 – 5.9% 40 Undulating 6 – 10.9% 50 Rolling 11 – 15.9% 60 Hilly 16 – 30% 70 Steeply dissected >30% moderate elevation range 80 Mountainous >30% great elevation range (>300 m) 99 Other	X	X	X												Bioversity International (2007)
Ecogeographic survey	Population	LANDFORM	Landform. The shape of the land surface in the area in which collecting site is located (FAO 1990) 1 Plain 2 Basin 3 Valley 4 Plateau 5 Upland 6 Hill 7 Mountain	X	X	X												Bioversity International (2007)

Ecogeographic survey	Population	LAND_ELEMENT	Land element. Description of the geomorphology of the immediate surroundings of the collecting site (Bioversity Internationl (2007) Guidelines for the development of crop descriptor lists.) 1 Plain level 2 Escarpment 3 Interfluve 4 Valley 5 Valley floor 6 Channel 7 Levee 8 Terrace 9 Floodplain 10 Lagoon 11 Pan 12 Caldera 13 Open depression in flat or almost-flat terrain) 14 Closed depression 29 Coral reef 15 Dune 16 Longitudinal dune 17 Interdunal depression 18 Mangrove 19 Upper slope 20 Midslope 21 Lower slope 22 Ridge 23 Beach 24 Beachridge 25 Rounded sumit 26 Summit 27 Coral atoll 28 Drainage line (bottom position 99 Other	X	X	X													Bioversity International (2007)
Ecogeographic survey	Population	SLOPE	Slope. Slope angle in degrees. Example: 25	X	X	X						SLOPE. The slope of the occurrence site if provided in original data from the herbarium specimen/geneb ank accession/field observation/data base/bibliographi c reference/interne t/personal communication.		Slope. Measurement of the angle of slope				Bioversity International (2007)
Ecogeographic survey	Population	SLOPE_FORM	Slope form. General shape of the slope in both vertical and horizontal directions: 01 Straight 02 Concave 03 Convex 04 Terraced 05 Complex (irregular) 99 Other	X	X	X												Bioversity International (2007)
Ecogeographic survey	Population	CLIMATIC_ZONE	Climatic zone. Dominant climatic zone the population is found within at survey site. Example: Temperate	X	X	X								Climatic preference. Arctic, boreal, nemoral, meridional, tropic, austr, antartic				
Ecogeographic survey	Population	CLIMATIC_ZONE_REF	Climatic zone reference. Reference used for identifying the climatic zone	X	X	X											X	
Ecogeographic survey	Population	LIGHT	Light. Is the population in full-sun or not? 10 Shady 15 Partial shade 20 Sunny	X	X	X												Bioversity International (2007)
Ecogeographic survey	Population	POPURL	Population URL. URL linking to additional ecogeographic data about the *in situ* population.	X	X	X	X		ACCEURL. URL linking to additional data about the population. Example: http://gbis.ipk-gatersleben.de/gbis_i/detail.jsf?akzessionId=31805 NOTE: This description deviates from the EURISCO ex situ upload format.		LINKS: One or more URLs where further information about the CWR population can be found. Multiple values are separated by a semicolon without space.							

Managment / *In situ* networking	Population	CONSACTION	Population conservation actions. Conservation actions in place for the population. Indicate whether conservation actions related to the population are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, IN, GR	CONSACTION: Conservation actions in place. Indication whether conservation actions related to the population are in place. Use the IUCN classification scheme for conservation actions in place (available from https://nc.iucnredlist.org/redlist/content/attachment_files/dec_2012_guidance_conservation_actions_in_place_classification_scheme.pdf) (adapted). Multiple values are separated by a semicolon without space. 0 No conservation actions 1 Monitoring and Planning 2 Land/Water Protection and Management 3 Species Management 4 Education and Legislation 99 Other (elaborate in REMARKS field)		CONSERVATIONACTIONS: Conservation actions in place. Indication whether conservation actions related to the population are in place. Use the IUCN classification scheme for conservation actions in place (available from https://nc.iucnredlist.org/redlist/content/attachment_files/dec_2012_guidance_conservation_actions_in_place_classification_scheme.pdf) (adapted). Multiple values are separated by a semicolon without space. 0 No conservation actions 1 Monitoring and Planning 2 Land/Water Protection and Management 3 Species Management 4 Education and Legislation 99 Other (elaborate in REMARKS field)			In situ / Recovery plans		Conservation actions: Whether any structured and funded in situ conservation action related to the LR is in place at the moment of the Inventory compilation. See codes in the table below. Code Specific code Yes 10 Policy-based actions 11 Educational actions (didactic gardens, living museum etc.) 12 Other (To be specified in REMARKS) 99 No 20 Unknown 30		IUCN (2018)
Managment	Taxon	CONSACTION_TAXON	Taxon conservation actions. Conservation actions in place for the taxon. Indicate wheater conservation actions related to the taxon are in place. Use the IUCN classification scheme (https://www.iucnredlist.org/resources/conservation-actions-classification-scheme) Multiple values should be seperated by a semicolon without a space. 00 No conservation actions 10 Land/water protection 20 Land/water management 30 Species management 40 Education and awareness 50 Law and policy 60 Livelihood, economic and other incentives 99 Other (elaborate in REMARKS) This descriptor is useful for IUCN red listing.	X	X	X	X	RL, LRT					CONS_ACTION: Indicate whether there are any current conservation actions in place for the taxon. Permitted values are: Yes, No, and Unknown. CONS_ACTION_PLAN. Indicate whether there is a species conservation action plan for the taxon. Permitted values: Yes, No, and Unknown.					IUCN (2018)
Managment	Population	CONS_URL	Conservation URL. Provide the link(s) and reference(s) related to the conservation actions (CONSACTIONPOP, CONSACTIONTAXON). Multiple entries are separated by a semicolon (;) without space.	X	X	X	X						Provide the reference(s) related to the conservation actions. Prefix references with the descriptor name they refer to and follow by a colon (:). Multiple entries are separated by a semicolon (;) without space.					

Managment	Population	CONORG	Conservation organisation. Name of the conservation organisation/s responsible for the conservation action, as described in CONSACTIONPOP and/or CONSACTIONTAXON. Free text.	X	X	X	X									Conservation organiser: To be compiled if CONSERVACTIONS is 'Yes'. Name of the Authority/Public subject/Farmer organisation/ Foundation that has organised the conservation action. Free text.			
Managment	Taxon	LEGSTATUS	Legal status: Informs whether the taxon is legally protected at the European, national or subnational levels. HD: Habitats Directive; NAT: National level; SUB: Subnational level; NLP=Not legally protected. Multiple values allowed, separated by semi-colon, without space. This descriptor is useful for IUCN red listing.	X	X	X		RL										Iriondo, J., pers comms.
Managment	Taxon / Population	CONS_REMARKS	Conservation remarks. Additional remarks regarding conservation descriptors. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space. Reference CONSACTION or CONSACTION_TAXON categories if appropriate	X	X	X	X						CONS_REMARKS. Additional remarks regarding conservation descriptors. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space. CONS_REF. Provide the reference(s) related to the conservation actions. Prefix references with the descriptor name they refer to and follow by a colon (:). Multiple entries are separated by a semicolon (;) without space.					
Managment / *In situ* networking	Population	INSITU_MANAGE_INTER	Management interventions: What interventions are being done to manage the population e.g. buring, grazing	X	X	X		LRT, IN, GR					INSITU_MANAGEMENT. Indicate whether the taxon is actively managed and monitored within the PA(s) (i.e. a PA management plan exists that addresses the management of the target taxon). Permitted values are: Actively managed in at least 5 PAs, Actively managed in 1–4 PAs, Not actively managed, and Unknown.	Management interventions / Management details			X	
Managment	Population	INSITU_MANAGE_URL	Management URL. Any links to management plans and activties related to the *in situ* population. May be the same as CONSACTION	X	X	X											X	

Ex situ	Population	COLLSITE	Collecting site. Location information below the country level that describes where the accession was collected. This may be the same as OCCURSITE. preferable in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana). If a smaple was not collected for *ex situ* conservation leave this field blank.	X	X	X	X		Location of occurence site: Location information below the country level where the population sample was observed. This might include the distance in km and direction from the nearest town, village or map grid reference point (e.g. 7km east of Wageningen in the province of Gelderland). NOTE: The name and description of this descriptor have been changed to apply to *in situ* CWR.	Location of collecting site: Location information below the country level that describes where the accession was collected, preferable in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana).		COLLSITE. The location of the occurrence site [herbarium specimen OR genebank accession OR the field observation OR the site referred to in a bibliographic reference OR internet OR from a personal communication]: location information below the lowest administrative level (for each country) that describes where the accession was collected, preferably in English. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point, (e.g. 7 km south of Curitiba in the state of Parana).						

Ex situ	Population	INSTCODE	Institute code. Code of the institute where the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number. The current set of Institute Codes is available from the FAO website (http://apps3.fao.org/wiews/).	X	X	X	X		FAO WIEWS code of the institution responsible for, and/or organization that **manages the CWR population** (e.g. protected area authority, nature reserve manager, national park manager, private landowner, etc.). The codes consist of the Three-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. For those institutes not yet having a FAO WIEWS code, or for those with 'obsolete' codes, see section 'General formatting rules'. NOTE: This description deviates from the ex situ upload format.	FAO WIEWS code of the institute where the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://www.fao.org/wiews. For those institutes not yet having an FAO Code, or for those with 'obsolete' codes, see 'Common formatting rules (v)'.	Code of the institute or herbarium holding **ex situ samples** (3.2.5.2) FAO WIEWS institute code or Index Herbariorum code of the institute where the ex situ accession/herbarium specimen is maintained, or both. FAO WIEWS institute code (http://www.fao.org/wiews) Index Herbariorum code (HERBCODE) (http://sweetgum.nybg.org/science/ih/)	The institute code where herbarium specimen/genebank accession was seen or held or the institute that organized the field work. For herbarium specimens: use the Index Herbariorum available at: http://sweetgum.nybg.org/ih/. For genebank accessions: use the FAO WIEWS code of the institute where the genebank accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number (e.g. COL001). The current set of institute codes is available from http://apps3.fao.org/wiews/wiews.jsp. For other institutes not listed in the FAO WIEWS nor in Index Herbariorum, fill with NA code and only fill INSTNAME. INSTCODE corresponds to the descriptor IDSOURCE present in the 'ExternalSources DataFormat.xlsx' from CAPFITOGEN package.				Institute code: FAO WIEWS code of the institute (see: http://apps3.fao.org/wiews/institute_query.htm?i_l=EN) who is **responsible at the national level for the production of the National in situ LR Inventory**. Example: NLD037		
Ex situ	Population	INSTNAME	Institute name. Name of the institute, legal entity, herbarium, or individual where collected population samples are held (e.g., local or national genebank, herbarium or landowner). If the Managing institute holds the material, the holding institute name should be the same as the Managing institute	X	X	X	X		INSTNAME. Name and short address of the organization that manages the CWR population (e.g. protected area authority, nature reserve manager, national park manager, private landowner, etc.). This descriptor should be used only if INSTCODE has the value 'DUMMY' because the FAO WIEWS code for this institute is not available.		Name of the institute, legal entity, herbarium, or individual where collected population samples are held (e.g., local or national genebank, herbarium or landowner). If the Managing institute holds the material, the holding institute name should be the same as the Managing institute.	INSTNAME. The name of institute where herbarium specimen/genebank accession was seen or held or the institute that organized the field work. INSTNAME corresponds to the descriptor SOURCE present in the 'ExternalSourcesDataFormat.xlsx' from CAPFITOGEN package.						

Ex situ / *In situ* networking	Population	ACCENUMB	Accession number. This is the unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. 'PI 113869').	X	X	X	X	LRT, IN	This is the unique identifier for CWR populations maintained *in situ* and is assigned by the organization managing the population. NOTE: This description deviates from the *ex situ* upload format.	This is the unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. 'PI 113869').		ACCENUMB. The accession number: this is the unique identifier for accessions within a genebank, and is assigned when a sample is entered into the genebank collection (e.g. 'PI 113869'). Avoid duplicated codes or numbers in this field. You may use consecutive numbers here and associate them with other genebank codes. NA code is not allowed for gene bank accessions. For gene bank accessions ACCENUMB = IDSOURCE. IDSOURCE. The unique identifier number given by the institution to each herbarium specimen/genebank accession maintained. NA code is not allowed for herbarium vouchers and gene bank accessions. For gene bank accessions, IDSOURCE=ACCENUMB.						
Ex situ / *In situ* networking	Population	ACCEDOI	Accession DOI. This is the unique identifier for accessions or specimens collected (e.g., genebank, herbarium, etc.) and is assigned when a sample/specimen is entered into the collection. Ex situ accession DOI	X	X	X	X	LRT, IN			Ex situ accession DOI. This is the unique identifier for accessions or specimens collected (e.g., genebank, herbarium, etc.) and is assigned when a sample/specimen is entered into the collection.							
Ex situ	Population	ACCEURL	Accession URL. URL linking to additional data about the ex situ accession, which isn't included above	X	X	X											X	
Ex situ / *In situ* networking	Population	STORAGE	Type of germplasm storage. 60 *In situ* wild populations 70 *In situ* landrace 80 *In situ* Wild Harvest Plant (WHP)	X	X	X	X	LRT, IN	For *in situ* CWR populations, this descriptor should always have the value 60. 60: *in situ* wild population NOTE: Status 60 is a new status! The description of this descriptor has been changed to apply to in situ CWR.	Type. of germplasm storage. If germplasm is maintained under different types of storage, multiple choices are allowed, separated by a semicolon (e.g. 20;30). (Refer to FAO/IPGRI Genebank Standards 1994 for details on storage type.) 10) Seed collection 11) Short term 12) Medium term 13) Long term 20) Field collection 30) In vitro collection 40) Cryopreserved collection 50) DNA collection 99) Other (elaborate in REMARKS field)								Added "70 In situ landrace" and "80 In situ Wild Harvested Plant"	

Monitoring / *In situ* networking	Taxon	NATIONAL_CAT	National red list category. The Red List category according to national criteria. CR: Critically endangered; EN: Endangered; VU: Vulnerable; NT: Near threatened; LC: Least concern; DD: Data deficient; NE: Not evaluated. NOTE: Use the most recent assessment. Enter 'NA' if no national category is used. This descriptor is useful for IUCN red listing.	X	X	X		RL, IN					NATIONAL_CAT. The Red List category according to national criteria when an IUCN Red List assessment has not been undertaken, or in addition to IUCN category. Enter 'NA' if no national category is used.	Red list assessment				IUCN (2018)
Monitoring / *In situ* networking	Taxon	REGIONAL_CAT	Regional red list category. The regional Red List category for the taxon. CR: Critically endangered; EN: Endangered; VU: Vulnerable; NT: Near threatened; LC: Least concern; DD: Data deficient; NE: Not evaluated. NOTE: Use the most recent assessment. Enter 'NA' if no national category is used. This descriptor is useful for IUCN red listing.	X	X	X		RL, IN									X	IUCN (2018)
Monitoring / *In situ* networking	Taxon	THREAT_URL	Threat URL. URL link to the NATIONAL_CAT or REGIONAL_CAT for the Red List. Record information in the format "NATIONAL_CAT:REF or REGIONAL_CAT:REF" I.e. REGIONAL_CAT: https://www.iucnredlist.org/species/162327/5574104 . This descriptor is useful for IUCN red listing.	X	X	X		RL, IN					REDLIST_REMARKS. Additional remarks regarding the Red List status of the taxon. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.					IUCN (2018)
Monitoring	Population	LRCULTPER	Landrace cultivation period. The length of time the LR was cultivated on that farm as from farmer memory, i.e. cultivated for an unknown number of years, over 50 years, less than 50 years; in the latter case it can be specified the time. See codes in the table below: Code Specific code Does not answer 10 Over 50years 20 Under 50years 30 Less than 10 years ago 31 11-25 years ago 32 26-50 years ago 33		X											Landrace cultivation period: The length of time the LR was cultivated on that farm as from farmer memory, i.e. cultivated for an unknown number of years, over 50 years, less than 50 years; in the latter case it can be specified the time. See codes in the table below: Code Specific code Does not answer 10 Over 50years 20 Under 50years 30 Less than 10 years ago 31 11-25 years ago 32 26-50 years ago 33		

Monitoring	Population	LRSTATUS	Landrace status. The status of the LR on that farm, i.e. whether inherent the farm or reintroduced in the farm as from farmer statement. For 'inherent the farm' a cultivation period over 25 years in that farm should be intended. If introduced/reintroduced from other farms it can be specified from where. See codes in the table below. To be eventually elaborated in REMARKS. Code: 10 Does not answer 20 Inherent (should match with LRCULTPER 20 or 33) 30 Reintroduced by the family which presently cultivates the LR from a different estate belonging to the same family. Provide details under REMARKS. 40 Introduced/Reintroduced from gene bank. Provide Gene Bank name in REMARKS 50 Introduced/Reintroduced from other farms: 51 Neighbouring farm 52 Farm in the same district 53 Farm in different district/country 60 Introduced/Reintroduced from the seed market 99 Other (elaborate in REMARKS)		X			LRT				final_cult_stat. Whether the population is: wild, weedy, cultivated, escaped (from cultivation) or unknown as per the record. NA is applicable when there is no information available. final_origin_stat. Whether the population is native, introduced or unknown as per the record. NA is applicable when there is no information available.				The status of the LR on that farm, i.e. whether inherent the farm or reintroduced in the farm as from farmer statement. For 'inherent the farm' a cultivation period over 25 years in that farm should be intended. If introduced/reintroduced from other farms it can be specified from where. See codes in the table below. To be eventually elaborated in REMARKS. Code: 10 Does not answer 20 Inherent (should match with LRCULTPER 20 or 33) 30 Reintroduced by the family which presently cultivates the LR from a different estate belonging to the same family. Provide details under REMARKS. 40 Introduced/Reintroduced from gene bank. Provide Gene Bank name in REMARKS 50 Introduced/Reintroduced from other farms: 51 Neighbouring farm 52 Farm in the same district 53 Farm in different district/country 60 Introduced/Reintroduced from the seed market 99 Other (elaborate in REMARKS)		

Monitoring	Population	MOD_CULT	Modern cultivars. The extent of modern cultivars grown near to the LR / CWR or WHP. 10 - 10% area 20 - 20% area 30 - 30% area 40 - 40% area 50 - 50% area 60 - 60% area 70 - 70% area 80 - 80% area 90 - 90% area. or more	X	X	X		LRT									X	Almeida M.J., (2024)
Utilisation	Population	LRSSS	Landrace seed / propogation material supply system. From where the seed (or propagation material in general) initially came, as from farmer statement. See codes in the table below. Code: Informal sector 10 Own family harvest 11 Exchanges with relatives, neighbours 12 Exchanges between close villages via barter system 13 Local / regional market 14 Formal sector 20 Certified material from the seed market 21 Genebank (to be specified from which genebank in REMARKS) 22 Does not answer 30 Other (elaborate in REMARKS) 99		X											Landrace seed / propogation material supply system: From where the seed (or propagation material in general) initially came, as from farmer statement. See codes in the table below. Code: Informal sector 10 Own family harvest 11 Exchanges with relatives, neighbours 12 Exchanges between close villages via barter system 13 Local / regional market 14 Formal sector 20 Certified material from the seed market 21 Genebank (to be specified from which genebank in REMARKS) 22 Does not answer 30 Other (elaborate in REMARKS) 99		
Monitoring	Population	LRCONT	Landrace continuity. Whether the LR maintainer plans to continue to grow LR for the foreseeable future. See codes in the table below. Undecided 10 Will stop next year 20 Will continue, but considers changing within a few years 30 Will continue as long as possible 40 Other (elaborate in REMARKS) 99		X			LRT									Landrace continuity: Whether the LR maintainer plans to continue to grow LR for the foreseeable future. See codes in the table below. Undecided 10 Will stop next year 20 Will continue, but considers changing within a few years 30 Will continue as long as possible 40 Other (elaborate in REMARKS) 99		

Monitoring	Population	WHPCONT	Wild Harvested Plant continuity. whether the person / people harvesting the wild species plan to continue to do this. 10 Undecided 20 Will stop next year 30 Will continue, but considers changing within a few years 40 Will continue as long as possible 99 Other (elaborate in REMARKS)			X												X	
Utilisation	Population	LRDISTR	Landrace distribution. Whether the LR maintainer plans to give/exchange the LR to/with other growers. If 'Yes', fields related to 'to whom' can be filled in. See codes in the table below. Yes 10 To whom: relative 11 friend or neighbour 12 another grower 13 seed/seedlings-swap event 14 plant genebank 15 No 20 Undecided 30		X												Landrace distribution: Whether the LR maintainer plans to give/exchange the LR to/with other growers. If 'Yes', fields related to 'to whom' can be filled in. See codes in the table below. Yes 10 To whom: relative 11 friend or neighbour 12 another grower 13 seed/ seedlings-swap event 14 plant genebank 15 No 20 Undecided 30		
Monitoring	Population	LRTHREATF	Loss risk as for the maintainer. Risk of losing this LR or WHP as perceived by the interviewed farmer/harvester. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Does not answer/know 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99		X	X											Loss risk as for the farmer: Risk of losing this LR as perceived by the interviewed farmer. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Does not answer/know 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99	Added "WHP" into description	

Monitoring	Population	LRTHREATCT	Loss risk as assessed by the surveying team: Risk of losing this LR or WHP as perceived by the team recording data. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Unable to judge/assess 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99		X	X										Loss risk as assessed by the collecting team: Risk of losing this LR as perceived by the team recording data. It helps to decide if conservation is needed and plan monitoring actions. See codes in the table below. Unable to judge/assess 10 Null / scarce 20 Low 30 Medium 40 High 50 Other (elaborate in REMARKS) 99	Added "WHP" into description	

Utilisation	Population	MOTIVE_GH	Motivations for growing or harvesting the taxon. Agronomical traits 10 Easy/simple cultivation required 11 Precocity (early development or maturity) 12 Lateness 13 Lodging resistance 14 High yield 15 Stable yield 16 Resistance to stresses 20 Abiotic factors 21 cold 211 drought 212 high humidity 213 salinity 214 Biotic factors 22 fungal/bacterial/virus 221 insect/nematode/etc 222 Cultural and religious motivations 30 Personal affection 31 Special family food preparations 32 Special family ceremonies 33 Ritual or religious use of the community 34 Local fairs/festivals 35 Historical/collector/amateur interest 36 Quality traits(taste, fragrance, colour, etc.) 40 Market traits (good storability, easy transformation etc.) 50 Other (Elaborate in REMARKS) 99		X	X											LRFARMERMOT: Farmer motivations for growing the landrace: Reason + Code Agronomical traits 10 Easy/simple cultivation required 11 Precocity (early development or maturity) 12 Lateness 13 Lodging resistance 14 High yield 15 Stable yield 16 Resistance to stresses 20 Abiotic factors 21 cold 211 drought 212 high humidity 213 salinity 214 Biotic factors 22 fungal/bacterial/virus 221 insect/nematode/etc 222 Cultural and religious motivations 30 Personal affection 31 Special family food preparations 32 Special family ceremonies 33 Ritual or religious use of the community 34 Local fairs/festivals 35 Historical/collector/amateur interest 36 Quality traits(taste, fragrance, colour, etc.) 40 Market traits (good storability, easy transformation etc.) 50 Other (Elaborate in REMARKS) 99	Added "WHP" into description	

Utilisation	Population	LRSELCRI	Landrace selection criteria. The main criteria used when selecting material for propagation. See codes in the table below. Code Yield 10 Organ size 20 Taste 30 Colour 40 Shape 50 Uniformity 60 Other (Elaborate in REMARKS) 99		X												LRFARMERSELCRI: Farmer LR selection criteria: The main criteria farmer uses when selecting material for propagation. See codes in the table below. Code Yield 10 Organ size 20 Taste 30 Colour 40 Shape 50 Uniformity 60 Other (Elaborate in REMARKS) 99		
Utilisation	Taxon	PPU	Part of the plant used. Part/s of the plant used. See codes in the table below. Multiple choices are allowed separated by a semicolon (;) without space. Code Entire plant 10 Branch 20 Seedling/germinated seed 30 Gall 40 Stem/trunk 50 Bark 60 Leaf 70 Flower/inflorescence 80 Fruit/infructescence 90 Seed 100 Root/corm 110 Exudate 120 Other (Elaborate in REMARKS) 999		X	X										Part of the plant used: Part/s of the plant used. See codes in the table below. Multiple choices are allowed separated by a semicolon (;) without space (Bioversity and The Christensen Fund, 2009). Code Entire plant 10 Branch 20 Seedling/ germinated seed 30 Gall 40 Stem/trunk 50 Bark 60 Leaf 70 Flower/ inflorescence 80 Fruit/ infructescence 90 Seed 100 Root/corm 110 Exudate 120 Other (Elaborate in REMARKS) 999	Part of the plant used: Part/s of the plant used. See codes in the table below. Multiple choices are allowed separated by a semicolon (;) without space (Bioversity and The Christensen Fund, 2009). Code Entire plant 10 Branch 20 Seedling/ germinated seed 30 Gall 40 Stem/trunk 50 Bark 60 Leaf 70 Flower/ inflorescence 80 Fruit/ infructescence 90 Seed 100 Root/corm 110 Exudate 120 Other (Elaborate in REMARKS) 999		

Utilisation	Taxon	TAXON_PROD_USE	Product use. Type of use of the product obtained from the taxon (excluding use as a genetic resources in breeding for crop improvement): if as direct product or as processed product for larger use. Multiple choices are allowed separated by a semicolon (;) without space. As direct product 10 Food - human 11 Food - animal 12 Spice - aromatic 13 Medicinal purpose 14 Fuel 15 Ornamental purpose 16 As processed product 20 Bakery product 21 Long term storage culinary product (e.g. canned food) 22 Distillery product 23 For oil extraction 24 For textile fibers production 25 Other household goods 26 Construction material 27 Research 40 Unknown 90 Other(elaborate in REMARKS) 99		X	X											Product use: Type of use of the product obtained from the LR: if as direct product or as processed product for larger use, as from farmer statement. See codes in the table below. Multiple choices are allowed separated by a semicolon (;) without space. As direct product 10 Food (e.g. vegetable, soups) 11 Fodder 12 Spice - aromatic 13 Medicinal purpose 14 Odoriferous purpose 15 Ornamental purpose 16 As processed product 20 Bakery product 21 Long term storage culinary product (e.g. canned food) 22 Distillery product 23 For oil extraction 24 For textile fibers production 25 Other(elaborate in REMARKS) 99		
Utilisation	Taxon	PRODEST	Main destination of the product. Where the product from the harvested plant is mainly destined for use. See codes in the table below. Owner's household 10 Market 20 in local market 21 in district / regional markets 22 national markets 23 international sale 24 Other (elaborate in REMARKS) 99		X	X										Main destination of the product: Where the product from the LR is mainly destined for use, as from farmer statement. See codes in the table below. Owner's household 10 Market 20 in local market 21 in district / regional markets 22 national markets 23 international sale 24 Other (elaborate in REMARKS) 99	Main destination of the product: Where the product from the LR is mainly destined for use, as from farmer statement. See codes in the table below. Owner's household 10 Market 20 in local market 21 in district / regional markets 22 national markets 23 international sale 24 Other (elaborate in REMARKS) 99		

Utilisation	Taxon	MARKTDEMAND	Market demand. Demand for the product. See codes in the table below. Does not answer 10 Strong existing market demand 20 Growing market demand 30 Stable market demand 40 Falling market demand 50 Other (elaborate in REMARKS) 99		X	X		LRT								Market landrace demand: Demand for LR / LR product as from farmer statement. See codes in the table below. Code Does not answer 10 Strong existing market demand 20 Growing market demand 30 Stable market demand 40 Falling market demand 50 Other (elaborate in REMARKS) 99		
Utilisation	Taxon	BREED_USE	Breeding use. Description of the use the taxon has had or potentially can have in plant breeding for crop improvement, or of the traits known to exist or already donated to the crop. E.g. 'Resistance to broom rape', 'Improved protein content', 'Tolerance of water-logging', 'Bridge species for further taxon crossing'. If no breeding use is known, enter 'Unknown'.	X	X	X							BREED_USE. Description of the use the taxon has had or potentially can have in plant breeding for crop improvement, or of the traits known to exist or already donated to the crop. E.g. 'Resistance to broom rape', 'Improved protein content', 'Tolerance of water-logging', 'Bridge species for further taxon crossing'. If no breeding use is known, enter 'Unknown'.					
Utilisation	Taxon	POTENTIAL_CONFIRMED	Potential confirmed. Whether the taxon has been used to successfully improve crops, or has traits which have the potential to improve crops in the future. Permitted values are: Potential, Confirmed, and Unknown.	X	X	X							POTENTIAL_CNFIRMED. Whether the taxon has been used to successfully improve crops, or has traits which have the potential to improve crops in the future. Permitted values are: Potential, Confirmed, and Unknown.					
Utilisation	Taxon	BREED_REF	Breeding use reference. The reference(s) to the data source describing the actual or potential use of the taxon in breeding for crop improvement. Multiple references are separated by a semicolon (;) without space.	X	X	X							BREED_REF. The reference(s) to the data source describing the actual or potential use of the taxon in breeding for crop improvement. Multiple references are separated by a semicolon (;) without space.					

Utilisation	Taxon	BREED_RELATED_CROP	Breeding use related crop. The scientific name(s) of the crop(s), which has/have been or potentially could be improved using the CWR taxon, in Latin. Multiple entries are separated by a semicolon (;) without space.	X	X	X							BREED_RELATED_CROP.. The scientific name(s) of the crop(s), which has/have been or potentially could be improved using the CWR taxon, in Latin. Multiple entries are separated by a semicolon (;) without space. E.g. Triticum aestivum L.					
Utilisation	Taxon	BREED_COMMON_CROP_NAME	Breeding common crop name. The common name(s) of the crop(s) which has/have been or potentially could be improved using the CWR taxon. Multiple entries are separated by a semicolon (;) without space.	X	X	X							COMMON_CROP_NAME. The common name(s) of the crop(s) to which the taxon is related. Multiple entries are separated by a semicolon (;) without space. BREED_COMMON_CROP_NAME. The common name(s) of the crop(s) which has/have been or potentially could be improved using the CWR taxon. Multiple entries are separated by a semicolon (;) without space.					
Utilisation	Taxon	PROP_ORGAN	Propagation organ Part of the plant used for propagation. Bulb, cloves, cuttings, offshoots of he main root, root, root sprouts, scion wood, seed or tuber		X										Propagation organ Part of the plant used for propagation. Bulb, cloves, cuttings, offshoots of he main root, root, root sprouts, scion wood, seed or tuber			
Utilisation	Taxon	MULTI_ACTOR	Multiplication actors Who multiplies the material? A single person, public body or seed company		X										Multiplication actors Who multiplies the material? A single farmer, Farmer's private body, public body or seed company			
Utilisation	Taxon	MAT_EX	Material exchange Multiplication material exchange among farmers/gardeners within the cultivation area. Yes/No		X										Material exchange Multiplication material exchange among farmers/gardeners within the cultivation area. Yes/No			
Utilisation	Taxon	CHARACTERIZATION	Characerization. Does the related crop have characterization descriptors? Check https://cgspace.cgiar.org/collections/835fa638-0167-4669-9532-ffc488facc94 0 NO 1 YES	X	X	X											X	
Utilisation	Taxon	CHARACTERIZATION_URL	Characterization URL. Include link to characterization documentation	X	X	X											X	

Utilisation	Taxon	USE_REMARKS	Use remarks. Additional remarks regarding the taxon uses. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X							USE_REMARKS. Additional remarks regarding the taxon uses. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	Uses.				
Utilisation	Taxon	SOCIOECO_CROP	Socioeconomic crop. The common name of the crop or crop group to which the socio-economic data is provided.	X	X	X							The common name of the crop or crop group to which the socio-economic data is provided.					Wieczorek. J., et al. (2012) Darwin Core. "CultivaedPlantNameElements"
Utilisation	Taxon	SOCIOECO_CRITERION	Socio-economic criterion. The socioeconomic criterion used to define the value of the related crop or crop group. A number of criteria can be used, just two are listed here as examples: (i) calorific value: average annual contribution of crop/crop groups to dietary energy per capita per day over a certain period of time (e.g. last 10 years); (ii) production value: average annual production value over a certain period of time (e.g. last 10 years). Multiple values can be entered, seperated with a semicolon (;) without space	X	X	X							SOCIOECO_CRITERION_1. Socio-economic criterion used to define the value of the related crop or crop group. A number of criteria can be used, just two are listed here as examples: (i) calorific value: average annual contribution of crop/crop groups to dietary energy per capita per day over a certain period of time (e.g. last 10 years); (ii) production value: average annual production value over a certain period of time (e.g. last 10 years). E.g. Gross Production Value (constant 2004-2006 1000 I$)					
Utilisation	Taxon	SOCIOECO_VALUE	Socioeconomic value. The numerical value of the socio-economic criterion described in SOCIOECO_CRITERION	X	X	X							SOCIOECO_VALUE_1. The numerical value of the socio-economic criterion described in SOCIOECO_CRITERION_1.					

Utilisation	Taxon	SOCIOECO_VALUE_UNIT	Socio-economic value unit. The numerical value unit of of the socio-economic criterion described in SOCIOECO_CRITERION. For monetary value units use the monetary standards at http://www.currency-iso.org/en/home/tables/table-a1.html to indicate the currency.	X	X	X							SOCIOECO_VALUE_UNIT_1.The numerical value unit of of the socio-economic criterion described in SOCIOECO_CRITERION_1. For monetary value units use the monetary standards at http://www.currency-iso.org/en/home/tables/table-a1.html to indicate the currency.					
Utilisation	Taxon	SOCIOECO_VALUE_LEVEL	Socioeconomic value level. The level at which the socio-economic value of the related crop or crop group in SOCIOECO_VALUE is provided. E.g. global, regional (which region), national (which country).	X	X	X							SOCIOECO_VALUE_LEVEL_1. The level at which the socio-economic value of the related crop or crop group in SOCIOECO_VALUE_1 is provided. E.g. global, regional (which region), national (which country).					
Utilisation	Taxon	SOCIOECO_VALUE_REF	Socio-economic value reference. The reference(s) for the socio-economic value of the related crop or crop group. Multiple entries are separated by semicolon (;) without space.	X	X	X							SOCIOECO_VALUE_REF_1. The reference(s) for the socio-economic value 1 of the related crop or crop group. Multiple entries are separated by semicolon (;) without space.					
Utilisation	Taxon	SOCIOECO_REMARKS	Socio-economic remarks. Additional remarks regarding the socio-economic criteria, values, units or levels used. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.	X	X	X							Additional remarks regarding the socio-economic criteria, values, units or levels used. Prefix remarks with the descriptor name they refer to and follow by a colon (:). Remarks referring to different descriptors are separated by semicolons (;) without space.					
Utilisation	Taxon	PRODUCT_DESIG	Product designation. Type of geographical designation label PDO, PGI and other national designations		X	X									Geographical designation. Type of geographical designation label PDO, PGI and other national designations			
Utilisation	Taxon	PRODUCT_LABEL	Product label. Type of other label or brands Commercial brand, quality label		X	X									Other labels or brands Type of other label or brands Commercial brand, quality label			

Utilisation	Taxon	TAXON_REG	Taxon register.Type of register in which the landrace or WHP is listed. 10 National register 20 Other registers		X	X									Register Type of register in which the landrace is listed. National register or other registers			
Utilisation	Taxon	TAXON_PROMO	Taxon promotion. Extent of taxon promotion activities. Specific to LR and WHP Local, national or international		X	X									Promotion. Extent of landrace promotion activities. Local, national or international			
Other	Taxon / Population	REMARKS	Remarks. The remarks field is used to add notes or to elaborate on descriptors. Prefix remarks with the field name they refer to and make them follow by a colon (:). Distinct remarks referring to different fields are separated by semicolons (;) without space. Examples: The farmer often observes flower colour instability; PRODUCTUSE: chaff also used for fuel pellet and pillow filling; LRMARKTDEMAND: falling locally but growing in the district nearby.	X	X	X	X		The remarks field is used to add notes or to elaborate on descriptors with value 99 or 999 (= Other). Prefix remarks with the field name they refer to and a colon (:) without space (e.g. COLLSRC:riverside). Distinct remarks referring to different fields are separated by semicolons without space.	The remarks field is used to add notes or to elaborate on descriptors with value 99 or 999 (= Other). Prefix remarks with the field name they refer to and a colon (:) without space (e.g. COLLSRC:riverside). Distinct remarks referring to different fields are separated by semicolons without space.	The Remarks field is used to add notes or to elaborate on descriptors with value 99 or 999 (= Other). Prefix remarks with the field name they refer to and a colon (:) without space (e.g. SITESTAT:river side). Distinct remarks referring to different fields are separated by semicolons without space.	X	X		X	X		
Other	Taxon / Population	COMMENTS	Comments. Comments on data recording issues. The surname and initials of the person making the comment should be written followed by the comment (e.g. J Magos Brehm: the record was...)	X	X	X	X					X						

ADM_fields_per_country						
ORIGCTY	**NAMECTY**	**ADM1**	**ADM2**	**ADM3**	**ADM4**	
ABW	Aruba	NA	NA	NA	NA	
AFG	Afghanistan	Province	NA	NA	NA	
AGO	Angola	Province	Municpality|City Council	Commune	NA	
AIA	Anguilla	NA	NA	NA	NA	
ALA	Åland	Municipality	NA	NA	NA	
ALB	Albania	County	District	Bashkia	NA	
ALB	Albania	County	District	Commune	NA	
ALB	Albania	County	District	Water body	NA	
AND	Andorra	Parish	NA	NA	NA	
ARE	United Arab Emirates	Emirate	NA	NA	NA	
ARG	Argentina	Province	Department	NA	NA	
ARG	Argentina	Province	Part	NA	NA	
ARG	Argentina	National Territory	Department	NA	NA	
ARG	Argentina	Federal District	Federal District	NA	NA	
ARM	Armenia	Province	NA	NA	NA	
ARM	Armenia	Water body	NA	NA	NA	
ARM	Armenia	City	NA	NA	NA	
ASM	American Samoa	District	County	Village	NA	
ASM	American Samoa	District	County	NA	NA	
ATA	Antarctica	NA	NA	NA	NA	
ATF	French Southern Territories	District	NA	NA	NA	
ATG	Antigua and Barbuda	Dependency	NA	NA	NA	
ATG	Antigua and Barbuda	Parish	NA	NA	NA	
AUS	Australia	State	Shire	NA	NA	
AUS	Australia	State	City	NA	NA	
AUS	Australia	State	District Council	NA	NA	
AUS	Australia	State	Municipality/Municipal Council	NA	NA	
AUS	Australia	State	Rural City	NA	NA	
AUS	Australia	State	Unknown	NA	NA	
AUS	Australia	State	Aboriginal Council	NA	NA	
AUS	Australia	Territory	Unknown	NA	NA	
AUS	Australia	Territory	Community Government Council	NA	NA	
AUS	Australia	State	Town	NA	NA	
AUS	Australia	State	Community Government Council	NA	NA	
AUS	Australia	Territory	Town	NA	NA	
AUS	Australia	State	Municipality / Mun. Council	NA	NA	
AUS	Australia	Territory	Shire	NA	NA	
AUS	Australia	Territory	City	NA	NA	
AUS	Australia	State	NA	NA	NA	
AUS	Australia	State	Borough	NA	NA	
AUT	Austria	State	District	NA	NA	
AUT	Austria	State	Statutory City	NA	NA	
AUT	Austria	State	NA	NA	NA	
AZE	Azerbaijan	District	NA	NA	NA	
AZE	Azerbaijan	City	NA	NA	NA	
BDI	Burundi	Province	Commune	Colline	Sous Colline	
BDI	Burundi	Province	Water body	Water body	Water body	
BDI	Burundi	Province	Commune	Water body	Water body	
BDI	Burundi	Province	Commune	NA	NA	
BEL	Belgium	Region	Province	Arrondissement	Commune	
BEL	Belgium	Region	Capital Region	Arrondissement	Commune	
BEN	Benin	Department	Commune	NA	NA	
BES	Bonaire, Saint Eustatius and Saba	NA	NA	NA	NA	
BFA	Burkina Faso	Province	Department	NA	NA	
BGD	Bangladesh	Division	NA	District	Sub-district	
BGR	Bulgaria	Province	Municipality	NA	NA	
BGR	Bulgaria	Province	City	NA	NA	
BHR	Bahrain	Governorate	NA	NA	NA	
BHS	Bahamas	District	NA	NA	NA	
BIH	Bosnia and Herzegovina	Entity	Canton	Commune	NA	
BIH	Bosnia and Herzegovina	District	NA	Commune	NA	
BLM	Saint-Barthélemy	NA	NA	NA	NA	
BLR	Belarus	Region	District	NA	NA	
BLZ	Belize	District	NA	NA	NA	
BMU	Bermuda	Parish	NA	NA	NA	
BMU	Bermuda	Municipality	NA	NA	NA	
BOL	Bolivia	Department	Province	Municipality	NA	
BRA	Brazil	State	Municipality	District	NA	
BRA	Brazil	Federal District	Administrative Region	District	NA	
BRA	Brazil	State	Outlying Island	NA	NA	
BRB	Barbados	Parish	NA	NA	NA	
BRN	Brunei	District	Mukim	NA	NA	
BTN	Bhutan	District	Unknown	NA	NA	
BVT	Bouvet Island	NA	NA	NA	NA	
BWA	Botswana	District	Unknown	NA	NA	
BWA	Botswana	District	Town Council	NA	NA	
BWA	Botswana	District	Sub-district	NA	NA	
CA-	Caspian Sea	NA	NA	NA	NA	
CAF	Central African Republic	Prefecture	Sub-prefecture	NA	NA	
CAF	Central African Republic	Economic Prefecture	Sub-prefecture	NA	NA	

CAF	Central African Republic	Autonomous Commune	Sub-prefecture	NA	NA	
CAN	Canada	Province	Census Division	Municipal District	NA	
CAN	Canada	Province	Census Division	Summer Village	NA	
CAN	Canada	Province	Regional District	Regional District Electoral Area	NA	
CAN	Canada	Province	Regional District	District Municipality	NA	
CAN	Canada	Province	Census Division	Village	NA	
CAN	Canada	Province	Regional District	Indian Reserve	NA	
CAN	Canada	Province	Census Division	Rural Municipality	NA	
CAN	Canada	Province	Census Division	Town	NA	
CAN	Canada	Province	Regional District	City	NA	
CAN	Canada	Province	County	Village Nordique	NA	
CAN	Canada	Province	Census Division	Indian Reserve	NA	
CAN	Canada	Province	Census Division	City	NA	
CAN	Canada	Province	Census Division	Unorganized	NA	
CAN	Canada	Territory	Region	Hamlet	NA	
CAN	Canada	Province	Census Division	Subdivision of Unorganized	NA	
CAN	Canada	Province	District	Indian Reserve	NA	
CAN	Canada	Territory	Region	Unorganized	NA	
CAN	Canada	Territory	Region	Town	NA	
CAN	Canada	Territory	Region	Chartered Community	NA	
CAN	Canada	Province	County	Inuite Land	NA	
CAN	Canada	Province	Regional District	Nisga'a Village	NA	
CAN	Canada	Province	County	Village Cri	NA	
CAN	Canada	Province	Census Division	Northern Village	NA	
CAN	Canada	Province	Census Division	Resort Village	NA	
CAN	Canada	Province	Region	Indian Reserve	NA	
CAN	Canada	Province	Census Division	County Municipality	NA	
CAN	Canada	Province	Regional District	Village	NA	
CAN	Canada	Province	District	Indian Settlement	NA	
CAN	Canada	Province	Census Division	Ville	NA	
CAN	Canada	Province	Regional County Municipality	Unorganized	NA	
CAN	Canada	Province	Census Division	Improvement District	NA	
CAN	Canada	Province	Regional District	Town	NA	
CAN	Canada	Territory	Territory	Indian Reserve	NA	
CAN	Canada	Territory	Region	Settlement	NA	
CAN	Canada	Territory	Territory	Indian Settlement	NA	
CAN	Canada	Territory	Territory	Hamlet	NA	
CAN	Canada	Territory	Region	Indian Reserve	NA	
CAN	Canada	Province	Census Division	Regional Municipality	NA	
CAN	Canada	Province	Region	Indian Settlement	NA	
CAN	Canada	Province	Regional District	Indian Settlement	NA	
CAN	Canada	Province	Census Division	Indian Settlement	NA	
CAN	Canada	Province	Census Division	Northern Hamlet	NA	
CAN	Canada	Territory	Territory	Unorganized	NA	
CAN	Canada	Province	Census Division	Municipality	NA	
CAN	Canada	Territory	Territory	Settlement	NA	
CAN	Canada	Territory	Territory	Town	NA	
CAN	Canada	Territory	Territory	Village	NA	
CAN	Canada	Territory	Region	City	NA	
CAN	Canada	Province	County	Unorganized	NA	
CAN	Canada	Territory	Region	Village	NA	
CAN	Canada	Territory	Territory	City	NA	
CAN	Canada	Province	Census Division	Specialized Municipality	NA	
CAN	Canada	Province	District	Town	NA	
CAN	Canada	Province	County	Parish	NA	
CAN	Canada	Province	Regional County Municipality	Parish Municipality	NA	
CAN	Canada	Province	County	Community	NA	
CAN	Canada	Province	County	Town	NA	
CAN	Canada	Territory	Territory	Teslin Land	NA	
CAN	Canada	Province	Region	Regional District Electoral Area	NA	
CAN	Canada	Province	County	Land Reserved	NA	
CAN	Canada	Province	County	Village Naskapi	NA	
CAN	Canada	Province	Census Division	Local Government District	NA	
CAN	Canada	Province	Census Division	Land Reserved	NA	
CAN	Canada	Province	District	Unorganized	NA	
CAN	Canada	Province	Regional District	Nisga'a Land	NA	
CAN	Canada	Province	County	Municipality	NA	
CAN	Canada	Province	Regional County Municipality	Village	NA	
CAN	Canada	Province	Regional County Municipality	Municipality	NA	
CAN	Canada	Province	Regional County Municipality	Canton Municipality	NA	
CAN	Canada	Province	County	Village	NA	
CAN	Canada	Province	Regional County Municipality	Ville	NA	
CAN	Canada	Province	County	Township and Royalty	NA	
CAN	Canada	Province	District	Township	NA	
CAN	Canada	Province	County	Ville	NA	
CAN	Canada	Province	County	Township	NA	
CAN	Canada	Province	Census Division	Special Area	NA	
CAN	Canada	Province	County	Indian Reserve	NA	
CAN	Canada	Province	Regional County Municipality	United Cantons Municipality	NA	
CAN	Canada	Province	Regional County Municipality	Indian Reserve	NA	
CAN	Canada	Province	Census Division	Region	NA	
CAN	Canada	Province	Census Division	Canton Municipality	NA	

CAN	Canada	Province	County	Indian Settlement	NA	
CAN	Canada	Province	Regional District	Indian Government District	NA	
CAN	Canada	Province	District	City	NA	
CAN	Canada	Province	County	City	NA	
CAN	Canada	Province	United County	City	NA	
CAN	Canada	Province	County	Municipal District	NA	
CAN	Canada	Province	Regional District	Island Municipality	NA	
CAN	Canada	Province	Water body	Water body	NA	
CAN	Canada	Province	District	Village	NA	
CAN	Canada	Province	Regional County Municipality	Indian Settlement	NA	
CAN	Canada	Province	United Counties	Township	NA	
CAN	Canada	Province	County	Subdivision of County Municipality	NA	
CAN	Canada	Province	United County	Township	NA	
CAN	Canada	Province	District Municipality	Township	NA	
CAN	Canada	Province	County	Parish Municipality	NA	
CAN	Canada	Province	Regional Municipality	City	NA	
CAN	Canada	Province	Regional Municipality	Town	NA	
CAN	Canada	Province	County	Rural Community	NA	
CAN	Canada	Province	County	Regional Municipality	NA	
CAN	Canada	Province	Regional Municipality	Township	NA	
CAN	Canada	Province	United Counties	Town	NA	
CAN	Canada	Province	United Counties	City	NA	
CAN	Canada	Province	United County	Town	NA	
CAN	Canada	Province	District Municipality	Town	NA	
CAN	Canada	Province	United Counties	Village	NA	
CAN	Canada	Province	District Municipality	Indian Reserve	NA	
CAN	Canada	Province	United Counties	Indian Reserve	NA	
CAN	Canada	Province	United County	Village	NA	
CAN	Canada	Province	Regional Municipality	Indian Reserve	NA	
CCK	Cocos Islands	NA	NA	NA	NA	
CHE	Switzerland	Canton	District	Water body	NA	
CHE	Switzerland	Canton	District	Municipality	NA	
CHE	Switzerland	Canton	Water body	Water body	NA	
CHL	Chile	Region	Province	Municipality	NA	
CHN	China	Autonomous Region	Prefecture	County	NA	
CHN	China	Province	Prefecture City	County	NA	
CHN	China	Province	Prefecture City	County City	NA	
CHN	China	Autonomous Region	League	Banner	NA	
CHN	China	Autonomous Region	Prefecture City	Banner	NA	
CHN	China	Municipality	Municipality	District	NA	
CHN	China	Autonomous Region	Prefecture City	County	NA	
CHN	China	Province	Prefecture City	District	NA	
CHN	China	Province	Autonomous Prefecture	County	NA	
CHN	China	Autonomous Region	Prefecture	County City	NA	
CHN	China	Province	Prefecture City	Autonomous County	NA	
CHN	China	Autonomous Region	Prefecture City	District	NA	
CHN	China	Autonomous Region	Prefecture City	County City	NA	
CHN	China	Municipality	Municipality	County	NA	
CHN	China	Autonomous Region	Autonomous Prefecture	County	NA	
CHN	China	Autonomous Region	Autonomous Prefecture	Autonomous County	NA	
CHN	China	Province	Autonomous Prefecture	Autonomous County	NA	
CHN	China	Province	Prefecture	County	NA	
CHN	China	Province	Prefecture	County City	NA	
CHN	China	Province	Prefecture	District	NA	
CHN	China	Autonomous Region	Prefecture City	Autonomous Banner	NA	
CHN	China	Autonomous Region	Prefecture	Autonomous County	NA	
CHN	China	Autonomous Region	Autonomous Prefecture	County City	NA	
CHN	China	Province	Autonomous Prefecture	County City	NA	
CHN	China	Autonomous Region	League	County City	NA	
CHN	China	Autonomous Region	League	County	NA	
CHN	China	Municipality	Municipality	Municipality	NA	
CHN	China	Autonomous Region	Prefecture City	Autonomous County	NA	
CHN	China	Province	Autonomous Prefecture	Administrative Committee	NA	
CHN	China	Province	Prefecture	Autonomous County	NA	
CHN	China	Province	Prefecture City	New District	NA	
CHN	China	Province	Prefecture City	Special District	NA	
CHN	China	Province	Autonomous Prefecture	Autonomous Prefecture	NA	
CHN	China	Province	Autonomous Prefecture	District	NA	
CHN	China	Island	Island	Island	NA	
CIV	Côte d'Ivoire	Region	Department	Sub-prefecture	NA	
CL-	Clipperton Island	NA	NA	NA	NA	
CMR	Cameroon	Province	Department	NA	NA	
COD	Democratic Republic of the Congo	Province	Sub-region	NA	NA	
COD	Democratic Republic of the Congo	Neutral City	Sub-region	NA	NA	
COG	Republic of Congo	Region	District	NA	NA	
COK	Cook Islands	NA	NA	NA	NA	
COL	Colombia	Department	Municipality	NA	NA	
COL	Colombia	Intendancy	Municipality	NA	NA	
COL	Colombia	Commissiary	Municipality	NA	NA	
COL	Colombia	Commissiary	Corregimiento Departamento	NA	NA	
COL	Colombia	Department	NA	NA	NA	
COL	Colombia	Commissiary	NA	NA	NA	

COL	Colombia	Department	Corregimiento Departamento	NA	NA	
COM	Comoros	Autonomous Island	NA	NA	NA	
CPV	Cape Verde	County	NA	NA	NA	
CRI	Costa Rica	Province	Canton	NA	NA	
CUB	Cuba	Province	Municipality	NA	NA	
CUW	Curaçao	NA	NA	NA	NA	
CXR	Christmas Island	NA	NA	NA	NA	
CYM	Cayman Islands	District	NA	NA	NA	
CYP	Cyprus	District	NA	NA	NA	
CZE	Czech Republic	Region	District	NA	NA	
CZE	Czech Republic	Region	Statutory city	NA	NA	
DEU	Germany	State	Administrative Region	Urban district	NA	
DEU	Germany	State	Administrative Region	Rural district	NA	
DEU	Germany	State	Administrative Region	NA	NA	
DEU	Germany	State	State|Federal State	Rural district	NA	
DEU	Germany	State	State|Federal State	Urban district	NA	
DEU	Germany	State	City	NA	NA	
DEU	Germany	State	City	Urban district	NA	
DJI	Djibouti	Region	District	NA	NA	
DJI	Djibouti	City	District	NA	NA	
DMA	Dominica	Parish	NA	NA	NA	
DNK	Denmark	County	Municipality	NA	NA	
DOM	Dominican Republic	Province	Municipality	NA	NA	
DOM	Dominican Republic	Province	NA	NA	NA	
DOM	Dominican Republic	Province	Municipal district	NA	NA	
DOM	Dominican Republic	National District	Municipality	NA	NA	
DZA	Algeria	Province	Commune	NA	NA	
DZA	Algeria	Province	Commune-Cotiere	NA	NA	
DZA	Algeria	Province	Chef-Lieu-Wilaya	NA	NA	
DZA	Algeria	Province	NA	NA	NA	
ECU	Ecuador	Province	Canton	Parish	NA	
ECU	Ecuador	Province	Canton	NA	NA	
EGY	Egypt	Governorate	NA	NA	NA	
ERI	Eritrea	Region	District	NA	NA	
ESH	Western Sahara	Province	NA	NA	NA	
ESP	Spain	Autonomous Community	Province	Comarca	Municipality	
ESP	Spain	Autonomous City	Autonomous City	Comarca	Municipality	
EST	Estonia	County	Parish	NA	NA	
EST	Estonia	County	Town	NA	NA	
EST	Estonia	County	NA	NA	NA	
EST	Estonia	Water body	NA	NA	NA	
ETH	Ethiopia	Administrative State	Zone	District	NA	
FIN	Finland	Province	Region	Sub-Region	Municipality	
FJI	Fiji	Division	Province	NA	NA	
FLK	Falkland Islands	NA	NA	NA	NA	
FRA	France	Region	Department	Districts	Cantons	
FRA	France	Region	Department	Districts	Water body	
FRA	France	Region	Department	Water body	Water body	
FRO	Faroe Islands	Region	Commune	NA	NA	
FSM	Micronesia	State	NA	NA	NA	
GAB	Gabon	Province	Department	NA	NA	
GBR	United Kingdom	Kingdom	London Borough	NA	NA	
GBR	United Kingdom	Kingdom	Island Area	NA	NA	
GBR	United Kingdom	Kingdom	Unitary District (city)	NA	NA	
GBR	United Kingdom	Province	District	NA	NA	
GBR	United Kingdom	Kingdom	Unitary Authority	NA	NA	
GBR	United Kingdom	Kingdom	Unitary District	NA	NA	
GBR	United Kingdom	Kingdom	Administrative County	NA	NA	
GBR	United Kingdom	Kingdom	London Borough (royal)	NA	NA	
GBR	United Kingdom	Kingdom	County	NA	NA	
GBR	United Kingdom	Kingdom	Unitary Authority (city)	NA	NA	
GBR	United Kingdom	Kingdom	London Borough (city)	NA	NA	
GBR	United Kingdom	Principality	Unitary Authority (wales	NA	NA	
GBR	United Kingdom	Kingdom	Metropolitan County	NA	NA	
GBR	United Kingdom	Kingdom	Metropolitan Borough (city)	NA	NA	
GBR	United Kingdom	Province	London Borough (city)	NA	NA	
GBR	United Kingdom	Kingdom	Unitary Authority (county)	NA	NA	
GEO	Georgia	Region	District	NA	NA	
GEO	Georgia	Autonomous Republic	District	NA	NA	
GEO	Georgia	Autonomous Republic	City	NA	NA	
GEO	Georgia	Region	City	NA	NA	
GEO	Georgia	Independent City	City	NA	NA	
GGY	Guernsey	NA	NA	NA	NA	
GHA	Ghana	Region	District	NA	NA	
GHA	Ghana	Region	Municipal District	NA	NA	
GHA	Ghana	Region	Metropolitan District	NA	NA	
GIB	Gibraltar	NA	NA	NA	NA	
GIN	Guinea	Region	Prefecture	Sub-prefecture	NA	
GLP	Guadeloupe	District	Commune	NA	NA	
GMB	Gambia	Division	District	NA	NA	
GMB	Gambia	Independent City	District	NA	NA	
GNB	Guinea-Bissau	Region	Sector	NA	NA	

GNB	Guinea-Bissau	Autonomous Sector	Sector	NA	NA	
GNQ	Equatorial Guinea	Province	NA	NA	NA	
GRC	Greece	Region	Prefecture	NA	NA	
GRC	Greece	Autonomous Monastic State	Autonomous Monastic State	NA	NA	
GRD	Grenada	Dependency	NA	NA	NA	
GRD	Grenada	Parish	NA	NA	NA	
GRL	Greenland	Province	Municipality	NA	NA	
GTM	Guatemala	Department	Municipality	NA	NA	
GTM	Guatemala	Department	Water body	NA	NA	
GUF	French Guiana	Arrondissement	Commune	NA	NA	
GUM	Guam	Municipality	NA	NA	NA	
GUY	Guyana	Region	Neighbourhood Democratic	NA	NA	
GUY	Guyana	Region	Not Classified	NA	NA	
GUY	Guyana	Region	Municipality	NA	NA	
GUY	Guyana	Region	Conservancy	NA	NA	
HKG	Hong Kong	District	NA	NA	NA	
HMD	Heard Island and McDonald Islands	NA	NA	NA	NA	
HND	Honduras	Department	Municipality	NA	NA	
HRV	Croatia	County	NA	NA	NA	
HRV	Croatia	City	NA	NA	NA	
HTI	Haiti	Department	NA	NA	NA	
HUN	Hungary	County	Subregion	NA	NA	
HUN	Hungary	Capital City	Subregion	NA	NA	
IDN	Indonesia	Province	Regency	NA	NA	
IDN	Indonesia	Province	Municipality	NA	NA	
IDN	Indonesia	City	Municipality	NA	NA	
IDN	Indonesia	City	Regency	NA	NA	
IDN	Indonesia	Autonomous Province	Regency	NA	NA	
IDN	Indonesia	Autonomous Province	Municipality	NA	NA	
IDN	Indonesia	Province	City	NA	NA	
IDN	Indonesia	Special region	Regency	NA	NA	
IDN	Indonesia	Province	Water body	NA	NA	
IDN	Indonesia	Province	Unknown	NA	NA	
IDN	Indonesia	Special region	Municipality	NA	NA	
IDN	Indonesia	Special district	Regency	NA	NA	
IDN	Indonesia	Special district	Municipality	NA	NA	
IMN	Isle of Man	NA	NA	NA	NA	
IND	India	State	District	Taluk	NA	
IND	India	Union Territory	District	Taluk	NA	
IOT	British Indian Ocean Territory	NA	NA	NA	NA	
IRL	Ireland	County	NA	NA	NA	
IRN	Iran	Province	County	NA	NA	
IRN	Iran	Province	Unknown	NA	NA	
IRN	Iran	Province	Island	NA	NA	
IRQ	Iraq	Province	NA	NA	NA	
ISL	Iceland	Region	Municipality	NA	NA	
ISL	Iceland	Independent Town	Municipality	NA	NA	
ISR	Israel	District	NA	NA	NA	
ITA	Italy	Autonomous Region	Province	Commune	NA	
ITA	Italy	Region	Province	Commune	NA	
JAM	Jamaica	Parish	NA	NA	NA	
JEY	Jersey	NA	NA	NA	NA	
JOR	Jordan	Province	Sub-Province	NA	NA	
JPN	Japan	Prefecture	City	NA	NA	
JPN	Japan	Prefecture	Town	NA	NA	
JPN	Japan	Circuit	Town	NA	NA	
JPN	Japan	Circuit	City	NA	NA	
JPN	Japan	Prefecture	Village	NA	NA	
JPN	Japan	Metropolis	Special Ward	NA	NA	
JPN	Japan	Circuit	Village	NA	NA	
JPN	Japan	Urban Prefecture	Town	NA	NA	
JPN	Japan	Urban Prefecture	City	NA	NA	
JPN	Japan	Metropolis	City	NA	NA	
JPN	Japan	Prefecture	NA	NA	NA	
JPN	Japan	Circuit	Capital	NA	NA	
JPN	Japan	Prefecture	Unknown	NA	NA	
JPN	Japan	Urban Prefecture	Village	NA	NA	
JPN	Japan	Prefecture	Water body	NA	NA	
JPN	Japan	Metropolis	Town	NA	NA	
KAZ	Kazakhstan	Region	Assembly	NA	NA	
KAZ	Kazakhstan	Region	District	NA	NA	
KEN	Kenya	Province	District	Division	Location	
KEN	Kenya	National Capital Area	District	Division	Location	
KGZ	Kyrgyzstan	Region	NA	NA	NA	
KGZ	Kyrgyzstan	City	NA	NA	NA	
KHM	Cambodia	Province	District	Commune	Village	
KHM	Cambodia	Municipality	District	Commune	Village	
KIR	Kiribati	NA	NA	NA	NA	
KNA	Saint Kitts and Nevis	Parish	NA	NA	NA	
KO-	Kosovo	District	Town|Municipal	NA	NA	
KOR	South Korea	Province	City	NA	NA	
KOR	South Korea	Province	County	NA	NA	

KOR	South Korea	Metropolitan City	County	NA	NA	
KOR	South Korea	Metropolitan City	District	NA	NA	
KOR	South Korea	Capital Metropolitan City	District	NA	NA	
KWT	Kuwait	Province	NA	NA	NA	
LAO	Laos	Province	District	NA	NA	
LAO	Laos	Special Region|Zone	District	NA	NA	
LAO	Laos	Municipality|Prefecture	District	NA	NA	
LBN	Lebanon	Province	County	NA	NA	
LBR	Liberia	County	District	Clan	NA	
LBY	Libya	Municipality|Governarate	NA	NA	NA	
LCA	Saint Lucia	Quarter	NA	NA	NA	
LIE	Liechtenstein	Commune	NA	NA	NA	
LKA	Sri Lanka	District	Division	NA	NA	
LSO	Lesotho	District	NA	NA	NA	
LTU	Lithuania	County	City Municipality	NA	NA	
LTU	Lithuania	County	District Municipality	NA	NA	
LTU	Lithuania	County	Municipality	NA	NA	
LUX	Luxembourg	District	Canton	Commune	Commune (same as level 3)	
LUX	Luxembourg	District	Canton	Commune	Quarter	
LVA	Latvia	Province	District	NA	NA	
MAC	Macao	District	NA	NA	NA	
MAF	Saint-Martin	NA	NA	NA	NA	
MAR	Morocco	Region	Province	District	Rural Commune	
MAR	Morocco	Region	Province	Unknown	Urban Commune	
MAR	Morocco	Region	Prefecture	District	Rural Commune	
MAR	Morocco	Region	Prefecture	Unknown	Urban Commune	
MAR	Morocco	Region	Province	District	Urban Commune	
MCO	Monaco	Commune	NA	NA	NA	
MDA	Moldova	District	NA	NA	NA	
MDA	Moldova	City	NA	NA	NA	
MDA	Moldova	Territorial Unit	NA	NA	NA	
MDA	Moldova	Autonomous Territory	NA	NA	NA	
MDG	Madagascar	Autonomous Province	Region	District	Commune	
MDV	Maldives	NA	NA	NA	NA	
MEX	Mexico	State	Municipality	NA	NA	
MEX	Mexico	Federal District	Municipality	NA	NA	
MHL	Marshall Islands	NA	NA	NA	NA	
MKD	Macedonia	Statistical Region	Municipality	NA	NA	
MKD	Macedonia	Statistical Region	Waterbody	NA	NA	
MLI	Mali	Region	Circle	Arrondissement	Commune	
MLI	Mali	Region	Circle	Arrondissement	Urban Commune	
MLI	Mali	District	Circle	Arrondissement	Commune	
MLT	Malta	NA	NA	NA	NA	
MMR	Myanmar	Division	District	Village|Township	NA	
MMR	Myanmar	State	District	Village|Township	NA	
MNE	Montenegro	Municipality	NA	NA	NA	
MNG	Mongolia	Province	Sum	NA	NA	
MNG	Mongolia	Municipality	Sum	NA	NA	
MNP	Northern Mariana Islands	Municipality	NA	NA	NA	
MOZ	Mozambique	Province	District	Locality	NA	
MRT	Mauritania	Region	Department	NA	NA	
MRT	Mauritania	District	Department	NA	NA	
MSR	Montserrat	NA	NA	NA	NA	
MTQ	Martinique	Arrondissement	Commune	NA	NA	
MUS	Mauritius	District	NA	NA	NA	
MWI	Malawi	District	Traditional Authority	Unknown	NA	
MWI	Malawi	District	Sub-chief	Unknown	NA	
MWI	Malawi	District	National Park	Unknown	NA	
MWI	Malawi	District	Headquarter	Unknown	NA	
MWI	Malawi	District	Water body	Unknown	NA	
MWI	Malawi	District	Town	Unknown	NA	
MWI	Malawi	District	Reserve	Unknown	NA	
MWI	Malawi	District	City	Unknown	NA	
MWI	Malawi	District	Urban	Unknown	NA	
MYS	Malaysia	State	District	NA	NA	
MYT	Mayotte	Commune	NA	NA	NA	
NAM	Namibia	Region	Constituency	NA	NA	
NCL	New Caledonia	Province	Commune	NA	NA	
NER	Niger	Department	Arrondissement	Commune	NA	
NER	Niger	Capital District	Arrondissement	Commune	NA	
NFK	Norfolk Island	NA	NA	NA	NA	
NGA	Nigeria	State	Local Authority	NA	NA	
NGA	Nigeria	Water body	Local Authority	NA	NA	
NIC	Nicaragua	Department	Municipality	NA	NA	
NIC	Nicaragua	Department	Water body	NA	NA	
NIC	Nicaragua	Autonomous Region	Municipality	NA	NA	
NIC	Nicaragua	Water body	Water body	NA	NA	
NIU	Niue	NA	NA	NA	NA	
NLD	Netherlands	Province	Municipality	NA	NA	
NLD	Netherlands	Water body	Water body	NA	NA	
NOR	Norway	County	Municipality	NA	NA	
NPL	Nepal	Development Region	Administrative Zone	District	NA	

NPL	Nepal	NA	NA	District	NA	
NPL	Nepal	Development Region	Administrative Zone	NA	NA	
NRU	Nauru	District	NA	NA	NA	
NZL	New Zealand	Regional Council	District	Unknown	NA	
NZL	New Zealand	Regional Council	Unknown	NA	NA	
NZL	New Zealand	Territorial Authority	Territory	Unknown	NA	
NZL	New Zealand	Regional Council	City	Unknown	NA	
NZL	New Zealand	Unitary Authority	District	Unknown	NA	
NZL	New Zealand	Regional Council	Unknown	Unknown	NA	
NZL	New Zealand	Unitary Authority	City	Unknown	NA	
OMN	Oman	Region	Province	NA	NA	
OMN	Oman	Province	Province	NA	NA	
PAK	Pakistan	Province	Division	District	NA	
PAK	Pakistan	Centrally Administered Area	Division	District	NA	
PAK	Pakistan	Territory	Division	District	NA	
PAK	Pakistan	Capital Territory	Division	District	NA	
PAN	Panama	Province	District	Municipality	NA	
PAN	Panama	Indigenous Territory	District	Municipality	NA	
PAN	Panama	Province	Indigenous Territory	Municipality	NA	
PAN	Panama	Indigenous Territory	Indigenous Territory	Municipality	NA	
PAN	Panama	Province	Water body	Water body	NA	
PAN	Panama	Province	Indigenous Territory	Indigenous Territory	NA	
PCN	Pitcairn Islands	NA	NA	NA	NA	
PER	Peru	Department	Province	District	NA	
PHL	Philippines	Province	Municipality	Village	NA	
PHL	Philippines	Province	City	Village	NA	
PHL	Philippines	Province	Waterbody	Waterbody	NA	
PLW	Palau	State	NA	NA	NA	
PNG	Papua New Guinea	Province	NA	NA	NA	
POL	Poland	Voivodeship|Province	County	NA	NA	
POL	Poland	Voivodeship|Province	City	NA	NA	
PRI	Puerto Rico	Municipality	NA	NA	NA	
PRK	North Korea	Province	County	NA	NA	
PRK	North Korea	Province	City	NA	NA	
PRK	North Korea	Special City	NA	NA	NA	
PRK	North Korea	Special City	County	NA	NA	
PRK	North Korea	Directly Governed City	County	NA	NA	
PRK	North Korea	Directly Governed City	Ward	NA	NA	
PRK	North Korea	Special Administrative Region	City	NA	NA	
PRK	North Korea	Province	Ward	NA	NA	
PRK	North Korea	Special Administrative Region	NA	NA	NA	
PRT	Portugal	District	Municipality	Parish	NA	
PRT	Portugal	Autonomous region	Municipality	Parish	NA	
PRY	Paraguay	Department	District	NA	NA	
PRY	Paraguay	Capital District	District	NA	NA	
PRY	Paraguay	Department	Water body	NA	NA	
PSE	Palestina	District	Governorate	NA	NA	
PYF	French Polynesia	NA	NA	NA	NA	
QAT	Qatar	Municipality	NA	NA	NA	
REU	Reunion	Arrondissement	Commune	NA	NA	
ROU	Romania	County	NA	NA	NA	
ROU	Romania	City	NA	NA	NA	
RUS	Russia	Region	District	NA	NA	
RUS	Russia	Territory	District	NA	NA	
RUS	Russia	Republic	District	NA	NA	
RUS	Russia	Region	City	NA	NA	
RUS	Russia	Region	Water body	NA	NA	
RUS	Russia	Autonomous Province	City	NA	NA	
RUS	Russia	Republic	City	NA	NA	
RUS	Russia	Autonomous Province	District	NA	NA	
RUS	Russia	Region	NA	NA	NA	
RUS	Russia	City	NA	NA	NA	
RUS	Russia	Autonomous Province	Autonomous Okurg	NA	NA	
RUS	Russia	Republic	Water body	NA	NA	
RUS	Russia	Territory	City	NA	NA	
RUS	Russia	Territory	Water body	NA	NA	
RUS	Russia	Autonomous Region	District	NA	NA	
RUS	Russia	Republic	NA	NA	NA	
RWA	Rwanda	Prefecture	Commune	NA	NA	
SAU	Saudi Arabia	Region	NA	NA	NA	
SDN	Sudan	Region	State	District	Unknown	
SEN	Senegal	Region	Department	Arrondissement	NA	
SEN	Senegal	Region	Department	Arrondissement	Commune	
SGP	Singapore	NA	NA	NA	NA	
SGS	South Georgia and the South Sandwich Islands	NA	NA	NA	NA	
SHN	Saint Helena	Administrative Area	NA	NA	NA	
SHN	Saint Helena	Dependency	NA	NA	NA	
SJM	Svalbard and Jan Mayen	Territory	NA	NA	NA	
SLB	Solomon Islands	Province	NA	NA	NA	
SLE	Sierra Leone	Province	District	Chiefdom	NA	
SLE	Sierra Leone	Province	Area	Chiefdom	NA	
SLV	El Salvador	Department	Municipality	NA	NA	

SMR	San Marino	Municipality	NA	NA	NA	
SMX	Sint Maarten	NA	NA	NA	NA	
SOM	Somalia	Region	District	NA	NA	
SP-	Spratly islands	NA	NA	NA	NA	
SPM	Saint Pierre and Miquelon	Commune	NA	NA	NA	
SRB	Serbia	District	Town|Municipal	NA	NA	
SRB	Serbia	City	Town|Municipal	NA	NA	
SSD	South Sudan	Region	State	District	Unknown	
STP	Sao Tome and Principe	Municipality	NA	NA	NA	
SUR	Suriname	District	Ressort	NA	NA	
SVK	Slovakia	Region	District	NA	NA	
SVN	Slovenia	Statistical Region	Commune|Municipality	NA	NA	
SWE	Sweden	County	Municipality	NA	NA	
SWZ	Swaziland	District	NA	NA	NA	
SYC	Seychelles	NA	NA	NA	NA	
SYR	Syria	Province	District	NA	NA	
TCA	Turks and Caicos Islands	District	NA	NA	NA	
TCD	Chad	Prefecture	Department	Sub-prefecture	NA	
TCD	Chad	Préfecture	Department	Sub-prefecture	NA	
TGO	Togo	Region	Prefecture	NA	NA	
TGO	Togo	Region	Commune and Prefecture	NA	NA	
THA	Thailand	Province	District	Sub district	NA	
THA	Thailand	Province	Minor district	Sub district	NA	
THA	Thailand	Lake	Lake	Lake	NA	
TJK	Tajikistan	Region	NA	NA	NA	
TKL	Tokelau	Atoll	NA	NA	NA	
TKM	Turkmenistan	Province	NA	NA	NA	
TLS	East Timor	District|Regencies	Sub-district	NA	NA	
TON	Tonga	Island Group	NA	NA	NA	
TTO	Trinidad and Tobago	Region	NA	NA	NA	
TTO	Trinidad and Tobago	City	NA	NA	NA	
TTO	Trinidad and Tobago	Borough	NA	NA	NA	
TUN	Tunisia	Governorate	Delegation	NA	NA	
TUN	Tunisia	Governorate	Water Body	NA	NA	
TUR	Turkey	Province	District	NA	NA	
TUV	Tuvalu	Island Council	NA	NA	NA	
TUV	Tuvalu	Town Council	NA	NA	NA	
TWN	Taiwan	Province	County	NA	NA	
TWN	Taiwan	Province	Municipality	NA	NA	
TWN	Taiwan	Special Municipality	Special Municipality	NA	NA	
TWN	Taiwan	NA	NA	NA	NA	
TZA	Tanzania	Region	District	Division	NA	
TZA	Tanzania	Region	Water body	Water body	NA	
TZA	Tanzania	Region	District	Water body	NA	
UGA	Uganda	District	County	Sub-county	Parish	
UGA	Uganda	District	Municipality	Sub-county	Parish	
UGA	Uganda	District	City council	Sub-county	Parish	
UGA	Uganda	Water body	Water body	Water body	Water body	
UKR	Ukraine	Region	District	NA	NA	
UKR	Ukraine	Region	City	NA	NA	
UKR	Ukraine	Region	Mis'ka Rada	NA	NA	
UKR	Ukraine	Independent City	Raion	NA	NA	
UKR	Ukraine	Region	Raion	NA	NA	
UKR	Ukraine	Region	NA	NA	NA	
UKR	Ukraine	Autonomous Republic	District	NA	NA	
UKR	Ukraine	Autonomous Republic	Raion	NA	NA	
UKR	Ukraine	Autonomous Republic	City	NA	NA	
UKR	Ukraine	Autonomous Republic	Mis'ka Rada	NA	NA	
UMI	United States Minor Outlying Islands	Atoll	NA	NA	NA	
UMI	United States Minor Outlying Islands	Reef	NA	NA	NA	
UMI	United States Minor Outlying Islands	Island	NA	NA	NA	
UMI	United States Minor Outlying Islands	NA	NA	NA	NA	
UMI	United States Minor Outlying Islands	Island|Atoll	NA	NA	NA	
URY	Uruguay	Department	Poblacion	NA	NA	
USA	United States	State	County	NA	NA	
USA	United States	State	Parish	NA	NA	
USA	United States	State	Water body	NA	NA	
USA	United States	State	Borough	NA	NA	
USA	United States	State	Census Area	NA	NA	
USA	United States	State	Municipality	NA	NA	
USA	United States	State	City and Borough	NA	NA	
USA	United States	State	Independent City	NA	NA	
USA	United States	Federal District	District	NA	NA	
USA	United States	State	City and County	NA	NA	
UZB	Uzbekistan	Automonous Region	City	NA	NA	
UZB	Uzbekistan	Region	District	NA	NA	
UZB	Uzbekistan	Region	City	NA	NA	
UZB	Uzbekistan	Automonous Region	District	NA	NA	
UZB	Uzbekistan	Automonous Region	Waterbody	NA	NA	
UZB	Uzbekistan	City	City	NA	NA	
VAT	Vatican City	NA	NA	NA	NA	
VCT	Saint Vincent and the Grenadines	Parish	NA	NA	NA	

VEN	Venezuela	NA	Municipality	NA	NA	
VEN	Venezuela	NA	Water Body	NA	NA	
VGB	British Virgin Islands	NA	NA	NA	NA	
VIR	Virgin Islands, U.S.	District	NA	NA	NA	
VNM	Vietnam	Region	Province	District	Commune	
VNM	Vietnam	Region	Province	City	Commune	
VNM	Vietnam	Region	Province	Township	Commune	
VNM	Vietnam	Region	Province	District	Townlet	
VNM	Vietnam	Region	Province	City	Ward	
VNM	Vietnam	Region	Province	Township	Ward	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	District	Ward	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	Urban District	Ward	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	District	Commune	
VNM	Vietnam	Region	Province	District	Ward	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	District	Townlet	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	District	Town	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	Island	Commune	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	Township	Ward	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	Township	Commune	
VNM	Vietnam	Region	City|Municipality|Thanh Pho	Urban District	Commune	
VNM	Vietnam	Region	Province	District	Sub Town	
VNM	Vietnam	Region	Province	Island	Commune	
VNM	Vietnam	Region	Province	Township	Townlet	
VUT	Vanuatu	Province	NA	NA	NA	
WLF	Wallis and Futuna	Kingdom	District	NA	NA	
WSM	Samoa	District	Unknown	NA	NA	
YEM	Yemen	Governorate	District	NA	NA	
YEM	Yemen	City	District	NA	NA	
ZAF	South Africa	Province	Magisterial District	NA	NA	
ZMB	Zambia	Province	District	NA	NA	
ZWE	Zimbabwe	Province	District	NA	NA	
ZWE	Zimbabwe	City	District	NA	NA	