



**Improving access to FORest GENetic resources
Information and services for end-Users**

Deliverable D6.2 Updated and final design of the web application

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1 Summary

The design of the web application is ready to be tested by partners, EUFGIS National Focal points and other real-life users. This report gives an overall description of the main features and functionalities but for deeper understanding of the design, it is advisable to use the application itself. However, because of the data protection during the project and up to one year after the project finalisation, the link to the application is not yet made visible to the general public but is shared directly with the relevant stakeholders.

2 Introduction

The design of the web application is based on the information content, data sources and end user needs, as defined during the course of the project. The early process is described in more detail in the Report Design of the web application (D6.1). In EUFGIS, the basic information on Genetic Conservation Units (GCUs) is provided by National Focal Points, characterisation is provided by the project and part of the information is acquired from other public information systems.

3 Results

An overall description of the design is given below but for deeper understanding of the design it is advisable to use the application itself. Because of the data protection during the project and up to one year after the project finalisation, the link to the application is not yet made visible in the report but is shared directly with the relevant stakeholders.

Homepage

The homepage welcomes the user to the portal and presents very shortly some key information on EUFGIS. It provides selected basic information on the amount of data that is stored in the database, presently 3205 GCUs, covering 107 species in 35 countries. These figures are interactive and by clicking on them one can directly select a GCU, species or country. Below this, there is an interactive map, showing all the GCUs in Europe from which the user can select a GCU to make its data visible.

In the upper right corner of the home page the user finds four function buttons: VIEW INFORMATION, LOGIN, REGISTER and SEARCH. The first one, VIEW INFORMATION, brings the user to the page from which they can select a species and/or a country. The LOGIN button opens the page where registered users, such as NFPs and other persons authorised to upload data, can login to the system. Users that want to download data also login from this page once they are registered. For anybody downloading data, registering is obligatory. This happens via the REGISTER button that leads to a page where the user must provide necessary personal information. After registration and approval, the user will be

provided with personal login credentials. Registration is not yet functional in the beta-version. When clicking the SEARCH button, a box appears in which the user can enter up to 12 different criteria to search for GCUs.

From the upper bar of the homepage the user can choose different directions, as shown in the sitemap (bottom of homepage, Fig 1).

- Home
- About
 - Overview
 - Development of EUFGIS
 - Genetic conservation units
 - Data standards
- Data sources
 - National Data Providers
 - Research projects
 - Other data sources
- Data
 - GCU
 - Indices
- Search
- Linked IS
 - FOREMATIS
 - GD2
- Status of conservation
 - Countries
 - Species
- Guide
- How to provide data
- Contacts
- Sitemap

Figure 1: EUFGIS sitemap

On the very bottom of the home page the five categories of characterization indicators are shown with the number of indices in each category: Genetic, Modelled, Phenotypic, Forest and Environmental. At the moment, these figures are not interactive, pending further testing and comments by stakeholders.

Information at the GCU and population level

After having selected a GCU, via DATA in the upper bar and then via either species or country, the user comes to a site that provides the basic information on the GCU, as provided by the National Focal Points (NFP), namely the name of the unit, location, unit type and tree species growing in the unit. This page also includes an interactive map, showing the polygon of the site, if available. If a polygon is not available, the location of the GCU is shown as a dot with a circle around it, its size relative to the surface area of the GCU.

From this page by clicking the tab 'site', the user gets more detailed information on GCU's climate data, data from remote sensing, surface data and environmental data from characterisation by FORGENIUS. Climate data is obtained from linked databases Chelsa and WorldclimII, and surface data from the Copernicus European Drought Observatory (EDO).

Clicking the tab 'population' at the GCU page brings the user to the basic information on the target species for conservation, as provided by the NFP.

Clicking tab 'indices' shows the different indices in each of the five categories for the target population that were provided by FORGENIUS, as far as available.

Links to FOREMATIS and GD2

The EUFGIS database has been linked to both the FOREMATIS and the GD2 databases (tab LINKED IS in the upper bar). Currently it is possible to search for a given species the possible sources of forest reproductive material that are in vicinity of a selected GCU (FOREMATIS) or for populations with genotypic data in the vicinity of a given GCU (GD2). The user can define the vicinity with optional distances 0,5/1/2/5 km or view all units.

Reporting example

Although the layout for the visualisation of almost all output reports is planned, but not yet functional, one example has been included in the present beta version. Information on the status of conservation can be found both on the country and the species level, based on indicator 4.6 on genetic resources of the pan-European Criteria and Indicators for sustainable forest management under the Forest Europe process (tab STATUS OF CONSERVATION in the upper bar).

Manual and guidance

The guide or manual for the new portal has not yet been finalised, as too many changes are still being made to the technical implementation of the portal. However, in the portal there are already many integrated information boxes, marked with a blue circle with an "i", which provide the users with extensive background information for almost each of the indices that describe the GCUs and their target populations.

What is still missing

There are still elements of the portal that have been planned, but not yet technically implemented in the present beta version:

- In addition to the selection of GCUs by country, it will also be possible to select GCUs by ecological zones.
- The layout for the visualisation of almost all output reports except for the report on the status of conservation is still lacking..
- The possibility to select one or more GCUs for comparison.

- Disclaimers and guidance for referencing data from external databases.

First testing of the portal

A first testing of the portal by a small number of selected stakeholders during a workshop in Madrid, November 29th 2023, showed that the layout/design of the portal can be considered logical. Almost all participants were able to find specific information (five different checkpoints provided by the organisers) in a relatively short time, without any prior information about the portal, simply starting from the home page. The general feedback from this group of stakeholders was also very positive, although many suggestions were made to improve certain details.

4 Conclusions

The design of the web application is ready to be tested by project partners, EUFGIS National Focal Points (under WP7 leadership) and by real-life users (in T6.4). Further fine-tuning of the portal will be done based on the feedback from various user-groups. The design at its current state allows for developing the manual and interactive help in T6.3, so that also the guidance and help functions can be tested as part of the general testing of the portal.

5 Partners involved in the work

Luke, GIS, EFI, NV, BFW, CSIC-INIA, INRAE, CNR, ONF, VA/ETIFOR