European Forest Genetic Resources Programme (EUFORGEN) Phase VI (2020–2024)

TECHNICAL AND FINANCIAL REPORT 2024

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1. Executive Summary

The European Forest Genetic Resources Programme (EUFORGEN) is an international cooperation programme promoting the conservation and sustainable use of forest genetic resources in Europe as an integral part of sustainable forest management. As of 31 December 2024, EUFORGEN has a total of 29 member countries, which are collaborating to conserve and utilise forest tree genetic resources and manage forest tree species' populations for production of forest reproductive material.

Through EUFORGEN, European countries in 2021 launched the Forest Genetic Resources Strategy for Europe, a coordinated effort to improve the conservation and sustainable use of European forest genetic resources (FGR). Built on 20 years of pan-European collaboration, the strategy goes beyond current individual countries' efforts by supporting an implementation plan of common actions and recommendations, with clear roles for both the EUFORGEN network and European countries. EUFORGEN's activities, as defined in the "Strategic objectives and implementation plan for Phase VI" flow into the implementation of the Strategy.

This document reports EUFORGEN's activities in 2024, including those of the Steering Committee, the Secretariat and Working Groups. It presents the progress against the Implementation Plan for Phase VI and includes the financial report.

The report provides an account of significant progress towards the seven EUFORGEN Phase VI deliverables of: i) An improved Pan-European Strategy for the conservation of FGR integrated with other GenRes domains; ii) An upgraded EUFGIS Information system, iii) An upgraded website, iv) A list of minimum requirements for dynamic and static *ex situ* conservation; v) A report on strategies for the adaptation to climate change; vi) Guidelines for nurseries, seed centres, policy makers on production and use of FRM; and vii) Identified policy, research and forest management needs, related to FGR.

The report also outlines the inputs to the Forest Europe process and related work, as well as the collaboration with international organisations. It provides an update on EUFORGEN's human and financial resources. The report goes on to describe EUFORGEN's contributions and collaboration to European initiatives and projects, including the FORGENIUS and OptFORESTS projects. Annex 3 provides more details of progress against the Implementation Plan for Phase VI.

2. Introduction

The European Forest Genetic Resources Programme (EUFORGEN) is an international cooperation programme promoting the conservation and sustainable use of forest genetic resources in Europe as an integral part of sustainable forest management.

EUFORGEN, funded by its member countries, primarily engages experts from these nations in its various activities. The EUFORGEN Steering Committee comprises National Coordinators from all member countries, collectively bearing the program's overarching responsibilities.

In 2019, the Steering Committee developed the "EUFORGEN - Strategic objectives and implementation plan for Phase VI"[1], which is guiding EUFORGEN activities for the period 2020-2024. The overall goal of EUFORGEN is to promote conservation and sustainable use of forest genetic resources in Europe as an integral part of sustainable forest management, and to serve as a platform for pan-European collaboration in this area.

The specific objectives for Phase VI of the Programme are to:

1. Facilitate knowledge sharing and communicate with key stakeholders on forest genetic resources in Europe. This will involve maintaining and developing EUFGIS[2] and using that and other sources of information to contribute to reports such as the State of Europe's Forests reports[3]. EUFORGEN will also facilitate knowledge sharing and learning among relevant actors and promote the importance of genetic diversity and outputs of EUFORGEN to policymakers, forestry professionals and practitioners on the ground, and within the wider scientific community and society.
2. Coordinate and monitor the conservation of forest genetic resources in Europe. This objective requires EUFORGEN to monitor implementation of the pan-European genetic conservation strategy and update the strategy. It also contributes to implementing activities that address regional-level priorities of FAO Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources.
3. Promote the appropriate use of forest genetic resources by preparing science-based guidelines and recommendations to improve genetic conservation in forest management. The work under this objective also entails analysis of policy issues to recommend changes when they conflict with the appropriate use of FGR.

The Governance of EUFORGEN, during Phase VI, is organised in (i) the Steering Committee which has overall responsibility for the Programme. This is composed of National Coordinators from all member countries; (ii) the Advisory Committee, nominated by the Steering Committee to support the Secretariat in preparing the Steering Committee meetings and to identify issues of strategic importance to EUFORGEN, and (iii) the Secretariat which manages the Programme and coordinates its activities.

[1] EUFORGEN Strategic objectives and implementation plan for Phase VI (2020-2024) - www.euforgen.org/fileadmin/templates/euforgen.org/upload/Documents/EUFORGEN_PhaseVI_Objectives_and_Plan.pdf
[2] European Information System on Forest Genetic Resources www.eufgis.org
[3] State of Europe's Forests https://foresteurope.org/state-of-europes-forests/

During Phase VI, EUFORGEN carries out its activities through: (i) **Discussion Platforms,** where national experts (one per member country) meet, share, discuss and analyse relevant issues, share perspectives, and identify needs, and (ii) **Working Groups**, where selected experts (4-8 members) develop specific outputs.

This document reports EUFORGEN's activities in 2024. It also includes a summary of expenditures and financial contributions.

2.1 Forest Europe

The Programme was established in 1994, following the adoption of the 1990 Resolution S2[4] by the 1st Forest Europe[5], Ministerial Conference. Forest Europe, the pan-European voluntary high-level political process for intergovernmental dialogue and cooperation on forest policies in Europe, develops common strategies for its 46 signatories on how to protect and sustainably manage their forests. In 2015, at the 7th Ministerial Conference, signatory countries committed to "continue pan-European collaboration on forest genetic resources through the European Forest Genetic Resources Programme (EUFORGEN)"[6]. This is a clear recognition of EUFORGEN's effectiveness and its distinctive and valuable role in conserving forest genetic diversity and contributing to sustainable resource management. In the same Ministerial Resolution, countries also committed to "promote national implementation of strategies and guidelines for dynamic conservation and appropriate use of forest genetic resources under changing climate conditions," referencing the strategies[7] and guidelines[8] developed by EUFORGEN over the past decade.

In 2021, at the 8th Forest Europe Ministerial Conference, signatory countries further committed to "recognise the need for dynamic conservation and utilization of forest tree genetic resources and management of forest tree species populations for production of forest reproductive material (as reflected in the updated pan-European indicator for sustainable forest management 4.6 genetic resources[9]) and continue pan-European collaboration on forest genetic resources through the European forest genetic resources programme to this end."[10]

European Countries, through EUFORGEN, in 2021 launched the **Forest Genetic Resources Strategy for Europe**[11], a policy document that provides the framework for enabling the transition to effective genetic resources conservation and sustainable use in the European Region. The Strategy presents an *implementation plan* outlining *actions* to address all the *key*

[4] Strasbourg Resolution S2 "Conservation of Forest Genetic Resources" foresteurope.org/wp-content/uploads/2022/01/strasbourg_resolution_s1.pdf
[5] Originally the Ministerial Conference on the Protection of Forests in Europe www.foresteurope.org
[6] Madrid Ministerial Resolution M2, "Protection of forests in a changing environment" https://foresteurope.org/about/ministerial-conferences/madrid
[7] Pan-European strategy for genetic conservation of forest trees www.euforgen.org/forest-genetic-resources/conservation/pan-european-strategy
[8] https://www.euforgen.org/publications/technical-guidelines/
[9] Dynamic conservation and utilization of forest tree genetic resources: indicators for *in situ* and *ex situ* genetic conservation and forest reproductive material. www.euforgen.org/publications/publication/dynamic-conservation-and-utilization-of-forest-tree-genetic-resources-indicators-for-in-situ
[10] Bratislava Ministerial Declaration ''The Future We Want: The Forests We Need'' https://foresteurope.org/wp-content/uploads/2017/08/Bratislava-Ministerial-Declaration.pdf
[11] Forest Genetic Resources Strategy for Europe. www.euforgen.org/FGRStrategy4Europe

commitments to improving the conservation and sustainable use of European forest genetic resources.

In 2024 at the 9th Forest Europe Ministerial Conference, FOREST EUROPE , while welcoming the progress in implementing the "Forest Genetic Resources Strategy for Europe" launched by EUFORGEN, "stress(ed) the need to identify gaps, to assess threats and set priorities for the conservation of forest genetic resources through the 'Genetic Conservation Unit Network'".

3. EUFORGEN membership

As of 31 December 2024, EUFORGEN had a total of **29 member countries** (Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Lithuania, Luxemburg, Malta, the Netherlands, Norway, Poland, Portugal, Romania Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and the United Kingdom). The Steering Committee, during its meeting in November 2022, decided to declare publicly the support of the EUFORGEN community to Ukraine and to invite Ukraine to join EUFORGEN Phase VI, waiving the fees for current and next Phase of EUFORGEN. Ukraine became an official member by signing the Letter of Agreement in January 2023. Romania signed the Letter of Agreement for the EUFORGEN membership in Phase VI in 2024.

The Secretariat is maintaining an active dialogue with non-member countries in Europe to facilitate their membership.

4. Implementation of EUFORGEN Phase VI

In the Implementation Plan for Phase VI[12], the Steering Committee has defined the following deliverables for the phase:

1. An improved Pan-European Strategy for the conservation of FGR integrated with other GenRes domains (fully achieved).
2. An upgraded EUFGIS information system (ongoing – through the FORGENIUS and OptFORESTS projects).
3. An upgraded website, including monitoring of FGR conservation (achieved – ongoing).
4. A list of minimum requirements for dynamic and static *ex situ* conservation (achieved – ongoing).
5. A Report on strategies for the adaptation to climate change (partially achieved – ongoing).
6. Guidelines for nurseries, seed centres, policy makers on production and use of FRM (partially achieved – ongoing).
7. Identified policy, research and forest management needs, related to FGR (achieved – ongoing).

The subsequent seven subchapters provide a detailed report on progress in finalising each deliverable, while Annex 3 provides the status of implementation for all the activities as of 31 December 2024 (end of Phase VI).

[12] Strategic objectives and implementation plan for Phase VI: www.euforgen.org/fileadmin/templates/euforgen.org/upload/Documents/EUFORGEN_PhaseVI_Objectives_and_Plan.pdf

4.1 Improved Pan-European Strategy for the conservation of FGR integrated with other GenRes domains (achieved- completed)

The Strategy was finalised in 2021 and is available online[13]. http://www.euforgen.org/FGRS4E

Since its launch, the Secretariat has disseminated the Strategy via newsletters, social media and at relevant events, including presentations at conferences and seminars. A promotional leaflet was developed in 2024, highlighting key elements of the Strategy and underlining its importance, as well as providing a direct link to the full PDF of the Strategy via QR code. The leaflet is available from the EUFORGEN website[14]. A bookmark was also developed in 2024, featuring the Strategy and providing a link to the full document.

During 2024, hard copies of the Strategy were disseminated at:

- Technical Working Group meeting of the OECD Forest Seed and Plant Scheme on 23-24 April 2024 in Uppsala, Sweden
- 27th Session of the Committee on Forestry, Rome, Italy, 22–26 July 2024
- Forest Europe Ministerial Conference, Bonn, Germany (1-2 October 2024)
- Economic Commission for Europe's Committee on Forests and the Forest Industry Eighty-second session, Geneva, Switzerland (November 2024)
- 8th session of the Intergovernmental Technical Working Group on Forest Genetic Resources - ITWG FGR. 26- 28 November 2024, Rome, Italy

As of 31 December 2024, the FGR Strategy was downloaded from EUFORGEN website **445 times (downloads in 2024: 177).**

The dissemination of this EUFORGEN milestone will continue for the whole strategic timeframe (ie until 2030). The Strategy has been the guiding instrument for the development of the next Phase of EUFORGEN (2025-29).

4.2 Upgraded EUFGIS Information System, including linking with FOREMATIS and the decision support tool for the management of the genetic conservation units' network (achieved- ongoing)

EUFGIS, the European information system on forest genetic resources, makes geo-referenced data available on the Genetic Conservation Units (GCUs) of forest trees in Europe. The data are provided and updated by the National Focal Points[15] in line with the pan-European minimum requirements[16] and data standards[17] for these units. The data standards and the minimum

[13] Forest Genetic Resources Strategy for Europe. www.euforgen.org/FGRStrategy4Europe

[14] Leaflet Forest genetic resources strategy for Europe: www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Other_PDFs/FGR_Strategy4Europe_Brochure_-_online.pdf

[15] Current list of nominated National Focal Points: http://portal.eufgis.org/data-providers/

[16] Pan-European minimum requirements for dynamic gene conservation units of forest trees: http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_Minimum_requirements.pdf

[17] Data standards for dynamic gene conservation units of forest trees to be included into the EUFGIS information system: http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_DataStandards.pdf

requirements were developed as part of the EUFGIS project[18] (2007–2011). The portal[19] and the intranet[20] have been maintained by EUFORGEN after the EU-supported project ended in 2010. EUFGIS is being upgraded through the H2020 EU-Funded project FORGENIUS (see section 8.1 below).

In 2024, the National Focal Points continued compiling new data on the units and uploading the data on the EUFGIS portal. At the end of 2024, the EUFGIS database contains information on **3507** units and **116** tree species in **37** countries. The units harbour a total of 4626 tree populations. 37 countries have nominated their National Focal Points[24].

The core network of dynamic Genetic Conservation Units (following the definitions of the "*Pan-European strategy for genetic conservation of forest trees and establishment of the core network*"[21]), was identified for all 116 tree species present in the Information System.

During the reporting period, the Secretariat continued to maintain and improve EUFGIS, Intranet and Portal. The Secretariat also continued providing helpdesk support to the EUFGIS National Focal Points.

The EUFGIS upgrade is being implemented through the H2020 EU-Funded project FORGENIUS[22] (2021-2025), which is supporting the EUFGIS upgrade and the creation of a new series of services for end-users. The EUFGIS logo was modernised, and the branding is implemented across the new portal.

The new web application was demonstrated at the 20th meeting of the Steering Committee in April 2024 in Bergen, Norway, showing some new implementations on the data obtained from remote sensing, climate data, surface data and environmental data from characterisation. The National Coordinators were given the possibility to test the application and provide feedback.

In November 2024, for the first time, all GCUs entered in EUFGIS have been characterised with data derived from remote sensing, using the code originally developed by JRC in the framework of the FORGENIUS project and further developed by the EUFORGEN Secretariat (funded under the FORGENIUS Project).

The upgrade of EUFGIS will continue until the end of the FORGENIUS project (December 2025) and several other interactions and trainings with the EUFGIS National Focal Points will be organised.

The semantic linking of EUFGIS with FOREMATIS will be undertaken in the framework of the H-Europe Project OptFORESTS (see section 10.3 below for more information).

4.2.1 Data Sharing Agreement (DSA)

EUFGIS makes an important contribution to documenting and monitoring the FGR status. This information system is central to reporting a range of international policy commitments in

[18] EUFGIS Project website: http://www.eufgis.org
[19] EUFGIS Portal: portal.eufgis.org
[20] EUFGIS Intranet: http://www.eufgis.org/
[21] Pan-European strategy for genetic conservation of forest trees and establishment of a core network of dynamic conservation units www.euforgen.org/publications/publication/pan-european-strategy-for-genetic-conservation-of-forest-trees-and-establishment-of-a-core-network-o/
[22] FORGENIUS - Improving access to FORest GENetic Resources Information and Services for End-USers www.forgenius.eu

Europe, and critically, provides a point of entry for users of genetic resources. These commitments include the Forest Europe process and the FAO Global Plan of Action on FGR (GPA-FGR).

Previously, data were being transferred from the National Focal Points to the European Forest Institute (EFI) without any formal agreement regulating such transfers and allowing EFI to host and share the data. To address this gap in regulation, EFI was limiting the general public's access to this data.

To provide a comprehensive service, allowing access to all data (unless limited by privacy restrictions) EFI prepared a Data Sharing Agreement (DSA) concerning the transfer of data to EUFGIS and the management and use of that data once transferred. The DSA was sent to the persons authorised to sign the agreement on behalf of the country. A total of 15 countersigned agreements were received by 31 December 2024 from Austria, Belgium (Flanders), Czech Republic, Denmark, Finland, Ireland, Lithuania, Luxemburg, Norway, Portugal, Romania, Serbia, Slovenia, Sweden and United Kingdom.

Through the FORGENIUS Project (see chapter 8.1 below), EUFGIS is being completely restructured. This is an important upgrade, creating a new set of services. It characterises all GCUs using a broad range of data, derived from existing environmental and climatic databases and available forest reproductive material. The **FORGENIUS project also characterise several GCUs with genetic and phenotypic data**. This upgrade is an important step forward, creating new services for all European countries and for the scientific community.

Additionally, the new EUFGIS will allow uploading data on those GCUs that are relevant at national level, but do not meet the minimum requirements at the European level. This aims to provide an important service to the member countries and to allow all countries to be able to fully use the functionalities of the new Information System for national benefits.

After the FORGENIUS project ends, EUFORGEN will maintain the upgraded Information System ensuring its long-term availability and maintenance under the Forest Europe mandate.

The upgraded version of the portal and Intranet was made available to the National Focal Points in August 2024, allowing the focal point to upload and/or digitalise the polygons of the borders of the GCU, an important feature to allow the individual characterisation of the GCU. The new EUFGIS is, in fact, harvesting data from relevant databases such as **CELSA**[23], **WorldClim**[24] and the **European Drought Observatory**[25] and data from remote sensing.

Based on their geographical location, EUFGIS has linked data from **DG²** (The GD² database contains genetic and georeferenced passport data of different genetic units (populations, single trees) that are traditionally analysed in genetic surveys conducted in natural populations)[26] and **FOREMATIS** (the EU Forest Reproductive Material Information System)[27].

[23] https://chelsa-climate.org/
[24] www.worldclim.com/
[25] https://edo.jrc.ec.europa.eu
[26] https://gd2.pierroton.inra.fr/
[27] https://ec.europa.eu/forematis/

4.2.2 Trainings and workshops

An online training on the new portal took place on 6 September 2024. The online training was attended by 33 National Focal Points.

4.3 Upgraded website, including monitoring of FGR conservation (achieved – ongoing)

In 2020 the website was upgraded to reflect the revised visual image of the Programme. Its content was re-organised and upgraded. As the upgrade of EUFGIS and associated services will progress, relevant parts will be integrated in the EUFORGEN website, to include a visual interface for the FGR conservation monitoring, following the revised indicator 4.6[28].

The species web pages were updated with visual information on the conservation status of each species, according to the indicator 4.6. The information is updated live, as each page shows data relayed directly from EUFGIS. An additional text summarising the status of knowledge on species' genetic diversity on the management of the network of GCUs was prepared by the Secretariat for the first pilot 50 tree species. During its meeting in April 2024, the Steering Committee discussed and agreed on how the content of the pages were to be collected for the remaining 60 species. By the end of 2024, 110 species[29] had a dedicated page on EUFORGEN's website.

The Steering Committee decided that each species page should clearly include the date on which the literature review was done, and authorship of the information. A procedure to update the information should be established during Phase VII.

A general review of the website took place in summer 2023 and several new sections and revisions were completed in 2024. The website was migrated to an updated content management system at the beginning of 2024.

4.4 Minimum requirements for dynamic and static *ex situ* conservation (partially achieved- ongoing)

In 2021, the EUFORGEN Secretariat launched a survey covering (among other subjects) "*Ex situ* Forest Genetic Conservation Status in Europe". The survey aimed to evaluate the current state of *ex situ* FGR Conservation and existing practices, management procedures and other associated issues in Europe. The results of the survey were the starting point for EUFORGEN's work to define the minimum requirements for *ex situ* Forest Genetic Resources Conservation, which will be used in future FGR reporting in Europe.

At the 17th meeting of the EUFORGEN Steering Committee in November 2022, a Task Force was established to define the mandate for the working group that is developing the "minimum requirements for dynamic and static *ex situ* conservation". This Task Force met several times

[28] Dynamic conservation and utilization of forest tree genetic resources: indicators for in situ and ex situ genetic conservation and forest reproductive material - www.euforgen.org/publications/publication/dynamic-conservation-and-utilization-of-forest-tree-genetic-resources-indicators-for-in-situ/

[29] Species webpages: https://www.euforgen.org/species

online and defined the mandate for the Working Group that was validated by the Steering Committee.

A Working Group was established composed of: Alain Servais (Belgium), Eleonore Scholzen (Belgium), Jan-Peter George (Finland), Aurore Desgroux (France), Colin Kelleher (Ireland), Irena Fundova (Norway), Gregor Božič (Slovenia), Luis Muheim (Switzerland).

A survey was sent to the EUFGIS National Focal Points in July 2023 in order to collect information on methods of *ex situ* conservation and data storage used in member countries and thus, assist the Working Group to get an overview of the *ex situ* conservation practices in Europe.

The table of contents was presented at the Steering Committee during the meeting in May 2023, the draft report was presented to the Steering Committee during the 19th meeting on 13 December 2023.

During its 20th meeting in April 2024, the Steering Committee decided that the concept proposed by the WG on evacuation will be added to the report of dynamic and static *ex situ* conservation and keep separate authorship.

The working group met 7 times during 2024:

- 23 January 2024 - online
- 20 March 2024 - online
- 26 April 2024 - online
- 6 June 2024 - online
- 12 June 2024 – online
- 4 September 2024 – online
- 17 October 2024 - online

The Working Group continued its work throughout 2024, finalising the minimum requirements and data standards and proposing indicators for dynamic and static ex situ conservation. The advanced draft was presented to the Steering Committee during its 21st meeting. The Steering Committee reserved the right to provide direct comments on the existing draft until 31 January 2025. The decision for the release of the document will be taken during the online SC Meeting in Q2 2025.

During the next phase of EUFORGEN it should be discussed if an *ex situ* data repository in EUFGIS could be needed. The dynamic *ex situ* data is already available in EUFGIS, but minimum requirements should be agreed to maintain these data during the next phase.

4.5 Report on strategies for the adaptation of CGUs to climate change (partially achieved- ongoing)

In October 2022 the *EUFORGEN Discussion Platform* on "Adaptation of the Genetic Conservation Units to Climate Change" met and formulated several possible activities to be implemented to build the basis for the development of a report on strategies for the adaptation of CGUs to climate change. Some of the initiatives started during EUFORGEN's Phase VI, but were to be addressed during Phase VII, mainly through Working Groups.

During the 18th meeting of the Steering Committee in May 2023, a Task Force was created composed of the National Coordinators of Iceland, Austria and Italy, to prepare the mandate for a WG that will write an opinion paper on "Evacuation of threatened material and tracking of movements".

A Working Group was established composed of: Berthold Heinze (Austria), An Vanden Broeck (Belgium), Ulo Niinemets (Estonia), Katharina Liepe (Germany), Brynja Hrafnkelsdóttir (Iceland), Andrea Piotti (Italy), Delphine Grivet (Spain), Joan Cottrell (United Kingdom).

The proposed structure of the opinion paper was presented to the Steering Committee at its 19th meeting in December 2023.

During the same meeting, the Secretariat gave a presentation on behalf of the Working Group and informed the Steering Committee about the outcome of several interactions which took place during the year. The mandate of the WG was to propose a term that describes "the movement of threatened GCU material from dynamic *in situ* to dynamic *ex situ* conservation" as an alternative to the term "assisted migration" which is frequently misused. The WG has developed a proposed terminology, but the full concept has yet to be finalised.

The Steering Committee discussed the outline of the report and the proposed terminology. The National Coordinators provided feedback directly during the meeting, and additional feedback was given electronically on a shared version of the draft report.

During its 20th meeting in April 2024, the Steering Committee decided that the concept proposed by the WG on evacuation will be added to the report of dynamic and static *ex situ* conservation (see § 4.4 above) and that separate authorship will be kept. The contribution was prepared and integrated in the above mentioned report, which . will be finalised during the first semester of 2025.

The working group met three times during 2024:

- 15 February 2024 – online
- 8 May 2024 – online
- 13 June 2024 – online

4.6 Guidelines for nurseries, seed centres, and policy makers on production and use of FRM (partially achieved- ongoing)

In 2021, the EUFORGEN Programme released the report "Genetic aspects linked to production and use of forest reproductive material - Collecting scientific evidence for developing guidelines and decision support tools for effective FRM management"[30]. In 2022, the Secretariat began working on dissemination products aiming to reach key target audiences for the contents of this report, namely practitioners and policymakers.

Materials for practitioners

[30] https://www.euforgen.org/publications/publication/genetic-aspects-linked-to-production-and-use-of-forest-reproductive-material-frm/

Aiming to support practitioners involved in the FRM production chain with more accessible material, the main findings of the report have been organised in six themes, addressed to the various actors involved in the FRM production chain. In 2022, the Secretariat initiated the development of dissemination material, planned as six dissemination packages. Each package should contain one guidelines booklet with the complete theme content (text and graphics) + 1 (short) video focusing on a key aspect of the theme + 1 wall poster mirroring the main messages from the video.

The six themes are:

1. Silviculture measures and their role in mitigating the effects of climate change
   How different regeneration strategies can affect or influence genetic diversity of forest stands

2. Forest Reproductive Materials and Forest Basic Materials
   Management of categories and types to face expected future uncertainties

3. Seed orchards – why do we need them?

4. The influence of forest management methods on the genetic structure of forest tree populations
   How do the methods used for establishing and managing forests affect forest genetic diversity? (previously theme 6)

5. Seed harvesting, treatment, storage, and nursery practices
   How management practices can affect or influence genetic diversity of forest reproductive materials

6. Forest tree breeding strategies to address climate change challenges
   (previously theme 4) *
   * *Revisions by SC members have highlighted that the information for this theme is somewhat complicated and requires significant revision or a decision not to go ahead with the production of information for this theme. This will be decided in Phase VII.*

The Steering Committee approved the concept of the pilot dissemination package of Theme 5, during its 18th meeting in 2023, and provided feedback for its improvement. The handbook and poster for Theme 5 were published on the website[31] and the series was launched in June 2024.

The Steering Committee agreed on the production of the remaining five themes following the same approach. The texts of the remaining themes were reviewed in 2023 by Working Groups established at the 17th meeting of the EUFORGEN Steering Committee. Four of the five texts were then sent for editing for language, readability and style. One of the texts (Previously theme 4, now theme 6: Forest tree breeding strategies to address climate change challenges) needs further work on the content before proceeding with editing and publication, as indicated above.

[31] https://www.euforgen.org/resources/forest-reproductive-material/frm-practice/

In 2024, the Secretariat worked on Theme 3: Seed Orchards – Key considerations in establishing and using clonal and seed orchards for forest reproductive materials. The publication was typeset with original illustrations in the style of theme 5 and a poster produced. These materials are pending final approval before release in early 2025. Themes 1, 2 and 4 are next for illustration, typesetting and publication. The Secretariat postponed the development of the videos for each theme until 2025, after agreeing that all texts must be finalised first in order to develop a coherent approach for the videos.

Digital versions of the FRM theme materials are hosted on a dedicated space on the EUFORGEN website, **FRM Practice[32],** as well as in the Publications section.

4.6.1 Dissemination of FRM materials

The dissemination of the FRM materials based on the report "Genetic aspects linked to production and use of forest reproductive material - Collecting scientific evidence for developing guidelines and decision support tools for effective FRM management" is tailored to two EUFORGEN key stakeholder groups: i) forest managers, nursery managers, seed collectors, etc.; and ii) policymakers. All materials are available from a devoted section of the EUFORGEN website[33].

i) **Dissemination to forest managers, nursery managers, seed collectors, etc.**

Digital versions of the six theme materials are hosted on a dedicated space on the EUFORGEN website, **FRM Practice[34],** as well as in the Publications section.

Theme 5 booklet and wall poster (completed in October 2023) were launched in November 2023. A video was also produced but should be remade, along with videos for the other themes, to ensure coherence of approach and style. FRM videos are planned to be filmed in 2025. Theme 3 booklet and wall poster were completed in December 2024 and are due to be released in January 2025.

The media pack for the launch includes:

- Press release
- Set of social media cards (1 guidelines booklet; 3 messages; 1 poster) with links to the EUFORGEN website

The media pack was disseminated via EUFORGEN and EFI dissemination channels and was sent to the EUFORGEN Steering Committee to send to practitioners in their own countries. National Coordinator are responsible for handling translation into their own languages, if required. The Secretariat also asked the Steering Committee for the names and contact details for national professional magazines.

A similar approach will be taken for the remaining four themes when they have been finalised.

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[32] www.euforgen.org/resources/forest-reproductive-material/frm-practice/

[33] www.euforgen.org/resources/forest-reproductive-material)

The videos, which will be produced as a series, will be disseminated in a dedicated campaign, which will be a second opportunity also to share the booklets and posters.

The total package of six themes* will be disseminated through FOREST EUROPE, OECD Forest Seed and Plant Scheme and through EFI dissemination channels, in addition to EUFORGEN dissemination channels.

*pending confirmation of the sixth theme, see section 4.6 for more information.

ii) Dissemination to policymakers

As agreed with the Steering Committee (see above), the Secretariat prepared two versions of a policy brief: a 2-page brief[35] and a longer policy summary[36].

The short policy brief was printed and first distributed during the High-Level Policy Dialogue 2023 "Growing healthier forests: How can Sustainable Forest Management enhance resilience?", at in-person event held in Bonn on 9 November. It was then sent to Steering Committee members for distribution to national authorities and shared via EUFORGEN and EFI dissemination channels.

The long version of the policy brief was released online at the beginning of 2024. The policy briefs were disseminated at various events and in presentations at online meetings, in the EUFORGEN newsletter, on social media and on various websites[37]. The Steering Committee approved the dissemination of the materials through FOREST EUROPE, OECD Forest Seed and Plant Scheme, and through EFI dissemination channels, with the strict condition that these are disseminated as EUFORGEN products.

The Steering Committee also decided on tailored dissemination to respond to the 3 billion tree pledge with existing dissemination products.

4.7 Identification of policy, research, and forest management needs, related to FGR (achieved – ongoing)

During 2024, the EUFORGEN Programme, undertook a wide consultation involving all member countries through the Steering Committee and identified "Urgent research and action needs in forest genetic resources" (annex 2). This document has been disseminated to Implementing Agencies and possible Funding Authorities, aiming to support them in identifying the topics, related to FGR, that most urgently need to be funded.

[35] Policy brief: https://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Other_PDFs/FRM_Policy_Brief.pdf
[36] Policy summary: https://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Other_PDFs/FRM_Policy_Summary.pdf
[37] https://www.euforgen.org/about-us/news/news-detail/ensuring-forest-resilience-and-productivity-in-europes-changing-climate

5. Activities of the EUFORGEN Steering Committee

During the reported period, the Steering Committee met three times, one in-person meeting in April 2024, an extraordinary online meeting in May 2024 and an online meeting in December 2024.

The 20th meeting took place 9-11 April 2024 in person in Bergen, Norway. The meeting focussed on planning Phase VII activities. Discussions included ongoing projects, future research needs, and funding opportunities. Two webinars were organised by the Secretariat in preparation for the meeting.

At its 20th meeting, the Steering Committee reviewed the programme's workplan and agreed on the activities. Decisions made during the meeting are included in the minutes of the meeting[38].

An online extraordinary meeting of the Steering Committee took place 17 May 2024 to consolidate planning of activities and budget for Phase VII.

At its 21st meeting (online 11-12 December 2024), the EUFORGEN Steering Committee reviewed the progress made during the year, provided feedback on the Working Group Static and dynamic *ex situ* conservation, committing to provide written comments on the current draft until 31 January 2025. The decision for the release of the document will be taken during the online Steering Committee Meeting in Q2 2025.

The Steering Committee also decided that a Task Force to prepare the Terms of Reference to enable the evolution of the programme will be established during the first quarter of 2025. Draft Terms of Reference will be presented during the next online Steering Committee meeting in Spring 2025.

At the meeting, the Steering Committee agreed to allow entering data in EUFGIS (following minimum requirements and data standards) for GCUs from South and East Mediterranean region. This can include all GCUs of species occurring in the above-mentioned territories in the framework of the 2024-26 EC-DG NEAR Climate Action Package for the Southern Neighbourhood (CAP-Med). Decisions made during the meeting are included in the minutes of the meeting.

5.1 Planning for Phase VII

The Steering Committee, recognising the need to continue the pan European collaboration on FGR through of EUFORGEN into a seventh Phase, defined the roadmap and established a Task Force for the preparation of the planning for Phase VII.

[38] Minutes of the meeting; https://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Steering_committee_reports/SC21_MINUTES_FINAL_A4.pdf

During the 18th Steering Committee, the National Coordinators jointly revised the "*Modus operandi*" of EUFORGEN and brainstormed on the Operational Activities for Phase VII. A Task Force composed by National Coordinators of Austria, Finland, France, Hungary, The Netherlands, Norway and Slovenia was established to further elaborate on the operational objectives and to prepare a proposal to be discussed during the 19th meeting in December 2023. The Task Force met several times and prepared a proposal, which was presented to the Steering Committee in December 2023. At its 19th meeting, the Steering Committee decided that the Secretariat would include the contributions and budget proposal into the current draft of the Strategic Objectives and Implementation Plan for EUFORGEN Phase VII. The final contributions and budget were defined during the next SC Meeting in April 2024.

The activities for Phase VII were discussed and defined during the 20th Steering Committee meeting in April 2024 in Bergen, Norway. The Steering Committee decided to have an online consultation, after this the Secretariat associated the costs to the activities and feedback was provided by the Steering Committee. An online extraordinary meeting of the Steering Committee took place 17 May 2024. A consolidated draft of the Phase VII was prepared and circulated. After feedback from the Steering Committee the document was finalised.

Requests for joining Phase VII of EUFORGEN were sent to the Implementing Agencies in June 2024. A total of 13 countries joined the Phase by the end of 2024 (Austria, Croatia, Estonia, Finland, Ireland, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Romania, Ukraine).

6. Activities of the EUFORGEN Secretariat

The Secretariat coordinates the implementation of the Programme and its activities following the work plan developed by the Steering Committee. In particular, during 2024 the Secretariat (i) prepared annual technical and financial reports (2023 and drafted 2024); (ii) liaised between the Steering Committee and the working groups; (iii) organized meetings of Task Forces and Working Groups (virtual), and two meetings of the Steering Committee (one in-person and one online) (iv) organized a webinar. The Secretariat continuously maintained the EUFORGEN website and the EUFGIS Information System.

Meetings and webinars

The EUFORGEN Coordinator attended the European Commission's Standing Forestry committee on 3 June 2024, where he presented the EUFORGEN Programme, its activities and achievements and presented argument on the importance and need for the European Commission to become funding member the programme, as recommended by the FGR Strategy for Europe: "The European Commission is urged to provide direct funding to EUFORGEN in order to strengthen its capacity and ensure the participation of all European countries". Several countries supported the statement, the European Commission (DG AGRI) replied that "EUFORGEN can receive funding from Horizon Europe. Regarding any potential additional financial contribution, this would require internal discussions and exploring such possibilities with other relevant DGs".

More information on the meeting, the feedback from the countries and from the European Commission is available on the European Commission's website[39].

The EUFORGEN Coordinator also attended:

- the 27th Session of CO.FO. Monday, 22 July 2024 to Friday, 26 July 2024,
- The International Seed Federation's Tree and Shrub Working Group (TAS) Annual Meeting 2024 (28 August)
- The 8th Mediterranean Forest Week (4-8 November)
- The 82nd Session of the UNECE Committee on Forest and the Forest Industry
- The Inter-Governmental Technical Working Group on FGR (25-29 November)

The EUFORGEN Researcher attended:

- The 26th IUFRO World Conference, Stockholm, Sweden (23-29 June)
- The 8th Mediterranean Forest Week (4-8 November)

The EUFORGEN webinar, on Italian stone pine genetic conservation challenged by the outbreak of a new pathogen pine tortoise scale (*Toumeyella parvicornis* (Cockerell)), was held on 2 May 2024[40]. The webinar was recorded and added to the EUFORGEN website and its YouTube channel for on-demand viewing. The webinar page has had 135 visits and the YouTube recording 270 views to date.

6.1 Inputs to the Forest Europe process and related work

The EUFORGEN Secretariat actively contributed to the FOREST EUROPE activities on the Pan-European Forest Risk (FoRisk) Facility through the EUFORGEN researcher who participated in the Expert Group Meetings of the three pilot phases. During 2024, the expert group concluded its work on supporting the establishment of the FoRisk Facility.

The EUFORGEN Coordinator participated at the ninth Forest Europe Ministerial Conference[41] on 1-2 October in Bonn, Germany. During the Conference, two main documents have been signed by Member States: the "Bonn Ministerial Declaration: Keeping Sustainable Forest Management Fit for the Future" and the "Bonn Ministerial Decision: Sustainable Forests Management as a Tool to Enhance Forest Resilience".

In the Bonn Ministerial Declaration, Signatories, "**WELCOM(ING)ED the progress in implementing the "Forest Genetic Resources Strategy for Europe" launched by EUFORGEN** to enhance the adaptive capacity and resilience of European forests and **STRESSING the need to identify gaps, to assess threats and set priorities for the conservation of forest genetic resources through the "Genetic Conservation Unit Network**", maintained by EUFORGEN"

[39] European Commission website: https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=53889&fromExpertGroups=3550

[40] https://www.euforgen.org/resources/webinars

[41] https://conference.foresteurope.org/

The Bonn Ministerial Decision, signatories "EXPRESS(ING)ED CONCERN about negative impacts on European forests, and their services, arising from biotic and abiotic disturbances as well as combined effects, which are increasing in frequency, intensity and scale, and NOTING the urgency of immediate action to maintain and improve the health and vitality of forests, including their genetic resources, and ACKNOWLEDGING the importance of biodiversity to provide the multiple ecosystem services of forests for present and future generations". Signatories also "ACKNOWLEDG(ING)ED that adapting forests to climate change and restoring damaged forests requires large quantities of appropriate and high-quality forest reproductive material and an increasing level of cooperation among European countries, without prejudice to the benefits and applicability of appropriate natural regeneration,"

In the same Ministerial Decision, Signatories committed to Strengthen national efforts to: "Promote research in the fields of protection and conservation of forest tree genetic diversity, including provenance trials and species selection suitable for future climatic and site conditions, and promote the regulated movement of forest reproductive material between countries and provenance regions to enable the use of adequate provenances, while monitoring and mitigating the risk of introducing and spreading invasive species, pests and diseases, when using naturalized and non-native species."

The Ministerial Declaration and Decision signed during the ninth Ministerial Conference are a recognition of the centrality of FGR in sustainable forest management and the effectiveness of the EUFORGEN Programme as implementation mechanism of the Forest Europe process.

The EUFORGEN Secretariat, in collaboration with the Forest Europe Liaison Unit and the FORGENIUS project, organised the webinar: "spotlight on genetic diversity: an unseen ally in adapting forests to drought" on 15 April 2024, see section 10 below. Furthermore, a dedicated section on EUFORGEN was created on the Forest Europe website under the section "implementing mechanisms".[42]

Meetings during 2024

- Forest Europe Expert Level Meeting, 9-10 January 2024, Bonn, Germany
- Webinar, 15 April 2024, online
- Forest Europe Expert Level Meeting, 4-5 June 2024, Freising, Germany
- FoRisk Expert Group Meeting, 18 June 2024, online
- 9th FOREST EUROPE Ministerial Conference, 1-2 October 2024, Bonn, Germany

6.2 Collaboration with the OECD Scheme for the Certification of FRM

The EUFORGEN Secretariat is collaborating with the Secretariat of the *OECD Scheme for the Certification of Forest Reproductive Material* to implement joint communication on relevant common issues. The purpose is to disseminate relevant messages related to the appropriate use of forest reproductive material. In particular the collaboration will allow wider dissemination of the relevant findings of the report on *Genetic aspects linked to production and*

[42] https://foresteurope.org/euforgen/

use of forest reproductive material (FRM)[43] and the dissemination material currently being developed (see section 4.6 above).

The EUFORGEN Coordinator attended the Technical Working Group meeting of the OECD Forest Seed and Plant Scheme on 23-24 April 2024 in Uppsala, Sweden, where he presented the released module of the FRM.

During 2024, the Secretariat attended several events that created awareness about recent outputs of the Programme and introduced EUFORGEN's work to new audiences.

6.3 Staff of the EUFORGEN Secretariat

During the reported period, the permanent staff of the Secretariat were Michele Bozzano (Coordinator), Anna-Maria Farsakoglou (Researcher), Sarah Adams (Communications Manager), Lidwina Koop (Administrative Officer), Gerard Fernandez (Communications Officer), Eduardo Veber (Communication Officer) and James Chaplin (scientific support).

The Secretariat carried out part of the work through collaboration with external consultants and temporary staff, depending on the workload, tasks and the required expertise.

7. Financial summary for 2024

In January 2024, the opening balance of the EUFORGEN trust fund was €323,000. The closing balance of the trust fund for 2024 is €348,060 and carried forward to Phase VII (2025-2029) of EUFORGEN.

Total financial contributions received from Member Countries for the year 2024 were €339,550.

The budget planned for Phase VI, excluding external funding, amounts to approximately €360,000 per year. The overall budget for Phase VI included Euro 296,250 from external funding (secured i.e. H2020 projects). The overall actual expenses for 2024 (€317,784) were lower than the planned budget. This decrease is due to reduced costs for human resources, lower staff travel costs, and that no working group meetings took place in 2024.

Staff costs in 2024 were around €193,000 and remain the main cost category, representing approximately 60% of the total expenditure.

Other direct costs, such as Public Awareness, Communication, Publications and dissemination, represented €35,543. These expenses included the production of dissemination material for FRM, editing, proofreading, typesetting services, video production, reprinting FGRS, printed materials, web maintenance, migration of website and server hosting.

The costs for the meeting of the Steering Committee in April 2024 were partially covered by the FORGENIUS project.

The detailed financial report for 2024 is available in the Annex 1 to this report.

[43] http://www.euforgen.org/publications/publication/genetic-aspects-linked-to-production-and-use-of-forest-reproductive-material-frm/

8. Contributions to European initiatives and projects

8.1 FORGENIUS Project

The FORGENIUS H2020 project[44] aims to increase the quantity and quality of data in the EUFGIS information system using multiple descriptors from genomic, phenotypic, remote-sensing and predictive models, and to make data and analytical tools available in operationally useful and harmonized standards as a service for users in the fields of conservation, breeding and forest management.

FORGENIUS provides insights into the diversity of European forests and their resilience to climate change. The project uses state-of-the-art technology and knowledge in plant and evolutionary biology, ecology, remote-sensing, genomics, genetics, modelling, and forestry. It aims to upgrade EUFGIS, by adding new types of data and information on the Genetic Conservation Units (GCUs). FORGENIUS will allow a significant upgrade of EUFGIS that will be the key to invent new, adaptive strategies to preserve GCUs at the continental level.

FORGENIUS is:

1. assessing genetic, phenotypic, and environmental diversity, as well as resilience of GCUs under climate change;
2. providing scientific evidence to support management decisions that promote the resilience and adaptability of GCUs;
3. characterizing the entire network of GCUs presently in EUFGIS (and any that are entered in future) and their genetic resources;
4. creating innovative data accessibility and modelling services for users within and outside the forest genetic resources conservation communities.

In addition to characterizing the GCUs, FORGENIUS is upgrading EUFGIS. The project will develop a totally new interface and adopt new technologies to run the information system and associated services. FORGENIUS will also generate new data and indices that will integrate with and complement existing information. The expanded EUFGIS will be a new tool for national authorities responsible for the management of the network of GCUs in each country, as well as for the wider conservation community.

- The EUFORGEN Coordinator and the EUFORGEN researcher attended the third annual conference in January 2024 in Florence, Italy.
- The EUFORGEN Coordinator attended the FORGENIUS review meeting with the European Commission on 5-7 March 2024 in Brussels, Belgium
- The FORGENIUS project hosted the fourth edition of its Public Webinars on 7 May and the fifth edition on 12 December 2024. The aim of this series of events is to bring FORGENIUS topics and results to a wider audience.[45]

[44] Funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862221 - www.forgenius.eu

[45] https://www.forgenius.eu/resources/public-webinars

Project news and events are shared on EUFORGEN's website. More information on FORGENIUS is available from the Forgenius website[46].

8.2 OptFORESTS Project

The OptFORESTS Horizon Europe project "Harnessing forest genetic resources for increasing options in the face of environmental and societal challenge" aims to work towards the future adaptation of forests by harnessing Forest Genetic Resources (FGR), and supporting their conservation and sustainable use through the following main lines of work and objectives:

1. Conducting research on the selection of diverse forest reproductive material (FRM), including mixtures, adapted to future climates
2. Fostering sustainable use and resilience of natural forests
3. Helping expand and diversify nursery production
4. Developing nature-based solutions (NBS), tools (e.g, expanded Information Systems) and cultural trajectories to promote forest biodiversity and ecosystem services
5. Demonstrating biodiversity solutions

As main work stream activities, OptFORESTS will carry out genetics, modelling, stakeholder surveys, expert panels and socio-economic analyses. These will be complemented by studying the effects of silviculture and landscape heterogeneity on genetic diversity and the development of new silvicultural options for genetically mixed forests, to be implemented through training software (marteloscopes) and long-term demonstration plots. Other action lines of OptFORESTS will include assessment of the European nursery sector, forecasting of future FRM needs, development of plant production technologies and cooperation between nurseries.

The EUFORGEN Secretariat will facilitate the dissemination and exploitation of project results to achieve long-term impacts on the FGR community in Europe and beyond. Other functions within OptFORESTS will be to establish synergies and links between tools and systems already created in the field of forest genetics, such as EUFGIS and the European Commission's Forest Reproductive Material Information System (FOREMATIS).

The third annual meeting of the OptFORESTS project took place 17-19 September 2024 in Prague, Czech Republic. The meeting was attended by Gerard Fernández, Communications Officer.

Project news and events are shared on EUFORGEN's website. More information on the OptFORESTS project is available at the OptFORESTS website[47].

9. Publications and reports

EUFORGEN publications produced/released during the reported period:

- EUFORGEN Newsletter June 2024 issue[48]
- EUFORGEN Newsletter October 2024 [49,]

[46] www.forgenius.eu
[47] www.optforests.eu
[48] https://mailchi.mp/7521a79b5975/euforgen-may-2024
[49] https://mailchi.mp/d6e62cce7013/euforgen-october-2024

- Report of the 19th EUFORGEN Steering Committee meeting[50]
- Report of the 20th EUFORGEN Steering Committee meeting[51]
- Report of the 21st EUFORGEN Steering Committee meeting[52]
- Policy summary: "Ensuring forest resilience and productivity in Europe's changing climate". Recommendations for policy and practice in the production and use of forest reproductive material.[53]
- Policy brief: "Forest reproductive material is vital to secure Europe's forests".[54]

The following leaflets were produced in 2024:

- EUFORGEN Leaflet[55]
- Forest Genetic Resources Strategy for Europe[56]
- Genetic Conservation Units leaflet[57]

Two bookmarks were produced with QR codes to disseminate specific products:

- Forest Genetic Resources Strategy for Europe
- FRM Policy Brief

10. Webinars

Various webinars were organized during 2024 as single events or in preparation for meetings.

10.1 Webinars organized in preparation for meetings

20th meeting of the EUFORGEN Steering Committee

Two webinars took place in preparation of the meeting of the Steering Committee in April 2024:

- Webinar on 21 March 2024: "Introduction to the Phase VII Strategic Objectives and Implementation Plan" (M. Bozzano).
- Webinar on 26 March 2024: "Update on OptFORESTS" (Santiago Gonzalez-Martínez, INRAE) and FORGENIUS (Ivan Scotti, INRAE) projects. EUFORGEN Technical and Financial Report 2023 (M. Bozzano, Secretariat) and update on FRM dissemination (Gerard Fernandez, Secretariat).

21st meeting of the EUFORGEN Steering Committee

One webinar took place in preparation of the online meeting of the Steering Committee in December 2024:

[50] https://www.euforgen.org/publications/publication/euforgen-steering-committee-report-of-the-nineteenth-meeting
[51] https://www.euforgen.org/publications/publication/euforgen-steering-committee-report-of-the-twentieth-meeting
[52] https://www.euforgen.org/publications/publication/euforgen-steering-committee-report-of-the-twentiethfirst-meeting
[53] https://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Other_PDFs/FRM_Policy_Summary.pdf
[54] https://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Other_PDFs/FRM_Policy_Brief.pdf
[55] https://www.euforgen.org/publications/publication/euforgen-leaflet
[56] https://www.euforgen.org/publications/publication/forest-genetic-resources-strategy-for-europe-leaflet
[57] https://www.euforgen.org/publications/publication/gcu-lefalet

- Webinar on 5 December 2024:
  Draft report 2024 (M. Bozzano, Secretariat), Update on ongoing activities Secretariat), Relevant updates from Projects (tbc)

10.2 EUFORGEN webinar series

- Webinar on 2 May 2024: The EUFORGEN webinar "Mediterranean stone pines under attack: the invasion of the pine tortoise scale"[58] addressed this threat to the species from different angles with a panel of leading experts and researchers, including Magda Bou Dagher Kharrat (EFI Mediterranean Facility), Bruno Fady (INRAE), Maurizio Sabatti (University of Tuscia), and Giuseppe Scarascia-Mugnozza (EFI Biocities Facility).

10.3 Webinars in collaboration with other entities/projects

- Webinar on 15 April 2024: The EUFORGEN Secretariat, in collaboration with the Forest Europe Liaison Unit and the FORGENIUS project organised the webinar: "spotlight on genetic diversity: an unseen ally in adapting forests to drought", as part of the FOREST EUROPE's "From the roots to the canopy" series in preparation for the 9th FOREST EUROPE Ministerial Conference in Königswinter (Bonn), 1-2 October 2024. The webinar aimed to provide forest managers and policymakers with an understanding of the genetics underlying drought adaptation.
- Webinar on 7 May 2024: Fourth edition of the FORGENIUS project[59]
- Webinar on 12 December 2024: Fifth edition of the FORGENIUS project[59]

[58] https://www.euforgen.org/resources/webinars
[59] https://www.forgenius.eu/resources/public-webinars

11. Annex 1 – Financial report 2024

Summary of Expenditure - up to 31/12/2024

Details	Budget - Opening Balance (EUR)[1]	Total Expenditure (EUR)	2020 Expenditure (EUR)	2021 Expenditure (EUR)	2022 Expenditure (EUR)	2023 Expenditure (EUR)	2024 Expenditure (EUR)
Secretarial Staff	1,122,221	915,686	164,110	126,270	199,078	232,986	193,241
Staff travel	65,000	35,286	4,002	3,553	6,191	11,150	10,390
Steering Committee (meetings)	140,000	67,210	0	6,478	(235)	35,488	25,479
Working Grouped and Task Forces	235,000	77,636	12,812	0	25,405	39,419	0
EUFGIS Portal and Websites	115,142	25,908	20,488	0	0	901	4,520
Public Awareness, Communication, Publications and dissemination	85,000	130,508	8,508	23,133	41,581	22,743	34,543
Total direct costs	**1,762,363**	**1,252,234**	**209,920**	**159,435**	**272,019**	**342,687**	**268,172**
Overheads 18.5%	326,037	231,663	38,835	29,495	50,324	63,397	49,612
Total Expenditures	**2,088,400**	**1,483,897**	**248,755**	**188,930**	**322,343**	**406,085**	**317,784**

Carry-over Phase V[2]	233,657
2020 Contributions paid	256,300
2021 Contributions paid	339,950
2022 Contributions paid	331,250
2023 Contributions paid	331,250
2024 Contributions paid	339,550
Closing Balance	**348,060**

(1) As per amendment to the EUFORGEN programme of work and budget for Phase VI (1 January 2020–31 December 2024), agreed by EUFORGEN Steering Committee at its 14th meeting on 9-11 April 2019 in Luxembourg. (The total budget included also funding from external sources amounting to Euro 340.400).
(2) Closing balance of Phase V (2018-2019)

Contributions received by EFI in relation to EUFORGEN Phase VI (as of 31.12.2024)

Country	Annual contribution Phase VI	Contribution for 2020 (EUR)	Contribution for 2021 (EUR)	Contribution for 2022 (EUR)	Contribution for 2023 (EUR)	Contribution for 2024 (EUR)
Austria	12,500	12,500	12,500	12,500	12,500	12,500
Belgium	12,500	12,500	12,500	12,500	12,500	12,500
Croatia	6,500	6,500	6,500	6,500	6,500	6,500
Czech Republic	7,500	7,500	7,500	7,500	7,500	7,500
Denmark	12,500	12,500	12,500	12,500	12,500	12,500
Estonia	5,000	5,000	5,000	5,000	5,000	5,000
Finland	9,600	9,600	9,600	9,600	9,600	9,600
France	30,000	30,000	30,000	30,000	30,000	30,000
Germany[1]	35,000	-	43,750	43,750	43,750	43,750
Greece[5]	9,600	-	-	-	-	-
Hungary	7,500	7,500	7,500	7,500	7,500	7,500
Iceland	5,000	5,000	5,000	5,000	5,000	5,000
Ireland	7,500	7,500	7,500	7,500	7,500	7,500
Italy	16,200	16,200	16,200	16,200	16,200	16,200
Lithuania	5,000	5,000	5,000	5,000	5,000	5,000
Luxembourg	5,000	5,000	5,000	5,000	5,000	5,000
Malta[3&4]	5,000	5,000	5,000	5,000	5,000	5,000
Moldova[5]	2,500	-	-	-	-	-
Netherlands	15,000	15,000	15,000	15,000	15,000	15,000
Norway	12,500	12,500	12,500	12,500	12,500	12,500
Poland	12,500	12,500	12,500	12,500	12,500	12,500
Portugal[6]	7,500	-	-	7,500	7,500	7,500
Romania[8]	-	-	-	-	-	7,500
Serbia	5,000	5,000	5,000	5,000	5,000	5,000
Slovakia[2&7]	7,500	-	7,500	7,500	7,500	8,300
Slovenia	6,500	6,500	6,500	6,500	6,500	6,500
Spain	16,200	-	32,400	16,200	16,200	16,200
Sweden	12,500	12,500	12,500	12,500	12,500	12,500
Switzerland	15,000	15,000	15,000	15,000	15,000	15,000
Turkey[5]	15,000	-	-	-	-	-
United Kingdom / Welsh Government	30,000	30,000	30,000	30,000	30,000	30,000
Total Received	**349,600**	**256,300**	**339,950**	**331,250**	**331,250**	**339,550**

* Countries that have signed the memberhip agreement for Phase VI
(1) Germany agreed to pay the contribution for Phase VI spread over four years starting from 2021, i.e. Euro 43,750 per year
(2) The contribution from Slovakia for the year 2022 was received in 2021
(3) Malta joined as new country (was not a member country in Phase V).
(4) The contribution from Malta for the year 2022 contribution was received in 2021.
(5) Greece, Moldova and Turkey have not signed the membership agreement for Phase VI
(6) Portugal joined as new country in 2022
(7) The contribution from Slovakia for the year 2024 was received in 2023.
(8) Romania joined as new country in 2024

Annex 2- Urgent research and action needs in European forest genetic resources conservation

Urgent research and action needs in European forest genetic resources conservation

Identified by the EUFORGEN Steering Committee in 2024

AUTHOR: The European Forest Genetic Resources Programme (EUFORGEN) serves as an implementation mechanism of the **Forest Europe**[60] Process. Funded by the national governments of its 29 Member Countries, the programme operates through National Coordinators nominated by ministries responsible for forests in each country. Oversight is provided by the EUFORGEN Steering Committee, which consists of one National Coordinator from each Member Country.[61]

PROPOSED TOPIC: Mapping gaps in conservation of European forest genetic resources and threat assessment for the network of genetic conservation units: safeguarding the adaptive capacity of European forests.

BACKGROUND AND RATIONALE

Forests stabilise ecosystems, provide timber and ecosystem services essential for human and planetary wellbeing, and support a rich biodiversity. Conserving forests' adaptive capacity is essential to optimise forest resilience. In the context of global change, this includes actions to conserve adaptive capacity which can be used locally or transferred elsewhere, simultaneously ensuring a reliable supply of forest reproductive material for assisted forest regeneration, forest restoration and tree breeding.

Forest genetic resources (FGR) represent the heritable diversity that underpins the adaptability of forests and trees. This diversity varies within species' distribution ranges, therefore its conservation must be exercised across the entire geographic scale of each tree species to maximise their capabilities to respond to new threats.

The within-species genetic diversity of forests is a vital resource and in recent years many countries in Europe have made considerable progress in ensuring its conservation through the EUFORGEN Programme. An important contribution is the establishment of a network of Genetic Conservation Units (GCUs). GCUs are forest tree populations, adapted to specific

[60] https://foresteurope.org

[61] EUFORGEN Member Countries as of December 2024: Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Lithuania, Luxemburg, Malta, The Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and United Kingdom. more info at: www.euforgen.org.

environmental conditions or with distinct characteristics, typically located in forests managed for multiple uses, protected areas or seed stands. The GCU network aims to conserve the forest tree populations and the associated organisms that evolve in their natural environment.

Information on GCUs is currently stored in the **European Information System on Forest Genetic Resources (EUFGIS)**[62]. Established in 2010, EUFGIS was one of the actions supported by the European Commission under the Council Regulation (EC) No 870/2004. EUFGIS is the only transnational information system on FGR in Europe. It is maintained and further developed as part of the EUFORGEN Programme.

Each EUFORGEN member country has a EUFGIS National Focal Point (NFP), appointed by the respective National Coordinator, who is responsible for providing the data to EUFGIS. In non-EUFORGEN member countries (Signatory of the Forest Europe Process), the respective Contact Person appoints the EUFGIS NFP. All NFPs have direct access to the EUFGIS intranet to update national data as needed.

To date, nearly 3,500 GCUs have been established in Europe for the conservation of 100 forest tree species and, through the H2020 FORGENIUS project[63], all the GCUs are characterised[64] with present and forecasted climatic and environmental data. However, since half of the GCUs are concentrated on just five tree species, they currently cover only a small proportion of European forest tree species and their distribution ranges, leaving most species under-conserved. At the same time, some GCUs may be threatened by severe abiotic or biotic factors, placing them at risk.

There is, therefore, an urgent need for action now to address these gaps and risks. It is vital to identify **where the genetic conservation gaps are** in the GCU network and **identify and assess the threats** to GCUs. Furthermore, EUFGIS currently **lacks systems to warn of significant forecasted changes**; providing such a tool within the data collection platform would enable countries to anticipate and adapt their conservation strategies accordingly. Addressing these shortcomings will help to ensure the adaptive and evolutionary potential of forest tree species is conserved, providing an insurance for European forests for the future.

OBJECTIVES

The EUFORGEN Steering Committee has identified three specific objectives to address the shortcomings described above:

1. Map genetic conservation gaps of the GCU network to enhance conservation of forest genetic resources in Europe

[62] www.eufgis.org

[63] www.forgenius.eu

[64] https://beta.portal.eufgis.org

2. Assess threats to the GCU network in Europe to detect current or future stresses that the FGR may undergo
3. Develop an online tool within the European Information System on Forest Genetic Resources (EUFGIS) for identifying genetic conservation gaps and assessing GCUs' threats to support national authorities in FGR conservation.

PROPOSED ACTIVITIES

1. **Develop criteria and methodologies to identify genetic conservation gaps** in the Genetic Conservation Unit (GCU) Network.
    - Develop a methodology to improve the identification of genetic conservation gaps in the pan-European core network of GCUs based on additional data (genetic, phenotypic, environmental etc.) by combining existing methodologies, and developing new ones.
    - Identify the rationale behind the genetic conservation gaps and evaluate the potential solutions for filling them.
    - Develop a standardised, genotype- and phenotype-based approach to (systematically) map the adaptive potential of the candidate/new GCUs to assess their contribution to the robustness of the network.

2. **Identify potential threats affecting existing GCUs**
    - Collect available *threat assessment tools* and information available from existing literature.
    - Develop genotype- and phenotype-based criteria for assessing the threat status of GCUs and their vulnerability.
    - Recommend risk management measures both at individual GCU and Network levels.

3. **Integrate methodologies to identify genetic conservation gaps and assess GCUs threats in EUFGIS**:
    - Integrate the genetic conservation gaps methodology (developed in proposed Activity 1) in European information system on forest genetic resources (EUFGIS).
    - Upgrade EUFGIS by (i) developing a system based on the potential threats affecting individual GCUs (developed in proposed Activity 2) to warn in case of significant forecasted changes and (ii) integrating recommendations on possible risk management measures (proposed Activity 2).

EU COMMITMENTS AND POLICIES TARGETING THE OBJECTIVES

Forest Europe 2024 - Bonn Ministerial Declaration

At Forest Europe Ministerial conference, in October 2024, signatories (45 European signatory States + the EU), while welcoming the progress in implementing the "Forest Genetic Resources Strategy for Europe" launched by EUFORGEN, "**stress(ed) the need to identify gaps, to assess threats and set priorities for the conservation of forest genetic resources through the 'Genetic Conservation Unit Network'**"

foresteurope.org/wp-content/uploads/2024/10/Bonn-Ministerial-Declaration.pdf

Forest Genetic Resources Strategy for Europe

The Forest Genetic Resources Strategy for Europe is a collaborative initiative developed by European Countries through EUFORGEN, aimed at enhancing the conservation and sustainable use of FGR. It builds on individual country efforts by introducing new elements for better characterisation and classification of conserved resources, emphasising the need for expanded scientific knowledge, and outlining principles for policy-level coordination. The strategy also recommends future actions and collaborations among various entities and international organisations; among those, the need to: "**develop a methodology to improve the identification of conservation gaps in the pan-European core network of GCUs** based on additional data" and to "**develop criteria for assessing the threat status of GCUs**."
www.euforgen.org/FGRStrategy4Europe

New EU Forest Strategy for 2030:

The New EU Forest Strategy for 2030 highlights the importance of forest genetic resources, emphasising the need to preserve and enhance genetic diversity for resilience against climate change and diseases. The strategy promotes the use of native species and diverse genetic resources in reforestation efforts to improve forest ecosystems' adaptability. It also stresses the role of research and innovation in advancing genetic understanding to support sustainable forest management practices.

"Research and innovation will **increase the effectiveness of enhanced sustainable forest management under changing climate conditions**, amongst others, by reinforcing the knowledge on climate change impacts, **contributing to a greater diversity of forests and genetic resources**, and **providing evidence-based and practically feasible guidance for climate change mitigation and adaptation** in line with biodiversity objectives."
environment.ec.europa.eu/strategy/forest-strategy_en

New EU Strategy on Adaptation to Climate Change

The new EU Strategy on Adaptation to Climate Change underscores the significance of biodiversity, including genetic diversity, as crucial for ecosystem resilience. While it does not specifically reference forest genetic resources in depth, it **highlights the importance of preserving and enhancing genetic variability** to improve species' adaptability to climate change impacts, such as extreme weather events. This **genetic diversity is** seen as **essential for maintaining ecosystems** that can continue to provide vital services and support human livelihoods under changing conditions, The European Commission commits to "strengthen its support to protect the potential of genetic resources for adaptation".
climate.ec.europa.eu/eu-action/adaptation-climate-change/eu-adaptation-strategy_en

EU Biodiversity Strategy for 2030

The EU Biodiversity Strategy for 2030 emphasises the need to conserve and enhance genetic diversity within forests to strengthen ecosystem resilience. It notes that **reversing the decline in genetic diversity is crucial for forests to adapt** to climate change, pests, and diseases. By preserving genetic variability, the strategy aims to protect ecosystems' ability to provide essential services and maintain biodiversity for the future.

environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

CONCLUDING REMARKS

The EUFORGEN Programme has identified the outlined research and action needs as urgent priorities to support the conservation of FGR in Europe. These efforts transcend national responsibilities, emphasizing the need for a coordinated approach. A Research and Innovation Action would facilitate the development of tools based on state-of-the-art research to enhance conservation strategies and inform forest management decisions.

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Annex 3- Progress against the Implementation Plan for Pase VI

The three tables below (one for each Strategic Objective) present the planned activities for EUFORGEN Phase VI, and the status of their implementation, as of 31 December 2024.

Strategic Objective 1: Facilitate knowledge sharing and communicate with key stakeholders

Status colour coding: achieved, ongoing, planned, pending

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2024 / Date of achievement
Facilitate knowledge sharing and learning among relevant Actors (eg scientists, national competent authorities, practitioners and policymakers)	SC meetings with invited observers from non-member countries	S +NC	ongoing	agenda, list of participants and minutes of the meeting	Achieved – ongoing In 2024 1 Steering Committee meeting in person organized (9-11 April 2024 Bergen, Norway. 1 Steering Committee meeting virtual 11-12 December 2024.
	Advisory Committee meetings	S +NC	ongoing	agenda, list of participants and minutes of the meeting	Achieved – ongoing AC consulted in preparation for the Steering Committees - Ongoing
	Support the preparation of new project proposals	S	ongoing	number of Project consortia where the Secretariat is involved in early stages	Achieved (in 2021)
	Identify country experts with knowledge on	S +NCs	ongoing	Interface developed / number of species with identified reference person	the SC decided to have the first version of all species pages be prepared by the Secretariat - Achieved

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2024 / Date of achievement
	specific tree species and topics				
	Cross border collaboration with non-European Neighbor Countries	S+NC	ongoing	list of event and initiatives	Achieved FGRS4 Europe includes actions for neighbour countries
Communicate the importance of genetic diversity and outputs of EUFORGEN to policymakers, forestry professionals and practitioners on the ground, wider scientific community and society	Communicate the programme results to stakeholders)	S + EFI comms unit	2024	list of events, presentation and leaflets released and disseminated	Achieved – ongoing
	Establish/strengthen communication channels with relevant policy makers	S + NCs	ongoing	# of high level meeting where EUFORGEN is represented. with reference to EUFORGEN in relevant policy documents	Achieved – ongoing EUFORGEN represented at Forest Europe High-Level Talks on 9 November 2023 And Forest Europe ELM, 2 OECD, 1 ITWG-FGR.
	Promotion campaigns raising awareness on the FGR conservation strategy;			number and list of leaflets and infographics, evidence of their dissemination	Ongoing
	Get coverage of the topic of FGR in international media by strengthening media partnerships and developing	S		list of relevant events and coverage	Partially achieved – ongoing In 2024 the Forest Europe Ministerial conference highlighted the importance of FGR for SFM. This was widely

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2024 / Date of achievement
	products of interest to media				disseminated at European level
	Present EUFORGEN, its activities and products outside the circle of forest geneticists	S	ongoing	list of selected scientific and practical events	Achieved – ongoing Forest Europe, EFI, CO.FO.
	Maintain or strengthen communication channels with key actors such as Forest Europe, OECD FRM, FAO CGRFA, FAO ITWFGR, IPBES, CBD	S + AC	ongoing	list of Forest Europe, OECD FRM, FAO CGRFA, FAO ITWFGR, IPBES, CBD and other relevant events attended by Secretariat and AC	Achieved – ongoing Forest Europe, OECD FRM, FAO ITWFGR, JRC, Bioversity, ECPGR, ERFP
Maintain and further develop the EUFGIS information system and	Connecting EUFGIS with FOREMATIS IS to provide information of the availability of FRM to potential users	S	2021	feature in place and results operative	Achieved – ongoing A new functionality of the revised EUFGIS (point below) has been implemented

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2024 / Date of achievement
contribute to the further development of the distribution maps of European forest trees	Improving the functionality of EUFGIS to facilitate the national reporting efforts	S	2024	new version of EUFGIS Portal and Intranet available	Achieved – ongoing Through FORGENIUS
	Collaborate with the Joint Research Centre (JRC) of the European Commission in improving distribution maps, serving as a link between the FGR scientific community and JRC. Provide access to maps via EUFORGEN website	S + MC	ongoing	list of new maps where EUFORGEN´s contribution is acknowledged, number of maps in EUFORGEN´s website	Achieved – ongoing https://www.euforgen.org/species/ new maps available from https://data.mendeley.com/datasets/hr5h2hcgg4/9#file-2b32e368-04f0-40d2-bb82-ac5eacdb79e8
	contribute to the preparation of FAO State of the World FGR, by providing national & Europe Region perspectives	S+ EUFGIS Focal Points + MC	2020-2023	list and text of relevant chapters	ongoing Regional contribution submitted (S). 19 National Contribution submitted to FAO by MC.

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2024 / Date of achievement
Contribute to relevant international reporting efforts, such as the State of Europe's Forests reports	Support the monitoring of the implementation of the GPA- FGR. Provide the Regional perspective	S + MC	ongoing	EUFGIS is used as source of data for National and Regional reporting	Achieved – ongoing
	Contribute to the State of Europe´s Forest (Responsible for report on Indicator 4.6)	S + MC	2024	data on Indicator 4.6 are provided in due time and reference to EUFORGEN and EUFGIS is made in the report	Planned postponed to 2025 by Forest Europe Liaison Unit
	Publish reports of the WG or proceedings of relevant events		2024	Reports released electronically	Planned
	make available the overview of the State of Europe´s FGR report, presenting 4.6 data for all species	S + MC	2024	data on indicator 4.6 are presented for each species in EUFORGEN´s website	Achieved (in the framework of the new of EUFGIS)

Strategic Objective 2: Coordinate conservation of forest genetic resources in Europe

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2022 / Date of achievement
Update the pan-European conservation strategy also including response to large scale risks	Working group to guide and support the GenRes Bridge project in updating the European strategy for the conservation of FGR	S + WG + SC	2021	composition of the WG records of the inputs to the development of the strategy. updated strategy	Achieved FGR Strategy published (2021) www.genresbridge.eu/grs4e
	Involve non-member countries and neighbour countries in revising the Pan-European FGR conservation strategy	S + Project partners	2021	list of non-member and neighbour countries consulted and involved in the development of the strategy	Achieved FGR Strategy published in 2021 www.euforgen.org/fileadmin/templates/euforgen.org/upload/Publications/Thematic_publications/FGR_Strategy4Europe.pdf Non-member countries consulted: Belarus, Bosnia & Herzegovina, Bulgaria, Cyprus, Georgia, Greece, Moldova, North Macedonia, Portugal, Romania , Turkey, Ukraine.

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2022 / Date of achievement
Support National implementation of the GPA-FGR	attend relevant meetings of FAO ITWG-FGR and CGRFA Global and maintain the link with the Member Countries	S +AC+ NC+ SC	ongoing	list of ITWG FGR and CGRFA meetings attended by Secretariat and AC	Achieved
Implement the pan-European conservation strategy	Working Group developing Minimum Requirements for static and dynamic *ex situ* conservation	WG+ NEs	2023	composition of the working group and report (minimum requirements for *ex situ* conservation)	Achieved Ongoing – final draft circulated to SC
	Optimize the European network of genetic conservation units (training of EUFGIS FPs)	S+ GenRes Bridge Partners+ EUFGIS FPs	2021, 2024	list of trained EUFGIS FP, agenda, report and list of recommendations for the improvement of EUFGIS	Achieved – ongoing (one training held virtually in September 2024)

	implementation of the decision support tool for the management of the genetic conservation units' network	S+ EUFGIS FPs	2024	the tool is available and the EUFGIS information system modified. EUFGIS FPs trained	Ongoing – missing historical data in national datasets. Will be easier with the new EUFGIS, given more frequent field visits by national data providers
	Support the implementation of a pan-European genetic monitoring scheme with focus on the core network of GCUs	S +NCs	2024	composition of the WG, report (in case of a WG) or newly created opportunities	Ongoing through FORGENIUS

Strategic Objective 3: Promote the appropriate use of forest genetic resources

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2022 / Date of achievement
Prepare science-based recommendations and tools for better incorporating genetic aspects into Sustainable Forest Management practices	Discussion Platform (DP) on strategies for the adaptation to climate change	MC+ S	2024	list of participants, agenda, minutes and recommendations	Achieved
	WG on strategies for the **adaptation to climate change**	MC+ S	2021-2024	list of members, minutes of meetings, report of WG	Achieved - Ongoing contribution to the report on ex situ
	WG(s) building on Phase V WG on FRM - Customisation of guidelines for various audiences	MC+ S	2024	list of members, minutes of meetings, report of WG	Ongoing – first Theme released, 2nd prepared for release. Policy brief and policy summary released.

Operational Objective	Activities Phase VI	Responsibility [1]	Time frame	means of verification	Status as of 31 December 2022 / Date of achievement
	workshop to identify research needs and priorities on FGR in Europe (also apply to the other objectives)	MC+ S	2020	list of participants, minutes, prioritised list of research and policy needs	Achieved GenTree final conference www.gentree-h2020.eu/fileadmin/Gentree-uploads/documents/GenTree_stakeholders_consultation_30Jan2020_report_short_final.pdf
	link EUFGIS with FOREMATIS (conversion of EUFGIS into a Semantic IS)	S	2021	new Semantic EUFGIS Information system released, effectively linked to FOREMATIS	Achieved
Analyse policy issues and recommend changes when they conflict with the appropriate use of FGR	Working Group on FGR-related policies	S + SR	ongoing	list of members, minutes of meetings, recommendations of WG, reports to SC	Achieved Ongoing

1 S=Secretariat, NC= National Coordinators, SC= Steering Committee, SR = Selected Representatives, FP = Focal Points, MC = designated Member countries representatives, AC = Advisory Committee, NE = National Expert, WG= working groups

2 FE = Forest Europe, CBD= Convention on Biological Diversity, GPA FGR = Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources ExtRev= External Review, ToC= Theory of Change .