

# European Forest Genetic Resources Programme (EUFORGEN) Phase V (2015–2019)

## TECHNICAL REPORT AND FINANCIAL SUMMARY 1 January 2015- 31 December 2016

Michele Bozzano and Ewa Hermanowicz, EUFORGEN Secretariat  
Bioversity International<sup>1</sup>, Maccarese (Rome), Italy

### Executive Summary

After introducing the overall rationale for EUFORGEN, this report details the activities completed during the reporting period. During Phase V (2015–2019), EUFORGEN is aiming to:

- i) Collate, maintain and disseminate reliable information on forest genetic resources in Europe;
- ii) Coordinate and monitor the conservation of forest genetic resources in Europe, and
- iii) Develop guidelines and analyses on topics and issues relevant for the use of forest genetic resources in Europe.

The report outlines the status of EUFORGEN membership and working groups. In 2016 the network established three working groups on: i) A decision-support tool for the management of the genetic conservation units network; ii) Guidelines and a decision-support tool for better incorporating genetic aspects into production and use of forest reproductive material (FRM), and iii) Revision of the pan-European criteria and indicators for sustainable forest management (specifically indicator 4.6 on genetic resources). The report goes on to outline EUFORGEN workshops held during the reporting period, followed by a section on the European information system on forest genetic resources (EUFGIS). The report also describes activities of the EUFORGEN Steering Committee and Secretariat. Secretariat activities have included: i) developing a Communication Strategy which represents a significant shift from the previous ‘dissemination policy’ by putting a greater emphasis on the end users and on a two-way communication; and ii) highlighting how the programme has provided inputs to the Forest Europe process and related work, in particular in promoting the implementation of strategies and guidelines for dynamic conservation and appropriate use of forest genetic resources. The report also indicates EUFORGEN’s contributions to European initiatives and projects: i) the FORGER project-*Towards the Sustainable Management of Forest Genetic Resources in Europe*; ii) the GenTree Project- *Optimizing the management and sustainable use of forest genetic resources in Europe* (funded by the EU Horizon 2020 research and innovation programme); iii) preparatory actions on EU plant and animal genetic resources in agriculture (Workshops and Conferences), and iv) preparing Sectoral Guidance Documents to support EU Regulation 511/2014 implementing the Nagoya Protocol. A financial summary for 2015-2016 is presented and five key publications are listed.

In 2015 the role of EUFORGEN as an implementing mechanism of the Forest Europe process on forest genetic resources was formally recognised at the seventh Forest Europe Ministerial Conference, when signatory countries committed to “continue pan-European collaboration on conserving and managing forest genetic resources through the EUFORGEN Programme”.

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<sup>1</sup> With effect from 1 December 2006, IPGRI and INIBAP operate under the name "Bioversity International", Bioversity for short.

## 1. Introduction

The European Forest Genetic Resources Programme (EUFORGEN) is a collaborative programme between European countries to promote the conservation and sustainable use of forest genetic resources (FGR). It was established in October 1994 as a pan-European implementation mechanism for Resolution S2 (Conservation of forest genetic resources) of the first Ministerial Conference on the Protection of Forests in Europe (MCPFE, now called Forest Europe), held in Strasbourg in 1990. EUFORGEN also contributes to the implementation of Vienna Resolution 4 (Conserving and enhancing forest biological diversity in Europe) (2003).

The role of EUFORGEN as an implementing mechanism of the Forest Europe process, was definitively recognised in 2015, at the 7<sup>th</sup> Forest Europe Ministerial Conference, where signatory countries committed to “continue pan-European collaboration on forest genetic resources through the European Forest Genetic Resources Programme (EUFORGEN)” (Madrid Ministerial Resolution M2, “Protection of forests in a changing environment”). 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 and guidelines developed by EUFORGEN over the past decade.

The Programme also contributes to implementation of relevant decisions of the Convention on Biological Diversity (CBD). Furthermore, EUFORGEN contributes to the implementation and monitoring of regional-level strategic priorities of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources (GPA-FGR), which was adopted by the FAO<sup>2</sup> Conference in 2013.

The European Commission also recognised the role of EUFORGEN as a mechanism to strengthen forest genetic resources conservation with the 2015-2020 European Commission’s Multi-annual Implementation Plan of the EU Forest Strategy<sup>3</sup>. This is also a recognition of the Programme’s unique role in providing a science-policy interface at EU level.

EUFORGEN is financed by its member countries and coordinated by Bioversity International in technical collaboration with FAO. EUFORGEN activities are mainly carried out by experts from the member countries. The EUFORGEN Steering Committee is composed of National Coordinators from all member countries and it has overall responsibility for the Programme.

During Phase V (2015–2019), the EUFORGEN objectives are the following:

1. Collate, maintain and disseminate reliable information on forest genetic resources in Europe
2. Coordinate and monitor the conservation of forest genetic resources in Europe
3. Develop guidelines and analyses on topics and issues relevant for the use of forest genetic resources in Europe.

EUFORGEN carries out its activities through working groups and workshops. The working groups are established by the Steering Committee (SC) to address specific issues under Objectives 2 and 3. The SC also defines the tasks, deadlines and expected outputs of working groups. The

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<sup>2</sup> Food and Agriculture Organization of the United Nations

<sup>3</sup> EC Multi-annual Implementation Plan of the EU Forest Strategy [http://ec.europa.eu/agriculture/forest/forest-map/index\\_en.htm](http://ec.europa.eu/agriculture/forest/forest-map/index_en.htm)

results of working groups are discussed during workshops with a broader group of experts and stakeholders engaged in EUFORGEN and reported back to the SC for further action.

Under Objective 1, EUFORGEN is maintaining the EUFGIS (European Information System on Forest Genetic Resources) Portal and its network of National Focal Points created during an EU-supported project 'Establishment of a European Information System on Forest Genetic Resources'<sup>4</sup> (2007–2011). In addition, the National Coordinators and the EUFORGEN Secretariat contribute to international reporting efforts on FGR. A particular emphasis was given by the Secretariat, during the reported biennium, to the communication of the EUFORGEN results to policymakers, a wider scientific community and practitioners.

This document provides highlights of EUFORGEN activities in 2015 and 2016. It also includes a summary on expenditures and financial contributions in 2015 and 2016. The detailed financial reports for 2015 and 2016 are available as separate documents.

## **2. EUFORGEN membership**

In 2015, EUFORGEN had a total of 23 member countries (Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Luxemburg, Moldova, the Netherlands, Norway, Poland, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Turkey and the United Kingdom). In 2016, Iceland joined the programme.

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

## **3. EUFORGEN working groups**

In 2016, EUFORGEN established three working groups on the following subjects:

1. Decision support tool for the management of the genetic conservation units network
2. Guidelines and decision support tool for better incorporating genetic aspects into production and use of forest reproductive material (FRM)
3. Revision of indicator on genetic resources (4.6) of the pan-European criteria and indicators for sustainable forest management.

During its 11<sup>th</sup> meeting in Dublin (Ireland) in November 2015 the (SC) agreed on the tasks and expected outputs of the working groups and nominated national experts (1–6 experts per country). The EUFORGEN Secretariat selected members of the working groups from that pool. Each member country was represented by at least one expert in either of the working groups. Other nominated experts (so called 'e-mail contributors') will have an opportunity to provide their inputs to the reports by email and/or during workshops.

### **3.1 Working group on a decision support tool for the management of the genetic conservation units network**

The objective of this working group is to further develop a decision support tool of which a

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<sup>4</sup> [www.eufgis.org](http://www.eufgis.org)

preliminary version was laid out in a thematic publication “*Approaches to the conservation of forest genetic resources in Europe in the context of climate change*”<sup>5</sup>. The tool is necessary for the establishment of standards in the management of conservation units and to identify threatened tree populations across Europe.

The working group’s task is to identify threats at species and population level, which will guide the definition of priorities and modalities for actions, including introduced tree species important for forestry in several European countries. The decision support tool will allow forest managers who have responsibility for the management of the national networks of genetic conservation units (GCUs) to take appropriate management decisions with long-term perspectives. In particular, it will simplify the identification of threats at population level. The working group will also incorporate in its study the results of the COST Action FP1202 on marginal/peripheral (MaP) forest populations<sup>6</sup>.

The tool will provide a common standard for the consistent management of genetic conservation units and allow uniform implementation and monitoring of the *Pan-European strategy for genetic conservation of forest tree* throughout Europe.

The working group met for the first time in Rome, Italy on 24-28 October 2016, where Andreas Rudow (Switzerland) and Marjana Westergren (Slovenia) were respectively nominated chair and vice-chair of the working group. The group developed an outline of the report, which will be further elaborated during 2017 and then reviewed by email contributors.

The next meeting will take place in Zurich, Switzerland from 28-31 August 2017.

### **3.2 Working group on developing guidelines and a decision support tool for better incorporating genetic aspects into production and use of forest reproductive material**

The objective of this working group is to produce guidelines and a decision-support tool to better incorporate genetic aspects into forest management practices related to production and use of forest reproductive material (FRM).

The working group will review relevant literature and capitalize on the results of the Forest Management network, which was active during Phase III of EUFORGEN (2005-2009)<sup>7</sup>.

The group will also build upon the publication *Use and transfer of forest reproductive material in Europe in the context of climate change*<sup>8</sup> developed by another EUFORGEN working group during the Phase IV of EUFORGEN and published in 2015. Furthermore, the working group will integrate the discussion points derived from a GenTree<sup>9</sup> stakeholders’ consultation, which took place in Madrid, Spain in October 2016. The consultation focused on establishing a dialogue between associations of

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<sup>5</sup> <http://www.euforgen.org/publications/publication/climate-change-and-forest-genetic-diversity>

<sup>6</sup> <http://map-fgr.entecra.it>

<sup>7</sup> <http://www.euforgen.org/about-us/history/phase-iii-2005-2009>

<sup>8</sup> The report, *Use and transfer of forest reproductive material (FRM) in Europe in the context of climate change* is available at the EUFORGEN website: <http://www.euforgen.org/publications/publication/use-and-transfer-of-forest-reproductive-material-in-europe-in-the-context-of-climate-change/>

<sup>9</sup> <http://www.gentree-h2020.eu/>

forest owners, forest nurseries, certification scheme officers, policy-makers and researchers working on the management of forest reproductive material in the light of environmental changes.

In summary, the working group will:

1. Document the production chain of FRM and examine how genetic aspects are affected in collection/production/deployment of FRM, taking into account how climate change may affect seed production
2. Make recommendations on how to improve existing schemes for tracking and recording FRM
3. Analyse establishment techniques and use of FRM

The working group met for the first time in Madrid, Spain, on 15-18 November 2016. Katri Himanen (Finland) was nominated as chair of the working group; a vice-chair will be nominated at a later stage. The group developed an outline of the report, which will be elaborated during 2017 and then reviewed by email contributors.

The members of the working group also contributed to a workshop organised by the GenTree project, held back-to-back with the first meeting (see paragraph 4 'Workshops' below).

The next meeting will take place in Warsaw, Poland on 20-22 June 2017.

### **3.3 Working group revising the indicator on genetic resources (4.6) of the pan-European criteria and indicators for sustainable forest management**

The indicator 4.6, "Area managed for the conservation and utilization of forest tree genetic resources (*in situ* and *ex situ* genetic conservation) and area managed for seed production", is part of the set Criteria and Indicators (C&I) for sustainable forest management (SFM) adopted by the FOREST EUROPE process<sup>10</sup>. The objective of this working group is to revise this indicator and to formulate a more effective alternative indicator to the existing 4.6.

These indicators are a tool for forest policy formulation, decision-making, forest monitoring, and communication. Currently the set consists of 34 quantitative indicators and 11 qualitative indicators. The quantitative indicators (including 4.6 under Criterion 4 "Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems") provide information on the current status of and changes in European forests and progress on sustainable forest management.

To date, European countries have been reporting (through EUFORGEN) the number of hectares managed for the conservation and utilization of forest tree genetic resources and area managed for seed production. At its 11<sup>th</sup> meeting, the EUFORGEN SC indicated that an assessment based on the number of hectares was not appropriate to evaluate status and progress of FGR conservation in Europe and to monitor changes, because the indicator in use neither informs on the amount of genetic diversity conserved within each country nor on the added contribution of within-country conservation units to the overall genetic diversity conserved at the pan-European scale. Moreover, the analysis of current information reveals a lack of harmonization among countries regarding the type of genetic resources included, which does not enable a reliable comparison.

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<sup>10</sup> <http://foresteurope.org/themes/?sfm=sfm-criteria-indicators2/#1475853858230-c81b6e40-168d>

This working group was entrusted to review the indicator 4.6 and propose how to improve it. The working group met in Maccarese, Italy from 28-30 November 2016 and developed a revised indicator. François Lefèvre (France) was nominated as chair of the working group.

The revised indicator will be presented and discussed at the Steering Committee meeting in May 2017, where the National Coordinators will decide on its future use. The working group will finalize the report through online discussion.

#### **4. EUFORGEN Workshops**

In 2016, a workshop on “Genetic considerations around forest reproductive material in Europe” was organised in collaboration with the GenTree project on 14-15 November in Madrid, Spain. The event focused on establishing a dialogue with European stakeholders in the forestry sector. The theme of the event was the management of forest reproductive material in light of environmental changes. The workshop made specific recommendations that were used as a basis for discussion by the members of the EUFORGEN working group developing guidelines and decision support tool for better incorporating genetic aspects into production and use of forest reproductive material (see point 3.1.2 above). The main recommendations were the following:

1. Use provenances instead of species in assisted migration schemes
2. Revision of transfer recommendations is necessary at the pan-European level
3. More stringent control of FRM is needed at all production and marketing stages
4. Dissemination of information on the value of FRM to forest owners, managers and policy-makers needs to be improved – Awareness raising is needed to create a market for high quality FRM
5. The protocols used in forest certification systems are too restrictive and there is a need to influence forest certification systems for what concerns FRM use
6. The timeframe and funding for FRM production are often limited to a few years, while proper planning requires a longer time span and greater availability of resources.

More information on the recommendations and on the event is available at the GenTree website<sup>11</sup>.

#### **5. European information system on forest genetic resources (EUFGIS)**

The EUFGIS portal (<http://portal.eufgis.org>) makes available geo-referenced data on the dynamic conservation units of forest trees in Europe. The data are provided and updated by national focal points in line with the pan-European minimum requirements<sup>12</sup> and data standards<sup>13</sup> for these units. The data standards and the minimum requirements were developed as part of the EUFGIS project<sup>14</sup> (2007–2011). The portal<sup>15</sup> has been maintained and further developed by EUFORGEN after the EU-supported project ended.

In 2015 and 2016, the national focal points continued compiling new data on the units and uploading the data into the EUFGIS portal. A total of 262 new genetic conservation units were

<sup>11</sup> <http://www.gentree-h2020.eu/fileadmin/Gentree->

[uploads/documents/Report\\_of\\_Gentree\\_Stakeholder\\_event\\_Madrid\\_Nov\\_2016\\_web.pdf](http://www.gentree-h2020.eu/fileadmin/Gentree-)

<sup>12</sup> [http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS\\_Minimum\\_requirements.pdf](http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_Minimum_requirements.pdf)

<sup>13</sup> [http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS\\_DataStandards.pdf](http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_DataStandards.pdf)

<sup>14</sup> <http://www.eufgis.org>

<sup>15</sup> <http://portal.eufgis.org>

added into the database during these years. At the end of 2016, the EUFGIS portal contained data on 3,428 units, which are managed for the genetic conservation of 101 tree species. The units harboured a total of 4,358 tree populations. The number of data-providing countries increased from 31 to 34 while the number of countries with national focal points (36) remained unchanged.

The Secretariat improved the EUFGIS intranet to better support the EUFGIS National Focal Points in providing indications on the selection of the core network of genetic conservation units. This will allow to keep track of the changes in the definition of the core network, after having completed the ranking of the units, according to the principles described in the “Pan-European strategy for genetic conservation of forest trees and establishment of a core network of dynamic conservation units”. This new feature will also allow identifying additional conservation units covering migration routes, refugial areas and contact zones, which, according to the Strategy, can be added to the core network. The newly revamped system will also enable to keep records of changes in the core network. The Focal Points will be trained on the use of the interface during a training workshop in 2017.

As of December 2016, the core network of dynamic conservation units has been identified for all 101 tree species present in the Information system.

## **6. Activities of the EUFORGEN Steering Committee**

During its 11<sup>th</sup> meeting in Dublin, Ireland (18-20 November 2015), the SC reviewed the technical and financial reports for 2014 and discussed the 2015 update presented by the Secretariat. The SC noted that EUFORGEN had made a good progress in its activities and thanked the Secretariat for the prudent management of financial resources. The SC also adopted the technical and financial reports for 2014. The SC deliberated on the establishment of three working groups that would become operational during the first part of Phase V (see 3. above). The SC will review progress of the three working groups at the next meeting.

During April 2016, the National Coordinators were consulted to express their views on emerging issues related to recent developments and opportunities in Europe that may affect EUFORGEN long-term strategic goals. The consultation focused on the re-consideration of Programme’s hosting and the evaluation of the Programme’s content and achievements. The SC gave M. Bozzano the mandate to explore the possibility of hosting EUFORGEN at the European Forest Institute (EFI).

In August-September 2016, the National Coordinators discussed (remotely) and evaluated the possibility of EUFORGEN to be hosted at EFI. Given the important long-term implications, a final decision was postponed to the forthcoming SC meeting in May 2017, where both the current and the alternative hosting institute will present their offers.

The SC commissioned an external evaluation of the EUFORGEN Programme by an independent team of experts, to have a comprehensive and sound assessment of EUFORGEN since its establishment. The evaluation plan was prepared during the month of May 2016 and performed during June-November 2016. The results of the evaluation are an important product to show the impact of the Programme to the stakeholders. The SC took part in the review process and supported the identification of stakeholders, users and next-users to be interviewed. It was agreed that the review should be focused on the programme, its agreed activities and outputs; and should not address whether EUFORGEN is targeting the provision of ecosystem services by FGR adequately, which was perceived as relevant, but to be considered later in the future. The summary of the review is attached to this report.

The evaluation of the Programme, conducted by the Bioversity International Development Impact Unit from June to November 2016, shows that EUFORGEN is a unique and needed platform for coordinating FGR issues at the European level. By developing a pan-European strategy for genetic conservation of forest trees, whose implementation has started in twenty-four member and non-member countries, the Programme has made significant steps towards the successful long-term conservation and sustainable use of forest genetic resources in Europe. Yet, these efforts are constrained by various factors: weak linkages with policy makers and practitioners on the ground, a changeable constellation of member countries, which support it, and the associated fluctuations in the financial resources and in-kind contributions. The report provides detailed insights into strengths and weaknesses of EUFORGEN, along with recommendations for future action.

Between September and December 2017, the SC was asked to provide feedback on a draft Sectoral Guidance Document for the plant breeding sector to support EU Regulation 511/2014<sup>16</sup> implementing the Nagoya Protocol. The feedback was integrated and provided to the drafting team as EUFORGEN's contribution. Please see section 8.4 below for more details.

## **7. Activities of the EUFORGEN Secretariat**

In 2015 the Secretariat finalised five working group reports of Phase IV (3.3 above), published them (print and online) and distributed among the authors and relevant stakeholders (400 copies each).

The Secretariat, in consultation with the SC, formed three working groups that have operated since 2016, coordinated their activities and took care of the practical arrangements of their meetings. Furthermore, the Secretariat contributed to the preparation of draft reports of the working groups. In 2016, the Secretariat also organized a workshop on "Genetic considerations around forest reproductive material in Europe" in collaboration with GenTree project.

During the reporting period, the Secretariat continued to maintain and improve the EUFGIS Information System, Intranet and Portal (see section 5 above). The Secretariat also continued to provide helpdesk support to the EUFGIS National Focal Points.

In November 2015, Michele Bozzano (after holding *ad interim* the position for 6 months) started as the new EUFORGEN Coordinator following Jarkko Koskela, who had coordinated the Programme since 2003. Ewa Hermanowicz changed her responsibilities, to better meet the need of the Programme. The Secretariat carried out a significant amount of work through collaboration with external consultants and temporary staff, depending on the workload, activities and the required expertise. Temporary staff included a job trainee to support the website re-design and a travel assistant to support the meetings' logistics. In addition, during the reporting period, eleven consultants collaborated on a range of tasks including legal advice, science writing, web design, IT, programming and evaluation.

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<sup>16</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0511>



## 7.1 Communication strategy

A new communication strategy was drafted in 2015 and presented to the SC during its 11<sup>th</sup> meeting in Dublin, Ireland (18-20 November 2015). The strategy represents a significant shift from the previous 'dissemination policy' by putting a greater emphasis on the end users of the programmes' outputs and on a two-way communication.

As a first step in the implementation of the new strategy, the EUFORGEN website was re-designed to better correspond to users' needs and make available information for a variety of stakeholders, such as policymakers, forest managers, students and a wider scientific community. The re-organization of the website's content was carried out taking into account advances in technology, design trends, users' feedback and website statistics, which define users' behaviour. Rather than mirroring the governance structure of EUFORGEN, the website features a reduced number of sections with simplified navigation, organized around search criteria commonly adopted by users. The new elements include a search mask for publications and a section on FGR importance. The contents of the pages were rewritten using non-technical language and organized by countries and species (105) drawing on available resources by appropriate meta-tagging.

The Secretariat put in place a mechanism to call for contributions for the newsletter, now published on a more regular basis (quarterly). It provides information about key events, publications and projects in Europe, developments at national level in the area of forest genetic resources conservation and use as well as activities of the Programme. News stories related to forest genetic resources issues in Europe are regularly posted in the 'News' section of the website (six in 2015 and six in 2016) to which the newsletter is addressing the viewers.

New social media channels were created for EUFORGEN and were embedded in the website (twitter, flickr). These new features are actively maintained and used to promote relevant materials and attract the attention of new stakeholders.

A training on Wikipedia was organized for the Secretariat staff with the objective to create a EUFORGEN page on the free encyclopaedia ([https://en.wikipedia.org/wiki/European\\_Forest\\_Genetic\\_Resources\\_Programme](https://en.wikipedia.org/wiki/European_Forest_Genetic_Resources_Programme)) and improve dissemination of EUFORGEN products by adding links and references on Wikipedia. .

The Secretariat has had a long history of collaboration in terms of communication with Bioversity, FAO and EFI. More recently (2015-16), the Secretariat established or strengthened communication channels with the European Commission's Directorate-Generals (e.g. Agriculture and Rural Development, Environment, European Neighbourhood Policy and Enlargement Negotiations, Health and Food Safety, International Cooperation and Development and Joint Research Centre), relevant International Conventions and Organisations (e.g. Convention on Biological Diversity Convention on Biological Diversity (CBD), European Space Agency (ESA), International Union for Conservation of Nature (IUCN), International Union of Forest Research Organizations (IUFRO), International Seed Testing Association (ISTA), Organisation for Economic Co-operation and Development (OECD), World Wildlife Fund (WWF)) and Forest owners associations (e.g. European State Forest Association (EUSTAFOR), Union of Foresters of Southern Europe (USSE)).

The Secretariat staff also became part of the FAO-UNECE (Economic Commission for Europe) Forest Communicators Network and of the IUFRO working party on Communications and Public Relations and attended their annual meetings (organized jointly in Portland, US, Aug 2016) and a Forest Communicators Network taskforce meeting (Vienna, Austria, Dec 2016).

All communication activities rolled out as part of the implementation of the new Communications Strategy in 2016 led to increased interest and engagement in EUFORGEN's work by researchers, international organizations, forest-related associations and policy-makers, which can be demonstrated by the fulfilment and surpass of all quantitative and qualitative indicators of achievement set out in chapter 7 and beyond.

## 7.2 Inputs to the Forest Europe process and related work

Bioversity International is an observer of the Forest Europe process, and the EUFORGEN Coordinator represents Bioversity at all relevant events. In 2015 and 2016, the Coordinator attended the following Forest Europe meetings:

- i) Expert Level Meeting on 20-22 January and 30 June- 2 July 2015, Madrid, Spain, 11-12 May 2016, Bratislava Slovakia
- ii) Drafting Meeting for the preparations of the 7th Forest Europe Ministerial Conference and Extraordinary Ministerial Conference on 24-27 March 01-03 June 2015, and 29-30 June 2015, Madrid, Spain
- iii) Workshop on the Updating of the pan-European Indicators for SFM 27-29 April 2015, Madrid, Spain.
- iv) 7<sup>th</sup> Forest Europe Ministerial Conference and Extraordinary Ministerial Conference, 20-21 October 2015, Madrid, Spain.

In 2015, at the 7<sup>th</sup> Forest Europe Ministerial Conference, signatory countries committed to "continue pan-European collaboration on forest genetic resources through the European Forest Genetic Resources Programme (EUFORGEN)" (Madrid Ministerial Resolution M2, "Protection of forests in a changing environment"). This is a clear recognition of EUFORGEN's effectiveness and its distinctive and valuable role in contributing to forest genetic diversity conservation and 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 and guidelines developed by EUFORGEN over the past decade.

In 2016, the EUFORGEN Coordinator contributed to a Forest Europe side event organized during the 5<sup>th</sup> World Forest Week on 19 July 2016 at FAO HQ, Rome, Italy, entitled "Perspectives and challenges ahead in European cooperation on forests". It was an occasion to underline the importance of genetic resources and the role of the EUFORGEN Programme in implementing the Forest Europe Work Programme, in particular within the thematic area *Protection of forests in a changing environment including their adaptation to climate change*.

The work programme and the minutes of all the meetings are available on the Forest Europe website ([www.foresteurope.org](http://www.foresteurope.org)).

## 7.3 Inputs to the other processes and events

During 2015-16, the Coordinator attended several events that created awareness about recent outputs of the Programme (mainly Phase IV reports) and introduced EUFORGEN's work to new audiences. A list of key events is presented below.

## 2015

- i. 15<sup>th</sup> Regular Session of the FAO Commission on Genetic Resources for Food and Agriculture 19-23 January 2015, Rome, Italy
- ii. International Conference on "Genetic resources conservation - scientific and social challenges," 25 June 2015, Kostrzyca Forest Genebank, Poland;
- iii. Society for Ecological Restoration SER 2015 World Conference on Ecological Restoration, 23-27 August 2015, Manchester, UK;
- iv. FAO XIV World Forestry Congress 7-11 September 2015, Durban, South Africa;
- v. OECD Scheme for the Certification of Forest Reproductive Material, 6-7 October 2015, Paris France.
- vi. FAO workshop "Forest policy and forest genetic resources for adapting to climate change" 8 – 9 October 2015, Prague, Czech Republic.
- vii. Ecological Restoration in the Mediterranean region: Challenges and Opportunities, ECOPLANTMED final conference, Beirut - 14--16 October 2015

## 2016

- i. Biodiversa Advisory Board meetings, 7-8 January and 23-24 May 2016, Paris, France.
- ii. Conference on 'European Agriculture Research and Innovation', European Commission, 26-28 January 2016, Brussels, Belgium.
- iii. European Forest Institute 2-4 February 2016, Joensuu, Finland.
- iv. EC Joint Research Centre, two seminars on EUFORGEN, 18-19 February 2016, Ispra, Italy
- v. Workshop on Access to Genetic Resources in the European Union, 25-26 February 2016, London, UK
- vi. Trees4Future final conference, 4-7 April 2016, Brussels, Belgium
- vii. OECD Technical Working Group Meeting, 26-27 April 2016 Sopron, Hungary.
- viii. USSE Workshop: "Climate change: the moment for forests and the forest sector", 25 May 2016, San Sebastian, Spain
- ix. International Scientific Seminar: 'Sustainable Intensification of Planted Forests: How Far Can We Go?' EFIATLANTIC, 13 June 2016, Biarritz, France
- x. FAO 23<sup>rd</sup> Committee on Forestry (CO.FO.), 18-22 July 2016, Rome, Italy
- xi. Lifegenmon annual meeting 6-7 Sep 2016, Ljubljana, Slovenia.
- xii. EC Standing Forestry Committee meeting, 16 September 2016, Brussels, Belgium.
- xiii. EFI 2016 Annual Conference, 22–24 September 2016, Vienna, Austria
- xiv. COST FP1202, Final Conference on "Marginal and peripheral tree populations: a key genetic resource for European forests" 26-29 September 2016, Arezzo Italy.
- xv. OECD Annual Meeting of the OECD Forest Seed and Plant Scheme, 4-5 October 2016, Paris, France.
- xvi. International workshop "Introduced tree species in European forests". 5-7 December 2016, Brussels, Belgium.

## 8. Contributions to European initiatives and projects

### 8.1 FORGER project

In 2015-16, the Secretariat continued its support to the FORGER project (Towards the Sustainable Management of Forest Genetic Resources in Europe). The project started in March 2012 and ended in February 2016. The consortium, funded by the EU FP7, was coordinated by Alterra (the

Netherlands) and included eight partners. FORGER aimed to integrate and extend existing knowledge on the management and sustainable use of forest genetic resources in order to provide science-based recommendations to EU-policy makers, national stakeholders, forest managers, and managers of natural areas. The EUFORGEN Secretariat served as interface between the project and a wider EUFORGEN community.

The final meeting of FORGER was held on 17-18 November 2015 in Dublin (Ireland), back-to-back with the 11<sup>th</sup> EUFORGEN SC meeting, and provided an opportunity to the scientists involved to share their main results with the EUFORGEN National Coordinators.

FORGER and EUFORGEN jointly organised a roundtable event on 10 December 2015 at the European Forestry House in Brussels (Belgium). The purposes of the event were to present recent research findings with policy implications for conservation of forest genetic resources in Europe, such as impacts of climate change on forests and the EUFORGEN Pan-European conservation strategy, and to discuss associated EU policy aspects. It was attended by more than 30 participants, including representatives of five European Commission Directorates General.

The event was an occasion to stress the importance of coordinated activities for Europe, on conservation of forest genetic resources, and to define regulations, minimum targets and long-term strategies, with technical guidance from EUFORGEN. A broader policy on conservation of forest genetic resources will be needed, relying on the EUFGIS infrastructure. The ultimate conservation goal is to ensure that the changing needs of society can be met (now and in the future), and other stakeholders, such as forest-based industries need to be part of the discussion.

Further information on FORGER is available at [www.fp7-forger.eu](http://www.fp7-forger.eu).

## 8.2 GenTree Project

GenTree (Optimizing the management and sustainable use of forest genetic resources in Europe) is a project funded by the EU Horizon 2020 research and innovation programme. The goal of GenTree is to provide the European forestry sector with better knowledge, methods and tools for optimizing the management and sustainable use of FGR in Europe in the context of climate change. The project (March 2016 -February 2020) is coordinated by Institut National de la Recherche Agronomique (INRA), France and includes 22 public and private research organizations and enterprises in the consortium.

Biodiversity International, in collaboration with the EUFORGEN Secretariat, is primarily responsible for leading the work-package on communication and stakeholders' engagement but contributes to other tasks, such as the improved characterization of the EUFGIS Network of genetic conservation units and the definition of priority areas for establishing new genetic conservation units in Europe.

The overall goal of GenTree is to provide the European forestry sector with better knowledge, methods and tools to improve the conservation and use of adapted and genetically diverse FGR in European forests in the context of global environmental change and evolving societal demands for a diversified range of forest products. To reach its goal, GenTree will:

- design innovative strategies for dynamic conservation of FGR in European forests
- broaden the range of FGR used by European breeding programmes
- prepare new forest management scenarios and policy frameworks that fully integrate

genetic conservation and breeding aspects in order to adapt forests and forestry to changing environmental conditions and societal demands

GenTree focuses on 12 economically and ecologically important tree species in Europe, growing in a wide range of habitats and covering different societal uses and values.

A kick-off meeting was organized on 20-22 April 2016, at INRA, Domaine Saint-Paul, Avignon (France). The first Gentree stakeholders' event took place on 14-15 November 2016 at INIA in Madrid (Spain), and focused on establishing a dialogue between associations of forest owners, forest nurseries, officers of certification schemes, policy-makers and researchers on the management of forest reproductive material in light of climatic changes. More than 40 participants representing different institutions from 21 European countries attended the event, which resulted in concrete recommendations for GenTree research direction and for the EUFORGEN working group developing guidelines and decision support tool for better incorporating genetic aspects into production and use of forest reproductive material.

More information on GenTree is available at [www.gentree-h2020.eu](http://www.gentree-h2020.eu)

### **8.3 Preparatory actions on EU plant and animal genetic resources in agriculture**

In 2014, the European Commission (DG Agriculture and Rural Development) contracted a private consortium to develop a "*Preparatory action on EU plant and animal genetic resources in agriculture*". The aim of the action was to deliver inputs on how to improve communication, knowledge exchange and networking among all the actors potentially interested in activities related to the conservation of genetic resources in agriculture.

Seven workshops were organised during the period June 2015 – March 2016. Each workshop was dedicated to a specific topic/issue linked to a specific regional context and/or covering sectorial or methodological issues.

Representatives of EUFORGEN contributed, at various levels, to four workshop and to the final conference.

- a. Workshops
  - i. Better integration of *ex situ* and *in situ* approaches towards conservation and sustainable use of GR at national and EU level: from complementarity to synergy, 3 June 2015, Brussels, Belgium.
  - ii. FGR in Europe in a changing climate: challenges and needs for conservation, 16 June 2015, Amsterdam, The Netherlands.
  - iii. Access to genetic resources in the European Union, 25-26 February 2016, London, UK.
  - iv. Implementation of FAO Global Plans of Action: which role for the European Commission, 21 April 2016, Bonn, Germany.
- b) Final Conference of the Preparatory action on EU plant and animal genetic resources, 9 June 2016, Brussels, Belgium.

As a result of the Preparatory Action, the European networks on genetic resources, such as the European Cooperative Programme for Plant Genetic Resources (ECPGR), the European Regional

Focal Point for Animal Genetic Resources (ERFP), EUFORGEN and the Microbial Resource Research Infrastructure (MIRRI), were able to highlight to the EC the major research needs for the conservation and sustainable use of genetic resources in Europe.

More information on the Action is available at [www.geneticresources.eu](http://www.geneticresources.eu).

## **8.4 Sectoral Guidance Documents to support EU Regulation 511/2014 implementing the Nagoya Protocol**

The European Commission (DG Environment) has commissioned a private consortium to develop draft sectoral guidance documents to support EU Regulation 511/2014 implementing the Nagoya Protocol. Out of nine sectoral guidance documents, three will be on FGR-related themes (“Plant Breeding” (2016), “Collection Holders” (2017) and “Research” (2017)). The project foresees drafting of each of the sectoral Guidance Documents by a group of 6 – 10 experts, representing various stakeholders in the EU. The EUFORGEN Coordinator was invited to contribute to the first two and to coordinate feedback from the EUFORGEN community.

The first seven drafts were presented in a one-day workshop on 20 September 2016 in Brussels, and feedback was widely collected among EU countries. The remaining two drafts sectoral guidance documents will be developed in 2017 under the responsibility of the European Commission and will complement the horizontal guidance document<sup>17</sup>, published in August 2016.

## **9. Financial summary for 2015-2016**

In January 2015, the opening balance of the EUFORGEN trust fund was US\$ 162,070. During 2015, Bioversity International received a total of US\$ 300,100 as financial contributions from member countries. The planned budget for 2015 was US\$ 354,042 but the actual total expenditure in 2015 was only US\$ 163,120. In December 2015, the outstanding contributions for Phase IV were US\$ 20,625 for Spain, US\$ 11,000 for Greece and US\$ 8,250 for Romania. The closing balance of the trust fund was US\$ 299,051 on 31 December 2015 and it was carried forward for 2016.

In January 2016, the opening balance of the EUFORGEN trust fund was US\$ 299,051. During 2016, Bioversity International received a total of US\$ 341,520 as financial contributions from member countries. The planned budget for 2016 was US\$ 359,841 while the actual total expenditure in 2016 was US\$ 292,789. In December 2016, the outstanding contributions for Phase IV were US\$ 11,000 for Greece and US\$ 8,250 for Romania.

As agreed at the tenth meeting of the EUFORGEN SC, held in Edinburgh (UK) on 16–18 June 2014, “A country with outstanding financial contributions from Phase IV is welcome to re-join the Programme. However, these countries are expected to provide their outstanding financial contributions, or similar level of in-kind contribution, during Phase V”.

In 2016, the Spanish National Institute for Agricultural and Food Research and Technology (INIA), contributed in kind to the organisation and hosting of the first meeting and workshop of the working group on *developing guidelines and decision support tool for better incorporating genetic aspects into production and use of forest reproductive material*. The total contribution provided by INIA for the organisation and hosting of the two events was of 20,625 USD. Spain therefore can re-join the Phase V programme at any time.

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<sup>17</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:C:2016:313:TOC>

In 2015 and 2016, the Secretariat continued a prudent management of the financial resources as the number of member countries (24) was still lower than expected (25). Furthermore, FORGER and GenTree projects covered some EUFORGEN expenditures (e.g. part of the Secretariat staff time).

The closing balance of the trust fund was US\$ 347,782 on 31 December 2016 and it was carried forward to 2017. The detailed financial reports for 2015 and 2016 are available in as a separate document which has been shared with member countries.

## 10. Publications

In 2015, five reports resulting from the activities of working groups operating during Phase IV of the Programme were finalized, published (in print and electronic, available at the EUFORGEN website [www.euforgen.org](http://www.euforgen.org)) and widely promoted. These are:

1. de Vries, S.M.G., Alan, M., Bozzano, M., Burianek, V., Collin, E., Cottrell, J., Ivankovic, M., Kelleher, C.T., Koskela, J., Rotach, P., Vietto, L. and Yrjänä, L. 2015. **Pan-European strategy for genetic conservation of forest trees and establishment of a core network of dynamic conservation units**. European Forest Genetic Resources Programme (EUFORGEN), Bioversity International, Rome, Italy. xii + 40 p.
2. Aravanopoulos, F.A., Tollefsrud, M.M., Graudal, L., Koskela, J., Kätzel, R., Soto, A., Nagy, L., Pilipovic, A., Zhelev, P., Božić, G. and Bozzano, M. 2015. **Development of genetic monitoring methods for genetic conservation units of forest trees in Europe**. European Forest Genetic Resources Programme (EUFORGEN), Bioversity International, Rome, Italy. xvi+55 p.
3. Konnert, M., Fady, B., Gomory, D., A'Hara, S., Wolter, F., Ducci, F., Koskela, J., Bozzano, M., Maaten, T. and Kowalczyk, J. 2015. **Use and transfer of forest reproductive material in Europe in the context of climate change**. European Forest Genetic Resources Programme (EUFORGEN), Bioversity International, Rome, Italy. xvi and 75 p.
4. Kelleher, C. T., de Vries, S.M.G., Baliuckas, V., Bozzano, M., Frýdl, J., Gonzalez Goicoechea, P., Ivankovic, M., Kandemir, G., Koskela, J., Koziół, C., Liesebach, M., Rudow, A., Vietto, L., and Zhelev Stoyanov P. 2015. **Approaches to the Conservation of Forest Genetic Resources in Europe in the Context of Climate Change**. European Forest Genetic Resources Programme (EUFORGEN), Bioversity International, Rome, Italy. Xiv + 46 pp.
5. Bouillon, P., Hubert, J., Bakkebo Fjellstad, K., Rusanen, M., Zavrl Bogataj, A., Olrik, D.C., Bordács, S., Longauer, R., Paitaridou, D., Kõiv, K., Koskela, J., Orlovic, S., Black-Samuelsson, S. and Wolter, F. 2015. **The implications of global, European and national policies for the conservation and use of forest genetic resources in Europe**. European Forest Genetic Resources Programme (EUFORGEN), Bioversity International, Rome, Italy. xii and 42 p.

Additionally, the following publication related to EUFORGEN's work was published in 2016.

Rodriguez-Quilon, I.; Santos del Blanco, L.; Serra-Varela, M.J.; Koskela, J.; Gonzalez-Martinez, S.C.; Alia, R. (2016) **Capturing neutral and adaptive genetic diversity for conservation in a highly structured tree species**. Ecological Applications 26 (7) p. 2254–2266. ISSN: 1051-0761