

European Forest Genetic Resources Programme (EUFORGEN) Phase IV (2010–2014)

Technical report and financial summary for 2013

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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). Furthermore, EUFORGEN is one of the international activities contributing to the follow-up of the sixth Ministerial Conference of FOREST EUROPE, held in Oslo in June 2011, and included in the new FOREST EUROPE Work Programme adopted in February 2012.

EUFORGEN is financed by its member countries and coordinated by Biodiversity International in technical collaboration with the UN Food and Agriculture Organization (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 IV (2010–2014), the EUFORGEN objectives are as follows:

1. Promote appropriate use of forest genetic resources as part of sustainable forest management to facilitate adaptation of forests and forest management to climate change
2. Develop and promote pan-European gene conservation strategies and improve guidelines for management of gene conservation units and protected areas
3. Collate, maintain and disseminate reliable information on forest genetic resources in Europe.

EUFORGEN carries out its activities through working groups and workshops. The working groups, each consisting of approximately ten experts, are established by the Steering Committee to address specific issues under Objectives 1 and 2. The Steering Committee also defines the tasks, deadlines and expected outputs for the working groups, whose findings are reported back to the Steering Committee for further action. The results of the working groups are discussed during workshops through which a broader group of experts and stakeholders are engaged in the EUFORGEN activities.

Under Objective 3, EUFORGEN is maintaining the EUFGIS Portal and its network of National Focal Points which was created during the EC-supported project *Establishment of a European Information*

¹ With effect from 1 December 2006, IPGRI and INIBAP operate under the name "Biodiversity International", Biodiversity for short.

System on Forest Genetic Resources (2007–2011). In addition, the National Coordinators and the EUFORGEN Secretariat contribute to international reporting efforts on FGR.

This document provides highlights of the EUFORGEN activities in 2013. It also includes a summary on expenditures and financial contributions in 2013. A detailed financial report for 2013 is available as a separate document and has been sent to the member countries.

2. Participation in EUFORGEN

In 2013, EUFORGEN had a total of 25 member countries (Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxemburg, The Netherlands, Norway, Poland, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom). Romania also joined Phase IV but it is no longer considered a member country due to its outstanding financial contributions for 2010–2011.

The Secretariat continued the dialogue with non-member countries in Europe and encouraged them to join EUFORGEN. However, no new countries joined the Programme in 2013.

3. Pan-European collaboration on forest genetic resources

3.1. EUFORGEN working groups

In 2013, EUFORGEN operated five working groups on the following topics:

- Assessment of genetic conservation status of forest trees in Europe and development of pan-European genetic conservation strategies;
- Development of genetic monitoring methods for genetic conservation units of forest trees;
- Development of guidelines for the use and transfer of forest reproductive material in the context of climate change;
- Incorporation of conservation and use of forest genetic resources into national forest programmes and other relevant policies and strategies; and
- Management of genetic conservation units in the face of climate change.

The tasks and expected outputs of the working groups were agreed by the Steering Committee. Each working group consisted of about 10 experts who were selected from the pool of national experts nominated by the National Coordinators (1–3 experts nominated for Objectives 1 and 2). Each member country had at least one expert in these working groups. Other nominated experts (so called ‘e-mail contributors’) had the opportunity to provide their inputs by email and during workshops.

3.1.1. Working group on genetic conservation strategies

This working group was tasked by the Steering Committee to:

- review the earlier work done by the EUFORGEN Networks
- carry out the assessment of genetic conservation status for model species based on the EUFGIS data

- carry out a review of the knowledge on the genetic diversity of the species
- select the most valuable genetic conservation units from the pan-European perspective
- identify gaps in genetic conservation efforts
- develop genetic conservation strategies at the level of group of species
- prepare a draft report

In 2013, the working group revised its draft report on the pan-European genetic conservation strategy based on the comments it had received from the Steering Committee in December 2012. As part of the revision process, the working group updated the environmental zoning that was used for gap analyses and for defining the conservation targets. The working group then presented the revised report to Steering Committee at its 9th meeting which was held in Tallinn, Estonia in December 2013.

The Steering Committee congratulated the working group for preparing the revised report. It commented that the identification of conservation targets (country x environmental zones) and gaps in the conservation efforts still needs some further work. In case of many species, there are still so called “false gaps” that appear due to the fact that the environmental zoning and the species distribution maps have different spatial resolutions. The Steering Committee also provided some additional but minor comments to the report. The Steering Committee then endorsed the report and asked the working group and the Secretariat to finalize it for printing in 2014.

3.1.2. Working group on genetic monitoring

The working group on genetic monitoring was assigned to prepare:

- synthesis of existing documents
- analyses of the EUFGIS and other databases (e.g. ICP forest) relevant to genetic monitoring purposes
- recommendations for improving EUFGIS data standards for genetic monitoring
- options for genetic monitoring methods, including defining time intervals for monitoring (per groups of tree species)
- cost assessment of the options for genetic monitoring methods
- draft report

This working group also revised its draft report in 2013 based on the comments it had received from the Steering Committee in December 2012. The identification of genetic monitoring zones for pilot tree species was revised using the aggregated environmental zoning of Europe that was developed by the working group on the pan-European conservation strategy. The monitoring units will be selected, as much as possible, from the core networks of genetic conservation units. Furthermore, the working group proposed that genetic monitoring should focus, as a first step, on six species (*Abies alba*, *Castanea sativa*, *Quercus petraea*, *Picea abies*, *Pinus halepensis* and *Populus nigra*). It also recommended developing a manual for the pan-European genetic monitoring protocol. In December 2013, the working group presented the revised report to Steering Committee.

The Steering Committee congratulated the working group for preparing the revised report and provided some additional comments for the finalization of the report. The Steering Committee endorsed the report and asked the working group and the Secretariat to finalize it for printing in 2014.

3.1.3. Working group on forest reproductive material (FRM)

The third working group was requested by the Steering Committee to:

- review existing work from EUFORGEN Networks and relevant European projects
- synthesize existing (national) guidelines
- select (widely used) model species
- identify critical factors related to climate change and future needs to transfer FRM
- summarize lessons from provenance trials for seed transfer
- consider if any relevant information should be added to the accompanying documents as specified in the EC Directive and other relevant schemes covering the movement of FRM
- compile a list of existing models and tools that can be used for future forest management planning and transfer of FRM
- list the issues related to the climate change context
- prepare a draft report (including recommendations)

The third working group had also prepared its draft report in 2012 and received comments to it from the Steering Committee. In 2013, the working group then incorporated and addressed these comments. In addition, the draft report was presented to other EUFORGEN experts for discussion during a workshop on forest reproductive material that was organized in Kostrzyca, Poland in October 2013. After the workshop, the working group finalized its report and presented it again to the Steering Committee in December 2013.

The Steering Committee thanked the working group for preparing the revised report and acknowledged the large amount of work done. The members of the Steering Committee then provided some further comments and suggestions for improving the report. It also proposed that the recommendations could be sorted based on their time scale, and that the recommendations could be more clearly formulated so that they reveal better what is considered as an option and what is a more solid recommendation or conclusion. The Steering Committee endorsed the 11 recommendations presented in the report and asked the working group and the Secretariat to finalize the report for publication in 2013.

3.1.4. Working group on FGR-related policies

In 2012, the EUFORGEN Steering Committee requested this working group to review policies related to forest genetic resources as a follow-up to the earlier policy-related work of EUFORGEN. The main tasks of the working group was to explore ways to promote incorporation of the conservation and use of forest genetic resources into national forest programmes and other relevant policies and strategies, and to make recommendations for further action at the pan-European level. More specifically, the Steering Committee requested the working group to:

- Review relevant outputs of the previous Forest Management Network
- Examine the impact of the Nagoya protocol and the possible sector-specific approach of ABS on relevant policies (national or European level)
- Prepare advice (possible options and actions for awareness raising) on FGR for policy makers responsible for revision/development national forest programmes
- Analyse possible implication of LBA on NFP referring to FGR

- Analyse the options to incorporate FGR into any relevant, European or national, policy documents
- Review and identify policies and agreements relevant to forest genetic resources

The working group organized its first meeting at Bioversity International in Maccaresse, Italy on 10-12 September 2013. During the meeting, the working group identified a number of international, European and national policies that have implications on the conservation and use of forest genetic resources in Europe. The group also discussed intensively the ways some countries had incorporated the FGR work into their national forest programmes and other policies. Furthermore, the working group drafted an outline of its report and divided writing tasks among its members. In December 2013, the working group also provided an update to the Steering Committee on its discussions and progress made.

The Steering Committee provided some comments to the proposed outline of the report. It was recommended that the working group prepares an analytical report that will discuss, as much as possible, the implications of various policies for the conservation and use of forest genetic resources and not just a reference document. It was noted the target audience of the report will be the FGR community and practical forest managers, not policymakers. The Steering Committee also recommended that the report should give an emphasis on legally-binding agreements, such as the Nagoya Protocol and the CBD. On the other hand, it was noted that it is also important to focus on the EU policies and not just global agreements.

3.1.5. Working group on FGR conservation and climate change

The fifth working group was tasked by the Steering Committee to further develop genetic conservation methods (both *in situ* and *ex situ*) in the context of climate change. More specifically, the Steering Committee requested the working group to:

- Review relevant outputs of the previous Forest Management Network
- Review predictions of climate change and their consequences for conservation of FGR (e.g. abundance, composition and distribution of forest tree species and populations)
- Review findings on the most threatened tree species and populations
- Develop recommendations for management of genetic conservation units
- Develop complementary *ex situ* approaches
- Present an update (presentation) in 2013
- Prepare a draft report in 2014

The Working Group on FGR conservation and climate change organized its first meeting at Bioversity in Maccaresse, Italy on 18-20 June 2013 and reviewing various issues related to the tasks given. Adaption of forest trees to climate change, assisted migration of species and populations, and dynamic vs static conservation of genetic resources were among the many issues discussed by the working group. The working group then developed an outline of its report and allocated writing tasks to its members during its first meeting in June 2013. In December 2013, the working group also provided an update to the Steering Committee on its discussions and progress made.

The Steering Committee expressed its appreciation to the work initiated by the working group and provided some comments and further guidance for the development of the draft report. Many comments related to the issue of assisted migration. It was also recommended that the working group should also analyse the present situation and future needs for introduced tree species in

addition to indigenous tree species in Europe. Furthermore, both natural and artificial migration processes should be discussed in detail in the report. Additionally, it was proposed that the selection and establishment of *ex situ* conservation units, or at least the principles for this, should be elaborated in the report.

3.2. EUFORGEN Workshops

3.2.1. Workshop on forest reproductive material

The workshop was organized Kostrzyca, Poland on 1-3 October 2013 in collaboration with the Kostrzyca Forest Gene Bank and it was attended by 34 experts from 20 countries. The main purpose of the workshop was to discuss the draft report of the working group on forest reproductive material. In addition to providing comments to the report, the workshop participants discussed in depth relevant issues that helped the working group to improve the content of the report. These included 1) climate change and the use of FRM, 2) legal and policy frameworks, 3) existing guidelines and recommendations, 4) provenance research, and 5) research challenges and forthcoming opportunities. The comments received and the workshop recommendations were incorporated into the revised report of the working group that was then presented to the Steering Committee in December 2013.

3.3. Development of EUFORGEN Technical Guidelines

No new technical guidelines were published in 2013. The technical guidelines published so far (32 in total) and the distribution maps are available from the EUFORGEN website (www.euforgen.org).

3.4. 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 is provided and frequently updated by national focal points based on pan-European minimum requirements and data standards for these units. The dataset for each unit consists of 26 unit level and 18 population level data standards. Before entering the data into the database, the national focal points must check that a given unit meets the pan-European minimum requirements for these units. The data standards and the minimum requirements were developed during the EUFGIS project (2007–2011), and they have been endorsed by the EUFORGEN Steering Committee. The minimum requirements also explain how the units should be managed so that they contribute to the dynamic conservation of forest genetic resources. The portal is maintained and further developed by EUFORGEN after the EU-supported project ended in March 2011.

In 2013, the national focal points in EUFORGEN member and associated countries continued compiling new data on the units and uploading the data into the EUFGIS portal. A total of 509 new genetic conservation units were added into the database in 2013. At the end of 2013, the EUFGIS portal contained data on 3,137 units, which are managed for the genetic conservation of 98 tree species. The units harboured a total of 3,923 tree populations. The number of data providing countries (31) as well as countries with national focal points (36) remained unchanged during 2013.

National focal points have been nominated by Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Former Yugoslav Republic of Macedonia, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine and United Kingdom.

4. Activities of the EUFORGEN Steering Committee

The Steering Committee held its ninth meeting in Tallinn, Estonia on 3-5 December 2013. In addition to reviewing the draft reports of the three working groups and hearing updates from another two working groups, the Steering Committee also discussed several technical and policy issues at the ninth meeting. The following chapters summarize the main activities and discussion points of the Steering Committee in 2012.

4.1. Review of progress made during 2012–2013

During its ninth meeting, the Steering Committee reviewed the technical and financial reports for 2012 and discussed the 2013 update presented by the Secretariat. The Steering Committee noted that EUFORGEN has made good progress in its activities and thanked the Secretariat for the prudent management of financial resources. The Steering Committee also adopted the technical and financial reports for 2012.

4.2. Global Plan of Action for forest genetic resources

The Steering Committee exchange views on the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources (GPA-FGR) which had been adopted by the FAO Conference in June 2013. The GPA-FGR identifies a total of 27 strategic priorities for action at the national, regional and international levels. They are grouped into four priority areas: 1) improving the availability of, and access to, information on FGR, 2) conservation of FGR (*in situ* and *ex situ*), 3) sustainable use, development and management of FGR, and 4) policies, institutions and capacity-building. FAO considers that regional networks and programmes, such as EUFORGEN, play an important role in facilitating the implementation of the GPA-FGR.

The Steering Committee also discussed the role of EUFORGEN in implementing the GPA-FGR in Europe. It noted that the past and ongoing EUFORGEN activities contribute directly to most regional-level strategic priorities identified in the GPA-FGR, such as development of regional conservation strategies, harmonization of technical standards for FGR inventories, establishment of information systems on FGR, facilitating exchange of genetic material for R&D and encouraging information sharing. The Steering Committee agreed that EUFORGEN should contribute to the implementation of the GPA-FGR in Europe and continue its collaboration with FAO in this regard. Furthermore, the Steering Committee acknowledged the work done by FAO in preparing the State of the World's Forest Genetic Resources report.

4.3. Pan-European criteria and indicators for sustainable forest management

The Steering Committee discussed the key findings and recommendations of the EFI project on “Implementing Criteria and Indicators for Sustainable Forest Management (CI-SFM)”. The main recommendation of the project is that the FOREST EUROPE process should consider opening the current set of pan-European C&I for revision. The project noted that the criteria for sustainable forest management (SFM) do not need much revision as the main principles of SFM have not changed. Instead, the indicators which are used for monitoring the progress made in implementing SFM need to be revised.

The Steering Committee welcomed the findings of the EFI project and noted many indicators, including Indicator 4.6 (genetic resources), could be made more meaningful. The Steering Committee recommended the Secretariat to follow up closely the FOREST EUROPE discussions on the revising the pan-European C&I. It was also noted that the results of the EUFGIS work provide both ideas for improving Indicators 4.6 and more accurate data for this indicator.

4.4. Initiatives of the European Commission

In December 2013, the Steering Committee discussed two EC initiatives relevant to forest genetic resources, namely the new EC Regulation for rural development and the new EU Forest Strategy. The Steering Committee took note of Article 34 of the new EC Regulation for rural development and welcomed the fact that forest genetic resources have now been included, for the first time, as eligible actions for rural development programmes. The Steering Committee expressed its satisfaction on the EC encouragement for the EU Member States to give specific attention to the promotion and conservation of forest genetic resources.

National Coordinators from Greece and Hungary informed others that preparations have been started in their country to seek funding for conservation of forest genetic resources as part of forestry measures that will be included in the new rural development programmes. Other National Coordinators reported that relevant ministries in their countries have not yet started preparing new rural development programmes. The Steering Committee encouraged all National Coordinators in the EU Member States to continue discussions with relevant ministries on the possibility of developing measures on forest genetic resources into the new rural development programmes.

Concerning the new EU Forestry Strategy, the Steering Committee expressed its satisfaction that the role of forest genetic resources is clearly recognized in the document. It was noted that the Strategy will be finalized soon and that Council Conclusions are already being prepared. The Member States have asked the EC to prepare an Action Plan for the implementation of the Strategy. The EC is expected to clarify its plans concerning the Action Plan in early 2014. The Steering Committee agreed that it is too early to discuss how EUFORGEN could provide technical support or advice to development of the new Action Plan and that this topic should be discussed again in 2014.

4.5. EC funding opportunities

At its ninth meeting, the Steering Committee also discussed future EC funding opportunities for EUFORGEN activities. It took note of the opening of a tender, by the EC (DG AGRI), for a preparatory action (24 months) for an EU programme for conservation and sustainable use of plant

and animal genetic resources in agriculture. Subsequently, the Steering Committee acknowledged that the EC is unlikely to make a decision on the new AGRI GEN RES programme before 2016.

Regarding the Horizon 2020 programme (i.e. the new EC Framework Programme for Research and Innovation for 2014-2020), the Steering Committee noted that the expected calls for proposals during 2014-2015 are likely to include several opportunities for developing FGR-related project proposals in the areas of integrating research infrastructures of pan-European interest and genetic resources in agriculture. Many National Coordinators commented that any project proposals should be designed so that they support the continuation of the earlier EUFORGEN work, such as the maintenance of the EUFGIS Portal. The implementation of the pan-European genetic conservation strategy and the genetic monitoring scheme were also identified as examples of EUFORGEN work that could be supported by the possible projects.

Concerning the role of the EUFORGEN Secretariat in coordinating proposal development, some National Coordinators suggested that the Secretariat could coordinate the development of a project proposal in 2014 or 2015. However, others pointed out that the Secretariat should not coordinate proposals for research projects but for collaborative projects which aim at improving the management of forest genetic resources in Europe (cf. the earlier EUFGIS project). It was agreed that the Secretariat can explore opportunities for participating in the development of H2020 proposals and that it should keep the Steering Committee informed on the emerging opportunities. Furthermore, it was agreed that the H2020 calls would be discussed again at the next Steering Committee meeting in 2014 when the final text of different calls are known.

4.6. Future of EUFORGEN

As Phase IV of EUFORGEN will end in December 2014, the members of the Steering Committee exchanged views on the future of EUFORGEN during their meeting. A general conclusion was that EUFORGEN and its outputs have been useful for the FGR work at the national level, and that EUFORGEN should continue its activities. Subsequently, the Steering Committee decided to establish a task force to develop a proposal for Phase V (2015-2019). The task force was requested to prepare, in collaboration with the EUFORGEN Secretariat, a detailed proposal for Phase V and present it to the 10th meeting of the Steering Committee (16-18 June 2014) for further discussion and decision. The task force was also encouraged to involve EUFORGEN focal points in the non-member countries in the preparatory process and seek their inputs and ideas. It was agreed that the task force should finalize the draft proposal by 16 May 2014 so that all National Coordinators have enough time to consult relevant ministries before the next Steering Committee meeting. National Coordinators from France, Germany, Italy, Norway, Slovenia and Turkey were selected to the task force.

4.7. Development of EUFORGEN Work Plan for 2014

In December 2013, the Steering Committee developed a new work plan for 2014 (see the report of the ninth meeting for details). The working groups on genetic conservation strategies, genetic monitoring and forest reproductive material were asked to finalize their reports based on the additional comments provided by the Steering Committee. All groups should also prepare a two-page executive summary to be included in the report. The working groups should finalize the reports by 14 February 2014 after which the Secretariat will take care of the final editing and

publication process. By 14 February, the Secretariat should also compile the updated lists of selected conservation units for the core networks of the 14 pilot species and then circulate country-based lists to the National Coordinators for their final confirmation (by 31 May 2014). During this process, the National Coordinators will be also asked to comment the selection of monitoring units for the six species that were proposed by the working group on genetic monitoring. This working group was also tasked to prepare the manual for the genetic monitoring protocol by 15 December 2014.

During the discussions on the work plan, the Secretariat informed the Steering Committee on additional activities planned for 2014. These included continuing providing inputs to the FOREST EUROPE process (Expert Level meeting in February 2014; the data collection process on Indicator 4.6; discussions on possible revision of pan-European C&I set) and to the FAO work (e.g. the 22nd Session of the Committee on Forestry in June 2014 and the 3rd session of the Intergovernmental Working Group on FGR in July 2014). Furthermore, EUFORGEN will organize a workshop on FGR inventories, in collaboration with the FORGER project, for the EUFGIS national focal points in March 2014.

5. Activities of the EUFORGEN Secretariat

5.1. Inputs to the working group and workshops

The Secretariat coordinated the activities of the five working groups and took care of the practical arrangements for the two working group meetings that took place in 2013. Furthermore, the Secretariat staff contributed to the preparation of the reports of the working groups and carried out supporting literature reviews and GIS analyses. In 2013, the Secretariat also organized one European workshop on forest reproductive material.

5.2. Maintenance of the EUFGIS portal and related activities

The Secretariat continued providing helpdesk support to the EUFGIS national focal points in 2013. The EUFGIS portal was also further improved as part of the FORGER project (see next section). In addition, the Secretariat continued screening the quality of the data entered into the EUFGIS database and communicated any observed inconsistencies or problems in the national datasets to the national focal points for their action.

5.3. FORGER project

The FORGER project (*Towards the Sustainable Management of Forest Genetic Resources in Europe*) started in March 2012 for a period of four years. The project is coordinated by Alterra (The Netherlands) and the consortium includes BFW (Austria), Metla (Finland), INRA (France), vTI (Germany), EMK (Hungary), CNR (Italy) and UKW (Poland) in addition to Bioversity. The project aims to integrate and extend existing knowledge to provide science-based recommendations on the management and sustainable use of FGR for the EC, policymakers, forest managers, and managers of protected areas. The project has five objectives: (1) improve and analyze FGR inventories in Europe, (2) develop a common protocol for measuring and monitoring genetic diversity, (3) analyze past, current and future use and management of FGR, (4) provide improved tools, guidelines and recommendations,

and (5) disseminate and communicate the results to stakeholders. The total budget of the project is € 3.8 million of which the EC contribution is € 3 million.

Bioversity (EUFORGEN Secretariat) leads the work package on communication, dissemination and knowledge transfer and contributes to two other work packages (one on improving FGR inventories in Europe and the second one developing tools, guidelines and recommendations). EUFORGEN is considered one of the key stakeholders of the project and the Steering Committee was invited to nominate two National Coordinators to serve in the External Advisory Board of the project. Furthermore, the EUFORGEN working groups and the EUFGIS national focal points will be engaged in knowledge transfer activities.

In 2013, the IT experts of INRA (France) and Bioversity developed a joint search engine for the EUFGIS and GD² databases. The GD² database provides geo-referenced data on the genetic diversity of tree populations which have been sampled by earlier European research projects. A new search option was added to the EUFGIS Portal making it possible to query the two databases based on country, tree species and the distance between the EUFGIS units and the GD² populations (1, 5, 10, 20 and 50km). It is also possible to overview the EUFGIS-GD² data in summary tables (per countries and tree species) before making any queries. The testing of the search function revealed that the data entered to the fields of countries and species needs to be harmonized between the two databases.

The annual meeting of the project was held in Florence, Italy, on 3-4 April 2013. The project partners shared their results and discussed the progress made. The External Advisory Board of the project was also invited to participate in the annual meeting. Bioversity interviewed five other project partners and produced a new video based on their interviews. Further information on the project is available on the FORGER website (www.fp7-forger.eu).

5.4. Inputs to the FOREST EUROPE process and related work

The EUFORGEN Coordinator attended the expert-level meeting of the FOREST EUROPE process in Madrid, Spain on 6-7 March 2013. Bioversity is an observer of this process and EUFORGEN is also included in the work programme as one of the international activities supportive to the follow-up of the Oslo Ministerial Conference held in June 2011. The work programme is available on the FOREST EUROPE website (www.foresteurope.org).

Bioversity also has an observer status in the Intergovernmental Negotiating Committee (INC) for Legally Binding Agreement on Forests in Europe which initiated its work in 2012 based on the Oslo Mandate. In 2013, the EUFORGEN Coordinator attended the third and fourth sessions of the INC, held in Antalya, Turkey (28 January-1 February) and in Warsaw, Poland (10-14 June), respectively.

During the INC-3 session, the Coordinator presented the wording proposal, developed by the Steering Committee, to include a specific reference to the conservation of forest genetic resources in the biodiversity-related paragraphs of the draft agreement. This proposal received support from many delegates, including the EU. However, after lengthy discussion on biodiversity related issues, the INC decided to use the term “forest biodiversity at all levels” to keep the text as general and short as possible, and to not make specific references to different level of biological diversity in the draft agreement text. Unfortunately, the INC was not able to agree upon the final text of the agreement at the resumed INC-4 session, held in Geneva, Switzerland on 7-8 November 2013. The

reports of the INC sessions as well as the draft negotiation text are available from the INC website (www.forestnegotiations.org).

On 18 October 2013, the Coordinator attended a meeting of the UNECE/FAO Team of Specialists on Monitoring of Sustainable Forest Management in Geneva, Switzerland. He was invited to give a presentation on the data collection process for Indicator 4.6 (genetic resources) of the pan-European C&I and on recent EUFORGEN/EUFGIS work. EUFORGEN is the international data provider of this indicator. The data collection process will be started in spring 2014 and the data will be published in 2015 as part of the new State of Europe's Forest report.

5.5. Collaboration with FAO

The Secretariat staff attended the second session of the Intergovernmental Working Group on Forest Genetic Resources (ITWG-FGR) on 23-25 January 2013 and the 14th session of the Committee on Genetic Resources for Food and Agriculture (CGRFA) on 15-19 April 2013. The ITWG-FGR discussed and drafted strategic priorities for future FGR work on international, regional and national levels based on the preliminary findings of the draft SoW-FGR report. The CGRFA then endorsed these strategic priorities as the Global Plan of Action for forest genetic resources in April 2013. The Secretariat delivered an invited presentation on the assessment of FGR conservation in Europe at a side event that was organized during the ITWG-FGR session.

The Secretariat also organized, in collaboration with FAO, a side event on the Global Plan of Action during the Metsä2013 Conference (a joint session of the UNECE Committee on Forests and the Forest Industries and the FAO Regional Forestry Commission for Europe), held in Rovaniemi, Finland on 9-13 December 2013. The side event was also a part of the celebrations of the second European Forest Week. The side event presented examples of EUFORGEN and national activities (from the Finnish Genetic Resources Programme) and demonstrated how these activities contribute to the implementation of the Global Plan of Action in Europe.

5.6. Publications and public awareness efforts

In addition to the three working group reports, three peer-reviewed articles based on EUFORGEN/EUFGIS work were also published in 2013 (see Annex 1 of this report for details). Furthermore, the last case study (on the vulnerability of genetic conservation units of forest trees in Europe to climate change) of the EUFGIS project was accepted for publication. The Secretariat provided inputs to the preparation of these reports and articles.

Brief news updates on forest genetic resources in Europe were released on the EUFORGEN and EUFGIS websites. The National Coordinators were also asked to provide content for the country pages of the EUFORGEN website. Publications and other relevant national information are also displayed on the country pages.

The Secretariat also produced three new videos in 2013 based on the interviews of selected National Coordinators and working group leaders. The videos are available on the EUFORGEN website and the EUFORGEN YouTube channel.

5.7. Other activities

On 24-25 February 2013, the EUFORGEN Coordinator participated in a symposium organized by the European Forest Institute (EFI) in Freiburg, Germany and delivered a presentation on the EUFORGEN work. The symposium was organized in the context of a EFI project called “Integrative approaches as an opportunity for the conservation of forest biodiversity (INTEGRATE)”. He was also asked to write a book chapter of forest genetic diversity to a new EFI publication on the same topic.

In 2013, the EUFORGEN Coordinator also provided inputs to another EFI project called “Implementing Criteria and Indicators for Sustainable Forest Management (CI-SFM)”. The project carried out a survey on the use of the pan-European C&I set and organized a series of regional workshops in different parts of Europe. The EUFORGEN Coordinator contributed to the survey and attended the regional workshop that was organized in Zagreb, Croatia on 26-27 March 2013. He also made a presentation on the EUFORGEN work during the workshop.

6. Wider influences of EUFORGEN

6.1. EVOLTREE Network

In 2013, the EUFORGEN Secretariat continued its collaboration with the EVOLTREE Network (Evolution of Trees as Drivers of Terrestrial Biodiversity) which operates under EFI. The EVOLTREE Network maintains the common research infrastructures (databases and intensive study sites) which were established during the EC-funded project of the same name in 2006–2010 and provides training (short courses and summer schools). Currently the Network has 23 member institutes (including Bioversity International) and all interested institutes are welcome to join it. The EUFORGEN Coordinator attended the EVOLTREE annual meeting in Nancy, France on 24 September 2013. Further information on the EVOLTREE activities is available from its website (www.evoltree.eu).

7. Financial summary for 2013

In January 2013, the opening balance of the EUFORGEN trust fund was US\$ 202,576. During 2013, Bioversity International received a total of US\$ 318,611 as financial contributions from member countries. In December 2013, the outstanding contributions for Phase IV were US\$ 24,139 (Luxembourg, Spain, Hungary and Romania) and US\$ 33,700 for Phase III (2005–2009) (Georgia, Iceland, the Former Yugoslav Republic of Macedonia, Moldova and Portugal). The Secretariat has reminded these countries regarding their outstanding financial contributions.

In 2013, the Secretariat continued prudent management of the financial resources as the number of member countries (25) was still lower than expected (31). Furthermore, the FORGER project covered some EUFORGEN expenditures (e.g. Secretariat staff time, and maintenance and further development of EUFGIS).

The planned budget for 2013 was US\$ 412,450 but the actual total expenditure in 2013 was only US\$ 338,310. The closing balance of the trust fund was US\$ 182,878 on 31 December 2013 and it was carried forward for 2014. A detailed financial report for 2013 is available as a separate document and has been sent to the member countries.

Annex 1: Publications and reports in 2013

Reports of EUFORGEN working groups

de Vries SMG, Alan M, Bozzano M, Burianek V, Collin E, Cottrell J, Ivankovic M, Kelleher C, Koskela J, Rotach P, Vietto L, Yrjänä L. 2013. Pan-European strategy for genetic conservation of forest trees: establishment of a core network of dynamic conservation units. Report of the EUFORGEN working group on genetic conservation strategies. 27 p.

Aravanopoulos FA, Tollefsrud MM, Kätzel R, Soto A, Graudal A, Nagy L, Koskela J, Bozzano M, Pilipovic A, Zhelev P, Božič G. 2013. Development of genetic monitoring methods for genetic conservation units of forest trees in Europe. Report of the EUFORGEN working group on genetic monitoring. 34 p.

Konnert M, Fady B, Gömöry D, A'Hara S, Wolter F, Ducci F, Koskela J, Bozzano M, Maaten T, Kowalczyk J. 2013. Use and transfer of forest reproductive material in Europe in the context of climate change. Report of the EUFORGEN working group on forest reproductive material. 53 p.

Publications resulting from EUFORGEN/EUFGIS work

Schueler S, Kapeller S, Konrad H, Geburek T, Mengl M, Bozzano M, Koskela J, Lefèvre F, Hubert J, Kraigher H, Longauer R, Olrik, DC. 2013. Adaptive genetic diversity of trees for forest conservation in a future climate: a case study on Norway spruce in Austria. *Biodiversity and Conservation* 22: 1151–1166.

Koskela J, Lefèvre F, Schueler S, Kraigher H, Olrik DC, Hubert J, Longauer R, Bozzano M, Yrjänä L, Alizoti P, Rotach P, Vietto L, Bordács S, Myking T, Eysteinnsson T, Souvannavong O, Fady F, De Cuyper B, Heinze H, von Wühlisch G, Ducouso A, Ditlevsen B. 2013. Translating conservation genetics into management: pan-European minimum requirements for dynamic conservation units of forest tree genetic diversity. *Biological Conservation* 157: 39–49.

Lefèvre F, Koskela J, Hubert J, Kraigher H, Longauer R, Olrik DC, Schueler S, Bozzano M, Alizoti P, Bakys R, Baldwin C, Ballian D, Black-Samuelsson S, Bednarova D, Bordács S, Collin E, De Cuyper B, de Vries SMG, Eysteinnsson T, Frýdl J, Haverkamp M, Ivankovic M, Konrad H, Koziol C, Maaten T, Notivol Paino E, Öztürk H, Pandeva ID, Parnuta G, Pilipovič A, Postolache D, Ryan C, Steffenrem A, Varela MC, Vessella F, Volosyanchuk RT, Westergren M, Wolter F, Yrjänä L, Zarina I. 2013. Dynamic conservation of forest genetic resources in 33 European countries. *Conservation Biology* 27(2): 373–384

Koskela, J and Lefèvre, F 2013. Genetic diversity of forest trees. In: Kraus, D. and Krumm, F. (eds.). *Integrative approaches as an opportunity for the conservation of forest biodiversity*. European Forest Institute, Freiburg, Germany, pp. 232–241.

Schueler, S, Falk, W, Koskela, J, Lefèvre, F, Bozzano, M, Hubert, J, Kraigher, H, Longauer, R, Olrik, DC. Vulnerability of dynamic genetic conservation units of forest trees in Europe to climate change. *Global Change Biology* (accepted for publication on 8 Nov 2013).