

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

TECHNICAL AND FINANCIAL REPORT 2019

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1. Introduction

The European Forest Genetic Resources Programme (EUFORGEN) is a collaborative programme of 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 further recognised in 2015 at the 7th 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 decades.

EUFORGEN is financed by its member countries and its activities are carried out mainly by experts from the member countries. The EUFORGEN Steering Committee is composed of National Coordinators from all member countries and has overall responsibility for the Programme.

During Phase V (2015–2019), the EUFORGEN objectives were to:

- 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, and the SC also defines the tasks, deadlines and expected outputs of working groups. The 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) Portal¹ and its network of National Focal Points, created during an EU-supported project 'Establishment of a European Information System on Forest Genetic Resources' (2007–2011). In addition, the National Coordinators and the EUFORGEN Secretariat contribute to international reporting efforts on FGR. The Secretariat gave particular emphasis during the entire Phase to the communication of EUFORGEN outputs to policymakers, the wider scientific community and practitioners.

This document provides highlights of EUFORGEN activities in 2019. It also includes a summary on expenditures and financial contributions in 2019.

2. EUFORGEN membership

In 2019, EUFORGEN had a total of 27 member countries (Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxemburg, The Netherlands, Norway, Poland, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom).

Moldova originally joined Phase V, but having not paid its annual financial contribution for two years, the country is no longer considered a member country. As per Steering Committee decision, if a country fails to provide its financial contributions for a given year, it has until June of the following year to provide the outstanding contribution. After this, the country will no longer be considered a member country of EUFORGEN. Moldova is welcome to re-join the Programme but is however expected to provide for its outstanding financial contributions prior to re-joining³.

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

¹ http://portal.eufgis.org

² www.eufgis.org

³ http://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Documents/EUFORGEN PhaseVI Objectives and Plan.pdf

3. EUFORGEN working groups

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

In November 2015, The EUFORGEN Steering Committee established a working group to develop a decision support tool for the management of the network of genetic conservation units. The working group built on the work of two former working groups, which produced reports on *Approaches to the conservation of FGR in Europe in the context of climate change* and *Genetic monitoring methods for genetic conservation units of forest trees in Europe*.

The working group met for the first time in October 2016. The group developed an outline of its report, which was further elaborated in 2017 and then peer-reviewed in 2018 by nominated national experts in all EUFORGEN member countries.

During its 13th meeting, in June 2018, the EUFORGEN Steering Committee welcomed the Decision Support Tool and expressed willingness to support its implementation, asking for case studies to be developed; these were presented during the 14th meeting, when the report was approved. **To make** the Decision Support Tool operational, new data fields and services need to be added to an upgraded version of the EUFGIS information system.

The report was endorsed by the Steering Committee for release in 2020.

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

In November 2015, the EUFORGEN Steering Committee established a working group to analyse recent research efforts and identify genetic aspects in each link of the chain for the production and use of forest reproductive material.

The working group reviewed relevant literature and capitalised on the results of a previous *EUFORGEN Forest Management network*, which was active from 2005 to 2009. The group also built upon the publication *Use and transfer of forest reproductive material in Europe in the context of climate change*. Furthermore, the working group integrated discussion points derived from the GenTree⁴ stakeholders' consultation which took place in in October 2016. The working group met three times: in November 2016, June 2017 and November 2017. During the 13th Steering Committee meeting (June 2018), the draft report was presented along with recommendations for specific target groups. A Task Force reorganised the report in November 2018 and developed its first draft. Several rounds of peer review within the EUFORGEN community followed.

The report will be edited and release in 2020.

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⁴ http://www.gentree-h2020.eu/

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

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 of Criteria and Indicators for sustainable forest management adopted by the Forest Europe process⁵. The objective of this working group was to revise this indicator and to formulate a more effective alternative indicator to assess the status of conservation and utilisation of forest genetic resources and seed production in Europe.

At its 11th meeting, in November 2015, the EUFORGEN Steering Committee noted that an assessment based on the number of hectares was not appropriate for assessing FGR conservation in Europe and for monitoring changes. The Steering Committee argued that the existing formulation of the indicator did not give information about the amount of genetic diversity conserved within each country or about the added contribution of within-country conservation units to the overall genetic diversity conserved at the pan-European scale. Moreover, the information on genetic resources was not harmonised among countries; therefore, it was not possible to assess the conservation of FGR in Europe as a whole.

The Working Group presented a first version of the revised indicator to the Steering Committee at its 12th meeting in May 2017. The National Coordinators provided suggestions and recognised the impossibility at that time to formulate the component of the indicator which would **assess "static** *ex situ* **conservation"**. They agreed that this component could be developed in due course.

At its 13th meeting, in June 2018, the Steering Committee endorsed the revised indicator as formulated by the Working Group. The draft revised indicator was presented by the EUFORGEN Secretariat at the Second meeting of the Advisory Group in preparation for the State of Europe's Forests Report 2020 in November 2018, where it was unanimously welcomed.

During the 14th meeting of the Steering Committee, in April 2019, the EUFORGEN Secretariat gave a demonstration of the possible assessment of FGR conservation in Europe based on the revised indicator. All member countries and associated countries received from the Secretariat their data extracted from the EUFGIS information system for revision. The compiled data will be used as a basis for reporting to FOREST EUROPE for the 2020 State of Europe's Forest Report.

3.4 Working group on ash dieback

A new working group was established at the 13th Steering Committee meeting to assess whether the existing set of *in situ* Genetic Conservation Units (GCUs) is adequate to conserve common and narrow-leaved ash in Europe. Additionally, the group investigated the existing *ex situ* measures on common ash by means of breeding in EUFORGEN member countries.

In 2019, a survey aiming to assess the spread and status of ash dieback in Europe, with particular emphasis on GCUs, was run and the results presented at the 14th Steering Committee meeting. The

⁵ http://foresteurope.org/themes/?sfm=sfm-criteria-indicators2/#1475853858230-c81b6e40-168d

Steering Committee decided to organise a **Discussion Platform in 2020**, on the implications of ash dieback for ash GCUs, as one of the initiatives of Phase VI, after which two or three experts will be identified for a new working group on this topic.

4. European information system on forest genetic resources (EUFGIS)

The EUFGIS portal (http://portal.eufgis.org) makes geo-referenced data available 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 and data standards for these units. The data standards and the minimum requirements were developed as part of the EUFGIS project (2007–2011). The portal has been maintained by EUFORGEN since the EU-supported project ended.

In 2019, national focal points continued compiling new data on the units and uploading the data to the EUFGIS portal. At the end of 2018, the EUFGIS portal contained data on 3,590 units (+402 in 2019) and 108 tree species (+1 in 2019) in 35 countries. The units harbour a total of 4,611 tree populations (+833 in 2019). The number of countries with national focal points (36) remained unchanged.

The core network of dynamic conservation units (following the definitions of the *Pan-European strategy for genetic conservation of forest trees and establishment*¹⁰), was identified for all 108 tree species present in the Information System.

The EUFGIS Information System is obsolete, it urgently needs restructuring and upgrading of both the technology and the associated services (for data providers, national authorities and broader conservation community).

5. Activities of the EUFORGEN Steering Committee

The Steering Committee met in April 2019 in Luxembourg. The meeting objectives were to analyse the progress made by the programme during the previous year, to plan for the following two years and to deliberate on Phase VI (2020-2024).

The Steering Committee reviewed the technical and financial reports for 2018 and discussed the update presented by the Secretariat. The Steering Committee noted that EUFORGEN had made good progress in its activities and thanked the Secretariat for its prudent management of financial resources. The Steering Committee also approved the technical and financial reports for 2018.

A large part of the 14th Steering Committee meeting was devoted to the deliberation of Phase VI. During the meeting, the National Coordinators reviewed and approved the Strategic Objectives, operational objectives and activities for Phase VI, starting from the draft developed by a Task Force (representatives of France, Germany, Iceland, Italy and Slovenia). The Steering Committee also

⁶ http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_Minimum_requirements.pdf

⁷ http://portal.eufgis.org/fileadmin/templates/eufgis.org/documents/EUFGIS_DataStandards.pdf

⁸ http://www.eufgis.org

⁹ http://portal.eufgis.org

 $^{^{10}\,\}underline{\text{http://www.euforgen.org/publication/pan-european-strategy-for-genetic-conservation-of-forest-trees-and-establishment-of-a-core-network-o/}$

approved new thresholds to define national financial contributions to the EUFORGEN programme for Phase VI and decided on the establishment of an Advisory Committee to support the Secretariat.

During the meeting the Steering Committee also established a working group to formulate recommendations with policy relevance emerging from recent work and needs of the FGR community aiming to influence future funding of research and development of tools. Members of the working group are: Thomas Geburek (Austria), Alain Servais (Belgium), Ditte Christina Olrik (Denmark), Françcois Lefèvre (France), Mari Rusanen (Finland), Frank Wolter (Luxemburg), Hojka Kraigher (Slovenia), Felipe Perez (Spain).

The working group produced a synthesis of the needs that was approved by the Steering Committee. The three main messages contained in the brief are:

- Conserve forest genetic resources at all levels key for adaptation to climate change
- Facilitate the appropriate choices of forest reproductive material
- Monitor adaptation and evolutionary potential of transferred forest reproductive material.

The Secretariat developed a brief leaflet (Annex 2).

In December 2019, the EUFORGEN Programme, in collaboration with the projects GenTree, SUSTREE, SPONFOREST and LIFEGENMON, organized a science-to-policy event in Brussels (<u>see Annex 3</u>).

The aim of this event was to present and discuss the relevance and implications of recent research findings and guidelines for policy and practice. The main focus was the role of forest tree biodiversity, in particular genetic diversity, for the adaptation of forests to climate and land use change.

The report of the 14th Steering Committee meeting is available as a separate document.

6. Activities of the EUFORGEN Secretariat

The Secretariat coordinated the activities of the working groups that operated during Phase V and took care of the practical arrangements for their meetings. In addition, the Secretariat contributed to the preparation of draft reports of the working groups.

During the reporting period, the Secretariat continued to maintain and improve the EUFGIS Information System, Intranet and Portal (see section 4 above). The Secretariat also continued to provide helpdesk support to the EUFGIS National Focal Points. A considerable amount of time was devoted to the preparation of Phase VI of the Programme and in contributions to the preparation of the FORGENIUS Project proposal.

In 2019, the permanent staff of the Secretariat were Michele Bozzano (Coordinator), Ewa Hermanowicz (Communications Officer) and Christiane Düring (Administrative Officer). 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. In 2019, Silvio

Oggioni (intern) and Silvia Abruscato (Junior Researcher) made significant contributions to the work of the Secretariat.

6.1 Communication

The Secretariat continued to implement the communication strategy and action plan with inputs from the EUFORGEN network. The main communication channels remained the EUFORGEN website along with the quarterly newsletters and social media channels, combined with a strong presence at the international policy events and science communication meetings. The new partnerships with media and publications on platforms such as Resilience blog and EFI website were gained through collaborations with the EFI communications team.

All communication activities rolled out as part of the Action Plan 2019 to implement the Communications Strategy resulted in increased interest and engagement in EUFORGEN's work by researchers, international organizations, forest-related associations, policymakers and journalists, which can be demonstrated by the fulfilment and more of targets outlined in the Communication activity plan for 2019:

- increase in website traffic by 52%
- increase in newsletter readership by 88%
- increase in Twitter followers by 36%
- increase in Facebook followers by 32%

The move to EFI and engagement in the Lookout Station project and strong presence on social media resulted in very high media interest, the highest in EUFORGEN's history. The website statistics demonstrate a growing interest in EUFORGEN's work and continued efforts to share knowledge through Wikipedia make it the most important site from which people find the EUFORGEN website.

For detailed information about the communication activities and results, please see the Communications report 2019.

6.2 Inputs to the Forest Europe process and related work

In 2019, the Coordinator attended meetings and contributed to the Forest Europe Expert Group on Adaptation to Climate Change. As a result, the final report of the expert group will contain a paragraph calling for Countries to "collaborate to develop and implement a common strategy for forest genetic resources, with the aim to conserve the evolutionary potential of European tree species in a network of dynamic genetic conservation units"¹¹.

In October, the EUFORGEN Programme, supported by the LIFE project LIFEGENMON¹², organised a **side event during the Forest Europe Expert Level Meeting** held in Košice, Slovak Republic. The aim of the side event was to present to delegates the process that led to the preparation of Phase VI of EUFORGEN, to introduce the main activities planned for the next five years, and to **invite**

¹¹ FOREST EUROPE 2020. Adaptation to Climate Change in Sustainable Forest Management in Europe, Liaison Unit Bratislava, Zvolen, 2020 https://foresteurope.org/wp-content/uploads/2016/08/Adaptation to Climate Change in SFM in Europe compressed.pdf

¹² http://www.lifegenmon.si

Signatory Countries of the Forest Europe Process to join Phase VI of the EUFORGEN Programme.

The meeting was attended by 34 delegates representing 24 signatory countries and the European Union, 16 representatives of 9 observer organisations and the Liaison Unit Bratislava (LUB). The EUFORGEN Coordinator gave a presentation and the delegates had an opportunity to ask questions related to the Programme, its recent achievements, the program of work for the next five years and about forest genetic resources in general.

6.3 Inputs to other processes and events

During 2019, the Coordinator attended several events that created awareness about recent outputs of the Programme and introduced EUFORGEN's work to new audiences. These key events were:

- FAO Commission on Genetic Resources for Food and Agriculture, 18-22 February, Rome, Italy
- EU-China expert seminar on identifying potential joint priorities for research and innovation in food, agriculture and biotechnology, 25 March, Brussels, Belgium *
- Sixth Mediterranean Forest Week, 1–5 April, Beirut, Lebanon
- OECD Technical Working Group meeting, 7–8 May, Vienna, Austria
- GenTree Annual meeting, 46 June, Thessaloniki, Greece
- LIFEGENMON Annual meeting, 911 July, Thessaloniki, Greece
- Meeting of the bureau of the Committee on Mediterranean Forestry, 15 July, Rome, Italy
- Fourth meeting of the Expert Group on Adaptation to Climate Change, 5 September, Istanbul, Turkey
- EFI Annual Conference 16–20 September, Aberdeen, UK
- Resilient Future Forests Development Platform, IUFRO and Villum Foundation, 30. August, Løvenholm, Denmark
- IUFRO Conference, 28 September–6 October, Curitiba, Brazil
- NRC Forests, European Environment Agency, 16–17 October, Copenhagen Denmark
- Strategic Workshop on a possible Biodiversity Partnership, co-organized by BiodivERsA and the European Commission, 13–14 November, Brussels, Belgium
- SISEF Conference, 12–15 November, Palermo, Italy
- EU Standing Forestry Committee, 12 December, Brussels, Belgium*
- Genetic resources the key to adaptation of forests to climate change, 13 December, Brussels,
 Belgium
- The future of plantation forests in Europe, ThinkForest event, 17 December, Brussels, Belgium

The Communications Officer attended several events that created awareness about recent outputs of the Programme and built important communication channels with groups relevant for increasing the effectiveness of EUFORGEN communication. The events were:

- EFI Communications Team meeting, 30 January–1 February, Bonn, Germany
- EFI Week, 10–14 June, Barcelona, Spain

^{*}travel expenses covered by the organisers

- Sound Reporting Co-Lab bootcamp of the Lookout Station, 8–13 July, Białowieża, Poland*
- Genetic resources the key to adaptation of forests to climate change, 13 December, Brussels, Belgium

7. Contributions to European initiatives and projects

7.1 GenTree Project

GenTree ("Optimising 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 optimising 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.

The EUFORGEN Secretariat is co-responsible for the work package on communication and stakeholders' engagement. It also contributes to other tasks, such as the improved characterisation of the EUFGIS Network of genetic conservation units and the definition of priority areas for establishing new genetic conservation units in Europe. The fourth annual meeting was organised from 3–6 June in Thessaloniki, Greece.

More information on GenTree is available at www.gentree-h2020.eu

7.2 GenRes Bridge Project

The project "GenRes Bridge – Joining forces for genetic resources and biodiversity management", started in January 2019 with the overall aim to create an integrated conservation strategy for genetic resources in Europe. The EUFORGEN Secretariat, represented by the European Forest Institute (EFI), is the coordinator of the consortium composed of 17 partners.

GenRes Bridge capitalises on the knowledge, strategies, tools and infrastructures developed individually in crop, forest and animal domains over the past few decades by the three pan-European GenRes networks: EUFORGEN, ECPGR¹³ (European Cooperative Programme for Plant Genetic Resources), and ERFP¹⁴ (The European Regional Focal Point for Animal Genetic Resources).

The three networks contribute directly to the GenRes Bridge project via three *ad hoc* working groups established to support and contribute to GenRes Bridge's activities. The *ad hoc* groups ensure that the perspectives of the respective communities are properly considered within the project's outputs. EUFORGEN's working group is composed of representatives from Austria, Greece, Luxembourg, Poland, Serbia, Spain and Turkey, with the GenRes Bridge Project partners and coordinators of relevant European Projects on forest genetic resources. In parallel with contributions and feedback

^{*}travel expenses covered by the organisers

¹³ http://www.ecpgr.cgiar.org

¹⁴ https://www.rfp-europe.org

to the European Genetic Resources Strategy, the working groups are developing domain-specific strategies.

In October 2019, 74 stakeholders from 26 countries shared knowledge and views on GenRes conservation and use across plant, forest, animal and wider biodiversity domains in the Sharing Perspectives Workshop. Results from the workshop helped to elaborate the report about existing strategies and approaches for the conservation and sustainable use of GenRes, including recommendations to support the writing of the European Genetic Resources Strategy. Additionally, to support a science-based approach for the strategy, three workshops were organised to:

- i. provide scientific backing for uncertain futures
- ii. enhance dynamic in situ conservation
- iii. valorise genetic resources in agricultural and forest systems.

In order to identify examples and to formulate the rationale for conservation of GenRes, demonstration cases were compiled on the feasibility of conserving and sustainably managing the genetic diversity of crop plants, forest trees and farm animals at landscape level (the Fertile Crescent, a Norwegian fjord, and three locations in the Alps).

A new open access, peer-reviewed journal *Genetic Resources* was launched in 2020.¹⁵ It publishes original research, reviews and short communications to share domain-specific and interdisciplinary knowledge with the global community of practitioners who are involved in monitoring, collecting, maintaining, conserving, characterising and using genetic resources for food, agriculture and forestry.

The service provided by the project (in particular by its four FGR partners: Luke, Finland; INRAe, France; NIBIO, Norway and GIS, Slovenia) is an invaluable contribution to EUFORGEN and to the larger European FGR community, and is acknowledged and recognised.

More information on GenRes Bridge is available at www.genresbridge.eu

8. Financial summary for 2019

The overall actual expenses for 2019 (301,000€) were lower than the planned budget of 335,000€ (Table 1). Although there were deviations in several of the cost categories, compared to the year 2018, there is a decrease of approximately 10%, due mainly to a decrease in costs related to events and staff time that were covered by the GenRes Bridge project.

Staff costs in 2019 were around 170,000€ and remain the main cost category, representing approximately 56% of the total. These costs were in line with the budget for 2019. Compared to actual expenses for 2018, staff-related costs decreased by approximately 5%. This decrease was mainly due to fewer Secretariat staff during the second semester (during the closing of the Phase, activities were lower than planned).

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¹⁵ www.genresj.org

Travel costs for 2019 were 25,000€ and represent about 9% of the total, significantly higher than foreseen in the budget. The main reason for this deviation is that the dissemination and communication activities during the year required more travel than had been foreseen in 2014, when preparing the budget for the Phase.

Costs related to events (Steering Committee meetings, Working Groups meeting, workshops, etc.) amounted to 29,000€, about 10% of the total. Overall, these costs are slightly lower than budgeted for 2019. However, the allocation of costs between different event categories differs, given that the annual plan had to take into account needs expressed by the Member Countries and by different working bodies of EUFORGEN. Compared to 2018, event-related costs were considerably lower (40% decrease).

Finally, other direct costs, such as EUFGIS Portal development, dissemination and publications, represented only 29,000€, about 10% of the total. This was much higher than 2018 due to costs associated with the finalisation of the working groups reports, but nevertheless within the budget allocation for the Phase V.

Table 1: Summary of budgeted and actual costs for 2018–2019 (in EUR)

Details	Budget Opening Balance (EUR) ¹⁶	2018 Expenditure (EUR)	2019 Expenditure (EUR)	Total Expenditure (EUR)	Budget Closing Balance (EUR)
Secretarial Staff	418,650	206,490	169,794	376,284	42,366
Staff Travel	21,392	27,786	25,888	53,674	(32,282)
Steering Committee (meetings)	24,066	23,662	23,652	47,314	(23,248)
Working groups (meetings)	35,654	12,704	0	12,704	22,950
Workshops & other events	22,284	7,529	5,751	13,280	9,004
EUFGIS Portal	8,914	0	7,800	7,800	1,114
Publications & dissemination	8,914	2,167	21,100	23,268	(14,354)
Other Costs	35,654	0	0	0	35,654
Overheads 18.5%	106,473	51,863	46,987	98,850	7,623
Total	682,001	332,201	300,972	633,173	48,827

Total financial contributions received from Member Countries for the year 2019 were € 339,401. It shall be noted that, as of December 2018, the outstanding contributions Phase IV were €6,989 from

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¹⁶ As per amendment to the EUFORGEN programme of work and budget for Phase V (1 January 2015–31 December 2019), agreed by EUFORGEN Steering Committee at its 12th meeting on 1 June 2017

Romania, and for Phase V €4,456 from Moldova.

In January 2019 the opening balance of the EUFORGEN trust fund was €197,457. The closing balance of the trust fund for 2019 is €233 657 and was carried forward to the next Phase of EUFORGEN (Table 2).

Table 2: Development of EUFORGEN funds in 2019 (in EUR)

	Euro
Opening Balance 1 Jan 2019	187,767
2018 Contributions received	339,662
2019 Contributions received	339,401
Total expenditures	633,173
Closing balance	233,657

The detailed financial report for 2019 is available in the <u>Annex 1</u> to this report.

9. Publications

EUFORGEN Steering Committee: Report of the fourteenth meeting, Michele Bozzano; Ewa Hermanowicz; Christiane Düring

Pinus mugo Technical guidelines for genetic conservation and use of mountain pine, 2019, Alexander H. Alexandrov; Georg von Wühlisch; Giovanni Giuseppe Vendramin

Quercus frainetto Technical guidelines for genetic conservation of Hungarian oak, 2019, Sándor Bordács; Peter Zhelev Stoyanov; Bartolomeo Schirone

Quercus pubescens – Technical guidelines for genetic conservation of Pubescent oak, 2019, Sándor Bordács; Peter Zhelev Stoyanov; Bartolomeo Schirone

Quercus ilex – Technical guidelines for genetic conservation of Holm oak, 2019, Bartolomeo Schirone; Federico Vessella; Maria Carolina Varela

Quercus cerris – Technical guidelines for genetic conservation of Turkey oak, 2019, Marco Cosimo Simeone; Peter Zhelev Stoyanov; Gaye Eren Kandemir

EUFORGEN Newsletter. March 2019.

EUFORGEN Newsletter. July 2019

EUFORGEN Newsletter. October 2019

EUFORGEN Newsletter. December 2019