

EUROPEAN FOREST GENETIC RESOURCES PROGRAMME

A detailed botanical illustration of various forest plants. It includes several pine branches with long, thin needles and small cones, a cluster of round, green berries, and a large, broad leaf with prominent veins. The illustration is set against a background of green and purple geometric shapes.

EXTERNAL EVALUATION OF THE EUROPEAN FOREST GENETIC RESOURCES PROGRAMME

SUMMARY



THROUGH A UNIQUELY COLLABORATIVE
APPROACH, THE EUROPEAN FOREST GENETIC
RESOURCES PROGRAMME (EUFORGEN), PROMOTES
CONSERVATION AND BETTER USE OF EUROPEAN
FOREST GENETIC RESOURCES AS A VITAL PART OF
SUSTAINABLE FOREST MANAGEMENT .

EXECUTIVE SUMMARY



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► With this report, we evaluate the Programme's overall effectiveness and provide valuable insights for future decision making. The evaluation—conducted by the Bioversity International Development Impact Unit from June to November 2016—illustrates how EUFORGEN provides a unique and much needed platform for coordinating forest genetic resource issues throughout Europe. The Programme has made significant steps towards the successful long-term conservation and sustainable use of forest genetic resources by developing

a pan-European strategy for genetic conservation of forest trees, currently implemented by 24 member and non-member countries. Unfortunately, efforts are being jeopardized by matters such as weak linkages between both policy makers and practitioners on the ground, as well as threatened by the unstable constellation of member countries, and the lack of financial resources. Our report provides detailed insights into EUFORGEN's strengths and weaknesses along with suggested recommendations for action.

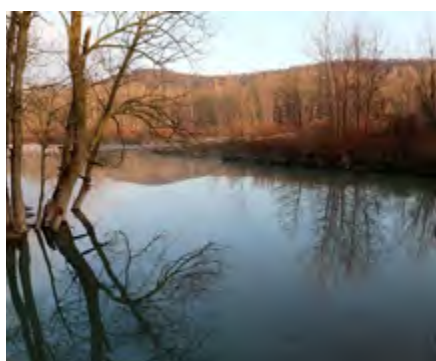


WHAT IS THE EUROPEAN FOREST GENETIC RESOURCES PROGRAMME?

▶ Through a uniquely collaborative approach, the European Forest Genetic Resources Programme (EUFORGEN), promotes conservation and better use of European forest genetic resources as a vital part of sustainable forest management.

The EUFORGEN Programme was established in 1994 to implement Resolution S2, which was developed at the first Forest Europe Conference held in Strasbourg in 1990, to conserve forest genetic resources. The Resolution called for the creation of “a functional but voluntary instrument of international cooperation”. In 2015, the Programme received official recognition from the Forest Europe signatories, who subsequently agreed to continue collaboration on forest genetic resources through EUFORGEN.

EUFORGEN is a network of experts from its member countries and provides a platform for developing and implementing its European strategy. Members can exchange experiences and information, analyze relevant practices and policies, develop science-based tools, methods and strategies, identify knowledge gaps, set priorities for research and identify policy needs. The Programme represents a degree of collective knowledge far beyond that of any single country. Currently implementing its fifth phase (2015–2019), EUFORGEN consists of 23 member states (as of November 2016), a Secretariat hosted by Bioversity International, and a steering committee comprised of national coordinators. Moreover, as EUFORGEN is funded by national governments—with national coordinators nominated by the forest ministry or other competent national authority—the Programme is grounded in a firm government-driven consensus.



METHODS AND OBJECTIVES OF THE ANALYSIS

94%

of respondents rated EUFORGEN as “needed” or “very needed” for the successful conservation of forest genetic resources at a pan-European level.

► We conducted an online survey with opinions from over 150 EUFORGEN members and non-members, to analyze the Programme’s structure, activities and outputs, and how these have subsequently been converted into solid outcomes. Our assessment also involved key informant interviews and the screening of reports, proceedings and other relevant EUFORGEN documents. We based our interpretation on renowned network evaluation methods (Taylor *et al.*, 2015; Innovations for Scaling Impact & Keystone Accountability 2010), which examined the Programme as a network with three broad, overlapping pillars.

The first pillar is the so-called **network connectivity**. Connections between members are the essential driver of networks. People with a common cause are brought together through networks and it is important to know if establishing and fostering ties among members (as well as partners and next users) yield effective and efficient pathways for producing outputs and achieving outcomes. There are four dimensions that were used to assess network connectivity: (1) membership, or the organizations and people that participate; (2) structure, or how connections between EUFORGEN members are structured and what information flows through them; (3) internal dynamics, or in how far members participate and become involved; and (4) external reach, or in how far EUFORGEN builds relationships with people/organizations outside the network.

The second pillar for assessment was **network health**. A network’s well-being depends on its capacity to sustain itself and the ability to engage its members to achieve their shared goal. There are three dimensions for assessing network health: (1) resources that EUFORGEN needs to sustain itself, such as external funding; (2) infrastructure, or the internal systems that support EUFORGEN and its members; and (3) advantage, or EUFORGEN’s capacity for joint value creation.

Network results is the last pillar with which we assessed EUFORGEN. Networks generally seek to achieve some sort of change. While network health and connectivity are essential for the network to be able to achieve those results, it is crucial to know if the network itself makes a difference. Network results have three dimensions that need to be considered for assessment: (1) outputs, or products that EUFORGEN developed; (2) outcomes, or the medium-term consequences (such as a policy outcome was achieved, or a particular practice was spread); and (3) intended impact, or the long-term consequences such as the successful conservation of Forest Genetic Resources in Europe.

The following objectives were addressed to evaluate EUFORGEN’s nature and effectiveness against the three pillars network: connectivity, network health, and network results:

01. **Understand EUFORGEN’s structure, partnerships and connections, activities, outputs and outcomes (= impact pathway)**
02. **Understand the direct and indirect financial inputs that sustain EUFORGEN**
03. **Understand who EUFORGEN’s members and next users are, and how they are influenced by the network**
04. **Understand how products are perceived and used by EUFORGEN members and next users**
05. **Understand the key value of EUFORGEN and its strengths and weaknesses**

Table 1: The three pillars of EUFORGEN evaluation

	Network Connectivity	Network Health	Network Results
Dimension/Focus	<ul style="list-style-type: none"> ▪ Membership: organizations and people that participate ▪ Structure: how connections between EUFORGEN members are structured and what information flows through them ▪ Internal dynamics: in how far members participate and become involved ▪ External reach: in how far EUFORGEN builds relationships with people/organizations outside the network 	<ul style="list-style-type: none"> ▪ Resources: material resources that EUFORGEN needs to sustain itself, such as external funding ▪ Infrastructure: internal systems that support EUFORGEN and its members ▪ Advantage: EUFORGEN's capacity for joint value creation 	<ul style="list-style-type: none"> ▪ Outputs: products that EUFORGEN developed ▪ Outcomes: medium-term consequences such as a policy outcome that was achieved or a particular practice that was spread ▪ Intended impact: long-term consequences such as the successful conservation of Forest Genetic Resources in Europe
Evaluation questions	<ul style="list-style-type: none"> ▪ Who are EUFORGEN members, partners and next users? ▪ Who is connected to whom? ▪ What is the degree of EUFORGEN members' interaction with other members? ▪ What is the degree of EUFORGEN members' participation to network activities? ▪ What kind of information do members, partners, and next users exchange? ▪ Does EUFORGEN disseminate information on a national, European and global level? ▪ Are there new relationships being established? ▪ Does EUFORGEN foster communication between members? ▪ Does EUFORGEN foster collaboration with partners and users on national/European/global level? ▪ Is dissemination and capacity strengthening fostered within and outside EUFORGEN? 	<ul style="list-style-type: none"> ▪ How diverse and dependable EUFORGEN resources are? ▪ How do members contribute resources directly and/or indirectly to EUFORGEN? ▪ What is in place for coordination and communication? ▪ What is the quality of coordination? ▪ Does EUFORGEN engage its members and meet their individual interests? ▪ Are the priorities of EUFORGEN members aligned? ▪ Do members achieve more together than they could alone? 	<ul style="list-style-type: none"> ▪ What kind of products does EUFORGEN develop? ▪ How do EUFORGEN members use the products? ▪ Who are the next users benefitting from EUFORGEN outputs and how do they use them? ▪ Does EUFORGEN influence relevant outcomes in the forestry sector in member countries, other countries and on European level, and if so, how? ▪ What is the added value and unique role of EUFORGEN?

Sources: own illustration based on (Canto, 2014; Innovations for Scaling Impact & Keystone Accountability, 2010; Taylor *et al.*, 2015).



FINDINGS / 1

NETWORK CONNECTIVITY



Connections between members are the essential driver of networks.

STRENGTHS

We found that EUFORGEN has strong *internal dynamics*, highlighted by the fact that 84% of the online survey respondents established new formal and/or informal relationships with other EUFORGEN members due to their affiliation with EUFORGEN. Furthermore, 78% of the respondents fostered existing formal and/or informal collaborations with other EUFORGEN members. Survey respondents rated “favoring information and knowledge exchange about forest genetic resources” and “fostering communication between members” as the top two major success of EUFORGEN when asked about the Programme’s connectivity (see Figure 1).

With respect to the *external reach* of EUFORGEN, our data shows that 59% of the respondents established new formal and/or informal relationships with people/organizations outside the EUFORGEN network due to their affiliation with EUFORGEN, and 55% of the respondents fostered existing formal and/or informal collaborations with people/organizations outside the EUFORGEN network. EUFORGEN is particularly well connected to *external* organizations and communities linked to science. On a scale from 0 (never) to 5 (at least once a week), research institutes (score: 2.22) followed by students (score: 2.03) and academic institutions (score: 2.00) were reached out to most often by EUFORGEN members, whereas private sector companies (score 1.01), or NGOs (score: 1.43), for example, ranked much lower.

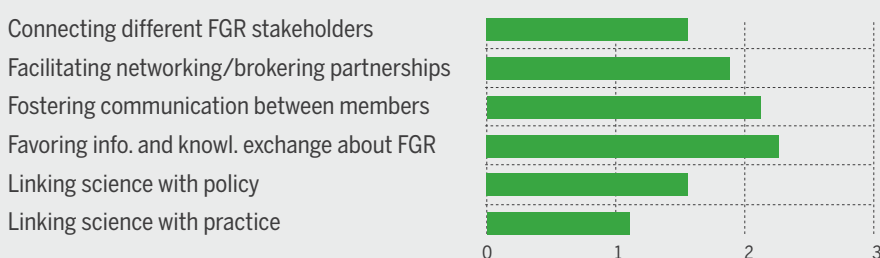
WEAKNESSES

According to our survey respondents, the two least rated connectivity factors out of six were “linking science with policy”, and “linking science with practice”—both indicating limited external reach (Figure 1). Therefore, we found that EUFORGEN is only partly successful in liaising with policy-makers and practitioners on the ground, even though the data suggests that EUFORGEN members do reach out to policy makers on the national or regional/local level. Moreover, among all open answers by online survey respondents, 6% of the respondents mentioned weak links with practitioners/forest managers as a major weakness of EUFORGEN, and a key informant stated that there “*should have been a few more forest managers to influence the side from the management perspective*”.

RECOMMENDATIONS FOR ACTION

- ➔ **Increase the number of EUFORGEN members with a practical forest management background.**
- ➔ **Develop and improve communication channels between EUFORGEN and policy makers and practitioners to advocate for the conservation and sustainable use of forest genetic resources.**

Figure 1: Success of EUFORGEN with respect to its connectivity



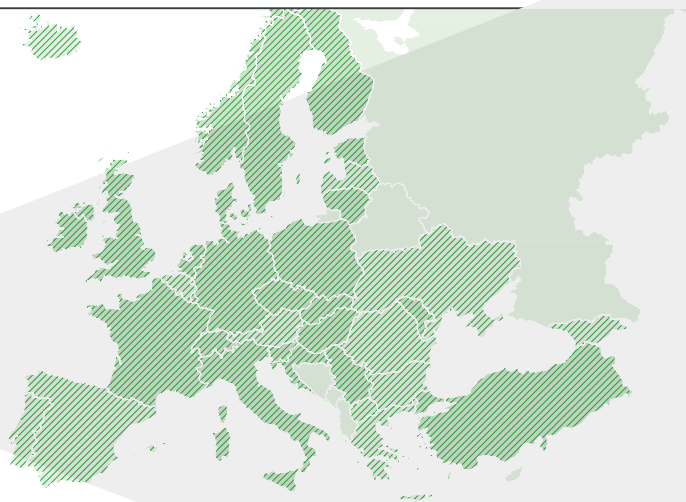
Remarks: Scale from -3 (very unsuccessful), 0 (neither successful nor unsuccessful) to +3 (very successful); Number of respondents for each point varies between 98 and 101. FGR - forest genetic resources.

Source: Biodiversity International Impact Evaluation Unit (based on EUFORGEN evaluation survey data).

FINDINGS / 2

NETWORK HEALTH

A network's well-being depends on its capacity to sustain itself and the ability to engage its members to achieve their shared goal.

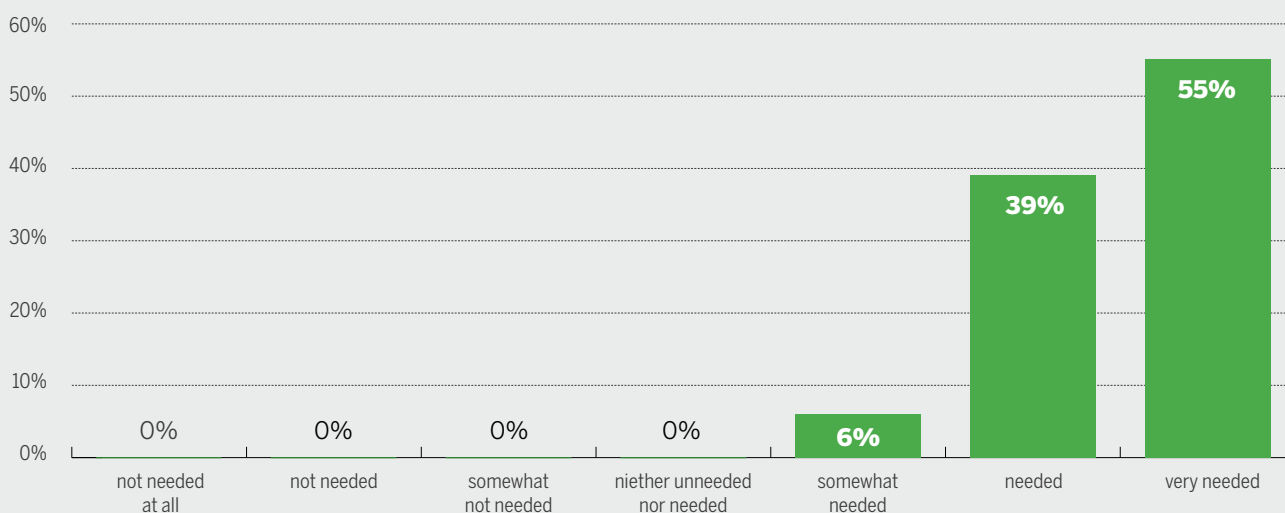


STRENGTHS

Our evaluation highlights how EUFORGEN has built great capacities in creating joint values with respect to the conservation of forest genetic resources. The Programme is recognized as a unique and required platform for coordinating, exchanging and disseminating information on forest genetic resource on a European level. Furthermore, we found that EUFORGEN's priorities are well aligned with the long-term conservation objectives of both member and non-member countries. For example, 94% of respondents rated EUFORGEN as "needed" or "very needed" for the successful conservation of forest genetic resources at a pan-European level measured on a scale from -3 ("not needed at all"), to 0 ("neither unneeded nor needed"), and +3 ("very needed"). In fact, not only the majority of respondents from member countries, but also the majority of respondents from non-member

countries (95%) claimed that EUFORGEN is "needed" or "very needed", showing how non-member countries also acknowledge the need for EUFORGEN and that EUFORGEN is highly needed to jointly work towards successful conservation of forest genetic resources (Figure 2). Furthermore, 92% of respondents, both from member and non-member countries, opine that EUFORGEN is a unique actor in the arena of forest genetic resource conservation. This is underlined by the fact that 62% of respondents don't think that other organizations can play EUFORGEN's role, followed by 22% "don't know" and 9% "other organizations can play EUFORGEN's role". Also, our data suggests that EUFORGEN objectives are streamlined with the national forest genetic resources priorities, as 93% of the respondents from both member and non-member countries stated that the EUFORGEN objectives are "somewhat aligned", "aligned" or "very much aligned" with national forest genetic resource priorities—or vice versa—which is a strong backbone for jointly creating value.

Figure 2: How needed is EUFORGEN for the successful conservation of FGR at pan-European level?



Remarks: Number of respondents = 101. **Source:** Biodiversity International Impact Evaluation Unit (based on EUFORGEN evaluation survey data). FGR - forest genetic resources



- /// Replied to the survey
- Member countries (2016)
- Signed Forest Europe

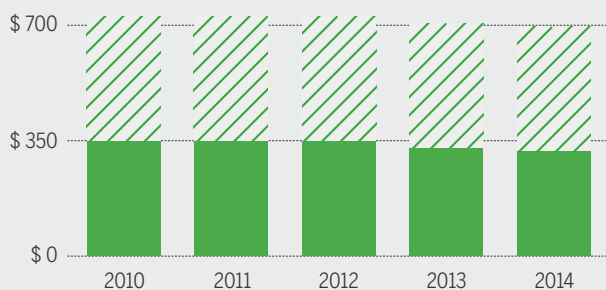
WEAKNESSES

The EUFORGEN Programme's budget is composed of a yearly membership fee paid by member countries, and in-kind contributions by member and associated countries—such as staff time dedicated to EUFORGEN tasks or administrative support. As highlighted in Figure 3, the in-kind contribution of national coordinators alone is roughly USD 328,000 per year and thereby equals, if not exceeds, the membership fee contributions. Yet, our survey results show that 65% of respondents consider these resources to be insufficient and therefore the number one obstacle for facilitating long-term forest genetic resource conservation objectives. This was followed by the unstable constellation of member countries (38%), and funding restricted to five-year phases (36%). Also, two-thirds of the

respondents from non-member countries indicated that the main reason for not being a member country is due to financial difficulties. In fact, the fewer the member countries, the more workload, i.e., in-kind contribution must be handled by each member country and the less financial contributions in terms of membership fees are made, while all countries, both member and non-member countries, benefit from EUFORGEN.

We detected two other areas in need of enhancement when analyzing the data on EUFORGEN's health. First, the Secretariat's communication with, and coordination of, peer-review community (so-called email contributors) is worthy of improvement to make sure that all efforts are acknowledged and enthusiasm kept high among the EUFORGEN member countries. Second, the process of publishing reports has been criticized by respondents as sometimes being too slow.

Figure 3: Comparison of membership fee contributions



- /// Contribution: In-kind
- Contribution: Membership

Remarks: In-kind contribution based on responses from former and current national coordinators (in thousands of dollars).

RECOMMENDATIONS FOR ACTION

- **Reach out to more stable funding to sustain the long-term conservation of forest genetic resources.**
- **The Secretariat, in coordination with National Coordinators, should put emphasis on notifying email contributors of their nomination as early as possible, as well as involving them earlier in their allocated tasks.**
- **The Secretariat should ensure that authors comply with timelines to publish reports and other documents on time.**

FINDINGS/3

NETWORK RESULTS

While network health and connectivity are essential for the network to be able to achieve results, it is crucial to know if the network itself makes a difference.



STRENGTHS

We found the most important outputs produced by EUFORGEN were: the establishment of a platform for dialogue at a continental level, the pan-European strategy for genetic conservation of forest trees (de Vries *et al.* 2015)—which is the first of its kind worldwide—and the capacity to report and assess the status of the conservation of forest genetic resources in a consistent manner. Twenty-four countries (Table 2) have already started to implement the strategy. Twelve of these had a different conservation approach before the implementation, and have since committed to change their conservation efforts and streamline them with other participating countries. Furthermore, other products supporting the conservation and use of forest genetic resources, such as species distribution maps, have been developed that are of high popularity. The survey data further shows that 34%, 56% and 7% of the respondents regard EUFORGEN’s mandate as “somewhat fulfilled”, “fulfilled”, and “completely fulfilled”, respectively. Therefore, EUFORGEN has made a positive step towards the intended impact of conserving and appropriately using forest genetic resources.

WEAKNESSES

The data we collected reveals that products such as distribution maps, the EUFGIS information system and the pan-European minimum requirements for dynamic genetic conservation units of forest trees (Koskela *et al.* 2013), are perceived as more useful by the survey respondents than the strategy itself (Table 3).

Furthermore, key informants highlighted that the very active use of these products tends to be restricted to the small forest genetic resources community, while other groups such as policy makers or forest managers appear less active. In this context, the results emphasize that the somewhat weak connections of EUFORGEN with practitioners and policy makers discussed before, are slowing down the strategy’s implementation process. In fact, the third major constraint in implementing the pan-European strategy (25% of all cases) according to national coordinators, is the “insufficient support from important decision makers, such as policy makers”, after the “lack of finances and/or resources” (36%) and “lack of cooperation, communication and knowledge dissemination” (27%).

RECOMMENDATIONS FOR ACTION

- **Raise awareness about the importance of the pan-European strategy to create a momentum for the advancement of effective conservation of forest genetic resources.**
- **Disseminate and promote EUFORGEN products more frequently to groups outside the forest genetic resource community, to increase their use, reach, and ultimately increase the awareness of forest genetic resource conservation.**
- **Communicate more widely with policy makers and forest managers in additional countries, to extend the implementation of the pan-European strategy, and promote best practices for forest reproductive material use.**

The most important outputs produced by EUFORGEN were the establishment of a platform for dialogue at a continental level and the pan-European strategy for genetic conservation of forest trees—the first of its kind worldwide.



Table 2: Countries implementing the pan-European strategy for genetic conservation of forest trees

Yes	No
Croatia, Denmark, Finland, France, FYR Macedonia*, Germany, Hungary, Iceland*, Ireland, Italy, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal*, Serbia, Slovakia, Slovenia, Spain*, Sweden, Switzerland, Turkey	Estonia Georgia* Greece* Ukraine* United Kingdom
Σ 24	Σ 5

Remarks: *Associated countries as of November 2016.

Source: Biodiversity Impact Evaluation Unit (based on EUFORGEN evaluation survey data).

Table 3: Ranking of EUFORGEN products by perceived usefulness of respondents

Rank	Product	n	Score
1	Species distribution maps	96	6.54
2	Technical guidelines	96	6.28
3	EUFGIS information system	95	6.26
4	Pan-European minimum requirements for dynamic genetic conservation units of forest trees	94	6.24
5	EUFORGEN website	95	6.16
6	Pan-European strategy for genetic conservation of forest trees	96	6.16
7	Methods for long-term genetic monitoring	95	6.04
8	Policy analyses and other thematic publications	95	5.88
9	EUFORGEN newsletter	93	5.55
10	EUFORGEN Twitter	86	4.87

Remarks: 1 = very useless, 2 = useless, 3 = somewhat useless, 4 = neither useless nor useful, 5 = somewhat useful, 6 = useful, 7 = very useful.

Source: Biodiversity Impact Evaluation Unit (based on EUFORGEN evaluation survey data).

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Translating conservation genetics into management

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

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Page 1: Illustrations: G. Bernetti & C. Giordano; page 2: Seed orchard in Akureyri, Iceland. Credit: E. Hermanowicz/EUFORGEN Secretariat; page 3 *Pinus sylvestris* in Beinn Eighe, UK. Credit: S. Cavers/NERC, UK; page 4: (top left) *Pinus sylvestris* in Navafría, Spain. Credit: B. Carvalho, CSIC, Spain; (bottom left) *Populus nigra in situ* study site. Natural National Reserve and Genetic Conservation Unit of Les Ramières, France. Credit: M. Villar INRA, France; (bottom right) *Pinus pinaster* sampling in Riserva Naturale biogenetica di Tocchi, Siena, Italy. Credit: F. Bagnoli/CNR, Italy; page 7: EUFGIS Workshop in Rome, Italy. Credit: E. Hermanowicz/EUFORGEN Secretariat; page 9: Sawmill in Egilsstaðir, Iceland. Credit: E. Hermanowicz/EUFORGEN Secretariat; page 10: GenTree stakeholders event. Credit: E. Hermanowicz/EUFORGEN Secretariat; page 11: Larch in a seed orchard in Akureyri, Iceland. Credit: E. Hermanowicz/EUFORGEN Secretariat.

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