



**Food and Agriculture
Organization of the
United Nations**



**International Treaty
on Plant Genetic Resources
for Food and Agriculture**

Second Reporting Cycle
**Report on the implementation of the International
Treaty on Plant Genetic Resources for Food and
Agriculture (ITPGRFA)**
NORWAY

01/10/2024



ONLINE REPORTING SYSTEM

Second Report on Compliance of ITPGRFA

Online Reporting System on Compliance of the International Treaty on Plant Genetic Resources for Food and Agriculture

Pursuant to Article 21 of the Treaty, the Governing Body approved, at its Fourth Session, the Compliance Procedures that include, among others, provisions on monitoring and reporting: Resolution 2/2011.

According to the Compliance Procedures, each Contracting Party is to submit to the Compliance Committee, through the Secretary, a report on the measures it has taken to implement its obligations under the Treaty. This Online Reporting System facilitates the submission of such information in electronic format.

Should you need any additional information regarding the reporting on compliance or the use of the online system, please visit the Treaty's Website or contact the Secretariat at PGRFA-Treaty@fao.org.

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Article 4: General Obligations

1. Are there any laws, regulations procedures or policies in place in your country that implement the Treaty?

Please select only one option

- Yes
 No

1A. If your answer is 'yes', please provide details of such laws, regulations, procedures or policies:

>>> The Nature Diversity Act (<https://lovdata.no/dokument/NL/lov/2009-06-19-100>) is a Norwegian law that regulates the management of biological diversity. The aim is to strengthen the implementation of the international obligations in the Convention on Biological Diversity, as well as the environmental principles in the Norwegian Constitution. The Nature Diversity Act includes genetic diversity within domesticated species and chapter VII is entirely devoted to the regulation of access to genetic material and traditional knowledge related to genetic material. In § 61 it provides statutory authority to consider further regulations for specifying the implementation of the ITPGRFA if this is considered appropriate.

The national strategy for the conservation and sustainable use of genetic resources for food and agriculture "Securing the Gene Pool for Future Agriculture and Food Production" was launched by the Ministry of Agriculture and Food in 2019 and provides the overarching framework for the management of genetic resources in Norway. Available in English: [m-0754-e-lmd_strategy_eng_high.pdf](#) (regjeringen.no)

A National Action Plan for genetic resources for food and agriculture was launched by the Ministry of Agriculture and Food in 2023 and is valid for the period 2024-2028. The purpose of the action plan is to operationalize the strategy by specifying goals and describing activities within the five main areas of the National Strategy. Available in Norwegian: [Nasjonal tiltaksplan for bevaring og bærekraftig bruk av genetiske ressurser for mat og landbruk](#) (regjeringen.no)

Through the Kalmar Declaration (Nordic Council of Ministers' declaration on access and rights to genetic resources), which was adopted by the Nordic Council of Ministers in 2003, the ministers of the five Nordic countries stated that all the material in the common Nordic gene bank is under joint Nordic management and publicly available. Access to the seeds in the Nordic gene bank in NordGen is granted in line with internationally agreed principles using the SMTA of the Treaty. The declaration was updated in line with international development the last two decades, and the Kalmar II Declaration was agreed in 2023. Available in English and Nordic languages: [access-and-rights-to-genetic-resources-2023-the-kalmar-ii-declaration.pdf](#) (nordgen.org)

The implementation of the Treaty is included in Norway's National Biodiversity Strategy and Action Plan (NBSAP) and it will also be included in Norway's updated NBSAP as a response to the implementation of the Kunming-Montreal Global Biodiversity Framework, particularly in regard to Target 4 and Target 13.

Available in English: [Meld. St. 14 \(2015-2016\)](#) (regjeringen.no)

Furthermore, the implementation of the Treaty is also included in Norway's action plan for implementing the Sustainable Development Goals, particularly Target 2.5 and Target 15.6.

Available in Norwegian: [Meld. St. 40 \(2020-2021\)](#) (regjeringen.no)

2. Are there any other laws, regulations, procedures or policies in place in your country that apply to plant genetic resources?

Please select only one option

- Yes
 No

2A. If your answer is 'yes', please provide details of such laws, regulations, procedures or policies:

>>> In addition to the laws and policies mentioned above, the following laws, regulations, procedures, or policies also apply to plant genetic resources:

The regulation on seeds ("Forskrift om såvarer") was established by the Ministry of Agriculture and Food in 1999 and aims to ensure the production and sale of seeds with the best possible health and quality. Through the amendments made in 2010, farmers and others are allowed to exchange seeds (except seed potatoes) on a non-commercial basis. The regulation on seeds also allows marketing of "conservation varieties" and "traditional varieties of vegetables" in limited quantities and by seed companies.

Available in Norwegian: [Forskrift om såvarer - Lovdata](#)

The Plant Variety Regulations on testing and approving of plant varieties ("Forskrift om prøving og godkjenning av plantesorter"), established by the Ministry of Agriculture and Food in 1999 ensures that varieties marketed in Norway are well adapted to Norwegian conditions and also aims to contribute to in situ conservation and sustainable use of plant genetic resources. Approval of conservation varieties require no official examination but is decided by the Norwegian Food Safety Authority on the basis of relevant and documented information.

Available in Norwegian: [Forskrift om prøving og godkjenning av plantesorter - Lovdata](#)

Intellectual Property legislation contains requirements for disclosure of origin. Section 8b of the Patent Act (lov om patenter) states that if an invention concerns or uses biological material or traditional knowledge, it must be stated in the patent application from where the material or knowledge were obtained (providing country). If

the providing country is different from country of origin of the material, also the country of origin must be named. When biological material has been acquired in accordance with Article 12.2 and 12.3 of the Treaty, a copy of the SMTA must be added to the patent application. Section 4 of the Act relating to plant breeder's rights (lov om planteforedlerrett) refers to Section 8b of the Patent Act and requires that applications for plant variety protection must include information on the origin of the plant material that is the basis of the plant variety and traditional knowledge that has been used in the breeding.

3. Is there any law, regulation, procedure or policy in place in your country that needs to be adjusted / harmonized to ensure conformity with the obligations as provided in the Treaty?

Please select only one option

Yes

No

3A. If your answer is 'yes', please provide details of such adjustments and any plans to make those adjustments:

>>>

Article 5: Conservation, Exploration, Collection, Characterisation, Evaluation and Documentation of Plant Genetic Resources for Food and Agriculture

4. Has an integrated approach to the exploration, conservation and sustainable use of plant genetic resources for food and agriculture (PGRFA) been promoted in your country?

Please select only one option

Yes

No

5. Have PGRFA been surveyed and inventoried in your country?

Please select only one option

Yes

No

5A. If your answer is 'yes', please provide details of your findings, specifying species, sub-species and /or varieties, including those that are of potential use.

>>> PGFRA has been extensively surveyed and inventoried in Norway, resulting in a national ex situ collection of vegetatively propagated material and seeds. The national collection vegetatively propagated species is stored in a network of 27 clonal archives in Norway and the seed propagated material at the common Nordic genebank at NordGen.

The ex-situ collection held by NordGen consists of:

Number of accessions in active collection 33725

Number of species 512

Number of subspecies 67

Number of varieties 28

A national inventory of the vegetatively propagated material is available at the website of the Norwegian Genetic Resources Centre, whereas the seed propagated material is specified in the database GenBIS. See more information of the ex situ conservation system under Q 10.

A complete Crop Wild Relative (CWR) checklist for Norway, with 2 538 species, was elaborated and published as part of a PhD project in 2013-16 (Phillips, J. 2017). The checklist was derived from the Crop Wild Relative Catalogue for Europe and the Mediterranean (Kell et al., 2008), updated and harmonized with the Flora of Norway (Lid & Lid, 2005) and cross-checked with national experts to ascertain the commonly used taxonomy for the Norwegian flora. Based on this work, a checklist of 206 CWR species recommended for conservation actions has been elaborated by the Norwegian Genetic Resource Centre.

There has been a significantly positive trend in terms of documenting traditional varieties of grain and vegetables. The Norwegian Community Seed Bank and Solhatt Organic Horticulture Collection has tested Norwegian varieties of grain and vegetables and established a list of 25 landraces of grain and 20 traditional vegetables of Norwegian origin that are multiplied and disseminated to growers.

There are still challenges:

- Some of the material that is currently maintained in the ex situ conservation system remain undocumented.

Efforts to identify and document all the accessions and remove unwanted duplications is a priority.

- The list of 206 priority CWR species should be reviewed and form the basis for a more detailed CWR inventory, with information about taxon, gene pool, use, distribution, crop socio-economic value, species biology and conservation and management measures.

- Work remains to identify and map CWR populations in the wild, especially in parts of the country where this is not yet conducted.

- The establishment of a common national checklist and inventory of landraces and traditional varieties of vegetables and grains that are currently grown in Norway should be elaborated, published and updated regularly.

- There is a challenge to ensure sufficient funding of larger, national surveys as well as securing long term funding of accessions.

5B. If your answer is 'no', please indicate:

Any difficulties encountered in surveying or inventorying PGRFA;

Any action plans to survey and inventory PGRFA;

The most important PGRFA that should be surveyed and inventoried

>>>

6. Has any threat to PGRFA in your country been identified?

Please select only one option

- Yes
 No

6A. If your answer is 'yes', please indicate:

The species, subspecies and/or varieties subject to such threats;

The sources (causes) of these threats;

Any steps taken to minimise or eliminate these threats;

Any difficulties encountered in implementing such steps;

>>> Based on the national strategy and action plan, conservation efforts should focus on domesticated crops and varieties that are considered national and have conservation needs, i.e., they are few in numbers or threatened in other ways. For domesticated crops the major threats include:

- Lack of information and proper identification of crop varieties that should be included in the national conservation program,
- Diseases threatening accessions in clonal collections, including Apple proliferation and Pear decline.
- Limited use of conservation varieties and traditional vegetables.

The Nordic countries host the northern edge of the geographic distribution of many wild European species. It's unique combination of photoperiod and climate, leads to unique adaptations in the wild plants. Regarding crop wild relatives, the priority list of 206 species is the starting point for monitoring CWR diversity in Norway. More than 22% of the species on the checklist are considered threatened according to the Norwegian Red List of Species 2021, including 13 endangered or critical species; 12 vulnerable and 21 near threatened. Major threats to CWR diversity include climate- and land-use change, overgrowth and harvesting. A Nordic CWR project (finalized 2024) has conducted climate change modelling for several Nordic CWR species. The results shows that the natural habitats of a range of species will diminish rapidly over the next decade due to climate change. These results will feed into recommendations regarding in situ and ex situ conservation of CWR in the Nordic region.

7. Has the collection of PGRFA and relevant associated information on those plant genetic resources that are under threat or are of potential use been promoted in your country?

Please select only one option

- Yes
 No

7A. If your answer is 'yes', please provide details of the measures taken:

>>> Extensive collection of domesticated crops has been conducted and placed in ex situ storage (see Q1).

Material from clonal collections as well as from joint Nordic genebank at NordGen has been promoted through various development projects.

Further use of conserved material is being promoted, for instance through the Norwegian Community Seed Bank (see Q8). The Norwegian Genetic Resources Centre has also established a trademark (PLANTEARVEN®) that can be used for re-introduction and sale of traditional varieties of cultivated crops, mainly ornamental plants.

The Centre for Genetic Resources conducts active outreach activities such as public seminars as well as encouraging the active participation of farmers, hobby gardeners and other stakeholders to use PGRFA. The "Plant Heritage"-award has been awarded to individuals and institutions annually since 2006 in order to stimulate awareness raising, engagement and activities for conservation and use of GRFA.

8. Have farmers and local communities' efforts to manage and conserve PGRFA on-farm been promoted or supported in your country?

Please select only one option

- Yes
 No

8A. If your answer is 'yes', please provide details of the measures taken:

>>> The Norwegian Community Seed Bank was established in 2018, with the aim to propagate and make alternative plant material, including from landraces and other traditional varieties, available for producers. The seed bank is currently storing, propagating and distributing planting material from 20-30 varieties of grains, including landraces, to interested farmers. The Royal Norwegian Society for Development holds the secretariat for the Community Seed Bank. More activities in the field of in situ conservation and on-farm management should be prioritized.

9. Has in situ conservation of wild crop relatives and wild plants for food production been promoted in your country?

Please select only one option

- Yes
 No

9A. If your answer is 'yes', please indicate whether any measures have been taken to:

- Promote in situ conservation in protected areas
 Support the efforts of indigenous and local communities

9B. If such measures have been taken, please provide details of the measures taken:

>>> • Ecogeographic- and DNA diversity analyses of CWR species were conducted in the period 2013-16, increasing the knowledge base and identifying suitable locations for in situ conservation. An assessment of specific drivers of change when it comes to CWR in Norway was also conducted in the same period (Phillips, J. 2017).

• Færder National Park has been identified as a hot spot for CWR diversity and a set of CWR species have been monitored in the park since 2013. CWR is also recognized in the management plan for the national park (Færder nasjonalpark, 2017).

• A genetic conservation unit for *Malus sylvestris* (crab apple) was established in 2020 as part of Jomfruland National Park in the south of Norway (Sæther et. al., 2020, Fjellstad and Skrøppa, 2020).

• Norway has taken an active part in three collaborative projects on CWR coordinated by NordGen, which has supported activities at the national level (Palmé et al, 2019).

10. Are there any ex situ collections of PGRFA in your country?

Please select only one option

- Yes
 No

10 A. If your answer is 'yes', please provide information on the holder and content of such collections:

>>> The ex situ conservation system is well established in Norway, both for seed- and vegetatively propagated crops. Accessions of seed propagated crops are conserved at the common Nordic genebank and managed by the Nordic Genetic Resources Center (NordGen) in Alnarp, Sweden. The vegetatively propagated crops are by a network of 27 clonal archives in Norway and coordinated by the Norwegian Genetic Resources Centre. The clonal archives are mostly field genebanks, hosted by various institutions such as botanical gardens, research centers and local museums. There is also one facility for in vitro conservation at NIBIO in Ås and one facility for cryopreservation at Sagaplant AS in Telemark. An inventory of all unique accessions that are conserved by Norwegian clonal archives has been established and is available online at the website of the Norwegian Genetic Resources Centre.

Of the seed propagated material conserved at NordGen, there are in total approximately 34 000 accessions conserved, of which 2 135 accessions are of Norwegian origin. This includes 286 accessions of cereals, 32 accessions of pulses, 198 accessions of vegetables, 1562 accessions of forages, in addition to approximately 50 accessions of MAP, potato, oil- fiber and root plants. All accessions have safety duplications. The Nordic collection is largely dominated by cereals, which counts for 64% of all the samples, whereas samples of Norwegian origin is largely dominated by forages, which account for more than 75%. All the accessions which are conserved at NordGen are listed in the Nordic Baltic Genebanks Information System (GeNBIS).

The ex situ collection of vegetatively propagated plants includes approximately 2 500 accessions, including safety duplications). Most of the accessions are conserved in field genebanks (> 2000), whereas 130 accessions are in cryo-storage and 163 accessions are stored in vitro (data from 2023). The national collection encompasses 629 unique accessions of fruits (apple, pear, cherry, plum), 150 unique accessions of berries (strawberry, blackberry, gooseberry, red currant, black currant, raspberry), 436 unique accessions of potato and vegetables (rhubarb, Jerusalem artichoke, horseradish, shallots, asparagus) and 165 accessions of medicinal and aromatic plants (MAP) (hops, oregano etc.). In addition to this more than 3000 accessions of ornamental plants are stored in field genebanks.

11. Has the development of an efficient and sustainable system of ex situ conservation of PGRFA been promoted in your country?

Please select only one option

- Yes
 No

11A. If your answer is 'yes', please indicate the measures taken to promote ex situ conservation, in particular any measures to promote the development and transfer of technologies for this purpose:

>>> • Establishment of a common Nordic seed genebank at NordGen's facilities in Alnarp, Sweden, with duplicates in Årslev, Denmark. The collection also has a safety back-up in the Svalbard Global Seed Vault. The genebank conserves approximately 33 000 seed accessions (2023) from more than 450 different plant species including approximately 2100 accessions of Norwegian origin (see Q10). The Nordic Genetic Resource Centre (NordGen) is the joint genebank and research centre for genetic resources in the Nordic countries.

• Vegetatively propagated species, including fruit trees, berries, potatoes and vegetables and ornamental plants are conserved in a network of 27 Norwegian clonal archives. The Norwegian Genetic Resource Centre is keeping the oversight of the collection at national level and coordinating national and international reporting. The National Strategy and Action Plan (see Q1) outlines a reorganization and strengthening of the national conservation system for vegetatively propagated crops, including a long-term security storage. This will be implemented in the period 2024-2028.

- Svalbard Global Seed Vault is established and owned by Norway and is operated in a partnership between the Norwegian Ministry of Agriculture and Food, NordGen and the international organization Crop Trust. Svalbard Global Seed Vault is storing more than 1,3 million safety duplicates of seeds from 116 genebanks around the world, including from NordGen.

12. Has the maintenance of the viability, degree of variation, and the genetic integrity of ex situ collections of PGRFA been monitoring in your country?

Please select only one option

- Yes
 No

12A. If your answer is 'yes', please provide details of the main conclusions of these monitoring activities

>>> For some selected crops, studies of diversity and uniqueness of accessions have been conducted through research projects. To further study accessions in ex situ collections is a priority.

13. Has your country cooperated with other Contracting Parties, through bilateral or regional channels, in the conservation, exploration, collection, characterization, evaluation or documentation of PGRFA?

Please select only one option

- Yes
 No

13A. If your answer is 'yes', please indicate the other Contracting Parties with whom the cooperation was undertaken (where additional to cooperation through the Governing Body or Treaty mechanisms) and, where possible, details of any relevant projects:

>>> • Norway has, since 1979, has close cooperation with the Nordic Genetic Resource Centre (NordGen) and collaborated with the other four Nordic countries on all aspects of PGRFA conservation and management. NordGen is facilitating eight thematic working groups and several Nordic projects, in addition to the joint genebank. This network is actively contributing to scientific discussions and in establishing collaboration on several levels in the Nordic region, as well as the Baltic region.

- From the point of view of sustainable use of PGRFA, Norway, as part of NordGen, since 2011 actively collaborates with the Nordic commercial plant breeding industry on pre-breeding in barley, apple and perennial ryegrass through a Public-Private Partnership (PPP).

- Norway also remains an active counterpart in other international networks, such as the European Cooperative Programme for Plant Genetic Resources (ECPGR). This program is offering a platform for collaboration through 24 crop-specific working groups, where Norway is represented in 13.

- Svalbard Global Seed Vault is established and owned by Norway and is operated in a partnership between the Norwegian Ministry of Agriculture and Food, NordGen and the international organization Crop Trust. The Seed Vault has commenced a seed experiment that will last for 100 years that will provide future generations with valuable information about seed viability and more precise knowledge of how often seeds need to be regenerated.

Article 6: Sustainable Use of Plant Genetic Resources for Food and Agriculture

14. Are there any policy and legal measures in place in your country that promote the sustainable use of PGRFA

Please select only one option

- Yes
 No

14A. If your answer is 'yes', please indicate whether such policy and legal measures include:

- Pursuing fair agricultural policies that promote the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources;
- Strengthening research that enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers;
- Promoting plant breeding efforts, with the participation of farmers, that strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;
- Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers
- Promoting the expanded use of local and locally adapted crops, varieties and underutilised species
- Supporting the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops and creating strong links to plant breeding and agricultural development
- Reviewing and adjusting breeding strategies and regulations concerning variety release and seed distribution

14B. If such policy and legal measures are in place, please provide details of the measures taken and any difficulties encountered in implementing them:

>>> An annual agreement between the Norwegian state and the farmers' organisations ensures profitability for agricultural production throughout the country. The schemes facilitate smaller farms and agricultural production in areas with a difficult climate and limited cultivation opportunities, which leads to increased use of natural grazing areas, etc. This contributes to varied production and increased use of nature-based resources.

Urban agriculture, organic production, cooperative agriculture, open farms, green care, management of cultural landscapes, school gardens and hobby cultivation are some examples of forms of production that benefit from using greater diversity, including genetic resources.

Flour and several products based on a number of older cereal species, as well as old varieties such as slash-and-burn rye, are marketed. These have different baking properties and nutritional content than flour from modern processed grains. Several mills specialize in the production of flour from older Norwegian grains.

The trademark PLANTEARVEN® is a trademark that was established for use in the marketing and sale of traditional Norwegian plants that are no longer in widespread use. These may be preservation-worthy varieties of vegetables, fruit trees, roses or perennials with an area of origin in Norway or that were historically important or common here. The trademark is managed by the Norwegian Genetic Resource Centre and can be used by utility gene banks, nurseries and others who sell or share plant material of registered PLANTEARVEN varieties.

Hobby growers contribute to this kind of conservation.

A subsidy scheme aimed at supporting breeding and propagation activities on crops that cannot be fully covered through the price achieved at the time of sale. This helps to ensure that Norwegian agriculture and horticulture have access to climate-adapted, varied, varietal and disease-free plant material and make the material more competitive on the domestic market and on the export market.

A Nordic collaboration in plant variety development; Public-Private-Partnership for Pre-breeding (PPP) is a very successful collaborative project for, and between, the Nordic countries. The purpose of PPP is to ensure the development of plant varieties for the Nordic countries so that food production in the Nordic countries is maintained and developed.

Documentation of the genetic resources' properties, characteristics, kinship data and genetic variation, as well as access to professional expertise, are essential to ensure the use potential of preservation-worthy genetic resources and to target their conservation. Information about historical and cultural value will also be an additional value for relevant users. Support is therefore given to projects for the evaluation of genetic resources worthy of preservation with a focus on useful properties and knowledge about genetic variation. Genetic diversity in microorganisms and invertebrates includes bacteria, fungi, soil organisms and insects that may be important for food and agriculture. This includes e.g. organisms that have an important role in the breakdown of nutrients, pollinating insects and organisms used in traditional foods. As an initial step will projects that provide increased knowledge about such material be prioritized.

The National Action Plan for the Conservation and Sustainable Use of Genetic Resources for Food and Agriculture was adopted in 2023. The action plan includes updating the national conservation system for genetic resources which also covers active conservation methods such as in situ conservation and on-farm conservation of plants. Hobby growers are already contributing to this conservation methods. One of the measures will be to develop common principles for on farm conservation

Article 7: National Commitments and international Cooperation

15. Has the conservation, exploration, collection, characterization, evaluation, documentation and sustainable use of PGRFA been integrated into your country's programmes and policies?

Please select only one option

- Yes
 No

15A. If your answer is 'yes', please provide details of the integration of such activities:

- Conservation
 Exploration
 Collection
 Characterization
 Evaluation
 Documentation
 Sustainable Use

Please indicate into which type of programmes and policies:

- Agriculture and rural development
 Food security
 Biodiversity conservation
 Climate change
 Other

Additional details:

>>> Annual budgets of the Ministry of Agriculture and Food: PGRFA is included in the annual budget of the Ministry. The budget provides an overview of the agricultural policies of Norway, and the presentation includes a description of the work of conservation and sustainable use of PGRFA and the funding of the relevant activities in this regard.

White paper: Strategy for increased self-sufficiency of agricultural goods: PGRFA is included in the latest White Paper from the Ministry of Agriculture and Food, "Strategy for increased self-sufficiency in agricultural goods", which was debated in Parliament spring 2024.

Available in Norwegian: Meld. St. 11 (2023–2024) (regjeringen.no)

NBSAP: PGRFA is included in Norway's National Biodiversity Strategy and Action Plan (NBSAP) for the implementation of the Convention on Biological Diversity.

Sustainable food systems: PGRFA is included in the presentation of the key elements of the Norwegian Government's work on sustainable food system: "Norway's Path Towards a Sustainable Food System" "Norway is an active participant in the global work on improving sustainability in the food system, focusing on food safety, climate change adaptation, biological diversity, and genetic resources. The Svalbard Global Seed Vault is a good example of the latter."

Available in English: Norway's path towards a Sustainable Food System (regjeringen.no)

Urban Agriculture: PGRFA is included in the Norwegian Strategy for Urban Agriculture "Conserved native plants and domesticated animals

Genetic diversity is an important component of biodiversity that also includes the diversity of our native plants, domesticated animals and forest trees. Small areas of land, which are often managed more manually and organically, are highly suitable for growing heritage plant varieties (agriculture's historical plant diversity). Conserved poultry and rabbit breeds may be suitable for use in urban animal husbandry and conserved ornamental plants, fruit trees and berry bushes may be relevant for use in connection with historic buildings, gardens and parks. This enables urban agriculture to help maintain and further develop our genetic reserves, which may be useful for future food supply."

Available in English: strategi-for-urbant-landbruk-engelsk-web.pdf (regjeringen.no)

Development cooperation: PGRFA is included in Norway's strategy for promoting food security in development policy: "Combining forces against hunger – a policy to improve food self-sufficiency". The government will:

- strengthen local seed systems and promote seed variety development so that small-scale farmers gain wider access to high-quality seeds, and strengthen farmers' rights for example by continuing the Norwegian initiative on smallholders' access to the seed system presented at the UN Food Systems Summit in 2021;
- make the Svalbard Global Seed Vault a central component in Norway's efforts to enhance global food security;
- help to improve plant breeding, livestock breeding and genetic diversity management in small-scale production in order to increase knowledge of and access to a greater diversity of climate-resilient varieties and species;

Available in English: norways-strategy-for-promoting-food-security-in-development-policy.pdf (regjeringen.no)

PGRFA is included in the Strategy for climate change adaptation, disaster risk reduction and the fight against hunger: "Improving access to climate-resilient seed and enhancing the genetic diversity of food plants are important tools in climate change adaptation in agriculture, as they provide ways of increasing the resistance of crops to disease and making agriculture more climateresilient. This includes the establishment of local seed

banks to maintain rapid access to climate-resilient seed in emergencies.”

“The government will:... step up work on plant and animal breeding and management of genetic diversity to enable smallscale food producers to learn more about and have access to a wider range of varieties, breeds and species as a basis for climate-resilient food production;...”

Available in English: klimatilpasningstrategi_2023_en.pdf (regjeringen.no)

16. Has your country cooperated with other Contracting Parties, through bilateral or regional channels, in the conservation and sustainable use of PGRFA?

Please select only one option

Yes

No

16A. If your answer is 'yes', please indicate whether the aim of such cooperation is to:

Strengthen the capability of developing countries and countries with economies in transition with respect to conservation and sustainable use of PGRFA

Enhance international activities to promote conservation, evaluation, documentation, genetic enhancement, plant breeding, seed multiplication, and sharing, providing access to and exchanging PGRFA and appropriate information and technology, in conformity with the Multilateral System of Access and Benefit-Sharing under the Treaty

16B. If, in addition to cooperation through the Governing Body or other Treaty mechanisms, your country has cooperated with other Contracting Parties directly or through FAO and other relevant international organizations, please indicate such other Contracting Parties and, where possible, details of any relevant projects:

>>>

Article 8: Technical Assistance

17. Has your country promoted the provision of technical assistance to developing countries and countries with economies in transition, with the objective of facilitating the implementation of the Treaty?

Please select only one option

- Yes
- No
- Not applicable

17A. If your answer is 'yes', please provide details of the measures taken

- Exchange of information
- Access to and transfer of technology
- Capacity building

Please explain:

>>> The ex-situ genebank NordGen train and provide capacity building as well as technical assistance to developing countries and countries in transition.

18. Has your country received technical assistance with the objective of facilitating the implementation of the Treaty?

Please select only one option

- Yes
- No
- Not applicable

18 A. If your answer is 'yes', please provide details of such technical assistance:

- Exchange of information
- Access to and transfer of technology
- Capacity building

Please explain:

>>>

Article 9: Farmers' Rights

19. Subject to national law, as appropriate, have any measures been taken to protect and promote farmers' rights in your country?

Please select only one option

- Yes
 No

19 A. If your answer is 'yes', please indicate whether such measures were related to:

- Recognition of the enormous contribution that local and indigenous communities and farmers of all regions of the world have made and will continue to make for the conservation and development of plant genetic resources;
 The protection of traditional knowledge relevant to PGRFA
 The right to equitably participate in sharing benefit arising from the utilisation of PGRFA
 The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA
 Any rights that farmers have to save, use, exchange, and sell farm-saved seed/propagating material

19B. If such measures were taken, please provide details of the measures taken and any difficulties encountered in implementing them:

>>> In general, farmers and their organizations have multitude of channels for participation in and influence on policy processes in Norway. There are annual agricultural negotiations between the Government and the farmers' unions, resulting in an Agricultural Act, which defines the annual financial support schemes to the agricultural sector. In the field of genetic resources, for example, Felleskjøpet, a farmer cooperative, is one of the owners of the only breeding company in Norway, Graminor AS, and is also the main distributor of seeds. There are also projects developing new varieties of forages with high level of farmers' participation. The Norwegian Genetic Resource Centre maintains close working relationships with both the major farmers' cooperatives and farmers' unions as well as with the smaller number of farmers who are more actively involved with issues directly related to seed diversity and cultivation of traditional varieties. During the last few years, farmers cultivating traditional varieties have become more organized, including loose networks and the establishment of cooperatives. Therefore, they have become more visible, and it has become easier for the authorities to involve them in various processes.

For Norway the operationalization of farmers' rights means, among other things, to:

- Facilitate access to breeding and planting material (for example seed and clones) of good quality, adapted to local production conditions and in line with farmers' different needs and preferences,
- Strengthen farmers' opportunity to be involved in and be able to influence priorities within breeding work and plant breeding,
- Support measures to look after, protect and develop traditional knowledge related to genetic resources,
- Strengthen farmers' opportunity to participate in relevant decision-making processes,
- Ensure the right to use self-bred seed and livestock as well as promote farmers' right to take care of, use, exchange and sell seed saved from own crops.

This is specified in the National Action Plan for Genetic Resources for Food and Agriculture.

For further examples of Norway's realisation of Farmers' Rights, see Norway's submission on Farmers' Rights to the Treaty's Inventory on Farmers' Rights.

Article 11: Coverage of the Multilateral System

20. Has your country notified all PGRFA listed in Annex I to the Treaty that are under the management and control of your Government and in the public domain as included in the Multilateral System of Access and Benefit-Sharing (MLS)?

Please select only one option

- All
- Partially
- None

20A. If your answer is 'all', please provide details of any difficulties encountered in including Annex 1 PGRFA in the MLS:

>>> The Nordic countries have made no distinction between Annex 1 and non-Annex 1 taxa. This policy is embedded in the Kalmar Declaration from 2003 and reiterated in Kalmar II Declaration from 2023. This also follows from the fact that the Nordic countries are members of the European Cooperative Programme for Plant Genetic Resources (ECPGR) whereby access is granted on identical premises, using an SMTA. In line with the division of responsibility between NordGen and the Nordic countries, the Nordic countries are obliged to facilitate access to vegetatively propagated material. Although this material is also formally included in the MLS, there remains practical and technical challenges in actually facilitating access to this material (see Q22).

20B. If your answer is 'partially', please provide details of:

The extent to which Annex 1 PGRFA have been included in the MLS

The crops that have been included in the MLS; and

The difficulties encountered in including Annex 1 PGRFA in the MLS:

>>>

20C. If your answer is 'none', please provide details of the difficulties encountered in including Annex 1 PGRFA in the MLS:

- Lack of guidelines for the identification and inclusion of material;
- There is no national genebank;
- Lack of catalogue of PGRFA in the country;
- Lack of specialised human resources;
- Limited economic resources and the need for capacity building;

Other, please explain:

>>>

21. Has your country taken measures to encourage natural and legal persons within your jurisdiction who hold Annex 1 PGRFA to include those resources in the MLS?

Please select only one option

- Yes
- No

21A. If your answer is 'yes', please provide details of:

The natural or legal persons within your jurisdiction that included Annex 1 PGRFA in the MLS;

The crops that have been included in the MLS by these persons; and

Any difficulties these persons encountered in including Annex 1 PGRFA in the MLS:

>>> There are no major collections held by legal persons outside public collections. The private breeding company, Graminor, is encouraged to include their varieties in the MLS when the plant variety protection has expired. NordGen has also encouraged companies to include their material in NordGen in agreement that NordGen only will provide access to that material after the expiry of PVP.

21B. If your answer is 'no', please provide details, in particular details of any difficulties encountered in encouraging these persons to include Annex 1 PGRFA in the MLS:

>>>

Article 12: Facilitated access to plant genetic resources for food and agriculture within the Multilateral System

22. Has your country taken measures to provide facilitated access to Annex 1 PGRFA, in accordance with the conditions set out in Article 12.4 of the Treaty?

Please select only one option

- Yes
 No

22A. If your answer is 'yes', please provide details of such measures:

>>> As explained in Q20, all genetic resources stored at NordGen – Annex 1 and non-Annex 1 – are being distributed under the conditions of the SMTA, as a result of the so-called 'Kalmar Declaration' of 2003 and reconfirmed in 2023. For clonal collections, access to material is partly difficult, due to plant health regulations, limited funding for testing and lack of a facilitated system for ordering and processing of requests. There is also a need for better information on the characteristics of the collections in field gene banks of vegetatively propagated material. There are also lack of a database solution to facilitate access and limited capacity in small clonal collections to follow up Standard Material Transfer Agreements (SMTA). A review of the process to improve access to material is a priority for the period 2024-28. This will include the establishing rules and procedures for access to the genetic resources in the national conservation programme, as well as to the associated documentation and inclusion of all the material in the same database solution. The Nordic countries has decided to provide free, open and facilitated access to the ex-situ collection for all accession held in public domain by the genebank (NordGen). Distribution is done with an SMTA in full compliance with the Article 12 of the Treaty.

See information below on numbers of orders and samples sent exclusive for scientific purposes.

Number of Orders*

2020 183
2021 162
2022 139
2023 144

Number of samples sent*

2020 5242
2021 3572
2022 2577
2023 3169

*Only orders for scientific purposes

A Standard Material Transfer Agreement (SMTA) has been partly used. Access to material from vegetatively propagated crops have been partly difficult and has rarely been followed by a SMTA.

The Norwegian use of MTA's correspond with the Nordic approach: All PGR regardless of Annex 1 and for research, breeding and training for food and agriculture is handled with sMTA. All PGR for any other professional use is handled with Nordic/(Norwegian) MTA mirroring the sMTA and encouraging to contribute voluntarily to the Treaty on equal terms as the sMTA. All use for private hobby purpose is handled with Hobby MTA or equivalent information.

22B. If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex 1 PGRFA:

>>>

23. Has facilitated access been provided in your country to Annex 1 PGRFA using the Standard Material Transfer Agreement (SMTA)?

Please select only one option

- Yes
 No

23B. If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex 1 PGRFA using the SMTA:

>>>

24. Has the SMTA been used voluntarily in your country to provide access to non-Annex 1 PGRFA?

Please select only one option

- Yes
 No
 No, but the issue is under consideration

25. Does the legal system of your country provide an opportunity for parties to material transfer agreements (MTAs) to seek recourse in case of contractual disputes arising under such agreements?

Please select only one option

- Yes
 No

25A. If your answer is 'yes', please provide details of the relevant laws, regulations or procedures:

>>> The ITPGRFA and the MLS are not directly regulated in Norwegian law, but parties to the contract are bound by Norwegian contract law. Act relating to mediation and procedure in civil disputes [The Dispute Act] is available here: <http://app.uio.no/ub/ujur/oversatte-lover/data/lov-20050617-090-eng.pdf>

26. Does the legal system of your country provide for the enforcement of arbitral decisions related to disputes arising under the SMTA?

Please select only one option

- Yes
 No

26A. If your answer is 'yes', please provide details of the relevant laws, regulations or procedures:

>>> Another important form of alternative dispute resolution is arbitration. The Arbitration Act (Norwegian version only): <https://lovdata.no/dokument/NL/lov/2004-05-14-25>

27. Have there been any emergency disaster situations in respect of which your country has provided facilitated access to Annex 1 PGRFA for the purpose of contributing to the re-establishment of agricultural systems?

Please select only one option

- Yes
 No

27A. If your answer is 'yes', please provide details of such emergency disaster situations and the Annex 1 PGRFA to which access was provided:

>>>

Article 13: Benefit-sharing in the Multilateral System

28. Has your country made any information available regarding Annex I PGRFA?

Please select only one option

- Yes
 No

28A. If your answer is 'yes', please provide details of any information made available regarding Annex I PGRFA:

- Catalogues and inventories
 Information on technologies
 Results of scientific and socio-economic research, including characterisation, evaluation and utilisation
 Other

29. Has your country provided or facilitated access to technologies for the conservation, characterisation, evaluation and use of Annex I PGRFA?

Please select only one option

- Yes
 No

29A. If your answer is 'yes', please indicate whether your country:

- Has established or participated in crop-based thematic groups on utilisation of PGRFA
 Is aware of any partnerships in your country in research and development and in commercial joint ventures relating to the material received through the MLS, human resource development and effective access to research facilities.

Please provide details:

>>> Norway is active in approximately 20 international crop based networks (NordGen and ECPGR) and Norwegian stakeholders have actively been participating in 8 Nordic PPP-projects on pre-breeding. Through the long-term collaboration between NordGen and the Baltic countries (funded by the Nordic Council of Ministers), Norway has contributed to the establishment of gene bank facilities in these countries. The Access and Benefit-sharing (ABS) Report "Access and Rights to Genetic Resources - A Nordic Approach (II)" was published by the Nordic Council of Ministers in 2023. The publication addresses various aspects of Access and benefit-sharing (ABS) of genetic resources and is based on a 20-year-old predecessor that needed to be updated due to developments in this field. Experts from the entire Nordic region have compiled a report which presents suggestions for a joint Nordic approach on access and sharing of genetic resources. The report provides updated recommendations to the Nordic countries and NordGen on how to work with genetic resources. The key take aways is that the Nordic countries will continue to work together and engage in international forums concerning genetic resources. The seeds of NordGen will be freely available in the public domain and under common Nordic management - also for use not related to food and agriculture. A ministerial declaration based on the report is also in preparation by the Nordic Council of Ministers. The information of the accessions are made public available through the Nordic-Baltic Genebank Information System GENBI. It is a database tool gathering all information belonging to the plant genetic resources of the genebanks in the Nordic and Baltic countries. GENBIS contains information on accessions (seed samples) such as plant passport data, availability, inventory, viability, distribution, images, phenotypic and genotypic information. It is used both internally within each genebank and for external users who want to browse information and order genetic material. GENBIS is the database of NordGen and the national genebanks of Denmark, Finland, Iceland, Norway, Sweden, Estonia, Latvia and Lithuania. The database uses the international system GRIN-Global and replaces the former database system SESTO. GENBIS has been active since 2020

30. Has your country provided for and/or benefitted from capacity building measures in respect of Annex I PGRFA?

Please note that this question differs from question 15 as it only concerns Annex I PGRFA and is more specific.

Please select only one option

- Yes
 No

30A. If your answer is 'yes', please indicate whether such measures were related to:

- Establishing and/or strengthening programmes for scientific and technical education and training in conservation and sustainable use of PGRFA;
 Developing and strengthening facilities for conservation and sustainable use of PGRFA;

Carrying out scientific research and developing capacity for such research.

30B. If your country provided for and/or benefitted from such measures, please provide details:

>>>

Article 14: Global Plan of Action

31. Has your country promoted the implementation of the Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture?

Please select only one option

- Yes
- No

31A. If your answer is 'yes', please indicate whether the implementation of the plan was promoted through:

- National actions
- International cooperation
- Other actions

Please provide details:

>>> The national programme for PGR is based on the National Strategy and Action Plan for Genetic Resources for Food and Agriculture (see Q1), jointly implemented by the Ministry of Agriculture and Food, the Norwegian Agriculture Agency and the Norwegian Genetic Resource Centre. The strategy and action plan is based on the outline of the Second Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture.

Norway has reported on the implementation of the Second GPA to FAO in 2020 and has also been supporting FAO's CGRFA and its work on the Global Plan of Action. Norway has also been actively participating in the elaboration of a European strategy for conservation and sustainable use of PGRFA, led by ECPGR.

Article 15: Ex Situ Collections of Plant Genetic Resources for Food and Agriculture held by the International Agricultural Research Centres of the Consultative Group on International Agricultural Research and other International Institutions

32. Has facilitated access to Annex I PGRFA been provided in your country to the International Agricultural Research Centres of the Consultative Group on International Agricultural Research (IARCs) or other international institutions that have signed agreements with the Governing Body of the Treaty?

Please select only one option

- Yes
 No

32A. If your answer is 'yes', please indicate:

To which IARCs or other international institutions facilitated access was provided;
The number of SMTAs entered into with each IARC or other international institution:
>>> No information.

32B. If your answer is 'no', please provide details of any difficulties encountered in providing facilitated access to Annex 1 PGRFA to IARCs and other international institutions that have signed agreements with the Governing Body of the Treaty

>>>

33. Has access to non-Annex I PGRFA been provided in your country to IARCs or other international institutions that have signed agreements with the Governing Body of the Treaty?

Please select only one option

- Yes
 No

33A. If your answer is 'yes', please indicate:

To which IARCs or other international institutions access was provided;
The number of MTAs entered into with each IARC or other international institution:
>>> No information.

33B. If your answer is 'no', please provide details of any difficulties encountered in providing access to non-Annex 1 PGRFA to IARCs and other international institutions that have signed agreements with the Governing Body of the Treaty:

>>>

Article 16: International Plant Genetic Resources Networks

34. Has your country undertaken any activities to encourage government, private, non- governmental, research, breeding and other institutions to participate in the international plant genetic resources networks?

Please select only one option

Yes

No

34A. If your answer is 'yes', please provide details of such activities:

>>> Norway invests considerable efforts in national and international networks. Norway is actively participating in Nordic and European networks, including more than 20 thematic- or crop-specific working groups under the auspices of NordGen and the European Cooperative Programme for Plant Genetic Resources.

Since the establishment of NordGen in 2008, the collaboration within the Nordic region has been largely improved, and the network around NordGen is important for Norway and the National PGRFA Program. NordGen manages a shared Nordic genebank facility for seeds in Alnarp, Sweden, and is facilitating eight thematic working groups and several Nordic projects. This network is actively contributing to scientific discussions and in establishing collaboration on several levels in the Nordic region. A central part of NordGen Plants is the seven different Working Groups on plant genetic resources that together with the national programs constitute the very core of NordGen's network of Nordic experts. They are an important link between the Nordic and the national technical work within a specific species group. The working groups contribute with insights to each Nordic country's operations with genetic resources and is also important for knowledge exchange and network contacts.

Given the importance of strengthening capacities in breeding and ensuring adapted material in the Nordic region, Nordic co-operation has increased. In 2011, a Public-Private-Partnership (PPP) was established on pre-breeding in the Nordic and Baltic countries. The collaboration has led to eight pre-breeding projects targeting crops of particular importance in the Nordic region, such as perennial ryegrass, barley and fruit and berries. Norway's collaboration with international institutions has remained constant throughout many years and discussions within the European networks remain important for national planning and prioritization. Norway also remains an active counterpart in other international networks, such as the European Cooperative Programme for Plant Genetic Resources (ECPGR). This program is offering a platform for collaboration through 24 crop-specific working groups, where Norway is represented in 13, namely Allium, Avena, Berries, Brassica, Grain legumes, Malus/Pyrus, Medicinal and aromatic plants, Potato, Prunus, Umbellifer crops, Wheat, Cryopreservation and On-farm management. Norway also provided active participation in the development of the European Genetic Resources Strategy, through the European sector-specific networks ECPGR, EUFORGEN and ERFP.

Article 18: Financial Resources

35. Has your country provided financial resources for national activities for the conservation and sustainable use of PGRFA?

Please select only one option

- Yes
 No

35A. If your answer is 'yes', please provide the estimated amount of funds provided during the last five years, including government resources:

>>> Among Norway's funds provided for national activities for the conservation and sustainable use of PGRFA includes the following:

- Annual contribution to NordGen
- Annual funding of GRFA activities
- Support to domestic breeding
- Funding of National Genetic Resource Centre

Funding of these activities includes support to conservation and sustainable use of also animal and forest genetic resources for food and agriculture in addition to PGRFA. Due to the integrated funding to GRFA, it is difficult to precisely estimate the funding of PGRFA specifically.

35B. Please indicate if your country has developed a strategy or other measures to enhance the availability, transparency, efficiency and effectiveness of the provision of financial resources to implement the International Treaty:

>>>

36. Has your country provided financial resources for the implementation of the International Treaty?

Please select only one option

- Yes
 No

36A. If your answer is 'yes', where possible, please provide details of such channels and the amount of the financial resources involved during the last 5 years::

>>>

36B Channel:

- Bilateral
 Regional
 Multilateral

36C. Please provide details:

>>> Norway has provided an annual contribution to the Benefit-sharing Fund every year since 2009. The contribution equals 0,1% of the annual seed sales in Norway and is considered a monetary, voluntary benefit sharing. The annual amount the last years is approx. 100.000 USD. In addition, Norway supported the BSF with 30 Mill NOK in 2013 and 30 Mill NOK in 2022, and NOK 10 Mill in 2024.

Norway's support to CGIAR was NOK 140 mill in 2023, and NOK 140 mill in 2024. This support includes support to the Gene Bank initiative and other work of CGIAR that relates to the implementation of the Treaty, but also includes other activities of the CGIAR that is not, e.g. fisheries.

Norway has supported the ten year programme of the Crop Trust on Crop Wild Relatives. Norway is currently supporting Crop Trust's programmes cold BOLD and BOLDer. For both 2023 and for 2024 the support is NOK 75 mill each year.

Norway has supported Article 15 Gene Banks in collaboration with the Treaty with NOK 10 Mill in both 2023 and 2024.

Norway provides an annual support to the Treaty secretariat through the FAO's Flexible Voluntary Contributions (FVC).

Norway has established the Svalbard Global Seed Vault, which it manages and operates together with NordGen and Crop Trust. Annual funding support from Norway is about 12 Mill NOK.

37. Has your country received financial resources for the implementation of the International Treaty?

Please select only one option

- Yes
 No

37A. If your answer is 'yes', where possible, please provide details of such channels and the amount of the financial resources involved during the last 5 years:

>>>

37B. Channel:

- Bilateral
- Regional
- Multilateral

37C. Please provide details:

>>>

General remarks on the implementation of the ITPGRFA

38. You may use this box to share any advice you may have arising from your country's experience with implementation of the Treaty:

>>> It could be useful to have more guidelines adopted by the Governing Body in order to assist the implementation of several of the provisions, e.g. on on farm management, sustainable use and Farmers' Rights.

39. You may use this box to share any additional information that may be useful to provide a broader perspective of difficulties in implementation of the Treaty:

>>>

40. You may use this box to share any additional information that may be useful to provide a broader perspective of measures that could help to promote compliance:

>>> Suggestions for improvement of the reporting format:

- If would be useful if the online reporting format that can be edited by several people.
- "Lighter" compliance-procedure with fewer and more concrete questions that should be updated (online) on a more regular basis.
- Clearer division of labor between the Treaty and FAO's CGRFA, especially on reporting.

About this reporting

41. Have you encountered any difficulties in completing this reporting format?

Please select only one option

Yes

No

41A. If your answer is 'yes', please provide details on such difficulties:

>>>

41B. If you have suggestions for improvement of this reporting format, please share them:

>>>