Country Report on the implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

SLOVENIA

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International Treaty on Plant Genetic Resources for Food and Agriculture

Reporting on Compliance

(Standard Voluntary Reporting Format)

Additional Reporting Information

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REPUBLIC OF SLOVENIA

MINISTRY OF AGRICULTURE, FORESTRY AND FOOD

AGRICULTURE DIRECTORATE

ARTICLE 4: GENERAL OBLIGATIONS

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

YES

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

The law on ratification of the International Treaty on Plant Genetic Resources for Food and Agriculture (Official Gazette of RS, No. 100/2005)

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

YES

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

Agriculture Act (Official Gazette of RS, No. 45/08, 57/12, 90/12 – ZdZPVHVVR, 26/14 in 32/15);
Strategic plan on implementing the resolution on strategic guidelines for agricultural and food industry development by 2020;

The program for the phytosanitary field 2012 - 2015 (Decision of the Minister no. 007-506 / 2011, dated 13.2.2012);
The program of the Republic of Slovenia for the conservation and sustainable use of plant genetic resources for the period 2016 - 2017 (Decision of the Minister of Agriculture no. 33206-10 / 2015, dated 12.17.2015);
Guidelines for the development of local supply of herbs for the period 2016 - 2021 (Decision of the Minister of Agriculture no. 330-132 / 2015/9, dated 18 August 2016).

3. Is there any law, regulation, procedure or policy in place in your country that needs to be adjusted / harmonized1 to ensure conformity with the obligations as provided in the Treaty?

NO

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?

YES

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

YES

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:

Monitoring and inventory of plant species for food and agriculture began in the 50s and 60s of the last century primarily for the purpose of breeding. Since 1996, plant genetic resources are in Slovenia systematically collected, stored and maintened within the framework of the Slovenian plant gene bank (hereinafter SRGB).
For the greater part of the SRGB collections basic characterization of accessions has been made, for the smaller part as well partial evaluation.

KIS (Agricultural Institute of Slovenia) collection: 3220 accessions
Divided by crops:
Vegetables: 1466
Forage crops: 1033
Potato: 44
Cereals: 108
Small fruit: 169
Grape vine: 90
Fruit trees: 310

BF (University of Ljubljana, Biotechnical Faculty) collection: 1631 accessions
Divided by crops:
Cereals: 471
Maize: 614
Forage crops: 228
Fruit trees: 173
Medicinal and aromatic plants: 145

IHPS (Institute of Hops research and Brewery of Slovenia) collection: 262 accessions
Divided by crops:
Hops: 178
Medicinal and aromatic plants: 84

FKBV (University of Maribor, Faculty for Agriculture and Life Sciences): 327 accessions
Divided by crops:
Fruit trees: 197
Grape vine: 130

Total number of accessions in the SRGB collections is 5440, represented by total of 248 species.
Number of species in individual institutions:
KIS: 204
BF: 31
IHPS: 36
FKBV: 8

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

YES

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:

Within SRGB programme we monitor threats and risks to PGRFA at the individual Institutions dealing with PGRFA. For all accessions in the SRGB, there is a limited number of safety duplications provided. SRGB programme is amended with a plan to send the most important accessions to the Swalbard, which is dependent on the funds available in the future.

KIS:
Vegetable species; 40% of the total in the collection; poor or decreased seed germination rate due to the production under adverse weather conditions; slow regeneration turnaround; SRGB programme adapted; dependent on funds available in the future.

Forage species – grasses; 40% of the total in the collection; poor or decreased seed germination due to the production under adverse weather conditions; slow regeneration turnaround; SRGB programme adapted; dependent on funds available in the future.
Grape vine; 40% of the total in the GB; no designated location for a long term safekeeping; SRGB programme adapted; dependent on funds available in the future.

BF:
The seed accessions of ex situ conserved certain species, have low germination rate, depending on growing conditions (weather), inadequate level of ripeness at harvest and level of fatty oils (crops) or secondary metabolites (medicinal and aromatic plants) in seeds. Accessions of wild species are usually stored with a lower germination rate, which is also quickly lost, compared to the cultivated species.
The greatest risk for the loss of wild species genetic resources represents mainly overgrowth. Excessive harvesting in combination with the low abundance of the species, small number of populations and poor germination, are allready threatening genetic resources of Arnica montana.
Further threat for wild species is land use. Grazing endangers the Centaurium erythraea; premature mowing endangers Carum carvi and fertilizing, which threatens wild populations of Potentilla erecta, Centaurium erythraea, Thymus spp., Origanum vulgare, Galium verum.
For the future conservation of endangered populations is therefore important to evaluate endangered locations (land use, fertilising and other factors) together with the abundance of populations and their natural regeneration capacity (monitoring threats to populations of wild species).

IHPS:
Hops: Individual accessions, particularly those brought from faraway environments (Altai, Caucasus, ... about 20%) are at risk due to the not suitable habitat in the Slovenia ex situ collection; for certain accessions it is necessary to examine the appropriate substrate for the successful growth. Threats are mitigated by using different conditions; in vitro, greenhouse …
Medicinal and aromatic plants: 80 % of accessions are endangered. Individual accessions transferred from higher elevations are not growing well in the ex situ conditions (e.g. Garden of medicinal and aromatic plants) as well as those vegetative propagated, for instance Calamus. Seed of certain species have as well low germination rate. Given that most of the MAP accessions are cross-pollinated species, it is difficult to provide appropriate conditions for the production of seeds (pollination cages or isolated areas). For certain accessions it is necessary to examine the appropriate substrate for the successful growth. Threats are mitigated by using different conditions; in vitro, greenhouse …

FKBV:
Apricots are massively degrading due to not yet fully explained reasons (fungal diseases, phytoplasmas, rootstocks, …).
Vineyard peaches: In the past they were present in or by the vineyards, gardens and the backyard fences. Today they are disappearing for several reasons: (1) The winemaking has become intensive industry, (2) the wide use of herbicides, (3) hand mowing replaced by machines, (4) population is shrinking and as well genetic variability (increasing inbreeding),

(5) Vineyard peaches are of relatively short lifespan (trees grow old quickly), compared to other fruit species.
Depending on the specificity of the Vineyard peach the most reasonable mitigation is to maintain the genetic material as a population. Since trees quickly grow old and starting to deteriorate, the population should be restored and replaced with new seedlings every 5 to 6 years.

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?

YES

In Slovenia, we promote the production and use of old local varieties threatened by genetic erosion within the Rural Development Programme.

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

YES

In Slovenia, the use of old local varieties threatened by genetic erosion is supported under the Rural Development Programme.

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

NO

Some activities are planned, but it will be necessary to provide additional financial resources and appropriate legal basis, in cooperation with the institutions for nature conservation.

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

YES

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

The most important ex situ collections and plantations are located in multiple locations and Institutions:
-Kmetijski inštitut Slovenije – KIS (Agricultural Institute of Slovenia)
-Biotehniška fakulteta Univerze v Ljubljani – BF (University of Ljubljana, Biotechnical Faculty)

-Inštitut za hmeljarstvo in pivovarstvo Slovenije - IHPS (Institute of Hops research and Brewery of Slovenia)
-Fakulteta za kmetijstvo in biosistemske vede – FKBV (University of Maribor, Faculty for Agriculture and Life Sciences)

In total 5.440 accessions conserved and recorded in the SRGB database:
KIS: 3.220 ex situ accessions stored in the form of seeds and crop collections
BF: 1.631 ex situ accessions stored in the form of seeds and crop collections
IHPS : 262 ex situ accessions stored in the form of seeds and crop collections
FKBV: 327 ex situ accessions stored in the form of seeds and crop collections

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

YES

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:

Ex situ conservation of plant genetic resources takes place under the Slovenian plant gene bank (SRGB), which operates in accordance with international guidelines of the European Cooperative Programme for Plant Genetic Resources (ECPGR). In the future, we also plan to introduce a quality system in gene banks (Aegis Quality System - AQUAS) with the support of funds of Rural development program.
The ECPGR is a collaborative programme among most European countries aimed at ensuring the long-term conservation and facilitating the increased utilization of plant genetic resources in Europe.

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

YES

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

The maintenance of the viability, degree of variation, and the genetic integrity of ex situ collections of PGRFA have been monitored in the context of the annual programs and reports of the Slovenian plant gene bank and by individual collections of agricultural plants (germination, characterization and evaluation) and the various international and national research projects.

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?

YES

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 other Treaty mechanisms) and, where possible, details of any relevant projects:

Slovenia is a member of and participate in ECPGR working groups and projects.

ARTICLE 6: SUSTAINABLE USE OF PGR

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

YES

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; YES
- Strengthening research that enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers; YES
- 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; YES
- Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers; YES
- Promoting the expanded use of local and locally adapted crops, varieties and underutilised species; YES
- 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; YES
- Reviewing and adjusting breeding strategies and regulations concerning variety release and seed distribution. YES

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

Strategies and legislation in the field of agriculture and food provide support for diversity of production systems in the context of direct payments - the green component, support for the production and use of old local varieties threatened by genetic erosion within the Rural Development Programme, support for research projects in the field of conservation and sustainable use of plant genetic resources, funds for public breeders' programs, a system for

the registration of new varieties or re-introduction of old local varieties and the principle of so-called Conservation varieties in accordance with the legislation on the production and marketing of seeds and propagating material.

Basic payments: Each farmer, who is entitled to receive the basic payment, will receive also the greening payment per hectare of agricultural area. There are three mandatory practices, namely:
- crop diversification: farmers must grow at least two different crops where their arable land exceeds 10 hectares and at least three where it exceeds 30 hectares; the main crop may cover no more than 75% of the arable land, and the two main crops no more than 95%;
- maintaining permanent grassland, in particular environmentally sensitive permanent grassland, which is not allowed to be changed into other uses or ploughed;
- an 'ecological focus area' (EFA), covering at least 5% of the arable area of the holding, if a farmer has more than 15 hectares of arable land. In Slovenia, a farmer can fulfil this practice by land lying fallow, catch crops or green cover or by nitrogen-fixing crops.

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 agriculture and rural development programmes and policies?

YES

If your answer is 'yes', please provide details of the integration of such activities into the agriculture and rural development programmes and policies:

In the context of changes in the Rural Development Programme 2014-2020 a new specific measure for the conservation and sustainable use of plant genetic resources was approved. This action provides support to operators in the field of monitoring and inventory PGR, systematic C & E for selected accessions by the priorities and the establishment of a manual or a quality system in accordance with the guidelines of AEGIS.

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

YES

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; YES
- 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. NO

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:

Slovenia is a member of and participate in ECPGR in working groups and 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?

YES

Within the SEEDNet project (South East European Development Network on Plant Genetic Resources) the regional network was established in 2004, whose members were institutions from the South Eastern Europe. The purpose of the SEEDNet was to assist national programmes in the region and to improve work in the field of conservation of genetic resources and their sustainable use. Financing was provided by the Swedish International Development Agency (Sida) for the period from 2004 to 2010, in the year 2011 funding for the project ended.

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

YES

Slovenia is a member of and participate in ECPGR in working groups and projects.

ARTICLE 9: FARMERS RIGHTS

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

YES

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; YES
- The protection of traditional knowledge relevant to PGRFA; YES
- The right to equitably participate in sharing benefits arising from the utilisation of PGRFA; NO

- The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA; YES
- Any rights that farmers have to save, use, exchange, and sell farm-saved seed / propagating material. NO

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

The Minister for agriculture and food appointed the Council and the Working Group on Genetic Resources and Biodiversity in agriculture and food in 2011 and 2014.

ARTICLE 11: COVERAGE OF MLS

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

ALL

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

In principle, all PGRV are included in the MLS system, but not all are available and the list of available PGRV has not yet been published. PGRV are available on the basis of individual inquiries.

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

- The extent to which Annex I PGRFA have been included in the MLS;
- The crops that have been included in the MLS; and
- The difficulties encountered in including Annex I PGRFA in the MLS:

NA

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

NA

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

YES

NGO's or natural persons are donating or exchanging the genetic resources material to SRGB Institutions, through which those are included in the MLS. One PGRFA collection outside SRGB is in the process of inclusion in the MLS. The SRGB started additional promotion activities to include other public or private PGRFA collections in to the common data system and MLS.

ARTICLE 12: FACILITATED ACCESS TO PGR WITHIN MLS

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

YES

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

In 2009, the Ministry of Agriculture, Forestry and Food - then Phytosanitary Administration, issued guidance on the implementation of the multilateral system including with standard material transfer agreement. Guidance have been received and applied by all the institutions involved in the program of conservation and sustainable use of plant genetic sources.

23. Has facilitated access been provided in your country to Annex I PGRFA pursuant to the standard material transfer agreement (SMTA)?

YES

If your answer is 'yes', please provide the number of SMTAs entered into:

To date 18 SMTA's were issued (KIS: 15, BF: 3, IHPS: 0 in FKBV: 0)

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

YES

If your answer is 'yes', please indicate the number of such SMTAs entered into:

To date 3 SMTA's issued 3 SMTA-ji (BF: 3)

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?

NO

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

NO

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

NO

ARTICLE 13: BENEFIT-SHARING IN THE MULTILATERAL SYSTEM

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

NO

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

YES

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

- Has established or participated in crop-based thematic groups on utilisation of PGRFA; YES
- 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. NO

If access to technologies was provided, please provide details of the access provided:

Slovenia is a member of and participates in ECPGR in working groups and projects within research projects at home and abroad.

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

YES

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; YES
- Developing and strengthening facilities for conservation and sustainable use of PGRFA; YES
- Carrying out scientific research and developing capacity for such research. YES

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

SRGB Institutions are participating in the ECPGR in working groups and projects.

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?

YES

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

- National actions; YES
- International cooperation; YES

If the implementation of the plan was promoted, please provide details:

GPA is implemented through annual SRGB programmes, or more accurately over a two-year programme for the conservation and sustainable use of PGRFA 2016-2017 and promoted through consultations on the conservation and sustainable use of plant genetic resources and other consultations and conferences in the field of agriculture and food nationally. Institutions which form SPGB are engaged in the ECPGR activities and other international projects.

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?

YES

No demand for Slovenian accessions so far.

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?

YES

No demand for Slovenian accessions so far.

ARTICLE 16: INTERNATIONAL PGR 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?

YES

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

Ministry of Agriculture, Forestry and Food ensures the participation of Slovenian experts in the program ECPGR with the signing of the cooperation agreement and the annual contribution.

ARTICLE 18: FINANCIAL RESOURCES

35. Has your country provided and/or received financial resources for the implementation of the Treaty through bilateral, regional or multilateral channels?

YES

If your answer is 'yes', where possible, please provide details of such channels and the amount of the financial resources involved:

The annual contribution of Slovenia, as the member country of ECPGR, is 6.500 EUR durnig Phase IX.

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

YES

If your answer is 'yes', please provide details of such national activities and the amount of the financial resources involved:

In the periode from 2004 to 2014 Ministry of agriculture, Forestry and Food provided financial resource for Gene bank – SRGB and the amount was 165.000 EUR per year on everage.

ABOUT THIS REPORTING FORMAT

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

NO

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:

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: