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

LEBANON

31/01/2017

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:
› Ratification Law of the International Treaty on Plant Genetic Resources for Food and Agriculture (Law No. 559 dated 11/2/2004).
National law draft on The Management of Plant Genetic Resources for Food and Agriculture: LARI as focal point to the ITPGRFA has prepared a national law draft on The Management of Plant Genetic Resources for Food and Agriculture with the assistance of Arab Organization for Agricultural Development (AOAD). This draft notes indicated that the Minister of Agriculture shall be responsible for the implementation of this Law advised by the National PGRFA committee, and LARI shall be responsible for carrying out the functions assigned to the authority under this law. The draft law was submitted recently to the Council of Ministers for approval and for submission to the Parliament for endorsement.
A National Plant Genetic Resources Committee is established by the Minister of Agriculture (Decision 394, date 12/05/2014). It consists of germplasm curators, plant breeders, seed system, import export services, academicians and researchers in genetics, plant biology, environmental sciences, and private sector. The mission of this National PGRFA Committee is to provide advisory functions to the Ministry of Agriculture (and other entities involved in the management of PGRFA) and the practical mechanism for coordination and fostering synergies among various stakeholders.
National Strategy for Conservation and Management of Plant Genetic Resources for Food and Agriculture in Lebanon (2015-2035): within the framework of TCP/SNO/3401 FAO project “Optimizing the Use of Plant genetic Resources for Food and Agriculture for Adaptation to Climate Change” and based on the PGRFA assessment and recommendations stated in the “Lebanon Second Country Report on the State of plant Genetic Resources for Food and Agriculture”, the National Strategy for Conservation and Management of Plant Genetic Resources for Food and Agriculture in Lebanon was developed by the National PGRFA Committee, under the coordination of the Ministry of Agriculture. The strategy addresses the national development planning for agriculture, environment and socio-economic sectors. It aims to create/strengthen/rationalize coordination among involved PGRFA stakeholders and players within the ministries of agriculture and environment for an efficient management of PGRFA in the country with respect to the priority areas of the second FAO Global Plan of Action relevant to conservation, sustainable use, policy and building capacities.

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:
› Lebanon has a lot of legislations and regulations indirectly related to PGRFA. These legislations are originally meant to regulate and protect the environment and include the following laws:
Law 256-1994: Framework Convention on Climate Change prepared by the Ministry of Environment, with the objective of promoting in situ conservation of crop wild relatives;
Law 260-1995: Convention on Biological Diversity prepared by the Ministry of Environment with the objective of developing, monitoring, and early warning systems for loss of PGRFA;
Law 469-1995: Convention on combating desertification prepared by the Ministry of Environment with the objective of promoting sustainable agriculture;
Law 444-2002: Protection of the Environment prepared by Ministry of Environment and aiming at the conservation and the sustainable use of biodiversity through the protection of its natural resources.
Law 233-2012 : authorizing the Government of Lebanon to join the CITIES
Law 44-2008: authorizing the Government of Lebanon to join the Cartagena Protocol on Biosafety
Signature by the Government of Lebanon of the Nagoya protocol February 2012
Ministerial decisions regulating the wild harvesting of two medicinal and aromatic species (sage and oregano): Significant progress has been made in terms of PGRFA conservation through the issue in 2012 of two ministerial decisions regulating the wild harvesting of two medicinal and aromatic species (sage and oregano), in accordance with sustainability criteria (time, quantity, method), as well as the terms related to the transport and export of these species. Under this new decision, a permit must be obtained for all sage and oregano collected in Lebanon for commercial purposes.
A draft law regulating the access to the biological and genetic resources of Lebanon and the benefit sharing arising from their utilization, through the UNDP/GEF Top-Up Biodiversity Enabling Activity project and with the technical assistance of the Initiative for Biodiversity Studies in Arid Regions at the American University of Beirut (IBSAR/AUB). The draft law was submitted recently to the Council of Ministers for approval and for

submission to the Parliament for endorsement
Presentation of a draft law authorizing the Government of Lebanon to join the protocol concerning Specially protected areas and biological diversity in the Mediterranean under Barcelona Convention

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.
› After the first flora assessment undertaken in the thirties (Post and Dinsmore, 1933) and the sixties (Mouterde, 1966), the biodiversity country report developed by the Ministry of agriculture delivered an assessment of the flora diversity in Lebanon. Later on, the Ministry of Environment delivered an assessment of the flora diversity in the Nature Reserves through the Protected Areas project (MoE/GEF/UNDP, 1996-2001) and the MedWestCoast project (MoE/FFEM/UNDP, 2002-20065).
Other scattered efforts have been undertaken in this regard through research activities by LARI, universities and non-governmental organizations. It is the case of the “Certification project” executed by LARI which aimed at performing clonal selection and pomological description of stone fruits and grapevine and the “Olive RESGEN project” aiming at selecting local olive varieties and supported by the International Olive Oil Council.
Nevertheless, yet no mechanisms are set for regularly assessing genetic erosion and monitoring it in the country

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;
› Recently four species namely Punica granatum, Juniperus excelsa, Origanum syriacum, and Ficus indica from eleven surveyed during 2013-2015 and 65 landraces of wheat and barley from 130 are considered as threatened with a rate of 36% and 50% respectively. This is due to various anthropogenic pressures e.g. lack of awareness, adoption of new high yielding varieties, land reclamation, climate change and overgrazing.
Nevertheless, numerous crops in Lebanon remain to be surveyed and inventoried in terms of varieties.
N.B.: We have not carried out any crop-targeted threat assessments yet.

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:
› Few activities limited to specific projects have been achieved in collaboration with international institutes in

order to strengthen ex-situ conservation of plant genetic resources including threatened species:
The Lebanese Agriculture research Institute (LARI) in collaboration with ICARDA collected 1969 accessions of wild wheat relatives and forage species in addition to many landraces of cereals and legumes from the Bekaa valley during 1992-1994. These collected accessions were conserved in ICARDA gene bank.
A project entitled "Collecting Crop Wild Relatives in Lebanon" was conducted in the Lebanese Agricultural Research Institute in collaboration with Kew's Millennium Seed Bank of the Royal Botanic Gardens, funded by the Norwegian Ministry of Foreign Affairs, with the objective of reducing the gaps of ten crops listed in the Annex 1 of the ITPGRFA: oat, pea, chickpea, barley, grass pea, lentil, alfalfa, rye, bread wheat, common vetch
Other small projects are carried out by LARI and the Faculty of Agriculture of the Lebanese University working mainly on the inventory of fruit species e.g. olive, fig, almond, loquat, pomegranate, prickly pear in addition to wheat and barley.

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:
› Few efforts were conducted under the umbrella of the project entitled Conservation and Sustainable Use of Dry-land Agro-Biodiversity of the Near East. This project aims at promoting the conservation and preservation of important wild relatives and landraces of agricultural species indigenous in Lebanon by promoting in-situ and on-farm mechanisms for the conservation and sustainable use of agro-biodiversity. The main project activities included: conducting eco-geographic surveys of crop target species, promoting alternative land use practices, national awareness and capacity building in conservation and sustainable use of agrobiodiversity, providing training in in-situ and on-farm conservation techniques, suggesting modification of legislations and land use rights to promote the conservation and sustainable use of agrobiodiversity.

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:
› In-situ conservation and management of genetic resources has increased in Lebanon over the recent years. This is reflected by an important increase in the number of protected areas spread across the country. Fourteen Nature Reserves have been established by law since 1992. They are: Al Shouf Cedars (Law 532, 24/7/1996), Tannourine Cedar Forest (Law 9, 20/2/1999), Horsh Ehden (Law 121, 9/3/1992), Bentael (Law 11, 20/2/1999), Yammouneh (Law 10, 20/2/1999), Palm Islands (Law 121, 9/3/1992), Tyre Coast (Law 708, 5/11/1998), Wadi Hujeir Reserve (Bent Jbeil, Marjayoun, and Nabatieh cazas; Law 121, 23/7/2010), Shnanir Nature Reserve (Kesrouan; Law 122, 23/7/2010), Kafra (Bent Jbeil; Law 198, 18/11/2011), Ramia (Bent Jbeil; Law 199, 18/11/2011), Debl (Bent Jbeil; Law 200, 18/11/2011), Beit leef (Bent Jbeil; Law 201, 18/11/2011), and recently Jaj Cedars (Jbeil caza, Law 257, 15/4/2014) . Al-Shouf Cedar Nature reserve is the largest Nature Reserve in Lebanon, covering nearly 2% of Lebanese territory. In Horsh Ehden, the amount of plant species recognized till now accounts for nearly 40% of plant species in Lebanon (1,058 plant species). Management plans were developed for some of the nature reserves and other protected areas to identify the activities needed for the protection and conservation of biodiversity and for the sustainable use of the sites.
Additionally, several relevant projects on in situ conservation of biodiversity have been undertaken by MoE particularly the “Strengthening of National Capacity and Grassroots in situ Conservation for Sustainable Biodiversity Protection” project or Protected Areas Project (MoE/GEF/UNDP; 1996-2001); The Conservation of Wetlands and Coastal zones in the Mediterranean or MedWetCoast project (MoE/FFEM/UNDP; 2002- 2006); The “Integrated management of cedars forests in Lebanon in collaboration with other Mediterranean countries” Project (MoE/ UNEP/GEF in collaboration with AUB; 2004-2007); The “Stable Institutional Structure for Protected Areas Management (SISPAM) Project”(MoE, EC LIFE; 2004-2007).

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:

› Currently LARI national gene bank is holding 802 crops stored under long term conditions. These crops comprise wild edible, medicinal, aromatic, wild relatives of cultivated crops, wild forages, endemic species, and a great number of wheat and barley landraces, improved varieties of wheat, barley, lentil, chickpea, and vetch. In addition main crops of olive, grape, stone fruit, citrus species and caper were conserved in the field gene bank of LARI. See http://www.pgrfa.org/WIEWS and WWW.AOAD.ORG/GB

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:
› The Lebanese Agricultural Research Institute support the activities of the national seed bank in order to promote ex-situ conservation of PGRFA:
In July 2013, LARI seed bank has been officially launched and assigned as the National Gene Bank of Lebanon. Accessions are conserved only under long term conditions at -20°C. The human, financial and the infrastructure capacity were increased 20%, 35% and 100% respectively since 2010. Concerning active collection a cold room at 4°C was established recently through FAO project (TCP/SNO/3401) in order to facilitate the exchange of plant material through SMTA.
LARI allocates part of its annual budget for the conservation, characterisation, evaluation and use of PGRFA in general without specific reference to the MLS.
However, national, regional and international support is needed to provide the seed bank by human resources and plastic tunnels for seed regeneration.

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
› The regeneration of ex situ accessions is quietly absent in Lebanon. Only two limited activities were carried out for multiplication and germination test. Regional and international support is needed to perform regenerations for self- and cross-pollinated and vegetatively propagated crops according to international standards

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:

› The Lebanese Agriculture research Institute (LARI) carried out many activities in collaboration with different international institutions such as:
LARI in collaboration with ICARDA collected 1969 accessions of wild wheat relatives and forage species from the Bekaa valley during 1992-1994. These collected accessions were conserved in ICARDA gene bank. Furthermore, an access and benefit sharing agreement was signed in 2000 between LARI and Royal Botanic Gardens Kew in order to study and conserve the Lebanese flora through the establishment of a verified and well-documented seed collection and herbarium specimens. More than 1351 wild accessions representing 972 species are stored both at LARI and RBG seed banks
Within the cooperation project “Social and economic support for the olive-growing in marginal land regions in Lebanon (l’Olio de Libano)”, funded by the Italian Ministry of Foreign Affairs and implemented by the Ministry of Agriculture of Lebanon, the Lebanese Agricultural Research Institute and the CIHEAM Bari (Italy), investigations were carried out in Lebanon from March 2009 to March 2012 in order to characterize the morphological, bio-agronomical, phonological, sanitary and oil features of the main Lebanese olive varieties.
Concerning documentation, the most relevant one is the first Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (GPA1). It was developed for Lebanon in 2006 through the establishment of the National Information Sharing Mechanism (NISM) as an efficient tool for the implementation of ITPGRFA components through various national priority activities including in situ and ex situ conservation and sustainable utilization of PGRFA. More recently and in

collaboration with the relevant stakeholders, the National monitoring officer of TCP/SNO/3401 updated 38 questions of the reporting format which were revised by the National PGRFA committee. Lebanon data was uploaded to FAO website (http://www.pgrfa.org/WIEWS) by January 2014. Besides, NISM objective is also to improve countries' capacity in exchanging and analyzing PGRFA information for future planning and is currently being updated.
Within the framework of the FAO regional project entitled "Optimizing the Use of Plant Genetic Resources for Food and Agriculture for Adaptation to Climate Change" (TCP TCP/SNO/3401), a pilot dynamic regional plant genetic resources knowledge and innovation management network of national components (PGR network) was developed in August 2014. Lebanon Data were filled up by the National Monitoring Officer of the Second Global Plan of Action in collaboration with 29 Lebanese stakeholders representing 14 institutions related to Plant genetic Resources. A set of information including 31 institutions, 29 members, 76 projects, 37 publications, 4 innovations, 4 presentations and some photos were already provided to the platform by September 2014 (http://www.lebanon.plantgenetic.com/).
For more information see (http://www.lebanon.plantgenetic.com/) and (http://www.pgrfa.org/WIEWS)

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:

› Within the framework of TCP/SNO/3401 FAO project “Optimizing the Use of Plant Genetic Resources for Food and Agriculture for Adaptation to Climate Change” and based on the PGRFA assessment and recommendations stated in the “Lebanon Second Country Report on the State of Plant Genetic Resources for Food and Agriculture”, the “National Strategy for Conservation and Management of Plant Genetic Resources for Food and Agriculture in Lebanon” was developed under the coordination of the Ministry of Agriculture (2015).
The strategy was finalized by the National PGRFA Committee and then discussed and validated by a number of public and private Lebanese institutions involved in PGRFA management during the national stakeholders workshop held in Beirut on 19 May 2014.
The strategy addresses the national development planning for agriculture, environment and socio-economic sectors. It aims to create/strengthen/rationalize coordination among involved PGRFA stakeholders and players within the ministries of agriculture and environment for an efficient management of PGRFA in the country with respect to the priority areas of the second FAO Global Plan of Action (second GPA) relevant to conservation, sustainable use,policy, and building capacities. It will align the PGRFA relevant activities with other long-term national development plans, e.g. National Biodiversity Strategies and Action Plans (NBSAP)and the Aichi Biodiversity Targets of the Convention on Biological Diversity.
In this context, the main goals of the strategy are the following:
a) to ensure the conservation of PGRFA as a basis for food security, sustainable agriculture and poverty reduction by providing a foundation for current and future use;
b) to promote sustainable utilization of PGRFA as well as to provide options for adapting to and mitigating climate change and responding to food, feed and other needs;
c) to promote the exchange of PGRFA and relevant data between holders, users, seed producers and farmers;
d) to foster economic development through PGR value chain products;
e) to set the conceptual bases for the development and adoption of national policies and legislation, as appropriate, for the conservation and sustainable use of PGRFA;
f) to assist relevant stakeholders in identifying priorities for action;
g) to strengthen national programmes including research, education and training on the conservation and use of PGRFA and to enhance institutional capacities;
h) to promote information sharing and cooperation on PGRFA among national stakeholders and institutions, to ensure cost efficiency, complementarities, and effectiveness in efforts to conserve and sustainably use PGRFA;
i) to promote information sharing and partnerships within the region and with international organizations;
j) to strengthen the implementation of the ITPGRFA and other international tools.
The implementation of the National PGRFA Strategy will certainly require several years of efforts and the involvement of a diverse range of specialists and institutions. Annual planning and budget availability are essential. Enabling capacities should be ensured in line with specific objectives of the National Plan of Action.

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?
Please select only one option
☑ Yes
☐ No

15A. If your answer is 'yes', please provide details of the integration of such activities into the agriculture and rural development programmes and policies:
› As explained earlier (question number 14)

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:
› As explained earlier (question number 13)

Article 8: Techical 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

17A. If your answer is 'yes', please provide details of the measures taken
› We don’t have the capacity or resources to do so. In fact, we are seeking technical assistance and support from developed countries and international organisations and funding agencies to do so

18. Has your country received technical assistance with the objective of facilitating the implementation of the Treaty?
Please select only one option
☑ Yes
☐ No

18 A. If your answer is 'yes', please provide details of such technical assistance:
› Recently a project entitled "Collecting Crop Wild Relatives in Lebanon" was conducted in the Lebanese Agricultural Research Institute in collaboration with Kew's Millennium Seed Bank of the Royal Botanic Gardens, funded by the Norwegian Ministry of Foreign Affairs, with the objective of conservation, identification of ten crops listed in the Annex 1 of the ITPGRFA

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:
› Until now no farmers’ rights legislation or projects serving such rights have been developed in Lebanon except the LARI/GEF/UNDP Agrobiodiversity project. In some rural villages the project prioritized the on-farm conservation and use of local herbaceous landraces and fruit trees and establish a mechanism for processing traditional foods with added value.
With the full implementation of ITPGRFA in Lebanon, the Government should be able to further implement Farmers’ Rights according to the article 9 of the treaty and develop the adequate legislations in this regard.

Article 11: Coverage of the Multilateral System

20. Has your country included in the Multilateral System of Access and Benefit-Sharing (MLS) all PGRFA listed in Annex 1 to the Treaty that are under the mangement and control of your Government and in the public domain?
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 National Focal Point of The International Treaty on Plant Genetic Resources for Food and Agriculture (LARI) sent an e mail to the to the secretariat of the treaty (30/5/2015), about a list of 227 accessions represented 37 species listed in Annex 1 of ITPGRFA. These accessions exist in the National seed Bank of The Lebanese Agricultural Research Institute and are available, for exchange through MLS. The list was documented on FAO website (http://www.pgrfa.org/WIEWS) by January 2014.
N.B.: In principle, all PGRFA are included in the MLS system, but not all are available

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

The extend 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:
›

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:
›

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:
› We have not put any measures in place yet.

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:
› LARI as the focal point of ITPGRFA is the authorised agency for the facilitation of any material transfer agreements including the SMTA

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 pursuant to the standard material transfer agreement (SMTA)?
Please select only one option
☑ Yes
☐ No

23A. If your answer is 'yes', please provide the number of SMTAs entered into:
› Many accessions were distributed by the national genebank to users, including three accessions of wheat landraces provided to the Norwegian University of life science (Department of Plant and Environmental Sciences) and 50 accessions of barley landraces were provided to the Center of Biotechnology for Cedria Borj in Tunisia (CBBC) under Standard Material Transfer Agreement.

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

24A. If your answer is 'yes', please indicate the number of such SMTAs entered into:

›

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:
› No data

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:
› No data

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?

☑ Yes
☐ No

28A. If your answer is 'yes', please provide details of any information made available regarding Annex 1 PGRFA (e.g. catalogues and inventories, information on technologies, results of scientific and socio-economic research, including characterisation, evaluation and utilisation):
› Several isolated activities and projects related to public awareness have been implemented by LARI, Ministry of Agriculture and universities. These projects developed awareness outputs such as leaflets, posters, reports and media (radio, TV, internet, educational events). There is an urgent need to implement a national programme for public awareness on the value of PGRFA in the country, with the support of regional and international organizations, involving educational institutions and NGOs, on the role of communities and farmers to promote PGRFA conservation and utilization.
In the other hand Lebanon provide information about the list of accessions related to the annex 1 of the treaty conserved in LARI seed bank. For more information see the website: http://www.pgrfa.org/WIEWS

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

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

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.

29B. If access to technologies was provided, please provide details of the access provided:
› LARI facilitates access to technologies; it allocates part of its annual budget for the conservation, characterisation, evaluation and use of PGRFA in general without specific reference to the MLS. However, national, regional and international support is needed to cover the required needs.
Through the long-term collaboration between Lebanon (LARI) and Kew’s Millennium seed Bank of the Royal Botanic Gardens, a national seed bank was established in Lebanon.

30. Has your country provided for and/or benefitted from capacity building measures in respect of Annex 1 PGRFA?
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:
› Recently within the frame work of FAO project (TCP/SNO/3401) a cold room at 4°C was established in the national gene bank (LARI) in order to facilitate the exchange of plant material through SMTA and MTA.

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 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

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

31B. If the implementation of the plan was promoted, please provide details:
› Lebanon is conducted a number of activities in collaboration with local and international institutes to implement the GPA these include:
Surveying and inventorying of PGRFA have not yet been considered officially by the Government but rather by some institutions and scientists. Different surveys were executed by projects related to plant genetic diversity and conducted by the Lebanese Agricultural Research Institute in collaboration with CNRS, MoA, GEF, UNDP and Lebanese University.
Ex-situ conservation: Actually, many collections have been made, seed bank and field gene bank were established at LARI.
In-situ conservation: in-situ conservation and management of genetic resources has increased in Lebanon over the recent years. This is reflected by an increase in the number of protected areas spread across the country. Fourteen Nature Reserves have been established by law since 1992.
Uses of PGRFA: In Lebanon, the characterization and evaluation of plant genetic resources is mostly limited to morphological descriptors and agronomical traits. It has been applied so far to landraces and improved varieties of fruit trees, olive, field crops and some vegetables. Molecular characterization has only been applied to a limited number of crops using European funds. Financial and technical supports are needed to expand plant genetic resources characterization and evaluation by using advanced techniques, strengthening skills and acquiring adequate equipments. Only breeding activities of cereals and food legumes have been carried out in Lebanon and in collaboration with ICARDA. They are limited to wheat, barley, chickpea and lentil. Regarding fruit tree species, breeding activities are restricted to some clonal selection activities that have been recently conducted for stone fruits and grapevines. There is an urgent need to establish a national strategy for the breeding and improvement of priority crops to Lebanon.

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:
› As explained earlier, in the early nineties, when LARI did not have the facilities of ex-situ conservation, much of the crop germplasm was taken out for safe keeping in international gene banks (ICARDA and Royal Botanic Garden Kew).
In addition access is available when it has been requested.

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:
› Same answer as 32 A

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:
› Lebanon is a member of The Near East North Africa Plant Genetic Resources Network (NENAPGRN) that was established as part of the Association for Agriculture Research institutions in the Near East and North Africa (AARINENA) family of networks with the aim to strengthen collaboration and coordination in order to ensure collective efforts in the conservation and sustainable utilization of Plant Genetic Resources
Lebanon is a member of The Near East North Africa olive network that was established as part of the Association for Agriculture Research institutions in the Near East and North Africa (AARINENA) with the aim of strengthening cooperation among national, regional and international research institutions and centers through the dissemination and exchange of information, experiences and research results.
In addition Lebanon was developed a National Information Sharing Mechanism (NISM) as an efficient tool for the implementation of ITPGRFA components through various national priority activities including in situ and ex situ conservation and sustainable utilization of PGRFA. More recently and in collaboration with the relevant stakeholders, the National monitoring officer of TCP/SNO/3401 updated 38 questions of the reporting format which were revised by the National PGRFA committee. Lebanon data was uploaded to FAO website (http://www.pgrfa.org/WIEWS) by January 2014.
Within the framework of the FAO regional project entitled "Optimizing the Use of Plant Genetic Resources for Food and Agriculture for Adaptation to Climate Change" (TCP TCP/SNO/3401), a pilot dynamic regional plant genetic resources knowledge and innovation management network of national components (PGR network) was developed in August 2014. Lebanon Data were filled up by the National Monitoring Officer of the Second Global Plan of Action in collaboration with 29 Lebanese stakeholders representing 14 institutions related to Plant genetic Resources. A set of information including 31 institutions, 29 members, 76 projects, 37 publications, 4 innovations, 4 presentations and some photos were already provided to the platform by September 2014 (http://www.lebanon.plantgenetic.com/).

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?

Please select only one option
☑ Yes
☐ No

35A. If your answer is 'yes', where possible, please provide details of such channels and the amount of the financial resources involved:
› Lebanon has received funds from:
Royal Botanic Gardens Kew,
FAO (TCP/SNO/3401 project),
Norwegian (Ministry of Foreign Affairs).

36. Has your country provided financial resources for national activities for the conservation and sustainable use of PGRFA?
Please select only one option
☑ Yes
☐ No

36A. If your answer is 'yes', please provide details of such national activities and the amount of the financial resources involved:
› The Lebanese Agricultural Research Institute that allocate part of its budget for the conservation, characterisation, evaluation and use of PGRFA.
The NCSR will consider supporting the establishment of an Associated Research Unit (URA) serving as specific platform for PGR characterization, in situ conservation and on farm management and liaising partners from various relevant institutions

About this reporting format

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

Please select only one option
☐ Yes

›
☑ No

37A. If your answer is 'yes', please provide details on such difficulties:
›

37B. If you have suggestions for improvement of this reporting format, please share them:

› No suggestions

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:

› No answer

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:

› No answer

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:

› No answer