



Food and Agriculture  
Organization of the  
United Nations



**The 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)**

**UGANDA**

**(18 March 2022)**



## **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](mailto:PGRFA-Treaty@fao.org).

## **Additional Reporting Information**

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>>> National Agricultural Research Organization.  
National Agricultural Research Laboratories.  
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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 National Seed Policy 2018 and the National Seed Strategy support the implementation of the treaty through the following policy statements and strategies;

Policy Statement: Government will support the development of farmer and market preferred varieties for both commercial, food and nutrition security crops.

Strategies (i). Support the public and private sector to develop and promote new commercial, food and nutrition security crop varieties; (ii). Facilitate community-based seed producers to access basic seed of food crop varieties for multiplication.

Policy Statement: Government will ensure a viable and effective protection and exchange of germplasm for crop improvement.

Strategies (i). Strengthen the mapping and creation of variety registers at national level and within communities; ii. Develop a new law to protect and preserve indigenous knowledge of local National Seed Policy 10 Policy Statement: Government will create an enabling environment for seed companies to produce and supply sufficient quantities of high quality certified seed. Policy Statement: Government will strengthen the capacity for production of quality seed for crops that have low profit margins for seed companies. Varieties and effectively protect community intellectual property rights; iii. Promote and build capacity of farmer and community groups including those led by women and youth to conserve crop varieties that have a high food security value; iv. Enhance the development of community seed banks.

Policy Statement: Government will strengthen the capacity for production of quality seed for crops that have low profit margins for seed companies

Strategies i. Promote and build capacity of market-oriented farmers to produce, use and market quality seed with the focus on crops and varieties that have a high food security and nutritional value; ii. Strengthen participatory variety selection to enhance adoption of new improved varieties;

- The National Agricultural Research Organization (NARO) Strategic Plan 2018, outlines the following strategies that are in line with the implementation of the treaty; a) Enhancing conservation and harnessing genetic resources. NARO recognizes the importance of indigenous genetic resources. Therefore, efforts will be intensified to protect, preserve and conserve genetic resources. Bio-prospecting will be enhanced to increase new products on the market and widen the use of genetic resources. b) Enhancing Natural Resource Management. Natural resources are the basis on which agricultural technologies and innovations are built. NARO will continue to develop technologies, innovations and management practices that enhance environmental resilience and sustainability of natural resources.

- The Plant variety Protection Act, 2014, provides for a royalty to conservation and development of crops, which royalty shall be paid to the community gene fund. However, this has not been operationalized yet.

- The Second National Development Plan 2015 - 2020, had targets to ensure sustainable food production systems and resilience agricultural practices that increase productivity, maintain eco-systems and adaption to climate change by 2030. It also had a target of maintaining genetic diversity of seeds and cultivated plants by 2020.

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:

>>> - The National Biodiversity Strategy and Action Plan 11(2015-2025) whose goal is to enhance biodiversity conservation, management and sustainable utilisation and fair sharing of the benefits.

- The National Environment Act Cap 153 provides for the over-all management, coordination and monitoring of environment management and conservation in Uganda. It provides for the protection and conservation of natural resources in Uganda as well as promotion of international cooperation in the field of the environment.

- The National environment (Access to genetic resources and benefit sharing) Regulations, 2005 and guidelines for accessing genetic resources and benefit sharing in Uganda, 2007 developed under the parent law (the National Environment Act, Cap 153).

- The Wildlife Act Cap 200 which provides for the Protection of rare, endangered and endemic species of wild plants.

- The Local Government Act, 1997 provides for Management of Local Forest Reserves and for over-all development of forestry resource within the distrThe Plant Protection Act, Cap 31 provides for (a) Prevention of the introduction and spread of diseases destructive to plants. (b) Regulating introduction of exotic plant

materials and managing the spread of plant disease or those plants capable of out competing dangerous plants (invasive species).

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:

>>> - The National environment (Access to genetic resources and benefit sharing) Regulations, 2005 and guidelines for accessing genetic resources and benefit sharing in Uganda, 2007 does not provide for the Multilateral system under the Treaty. The three key institutions namely National Agricultural Research Organisation, National Environment Management Authority and Uganda National Council for Science and Technology developed a MoU spelling out collaboration in development of a comprehensive regulatory regime, which includes access to PGRFA and benefit sharing.

## 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.

>>> - 119 Eco geographical surveys and inventories of genetic resources variation and utilization on 11 crops of wheat, carrots, faba beans, mangoes, rice, pearl millet, finger millet, coffee, beans, tea and sesame was conducted across the country. The distribution, habitat and conservation of range restricted species of Eleusine and Pennisetum (Poaceae) were established in Uganda. 3 Ethnobotanical surveys on *Mondia whitei*, *Tamarindus indica* L and *Psorospermum febrifugum* were conducted. New localities of Pennisetum species were recorded, all of which led to increases in the Extent of Occurrence (EOO) and Area of Occupancy (AOO). The greatest additions to the EOO were for Pennisetum macrourum, P. ramosum, P. megianum and P. procerum in that order. P. ramosum, P. procerum P. macrourum, P. megianum registered the greatest additions in AOO. The vast majority of the records were outside the protected area. Common bean household richness rose from 2.2 to 3.1 in selected areas where communities had access to community seed banks.

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;

>>> - 86 species were surveyed of which 23 (*Lens ervoides*, *Mondia whitei*, *Psorospermum febrifugum*, *Tamarindus indica*, *Vicia sativa*, *Solanum aculeatissimum*, *Eleusine* sp., *Ipomoea ochracea*, *Solanum* sp., *Oryza longistaminata*, *Oryza eichingeri*, *Solanum dasyphyllum*, *Sorghum verticilliflorum*, *Sorghum purpureosericeum*, *Oryza punctata*, *Dioscorea* sp., *Morus alba*, *Eleusine jaegeri*, *Pennisetum ramosum*, *Pennisetum megianum*, *Pennisetum procerum*, *Pennisetum* sp., *Coffea robusta* and *Pennisetum trisetum*) were identified as threatened. The status of these species was affected by changes in land use, ecosystem destruction including deforestation, wetland encroachment, soil depletion & erosion. Population pressure and poor land administration are key overall factors. Poverty due to limited alternative livelihood sources is a major driver to uncontrolled natural resources exploitation. The level of awareness among the leadership where these places occur is low.

- Remedial actions that need to be intensified include; introduction of solar energy gadgets and efficient charcoal stoves. Cabinet took a decision to cancel all land titles obtained irregularly. Livelihood opportunities for communities surrounding areas of high richness of CWRs and Wild food plants need to be intensified in order to minimize direct human impacts on these resources.

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:

>>> - Threatened PGRFA mentioned above have been conserved, mapped, duplicated and documented. This information is available at the Uganda National information sharing mechanism of PGRFA

<http://www.pgrfa.org/gpa/uga/welcome.htm>, the WIEWS Reporting System of the Second Global Plan of Actions on the country's PGRFA at <http://www.fao.org/pgrfa/> and the PGRC website at [www.pgrc.go.ug](http://www.pgrc.go.ug)

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:

>>> Knowledge enhancement - Over 10,000 farmers were trained in different aspects of on-farm management of PGRFA. These included, but not limited to, pest and disease management, seed production, marketing, agronomic practices, deployment of diversity for resilience. Equally technical teams from the research system and the regulatory arm of government acquired new knowledge and skills as regards conservation and sustainable use as well as farmer perspectives are concerned. Teams from communities managing community seed banks were trained in community seed bank management through various knowledge exchange platform and opportunities there was increased appreciation of the value of genetic diversity on-farm by all stakeholders right from community level to the highest policy making levels of the country. Farmer to effectively control banana bacterial wilt was also enhanced.

Infrastructure - A series of efforts resulted into infrastructural development at community level for purposes of enhancing the management of genetic diversity on-farm. These included establishments of Community seed banks and seed stores across the country. A total of 43 Community seed banks and seed stores were established with support of NGOs, government and development partners. And these are spread across the country in the districts of Omoro, Kumi, Amuria, Iganga, Kitgum, Soroti, Nakasongola, Nakaseke, Sheema, Hoima and Kabale.

Empowerment - Farmer groups have been empowered in different aspects in order to manage genetic diversity on-farm better. This has included registration of farmer groups as community based organizations which has enhanced their visibility and attracted support from different partners. In addition Farmers groups have obtained national and international exposure through diversity shows, agricultural shows, cross site and cross country visits.

On-farm diversity enrichment - Germplasm of several crops was introduced into communities to increase richness and diversity on-farm as well as provide opportunity to farmers to identify germplasm with attributes of their preferences. Some of this germplasm was moved from one part of the country to another and some involved germplasm from the national gene banks of other countries. Crops included common bean, sorghum, finger millet, cassava, yams, vegetables, groundnuts, cowpea, pearl millet, finger millet, pigeon pea, Pearl millet pigeon pea. This further enhanced the value of germplasm exchange. The Uganda national genebank also provided diversity to farmers within the country and other countries like Kenya, Tanzania, Rwanda.

Strengthening linkages with breeding programmes - Through participatory approaches, opportunities were created to strengthen linkages between on-farm work and national breeders.

Policy enhancement - The policy environment for on-farm management of PGRFA was enhanced as evidenced in the national seed policy 2018 whose strategies included among others; strengthening the mapping and creation of variety registers at a national and community level; a call for development of a new law to protect and preserve indigenous knowledge of local varieties and effectively protect community intellectual property rights; and enhancing the development of community seed banks. The NARO strategic plan calls for enhancing conservation and harnessing of genetic resources, it recognizes the importance of indigenous genetic resources and calls for intensifies efforts to protect, preserve and conserve genetic resources. Also calls for developing technologies, innovations and management practices that enhance environment resilience and sustainability of natural resources.

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:

>>> - The institutions responsible for managing forest reserves, national parks and game reserves were engaged during germplasm collection missions, introduced to the CWRs in their jurisdiction and encouraged them to include them in their monitoring and management plans. In some respects, these institutions were tasked to undertake further surveys so as to locate CWRs and also to monitor phenology stages. This brought them to a closer appreciation of the presence of CWRs in protected areas and the need to include them in their management plans.

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:

>>> - At the Uganda National Genebank, over 5,000 seed accessions of Vegetables, Indigenous fruits species, Gum, Cereals, Crop wild relatives, Legumes, Grass and Oil crops were collected from different parts of the country and are being conserved in both active and base collections. Targeted collecting of 27 crops comprising vegetables (11), legumes (8) and cereals (8) was undertaken. 3 were Crop wild relatives (Finger millet, Pearl millet and Coffee), 5 were major crops (Beans, Groundnuts, Rice, Maize, Sorghum) with incomplete collection, eco-geographical coverage and Rice had incomplete biotic and abiotic stress resistance coverage. 17 food crops (Bambara groundnut, Okra, Amaranth, Pigeon peas, Sesame, Pepper, Chickpea, Pumpkin, Eggplants, Lentils, Cowpeas, Carrots, Cabbage, Tomatoes, Cucumber, Peas, Soybeans, Sunflower diversity was found to be narrowing due to either underutilization/neglect, emphasis on few varieties or impacts of climate change.

- Live collections of 500 species are sustainably maintained in Entebbe Botanic Gardens comprising mainly indigenous and exotic fruit species, economic crops and their relatives, and medicinal plants.

- A total of 520 species has been maintained in the Toro Botanic Gardens and 42 seed accessions held in the Seed bank.

- MbaZardi under NARO maintains a field genebank with 430 Banana accessions. A core collection representative of all the banana cultivars is well maintained.

- The field Genebank of Kawanda at the National Agricultural Research Institute has 9 accessions of Arabica, 13 Robusta and 100 accessions of wild relatives of Coffee.

- A mini gene bank for Soy bean with over 1,000 accessions was set up at Makerere University in addition to refurbishment of the old gene bank.

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:

>>> - Uganda registered an expansion of ex-situ facilities in the country. The Uganda National Gene bank with basic infrastructure for germplasm management and the information system for technology transfer is in place as well as the development of the Standard Operation Procedures which is being shared with other stakeholders. The Entebbe Botanic Gardens conserves ex-situ collections through recreation facilities such as the medicinal plot, fruit block section and the nursery section. The Toro Botanic Gardens (TBG) also has a nursery, medicinal garden and a seed bank for ex-situ conservation and maintenance situated in the Albertine rift flora. A facility for roots and tuber crops conservation was established at the National Crop Resources Research Institute (NaCRRI) though its operations were hindered by unavailability of operational funds. A mini gene bank for Soy bean was set up at Makerere University in addition to refurbishment of the old gene bank. 43 Community Seed banks have been established across the country by both government and non-government agencies. Technical capacity in ex-situ conservation was built in a number of NGOs which capacity they used to support communities to undertake conservation activities and setting up of community seed banks. Over 100 stakeholders (students from several countries, gene bank managers, breeders, technicians) were trained in ex-situ conservation approaches.

- Additional institutions appreciating the need for collecting and ex situ conservation include NGOs, CBOs and Universities such as the Sustainable Agriculture for Rural Development Networks, CARITAS, YARD, Community Empowerment for Rural Development, Tropical Institute of Development Innovations increasingly supported and included ex-situ conservation of wild food plants, regional, minor and underutilized crops under their priority activities. More farmers groups (Omoro Youth district farmers, Lamwo Farmer entrepreneurs, Aleker Culture Center).



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  
>>> Routine viability monitoring on all conserved germplasm is undertaken between 5 for oil crops and 10 years for the other crops.

Viability has been monitored on earlier conserved germplasm i.e accessions that have been under conservation for over 10 years. and was observed that there is a noticeable decline in about 50% of the samples tested of 5-10% in cereals, whereas a reasonable decline in oil crops was observed ranging from 10-30% and these were rejuvenated.

Genetic integrity during rejuvenation / multiplication activities is maintained by drawing a proper field plan of all accessions for regeneration, accession labelling and planting seeds on a properly ploughed land. Reduction of regeneration cycles, these are only undertaken when there is loss of viability or because of a reduction in seed quantities.

Measures to control cross pollination also taken into consideration such as bagging and Isolation distance of accessions from one another during regeneration prevents genetic mixing.

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:

>>> Kenya, Uganda and Tanzania worked together in an FAO benefit sharing project. Ecuador, Morocco, Uzbekistan, Ethiopia, Bhutan, Sweden under several IFAD, SDC, Crop Trust and ICRAF projects.

## 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:

>>> Policy measures in place under the National Seed Policy 2018 include;

Policy Statement: Government will strengthen the capacity for production of quality seed for crops that have low profit margins for seed companies.

Strategies (i) Strengthen participatory variety selection to enhance adoption of new improved varieties; (ii) Promote improved affordable and gender friendly technologies to support seed multiplication and post-harvest handling.

Policy Statement: Government will support the development of farmer and market preferred varieties for both commercial, food and nutrition security crops.

Strategies (i). Support the public and private sector to develop and promote new commercial, food and nutrition security crop varieties; (ii). Facilitate community-based seed producers to access basic seed of food crop varieties for multiplication.

Policy Statement: Government will ensure a viable and effective protection and exchange of germplasm for crop improvement.

Strategies (i). Strengthen the mapping and creation of variety registers at national level and within communities; (ii). Develop a new law to protect and preserve indigenous knowledge of local varieties and effectively protect community intellectual property rights; (iii). Promote and build capacity of farmer and community groups including those led by women and youth to conserve crop varieties that have a high food security value; (iv). Enhance the development of community seed banks.

The challenges in implementing these measures are largely availability of sufficient funds.

The seeds and plants (Quality Declared Seed) regulations, 2020, provide for a seed class that allows participation of farmer groups in the production of seed which improves accessibility of quality seed by communities which may have been far to reach by production seed sector.

One of the Key challenges to implementing Quality Declared Seed, is the perception of private seed companies that their market space is being unfairly taken up. The other challenge is that these regulations only apply to registered varieties. Hence leaving out farmer varieties which could be having high potential and preference in specific communities.

Plant Variety Protection Act (2014) The Plant Variety Protection (PVP) Act 2014 provides for the promotion of development of new plant varieties and their protection as means of enhancing breeders' innovations and rewards through granting of plant breeders rights and other related matters. The Act also provides for community gene fund to support conservation and sustainable use. The challenge however is that the community gene fund has not been operationalized yet.

## 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:

>>> - Though not entirely in all aspects, efforts have been undertaken to integrate conservation, documentation and sustainable use into the country's agriculture and development programmes mainly through activities linked to the chain of community seed bank that has been established. Local governments of different districts have been engaged and supported to integrate issues of conservation and sustainable use into their development plans.

- The Zonal Agricultural Research Institutes have been capacitated to some extent to support community efforts in community seed banking and related activities.

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:

>>> - Promoting open source seed systems for forage, legumes and millet and sorghum for climate change adaptation in Kenya, Uganda and Tanzania involved active engagement of local and national governments, extension services, communities and the private sector for promotion of a seed system that balances breeders' and farmers' rights and that gives opportunities for farmers and researchers to further improve material developed using germplasm from the Multilateral System by all interested actors.

## 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:

>>> AGRA Training course for engaging technicians in crop breeding organised by the National Crops Resources Research Institute (NaCRRRI) under the National Agricultural Research Organisation (NARO).

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:

>>> - Technical assistance from Bioversity International in different aspects genetic diversity management, deployment and use.  
- Some technical assistance in seed handling techniques from the Kew Gardens.

## 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:

>>> The Seed Policy 2018, provides policy statements and strategies that protect and promote farmers rights. One of the priority areas of the policy is sustainable utilization and protection of Uganda's PGRFA. The strategies under this priority area include; (i). Strengthening the mapping and creation of variety registers at national level and within communities; (ii). Developing a new law to protect and preserve indigenous knowledge of local varieties and effectively protect community intellectual property rights; (iii). Promoting and building capacity of farmer and community groups including those led by women and youth to conserve crop varieties that have a high food security value; (iv). Enhancing the development of community seed banks. The Plant Variety Protection Act, 2014 provides for exemptions of the rights of breeders including farmers being able to exchange seed, plants or propagating material of plant of a given variety with other farmers for purposes other than commerce, and also propagate, grow and use parts of a variety for purposes and commerce.

The NBSAP 2015, provides for a National target of a well established framework for implementing the Multilateral System of accessing and sharing of benefits arising from access to PGR in place. The strategies under this target include (i) Promotion of synergies in the implementation of ITPGRFA, CBD and the Nagoya Protocol on ABS.

Agriculture Policy; One of the objectives is to ensure household and national food and nutrition security for all Ugandans. The strategies are;

(i). Encourage and support local governments to enact and enforce bylaws and ordinances that promote household food security through appropriate food production or storage practices; (ii). Promote the production of nutritious foods, including indigenous foods (enterprise mix) to meet household needs and for sale; (iii). Promote consumption of diversified nutritious foods including indigenous foods at household and community levels.

The other objective is to ensure sustainable use and management of agricultural resources through among others the following strategies; (i) To ensure the collection, analysis and dissemination of information to households and communities regarding proper use and conservation of agricultural resources; (ii) To encourage and support local governments to enact and enforce ordinances and by-laws regarding local utilization and management of agriculture resources; (iii). To promote land use and farm planning services among farmers.

Another objective is to develop human resources for agricultural development. The strategies include; (i) Promoting professionalism in agriculture, strengthening the linkage between formal and non-formal agriculture education including practical skills; (ii). Develop capacity of farmers and farmer organizations to engage more effectively in agribusiness. Provide education programmes to engage farmers more effectively in the competitive market environment; (iii). Provide information including other support to farmers to aid them with their enterprise selection, production and marketing decisions; (iv). Undertake education programmes to engage farmers more effectively in the liberalized market environment. (v). Reorient the curriculum at universities and agricultural training institutions to focus on the needs of the agricultural sector. Encourage sustainable funding for the institutions that offer agricultural training.

The overriding challenge for implementation is limited resources particularly financial.

## 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:

>>>

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:

>>> Species declared into the MLS

9% of PGRFA that belong to the annex 1 have been included in the MLS. These cover the following species; Cajanus, Cicer, Eleusine, Helianthus, Oryza, Pennisetum, Phaseolus, Pisum, Solanum, Sorghum, Vigna and Maize. The material can be accessed at <http://www.fao.org/plant-treaty/areas-of-work/global-information-system>.

Difficulties encountered;

- Not all accessions held fall under public domain.

- Not all material held were collected following the National ABS laws and regulations. Therefore, either a special declaration is required to be made by the Minister on how such materials should be handled or the requisite ABS laws and regulations are followed retrospectively.

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:

>>> The natural persons (mainly farmers) have been encouraged to put material into the MLS. A total of 1341 accessions have been collected from farmers with a PIC for inclusion of the material in the MLS. The crops include; Pearl millet, Sorghum (219), Finger millet (855), Wild relatives of millet (151) and Common beans (93).

One of the difficulties is that in some instances natural or legal persons may have problems appreciating the functional reality of 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:

>>>

## 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:

>>> The three key institutions namely National Agricultural Research Organisation, National Environment Management Authority and Uganda National Council for Science and Technology developed a MoU indicating collaboration in the development of a comprehensive regulatory regime, which includes access to PGRFA and benefit sharing.

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:

>>> - ABS regulations 2005, section 26 and 27.

- The Wildlife Act.

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:

>>> The ABS guidelines, 2014 make reference to existing laws and international conventions such as the ITPGRFA as far as getting regulating access to PGRFA is concerned.

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 1 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:

>>> AGRA Training course for engaging technicians in crop breeding organised by the National Crops Resources Research Institute (NaCRRI) under the National Agricultural Research Organisation (NARO).  
Transferred technologies to Community seed banks, NGOs and CBOs including seed handling techniques, Pest and disease management and crop agronomy e.t.c.

30. Has your country provided for and/or benefitted from capacity building measures in respect of Annex 1 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:

>>> The conservation and sustainable use of PGRFA has been strengthened through different levels of scientific, technical education and training in conservation and sustainable use of PGRFA. These included PhDs, certificates in technical and policy, exposures and field experiences.

Uganda registered an expansion of ex-situ facilities in the country. A facility for roots and tuber crops conservation was established at the National Crop Resources Research Institute (NaCRRI) though its operations were hindered by unavailability of operational funds. A mini gene bank for Soy bean was set up at Makerere University in addition to refurbishment of the old gene bank. The capacity of the National Gene bank expanded by 20% through acquisition of more freezers. 43 Community Seedbanks have been established across the country by both government and non-government agencies. Technical capacity in ex-situ conservation was built in a number of NGOs which capacity they used to support communities to undertake conservation activities and setting up of community seedbanks. Over 100 stakeholders (students from several countries, gene bank managers, breeders, technicians) were trained in ex-situ conservation approaches.



## 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:

>>> Implemenation of the Global Plan of Action was promoted in Uganda. A report on the implementation of the GPA in Uganda was compiled and can be accessed through the <http://www.fao.org/pgrfa/>

## **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:

>>> - ICRISAT, Kenya

- ICRISAT, India

- Millennium Seed bank, UK

- Norwegian University of Life Science

- The Royal Norwegian Ministry of Agriculture and Food, Svalbard Global Seed Vault

- International Rice Research Institute (IRRI)

- Ministry of Science and Communication, National Centre for Research, Sudan

- Natural Resource Institute (NRI), UK

- Ethiopia Institute of Agricultural Research (EIAR)

- KALRO, Kenya

- CIP, Lima

- Kenya Plant Health Inspection Services (KEPHIS)

- National Plant Genetic Resource Centre, Tanzania

- 14 SMTAs were signed.

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:

>>>

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:

>>> There are no requests for non-Annex I PGRFA access so far from IARCs and other international institutions.

## 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:

>>> Uganda's research system has become significantly stronger thus playing a major role as a Centre of excellence where inter-country regional trainings (courses), attachments, exchange visits from the region and beyond have been conducted.

## 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:

>>> A number of projects were supported for the implementation of the treaty including from the Benefit Sharing Fund of the Treaty, IFAD, SDC, Bioversity International, GCDT

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:

>>> The National seed Policy 2018 and its strategy outlines several Government aspirations and strategies in line with implementation of the 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::

>>> Government of Uganda provided some financial resources for the conservation and management of the country's Plant Genetic Resources. The resources have been mainly in wages and salaries of staff of approximately USD 500,000 during the last 5 years.

36B Channel:

- Bilateral  
 Regional  
 Multilateral

36C. Please provide details:

>>> Government of Uganda provided some financial resources for the conservation and management of the country's Plant Genetic Resources. The resources have been mainly in wages and salaries of staff of approximately USD 100,000 per annum

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:

>>> Projects for the implementation of the Treaty included: (1) Strengthening Seed Delivery System for Dryland Cereals and Legumes in Drought-prone Areas of Uganda. (2) Promoting Open Source Seed Systems for beans, forage legumes, millet and sorghum for climate change adaptation in Kenya, Tanzania and Uganda. (3) Helping farmers access PGRFA from the multilateral system for climate-change adaptation (4) Treaty implementation in Uganda (5) Community Seedbanking to improve the Resilience of Farmers: The case of Kiziba Seedbank in Uganda (6) Strengthening seed delivery systems for dry land cereals and legumes in drought-prone areas of Uganda: the Cluster Granary Seed (CGS) project (7) Innovative and beneficial informal sweet potato seed private enterprise in northern Uganda

37B. Channel:

- Bilateral  
 Regional  
 Multilateral

37C. Please provide details:

>>> Uganda received financial resources of approximately USD 500,000 for the conservation and management PGRFA through several projects which included; (1) Using Common bean diversity to support farmers in

adapting to climate change in Uganda (2) Diversifying the availability of diverse seed.(3) Treaty implementation in Uganda (4) Pest and disease management (5) Improving productivity and resilience for the rural poor. (6) Promoting open source seed system for forage, legume and millet and sorghum (7) Agro-biodiversity and landscape restoration for food security and nutrition in East Africa. (8) Improving of Technology on conservation of Genetic Resources. (9) Resilient seed system for climate change adaptation and sustainable livelihoods in East Africa subregions. (10) Promoting open source seed system for forage, legume and millet and sorghum.

## **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 is not easy to sensitize the public about the Treaty and this consumes time and money.

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:

>>> Provision of a budget to support collection of relevant information in compiling the compliance report.

## 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:

>>> - Found difficulties to type responses in the provided boxes.

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

>>> - Questions should be asked without the boxes.