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

SUDAN

25/09/2017

First 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 Systems 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.

Additional Reporting Information

Name and contact of the reporting officer

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Institution(s) of affiliation

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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:
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 in Sudan
3. Is there any law, regulation, procedure or policy in place in your country that needs to be adjusted / narmonized 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:
- > To adjust the Seed Law (2010) especially in sections related to Breeder's Rights. A new proposed legislation on Protection of New Plant Varieties and Breeder's Right that conforming with the Treaty obligations has already been formulated and submitted in 20016 to the concerned authorities in the Ministry of Justice for further procedures

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. > This has been done during collecting of PGRFA. Major plant species collected include so far sorghum, pearl millet, maize, sesame, groundnut, cowpea, pigeon pea, faba bean, chickpea, okra, melons, watermelons, pumpkins and squashes, roselle, tomato, hot pepper, banana, date palmetc
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; Cause include: 5-Pests and diseases that attack crops 6-Grazing selectivity and over-grazing 7-Expansion in oil and mineral industry 8-Grazing selectivity and over-grazing Any steps taken to minimize or eliminate these threats; -More than 14000 accessions representing more than 60 crops have been acquired. A number of these crops
are among those covered by the Multilateral System of Access and Benefit Sharing established by the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty). -a National Botanical Garden that preserve limited number of indigenous and exotic plant taxa including trees,
shrubs herbs and grasses Germplasm collection missions are being planned and executed on annual basis by the Agricultural Plant Genetic
-General Directorate (RPGD) with the responsibility to establish the following projects preservation in in-situ and ex-situ reservation, nursaries and herbaria. - National seed collection and broadcast progammes. Such as Seed collection ,Seed production, Fenced and
guarded enclosures. Any difficulties encountered in implementing such steps;
 Complete absence of in situ conservation activities in most plant biodiversity sectors Lack of clear policy for the conservation of the local genetic resources of plants at the national level

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: > Germplasm collection missions are being planned and executed on annual basis by the Agricultural Plant Genetic Resources Conservation and Research Centre (APGRC) of the Agricultural Research Corporation (ARC) in Sudan. Targeted areas and species are identified in order to fill both geographical and taxonomic gaps. However, these activities are not sufficient due to difficulties related to availability of sufficient funding and trained personnel
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:
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:
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: > Ex-situ collections of PGRFA in Sudan are held by the Agricultural Plant Genetic Resources Conservation and Research Centre (APGRC) of the Agricultural Research Corporation (ARC) in Sudan. Total number of accessions collected so far are more than 14000 accessions from crops such as sorghum, pearl millet, maize, sesame, groundnut, cowpea, pigeon pea, faba bean, chickpea, okra, melons, watermelons, pumpkins and squashes, roselle, tomato, hot pepper, banana, date palmetc
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: > A separate programme has been established in the Agricultural Research Corporation (ARC) in Sudan, which is fully entitled to conserve and enhance the sustainable use of PGRFA in the country. This programme is run by the Agricultural Plant Genetic Resources Conservation and Research Centre (APGRC) in the ARC. Materials are being multiplied and regenerated on regular basis for conservation and utilization purposes. A genebank documentation system is established in the APGRC. Materials and associated data are made available upon requests.
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 > Monitoring is done on irregular basis within longer intervals that exceed ten years. However, the collections under conservation seem to be good with relatively low percent of accessions that need to be regenerated.
- 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:
- > Sudan has cooperated with Eastern Africa countries within the Eastern Africa Plant Genetic Resources Network (EAPGREN), which has been active under the umbrella of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) during the period from 2003 to 2014. Sudan has also been a member in the Near East and North Africa Plant Genetic Resources Network (NENAPGRN) operating under the Association of Agricultural Research Institutions in Near East and North Africa (AARUNENA) since 2008.

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:

Article 7: National Commitments and international Cooperation

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:
16. Has your country cooperated with other Contracting Parties, through bilateral or regional channels, in the conservation and sustainable use of PGRFA? Please select only one option ✓ yes □ No
16A. If your answer is 'yes', please indicate whether the aim of such cooperation is to: ☑ Strengthen the capability of developing countries and countries with economies in transition with respect to conservation and sustainable use of PGRFA ☐ Enhance international activities to promote conservation, evaluation, documentation, genetic enhancement, plant breeding, seed multiplication, and sharing, providing access to and exchanging PGRFA and appropriate information and technology, in conformity with the Multilateral System of Access and Benefit-Sharing under the Treaty
16B. If, in addition to cooperation through the Governing Body or other Treaty mechanisms, your country has cooperated with other Contracting Parties directly or through FAO and other relevant international organizations, please indicate such other Contracting Parties and, where possible, details of any relevant projects:

Article 8: 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
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: > 1. Assistance from the Swedish International Development Cooperation agency (Sida) through the Eastern Africa Plant Genetic Resources Network during 2003-2014 for capacity building for conservation and sustainable use of PGRFA.' 2. Assistance from Norwegian government through the Global Crop Diversity Trust since 2015 for collecting Crop Wild Relatives in Sudan

Article 9: Farmers' Rights

sustainable use of PGRFA

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

☑ 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:

> A national law on plant genetic resources in Sudan including necessary measures to recognize and implement farmers' right has already been developed. However, steps to approve it through the legislative authority are slow.

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:
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: > These PGRFA and holders of them have not yet been inventoried

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: > - PGRFA from Sudan have been included in the MLS and the Treaty Secretariat was notified on that on 23 September 2010. - Director of the Agricultural Plant Genetic Resources Conservation and Research Centre has been authorized on 08/03/2011 by the Minister of Agriculture to sign the SMTAs
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: 45
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: yes
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:
> no
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:
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:
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

Please select only one option

systems?

	Yes
\checkmark	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:

> No

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 socioeconomic research, including characterisation, evaluation and utilisation): > A catalogue including passport and characterization data on Sorghum genetic resources in Sudan was developed on 2012 and has been made accessible since then under the web-site of the Agricultural Research Corporation - Sudan
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:
30. Has your country provided for and/or benefitted from capacity building measures in respect of Annex 3 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: > Sudan has benefited from five training opportunities through short training activities on aspects related to collecting, seed processing and conservation and documentation of PGRFA under a global project for collecting crop wild relatives through the Global Crop Diversity Trust

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:
- > Implementation has been promoted through the following actions:
- Upgrading the Plant Genetic Resources Unit to Agricultural Plant Genetic Resources Conservation and Research Centre (APGRC) under the Agricultural Research corporation of Sudan in 2014.
- Conducting several germplasm collection missions targeting Annex 1 crop among others since 2004 using funds made available from national budgets and international support.
- Conducting several germplasm characterization and evaluation studies as well as seed multiplication and regeneration activities targeting Annex 1 crops among others since 2004 using funds made available from national budgets and international support.
- Strengthening the physical capacity of the APGRC in terms of seed conservation and processing equipment through national budgets and international cooperation.
- Establishment of a Genebank Documentation System within the APGRC since 2008 through technical support by the Nordic Genetic Resource Centre (NordGen) and the financial support of Sida.
- Collecting crop wild relatives starting from 2016 through financial support made available through the Global Crop Diversity Trust.

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

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, One SMTA - IITA, One SMTA - Millennium Seed Bank, Kew Botanical Gardens, Two SMTAs
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 nor Annex 1 PGRFA to IARCs and other international institutions that have signed agreements with the Governing Body of the Treaty:

> The national law regulating access to non-Annex 1 PGRFA has not yet been endorsed

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: > Sudan has been a member in the Fastern Africa Plant Genetic Resources Network (FAPGREN) since 1997.

and in the Near East and North Africa Plant Genetic Resources Network (NENAPGRN) since 2008

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: > - Funding from the Treaty Secretariat for capacity building for the implementation of the ITPGRFA in Sudan, in 2009
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:

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:
>

General remarks on the implementation of the ITPGRFA

- 38. You may use this box to share any advice you may have arising from your country's experience with implementation of the Treaty:
- 39. You may use this box to share any additional information that may be useful to provide a broader perspective of difficulties in implementation of the Treaty:
- 40. You may use this box to share any additional information that may be useful to provide a broader perspective of measures that could help to promote compliance:

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