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The International Treaty
ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE

**Views, Experiences and Best Practices as an example of possible options for
the national implementation of Article 9 of the International Treaty**

Note by the Secretary

At its [second meeting](#) of the Ad hoc Technical Expert Group on Farmers' Rights (AHTEG), the Expert Group agreed on a revised version of the [template](#) for collecting information on examples of national measures, best practices and lessons learned from the realization of Farmers' Rights

This document presents the updated information on best practices and measures of implementing Article 9 of the International Treaty submitted by South Africa on 26 July 2019.

The submission is presented in the form and language in which it was received.



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Template for submission of

Measures, Best Practices and Lessons Learned from the Realization of Farmers' Rights as set out in Article 9 of the International Treaty

Basic information

- Title of measure/practice

Farmers seed systems and the conservation of agrobiodiversity in South Africa: the establishment and support of community seed banks.

- Date of submission

31 July 2019

- Name(s) of country/countries in which the measure/practice is taking place

South Africa

- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)

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- Type of institution/organization (categories)

The Department of Agriculture, Forestry and Forestry (DAFF) is a national sphere of the South African government responsible for implementing the laws and policies decided by the South African parliament. Within the DAFF and more specifically the Agricultural Production, Health and Food Safety Branch of the DAFF, the Directorate Genetic Resources is mandated to regulate and provide an integrated national management system in support of the conservation and sustainable use of genetic resources for food and agriculture. This involves the development and implementation of policies, legislation, strategies and norms and standards on the management of plant genetic resources for food and agriculture, the regulation and promotion of propagating material of genetic resources for food and agriculture and to provide for a risk mitigating system in support of agricultural biodiversity



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- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

- Bioersity International

Address Via dei Tre Denari, 472/a 00054 Maccarese (Fiumicino), Italy
Tel (39-06) 61181
Fax (39-06) 6118402
Email bioersity@cgiar.org
Web www.bioersityinternational.org

- Limpopo Provincial Government: Department of Agriculture and Rural Development

Postal Private Bag X9487, Polokwane, 0700
Physical Temo Towers, 69 Biccard Street, Polokwane
Tel 015 294 3147
Fax 015 294 4506
Web www.lda.gov.za

- Eastern Cape Provincial Government Department: Rural Development and Agrarian Reform

Postal Private Bag X0040, Independence Avenue, Bhisho, 5605
Physical Dukumbana Building, Independence Avenue, Bhisho, 5605
Tel 043 642 3497
Fax 040 635 0604
Web www.drdrar.gov.za

- North West Provincial Government Department: Rural, Environment and Agricultural Development

Postal Private Bag X2039, Mmabatho, 2735
Physical Agricentre Building, Cnr Dr James Moroka Drive & Stadium Road, Mmabatho
Tel 018 389 5719 / 5431 / 5688
Fax 018 392 4377
Web www.nwpg.gov.za/Agriculture/index.html

Description of the examples

Mandatory information:¹

- Short summary to be put in the inventory (max. 200 words) including:
 - Implementing entity and partners
 - Start year
 - Objective(s)

¹ This mandatory information is required in order for the measure/practice to be included in the Inventory.



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To strengthen farmer seed systems through establishment of community seed banks in identified provinces of South Africa and participation of farmers in national conservation programmes of plant genetic resources for food and agriculture.

- Summary of core components

- Consultation with provincial extension services and farmers
- Survey of plant genetic resources for food and agriculture availability.
- Establishment community seed banks
- Training of farmers
- Monitoring community seed banks activities

- Key outcomes

- Three community seed banks established
- Traditional food fair/seed were conducted
- Seed exchange among farmers from different provinces
- Training farmers of community seed bank management

The accumulated experiences of establishing and supporting three community seedbanks in South Africa have been used as input for the development of two community seedbank manuals, one for facilitators (Vernooy et al. 2017) and one for farmers (Vernooy et al. 2018).

- Lessons learned (if applicable)

All stakeholders have to be involved from the initial planning process and throughout the implementation of all activities. Communication is vital, about all aspects, and between everyone involved; the funding agency, the collaborators and especially the farmers/communities. National and/or provincial government could provide incentives, such as awards to farmers for their great efforts to conserve traditional crops and maintain crop diversity.

- Brief history (including starting year), as appropriate

The original project was funded through Bioversity International and received technical support from Bioversity International and the Provincial Departments of Agriculture in the Eastern Cape and Limpopo provinces from 2013 – 2015. Beyond this first period, DAFF and Bioversity International agreed to extended funding in order to spread the efforts to other parts of the country and to expand the activities with the inclusion of crop improvement/participatory breeding with the current recipient farmers/communities in three provinces.

By the end of 2018, the Gumbu community seedbank had received about 234 seed contributions (donations) and the Sterkspruit community seedbank about 110 contributions. Seeds were exchanged between the two community seedbanks, with the newly established Jericho community seedbank, and with the National Plant Genetic Resources Centre. Reported



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benefits include safely stored seed, new seed storing techniques leading to higher quality seed, increased quantity and diversity of seed stored in the community, seed of landraces multiplied and distributed (increased availability), exchanges of knowledge and seed, collaboration with the National Plant Genetic Resources Centre (the national genebank), collective sharing of experiences.

- Core components of the measure/practice (max 200 words)

The initial aim was to determine the extent to which the farmers are still engaged in growing landraces, identifying the main factors that influence the choice of crops and crop varieties, assessing the occurrence of loss of crop diversity, and whether farmers were experiencing the impact of climate change as well as farmers response to these questions. Furthermore, the project researched if farmers were saving seed on-farm or at the community level, if farmers were exchanging seeds and with whom, when and how, and whether seed-saving and exchange practices were changing and how. Methods used included historical analyses of crop use, four-cell analysis of crops and crop varieties and mapping of seed networks. Based on the answers to these questions, discussions were held with farmers in targeted communities about the concept and practice of (establishing and managing) a community seed bank. The research was complemented by the organization of seed and food fairs and capacity development activities. So far, three community seed banks have been established, one in Limpopo Province (in the community of Gumbu village), one in Eastern Cape Province (located in the town of Sterkspruit but serving 8 villages), and one in the town of Jericho in North-West province.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

South Africa is a signatory to the Convention on Biological Diversity (CBD) and the Nagoya Protocol on Access and Benefit Sharing and as such, the country has legislation and national programmes towards the achievement of the three pillars of the CBD. Although the South African government has not ratified the ITPGRFA, the South African government is a member of the Commission on Genetic Resources for Food and Agriculture. Through the National Plant Genetic Resources Centre, DAFF administers national programmes on conservation and sustainable use of plant genetic resources for food and agriculture. In order to implement the Second Global Plan of Action, a National Plan on Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture as well as the National Strategic Action Plan for the Conservation and Sustainable Use of Crop Wild Relatives were developed and approved by relevant authorities.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

Art. 9.1

Art. 9.2a

Art. 9.2b

Art. 9.2c



Art. 9.3

Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant ²	Also relevant ³
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		X
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		X
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		X
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		X
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks ⁴ , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.	X	
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		X
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		X
9	Training, capacity development and public awareness creation		X
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		X
11	Other measures / practices		

² Please select only one category that is most relevant, under which the measure will be listed.

³ Please select one or several categories that may also be relevant (if applicable).

⁴ Including seed houses.



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- In case you selected ‘other measures’, would you like to suggest a description of this measure, e.g. as a possible new category? _____
- Objective(s)
- Target group(s) and numbers of involved and affected farmers⁵

58 farmers who are registered members of community seed banks as well farmers/community members from neighbouring villages

- Location(s) and geographical outreach

Sterkspruit Eastern, Cape Province; Jericho, North West and Gumbu, Limpopo Province.

- Resources used for implementation of the measure/practice

Financial support: DAFF and Bioversity International

Technical support: DAFF and Bioversity International

Stakeholder engagements: Advisory services from Provincial Departments, tribal authority leader and communities

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

Through training and technical support by the NPGRC, community seed banks members/farmers has improved their way of conservation plant genetic resources for food and agriculture and notice the value and importance of introducing landraces back for utilisation. Through this measure communities managed to increase locally adapted crop diversity.

- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Two practical handbooks for establishing and supporting community seed banks have been published
Host traditional seed exchange and learning workshops
Training sessions on community seed banks management
Training of government officials including advisory services
Undertook a fact finding mission to Zimbabwe
Developed a booklet on indigenous recipes

- Other national level instruments that are linked to the measure/practice

National Plan on the conservation and sustainable use of plant genetic resources for food and agriculture.

- Are you aware of any other international agreements or programs that are relevant for this measure/practice?

Convention on Biological diversity – Nagoya Protocol

⁵ Any classification, e.g. of the types of farmer addressed, may be country-specific.



- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

All stakeholders have to be involved from the initial planning process and throughout the implementation of all activities. Communication is vital, about all aspects, and between everyone involved; the funding agency, the collaborators and especially the farmers/communities. National and/or provincial government could provide incentives, such as awards to farmers for their great efforts to conserve traditional crops and maintain crop diversity.

- What challenges encountered along the way (if applicable) (max 200 words)

Attracting youth

Security of the community seed bank

Maintaining commitment and interest of farmers

Effects of climate change

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

It is important to get all relevant stakeholders such as advisory extension service, research institutions, the national genebank and farmers. In a traditional system such as in some jurisdictions of South Africa, the inclusion of traditional authorities before the implementation of the project should not be overlooked. Community seed banks can be important platforms for farmer empowerment, but it takes time to set them up and develop into a dynamic and viable entity.

Further information

- Link(s) to further information about the measure/practice

Books and book chapters

Maluleke, N.L., Moila, P., Phora, G., Dibiloane, M.A., Vernooy, R., Sthapit, B. (2015) *Indigenous food recipes*. Department of Agriculture, Forestry and Fisheries–Directorate: Plant Genetic Resources, Pretoria, South Africa. [not available online]

Vernooy, R., Sthapit, B., Dibiloane, M.A., Maluleke, N.L., Mukoma, T. and Tjikana, T. (2015) South Africa: a new beginning for community seed banks. In R. Vernooy, P. Shrestha and B. Sthapit (Eds.) *Community seed banks: origins, evolution and prospects*. Routledge, Oxon, UK and New York, USA, pp. 254-258. <http://www.bioversityinternational.org/e-library/publications/detail/community-seed-banks-origins-evolution-and-prospects/>



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Technical reports

Vernooy, R., Sthapit, B., Tjikana, T., Dibilwane, A., Maluleke, N., Mukoma, T. (2013) Embracing diversity: inputs for a strategy to support community seedbanks in South Africa's smallholder farming areas. Bioversity International, Rome, Italy, and Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa. Available: <https://www.bioversityinternational.org/e-library/publications/detail/embracing-diversity-inputs-for-a-strategy-to-support-community-seedbanks-in-south-africas-smallholder-farming-areas/>

Maluleke, N., Moila, P., Phora, G., Dibilwane, A., Vernooy, R.; Sthapit, B. (2014) Savouring diversity: first steps in implementing a strategy to support community seedbanks in South Africa's smallholder farming areas Bioversity International, Rome, Italy, and Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa. Available: <https://www.bioversityinternational.org/e-library/publications/detail/savouring-diversity-first-steps-in-implementing-a-strategy-to-support-community-seedbanks-in-south-africas-smallholder-farming-areas/>

Vernooy, R., Sthapit, B., Tjikana, T., Dibilwane, A., Maluleke, N., Moila, P., Phora, G. (2016) Mobilizing diversity: establishment of the first two community seedbanks in South Africa's smallholder farming areas. Bioversity International, Rome, Italy, and Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa. Available: <https://www.bioversityinternational.org/e-library/publications/detail/mobilizing-diversity-establishment-of-the-first-two-community-seedbanks-in-south-africas-smallhold/>

Vernooy, R., Dibilwane, A., Maluleke, N.L, Matelele, L., Moila, P., Mokoena, M., Phora, P., Sema, P., Sthapit, B., Tjikana, T. (2017) Multiplying diversity: strengthening community seedbanks in South Africa's smallholder farming areas. Bioversity International, Rome, Italy and Department of Agriculture, Forestry and Fisheries, Pretoria, Republic of South Africa. Available: <https://www.bioversityinternational.org/e-library/publications/detail/multiplying-diversity-strengthening-community-seedbanks-in-south-africas-smallholder-farming/>

Matelele, L.A., Sema, R.P., Maluleke, N.L., Tjikana, T.T., Mokoena, M.L., Dibilwane, M.A. and Vernooy, R. 2018. Sharing diversity: exchanging seeds and experiences of community seedbanks in South Africa. Bioversity International, Rome, Italy and Department of Agriculture, Forestry and Fisheries, Pretoria, Republic of South Africa. Available: https://www.bioversityinternational.org/index.php?id=244&tx_news_pi1%5Bnews%5D=10022&cHash=3c76408aa692e635e255f84f5e7aa6a4

Briefs and articles

Vernooy, R. (2015) The women's seed bank. Women for Expo/Expo Milano 2015.

<http://www.we.expo2015.org/en/news/womens-seedbank>

Vernooy, R. (2015) Seeds of adaptation: climate change, crop diversification and the role of women farmers. Gender climate brief 1. Center for International Forestry Research (CIFOR), Bogor, Indonesia.



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<http://www.cifor.org/library/5896/seeds-of-adaptation-climate-change-crop-diversification-and-the-role-of-women-farmers/>

Tjikana, T., Maluleke, N., Mokoena, M., Vernooy, R., Sthapit, B. (2016) Community seed banks: farmers' platform for crop conservation and improvement. *GRAIN/GRAAN South Africa*.
<http://hdl.handle.net/10568/79179>

Tjikana, T.; Dibiloane, A.; Maluleke, N.; Moila, P.; Phora, G.; Sthapit, B.; Vernooy, R. (2016) Sharing diversity: establishing and supporting community seedbanks in South Africa (pilot phase 2013-2015).
<http://hdl.handle.net/10568/78666>

Vernooy, R. (2016) South Africa implements a national strategy to support community seed banks. PIM Outcome note. IFPRI, Washington DC, USA. Available: <https://www.biodiversityinternational.org/e-library/publications/detail/south-africa-implements-a-national-strategy-to-support-community-seed-banks/>

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Gómez César, M.; Sthapit, B.; Vernooy, R. (2016) Safeguarding local crop knowledge: the use of community biodiversity registers. Rome (Italy): Biodiversity International; South Africa: Department of Agriculture, Forestry and Fisheries. <http://hdl.handle.net/10568/78415>

Vernooy, R., Sthapit, B., Dibiloane, A., Makuleke, N. L., Moila, P., Phora, G., and Tjikana, T. (2017) Implementing a national community seedbank strategy for South Africa. Biodiversity International, Rome, Italy, and Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa. Available: <https://www.biodiversityinternational.org/e-library/publications/detail/implementing-a-national-community-seedbank-strategy-for-south-africa/>

Vernooy, R., Netnou Nkoana, N., Mokoena, M., Sema, R., Tjikana, T., Kasasa, P., Mbozi, H., Mushonga, J., Mushita, A. (2019) Coming together (*Batanai*): Learning from Zimbabwe's experiences with community biodiversity conservation, crop improvement and climate change adaptation. Biodiversity International, Rome, Italy; Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa; Community Technology Development Organization, Harare, Zimbabwe. Available: <https://cgspace.cgiar.org/handle/10568/101241>

Vernooy, R., Matelele, L.A., Sema, R.P., Mokoena, M.P., Maluleke, N.L., Tjikana, T., Phora, G., Dibiloane, A. (2019) Green shoots. Community seed banking in South Africa: Endavours and Outcomes



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2016-2019. Bioversity International, Rome, Italy and Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa. Available: <https://cgspace.cgiar.org/handle/10568/101495>

Manuals

Vernooy, R.; Sthapit, B.; Bessette, G. (2017) *Community seed banks: concept and practice. Facilitator handbook*. Bioversity International, Rome, Italy; the Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa [Also available in French, Russian and Spanish]. Available: https://www.bioversityinternational.org/fileadmin/user_upload/CSB_Vernooy_2017.pdf

Vernooy, R.; Bessette, G.; Sthapit, S.; Dibiloane, A.; Lettie Maluleke, N.; Abner Matelele, L.; Mokoena, M.; Phora, G.; Sema, P.; Thabo, T. (2018) *How to develop and manage your own community seed bank: Farmers' handbook. Establishing a community seed bank: Booklet 1 of 3*. Bioversity International, Rome, Italy; the Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa [Also available in French and Spanish]. Available: <https://www.bioversityinternational.org/e-library/publications/detail/how-to-develop-and-manage-your-own-community-seed-bank-farmers-handbookestablishing-a-commun/>

Vernooy, R.; Bessette, G.; Sthapit, B.; Gupta, A. (2018) *How to develop and manage your own community seed bank: Farmers' handbook. Technical issues: Booklet 2 of 3*. Bioversity International, Rome, Italy; the Department of Agriculture, Forestry and Fisheries, Pretoria, South Africa [Also available in French and Spanish]. Available: <https://www.bioversityinternational.org/e-library/publications/detail/how-to-develop-and-manage-your-own-community-seed-bank-farmers-handbooktechnical-issue/>

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Blogs

<http://www.bioversityinternational.org/news/detail/powerful-crops-empowering-farmers-through-community-seed-banks-in-south-africa/>

<http://www.bioversityinternational.org/news/detail/supporting-community-seedbanks-in-south-africa/>
<https://grpi2.wordpress.com/2013/11/13/embracing-diversity/>

<http://www.bioversityinternational.org/news/detail/seed-savers-of-gumbu/>

<http://www.we.expo2015.org/en/news/womens-seedbank>

<http://www.bioversityinternational.org/news/detail/gender-and-climate-change/>

<https://grpi2.wordpress.com/2016/03/31/official-opening-and-handing-over-of-the-gumbu-community-seed-bank-south-africa/>