



Food and Agriculture
Organization of the
United Nations



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 [first meeting](#) of the Ad hoc Technical Expert Group on Farmers' Rights (AHTEG), the Expert Group considered possible structure of the inventory based on a number of proposals made by members, agreed to utilize a [Template](#) for collecting examples of best practices and measures of implementing Farmers' Rights.

This document presents the updated information on best practices and measures of implementing Article 9 of the International Treaty submitted by Community Technology Development Trust (CTDT) Zimbabwe on 22 January 2019.

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

Template for collecting information on examples

Basic information:

Title of measure/practice:	Community Seed Banking, Seed and Food Fairs and Crop Improvement programmes using Participatory Variety Selection and Participatory Plant Breeding
Name(s) of country:	Zimbabwe
Responsible institution/organization:	Community Technology Development Trust (CTDT) Uzumba Maramba Pfungwe (UMP), Rushinga, Mudzi and Tsholotsho districts
Type of institution/organization (categories):	NGO
Collaborating/supporting institutions	Oxfam Novib,
Title and name and address of person:	Project Leader: Gigi Manicad
Email address:	Gigi.Manicad@oxfamnovib.nl
Website:	www.oxfamnovib.nl
Collaborating/supporting institutions:	International Treaty on Plant Genetic Resources for Food and Agriculture
Title, name and address of person:	Secretary: Kent Nnadozie,
Email address:	Kent.Nnadozie@fao.org
Website:	www.fao.org/plant-treaty

Description of the examples

Mandatory information:

Brief history (including starting year), as appropriate: Community Technology Development (CTDT) is a non-profit making, Non-Governmental Organization (NGO) established in 1993 registered as a Trust in compliance with the Deeds Registries Act [Chapter 20:05] and with Registration Number **MA 0001244/96**. CTDT promotes agricultural biodiversity management, environmental management, food, seed and nutrition security, water and sanitation and policy and advocacy programmes with the ultimate goal of promoting sustainable livelihoods of smallholder farmers. CTDT is operational in twenty three (23) districts of Zimbabwe and is working with over 50 000 households.

Core components of the measure/practice (max 200 words): CTDT is highly regarded in the rural development sector and is represented on a number of regional bodies including SADC Plant Genetic

Resource Centre (SPGRC), the National Plant Genetic Resources Committee (NPGRC) of Zimbabwe, the National Bio-technology Authority Board, the National Biodiversity Working Group under the Ministry of Environment and Hospitality Management and development partners in Zimbabwe. CTDT has a track record of excellence in implementing development projects in Zimbabwe, particularly in areas of food and nutrition security, agricultural biodiversity conservation and management and policy and advocacy issues related to environmental management, climate change, water and sanitation, resilience building and disaster risk reduction. Recently CTDT opened a country office in Zambia where it is slowly replicating some of the programmes that it is implementing in Zimbabwe.

Short description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice):

CTDT has been implementing work programmes covering the aspects highlighted above with funding support from Oxfam Novib (Sowing Diversity =Harvesting Security Programme <https://www.sdhsprogram.org/>), the International Treaty on Plant Genetic Resources for Food and Agriculture's Benefit Sharing Fund (BSF) project that is also being implemented Zambia (3 districts) and Malawi (3 districts). The FAO-BSF.

The socio and macro-economic situation Zimbabwe continued to decline during the past two decades affecting implementation of programmes in several ways. This harsh economic environment compounded by climate change induced droughts have caused serious loss of crop biodiversity as farmers in low rainfall parts of the country have failed to harvest in successive seasons hence losing their local seeds. CTDT has been working with plant breeders from Ministry of Agriculture, ICRISAT, CIMMYT and CIAT to access advanced breeding lines and segregating populations.

Several laws in Zimbabwe affect farmers and the maintenance of local genetic resources. The Seed Act of 1965 regulates the production of commercial seed by seed companies but not the production and sale of traditional varieties. The Plant Breeders' Rights Act revised in 2001, also affects the implementation of Farmers' Rights. The Act limits the rights of farmers to re-use and sell seeds of protected varieties for the purpose of reproduction and multiplication. Farmers who cultivate less than 10 ha of land are allowed to re-use farm saved seed of protected varieties from their own holdings on their land but not to sell or exchange that seed. However, farmers who get 80 per cent or more of their annual income from farming on communal or resettlement land may multiply the seeds of protected varieties and exchange the seed with other farmers in this category.

Despite these exceptions, the Plant Breeders Rights Act does restrict the rights of farmers to sell, re-use and exchange seeds of protected varieties. And the community of farmers feels that it limits their rights to access plant genetic resources. The sharing and exchange of seed has traditionally been important in Zimbabwe. Seeds that has passed from farmer to farmer through generations is regarded as common property. The existing seed regulations created barriers to traditional practice of farmers sharing and exchanging seeds resulting to disappearance of local varieties.

In this context, wanting to promote the realization of Farmers' Rights, CTDT carried out several awareness-raising workshops and dialogues with farmers and policy-makers of relevance to International Treaty. In addition to this, CTDT also work together with farmers on the practical implementation of Farmers' Rights and initiated the Community Seed Fairs.

The Seed Fair was aimed at promoting access to local crop diversity and to enhance the gene flow through seed exchange, knowledge sharing and technology transfer. Also, the Seed Fair was aimed to serve as an arena for multi-stakeholder interaction, with knowledge sharing between and among scientists, policy-makers, farmers, extension agents and development practitioners.

Based on Zimbabwe's Community Seed Fairs' experience, it could promote Farmers' Rights in various ways, such as: the seed fairs support traditional seed exchange practices and provided improved access to a wide range of seeds; as farmers were in need of better access to genetic resources, the seed fairs showed promise in terms of promoting benefit sharing; promoted conservation and sustainable use of crop genetic diversity, and contributed to crop productivity and food security.

Community seed banking

Realising the increasing loss of plant genetic resources¹ for food and agriculture in Zimbabwe, CTDI has been leading efforts to ensure food and nutrition security among poor households in low rainfall districts of the country through the construction of community seed banks. A total of 14 community seed banks² (CSB) have been constructed in different districts of the country with 11 of them having been constructed in the past 4 years. These facilities are providing options for small holder farmers who deposit their seed in order to conserve it and then withdraw the seeds especially at the beginning of each rainfall season and in cases of crop failures which result from climate change induced droughts. Farmers with seed banking structures have come to appreciate the important role that these facilities play in conservation and sustainable use of plant genetic resources. The need for establishing CSBs has become increasingly evident following the severe effects of 2016/2017 El Niño, which caused the worst drought in 20 years in Zimbabwe. This has had direct implications for the majority of the farmers in the FFS who not only lost their crops but also lost their seeds. In these situations, seed banks are critical in enabling farmers to plant for next year's season. For example, SD=HS farmers who had access to community seed banks were able to replant up to two to three times during that season. This illustrated the strength that farmer seed systems can provide a safety net to smallholder farmers, which are increasingly needed as extreme weather events such as drought become the norm.

Local authorities, traditional leaders (chiefs and village heads), communities, government agencies (Agritex and the National Gene Bank of Zimbabwe) all support the construction of CSBs. To ensure that each farmer who deposits germplasm in the CSB continues to retain ownership of the germplasm, the depositions are properly documented in such a way that the management committees only release seeds and germplasm to the owners.

Other information, if applicable:

Objective:

Target group(s) and numbers of involved and affected farmer: The target groups of the interventions have been smallholder farmers in the target districts who benefited by exchanging seeds between and among themselves, accessing "old" and new planting materials from breeding institutions and the National Gene Bank of Zimbabwe through repatriation of seed of crop varieties that had been lost from their communities. Other groups targeted by CTDI's interventions on Farmers Rights included parliamentarians, technocrats from ministries of agriculture, legal and parliamentary affairs and academics from universities and agricultural colleges.

Location(s) and geographical outreach: please refer to map showing project sites below

Resources used for implementation of the measure/practice: Grants received from Oxfam Novib, FAO-International Treaty for Plant Genetic Resources for Food and Agriculture's Benefit Sharing Fund and Bread for the World of Germany have been used to support the implementation of these activities.

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

¹ Plant genetic resources, includes crops, wild plants harvested and/or managed for food, trees on farms, pasture and rangeland species.

² *Community Seed Banks* (CSBs) are places of storage where indigenous seed varieties are conserved and managed by community members.

food and agriculture? Please describe the achievements of the measure/ practice so far (including quantification)

Using the Farmer Field School (FFS) methodology smallholder farmers in over 400 FFS are evaluating and selecting the following number of materials sourced from national breeding institute, international research centers such as ICRISAT and CIMMYT: 11 stable lines of sorghum, 16 segregating populations of sorghum, 9 stable lines of pearl millet, 10 segregating populations of pearl millet, 6 stable lines of groundnuts, 33 stable lines of maize and 10 stable lines of cowpeas. Selection and evaluation is based on farmer preferred agronomic and morphological traits. During the 2017/18 agriculture season, 2 (two) pearl millet selections (PMV 4 and PMV5) were released as varieties by the Crop Breeding Institute. All these materials introduced to communities will increase much needed crop diversity. CTDT with funding support from Swedish Development Agency (through Oxfam Novib) established a Farmer Seed Enterprise which is multiplying these released varieties so that the rest of the farmers can easily access the seed. The Farmer Seed Enterprise is also participating in the government input support scheme (Command Agriculture) to ensure that the seed is accessed by small holder farmers in marginal areas.

Farmer Field Schools repatriated 5 crop varieties from the National Bank of Zimbabwe. The 5 varieties of maize (*garabha*), pearl millet (*nyati*), sorghum (*gokwe*, *cimezela*) and groundnuts (*kasawaya*) were subjected to Participatory Variety Enhancement technique. Farmers successfully rejuvenated and restored the 5 varieties. The seed is going to be multiplied and distributed to more farmers through seed fairs.

The programme in collaboration with the National Gene Bank of Zimbabwe facilitated deposition of 100 accessions of bambara, sorghum, pearl millet and cowpeas into the Southern Africa Development Community Plant Genetic Resources Centre in Zambia. Copies of these accessions were also deposited in the national gene bank and community seed banks.

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

Are you aware of any other international agreements or programs that are relevant for this measure/practice? Other agreements relevant for the implementation of these measures include the Commission on Genetic Resources under the auspices of the FAO, the Nagoya Protocol on Access and Benefit Sharing and the Convention on Biological Diversity (CBD). CTDT closely follows these agreements and participates in global conferences under these global agreements.

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

Climate change induced droughts have caused significant losses of especially farm saved seeds. The linkages between climate change and loss of crop biodiversity has not been well documented in many countries in Southern Africa including Zimbabwe. Advances in crop breeding and release of improved varieties is given as a viable alternative to the realization of food and nutrition security at the expense of promoting Farmers' Rights. Farm saved seeds are going to play a key role in the provision for food and nutrition security and ensure sustainable development.

Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices The Seed Fair provide a venue for local communities to display their seeds and products, and all stakeholders may buy, sell and exchange seeds. The fair also provided opportunities for farmers, visitors and other stakeholders to interact with each other. It also provides opportunity for farmers and

extension staff of the Ministry of Agriculture to reach farmers and disseminate information. Seed fairs provide an important platform for farmers to not only interact with policy makers and advocate for Farmers Rights to save, exchange and sell seed but also to promote access and benefit sharing. The annual seed fairs organized by farmers in Zimbabwe in collaboration with CTDT have provided improved access to seeds thereby resulting to the recuperation, restoration and enhancement of local crop genetic resources; have enabled farmers to access cost-effective, adaptable crop varieties, thus contributed to increased productivity and food security. Farmers have learned about varieties and traditional knowledge previously unknown to them and commercial seed producers have been able to learn about farmers' needs, tastes, and concerns. The fairs have also created market linkages that might promote processing and value addition. Seed fairs must be farmer-driven and based on local ownership if they are to be sustainable in the long term and able to succeed under difficult circumstances.

The collaboration with national (Crop Breeding Institute of Zimbabwe) and international crop breeding institutes is key in the conservation of plant genetic resources. The collaboration opened an avenue for researchers, academia, extension, policy makers and farmers to work together to promote access and benefit sharing agenda.

What challenges encountered along the way (if applicable): The following challenges were (are) encountered during implementation of some of these measures:

- Resources limitations to carry out these measures in more communities
- Change of personnel in key government institutions and in parliament to allow CTDT to follow up on e.g. the domestication of the International Treaty on Plant Genetic Resources for Food and Agriculture.
- Climate change induced droughts which affected the development of breeding lines into new varieties in farmers' fields to allow them to fully benefit from project efforts.

What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? The following can be adopted with adaptations if any institution seeks to carry out such measures:

- Getting to understand the farmers; problems and viewpoints, awareness raising on topical issues such as farmers' Rights and capacity building of key stakeholders such as farmers, project and collaborating institutions staff and lead farmers on important topics such Farmers Rights, community seed banking, germplasm collection and conservation in CSBs, PPB and PVS are critical as these efforts create a critical mass of resource persons and voices to take such issues to scale.
- The FFS approach is a useful tool that allows for farmer empowerment, experiential learning and knowledge exchange. Farmer Field Schools (FFS) create a conducive environment for sustainability among project beneficiaries as farmers come up with home grown solutions to their challenges.
- Analyzing climate change within communities with farmers and scientists gives them (farmers) a better understanding of climate trends taking place and allows them to develop local adaptation strategies to such challenges.
- Development of training materials (booklets, curricula and tools) are critical in transferring information and creating standards which strengthen communities' capacities to implement projects, programmes and initiatives as highlighted above.

- Field days, exchange visits and other farmer to farmer training approaches used in the project were critical in knowledge sharing, generation of interest to succeed. Farmer to farmer knowledge exchange was more effective through interactions with fellow farmers as they shared their experiences as compared to trainings by technocrats.
- Collaboration with gene banks, breeding institutions agricultural colleagues and universities is critical in availing “old” and new varieties and advanced breeding lines to communities to increase crop diversity at local levels hence allowing for benefit sharing as highlighted in the ITPGRFA.
- Seed fairs are critical platforms that can facilitate the exchange of seeds and knowledge among communities. Using such approaches, communities can to share seeds with people from distant places hence contributing to Farmers’ Rights.
- Food fairs are critical to showcase how local crop diversity can be processed and utilized. This has a direct effect on the production of especially neglected and under-utilized crops and sharing of knowledge on conservation and use which is then passed on to the younger generations.
- Community seed banks are critical in conservation and sharing of germplasm. Construction of seed bank formalized seed conservation within communities, moving it from a household initiative to communal. It is critical to identify champions of seed conservation in communities and involve and reward them by e.g. awarding certificates of excellence to them in seed banking process so that they are further motivated. Farmers’ rights have been debated intensely, but their effective implementation remains a challenge. Community seed banks, with their multiple forms and functions, are good examples of effective implementation of those rights. CTDT experience has shown that community seed banks effectively establish the right to save, use, exchange, and sell farm-saved seed and propagating material; protect traditional knowledge relevant to plant genetic resources; and allow equitable sharing of the benefits arising from these resources.

Further information

- [Link to further information about the measure/practice](#)

Submitted by FNI

<https://www.routledge.com/Realising-Farmers-Rights-to-Crop-Genetic-Resources-Success-Stories-and/Andersen-Winge/p/book/9780415643849>; pp. 134-145.

CTDT: <http://www.ctdt.co.zw/>

Map of Zimbabwe showing districts in which some of the measures are taking place.

