



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 BIOWATCH and Seed Knowledge Initiative (SKI) on 5 February 2019.

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



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5 February 2019

Biowatch submission to the Ad-hoc Technical Expert Group (AHTEG) on Farmers' Rights as part of the Seed and Knowledge Initiative

Attention:

Secretariat of the International Treaty Plant Genetic Resources for Food and Agriculture

By email: PGRFA-Treaty@fao.org

Please find below a submission of practices collated by various partners under the Seed and Knowledge Initiative.

Basic information

- Responsible institution:
Seed and knowledge initiative (SKI)
Project holder: **Biowatch SA**
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The Seed and Knowledge Initiative is implemented by the following partners:

[Malawi](#)

Soils, Food and Healthy Communities (SFHC)

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[South Africa](#)

Biowatch SA

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EarthLore Foundation

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Zambia

Community Technology Development Trust (CTDT)

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Regional Schools and Colleges of Permaculture (ReSCOPE)

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Zimbabwe

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Participatory Organic Research Extension and Training (PORET)

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Website: www.zimsoff.org

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- Type of institution/organization (categories): [civil society organisation](#), [farmer organisations](#)

- Collaborating/supporting institutions/organizations/actors, if applicable:

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Description of the examples

- Practice: **Seed fairs and festivals**
- Name(s) of country/countries in which the measure/practice is taking place:
Malawi, South Africa, Zambia, Zimbabwe
- Brief history (including starting year), as appropriate

The Seed and Knowledge Initiative (SKI) is a vibrant partnership initiated in 2013 as three South African organisations grew increasingly concerned about agrobiodiversity and knowledge loss among smallholder farmers in southern Africa. Since then, SKI grew to include 13 partner organisations in Malawi, Zambia, Zimbabwe and South Africa.

The primary aim of SKI is to support communities in becoming more food and seed secure, by reviving and enhancing farmer-led seed and knowledge systems and agroecological practices, which will support communities and ecosystems to be productive, sustainable and resilient. Within the paradigm of food sovereignty, farming communities and especially women, have autonomy and are able to take part in the decision-making processes that impact on their lives. It means they have access and control over locally produced, culturally appropriate seed and food, and are taking responsibility for the health of the ecosystem it all depends on.

Seed fairs is one of the key practices SKI partners and the farmers they work with have been implementing as a way of reviving and enhancing farmer-led seed and knowledge systems.

- Core components of the measure/practice (max 200 words)
During the lean season, before the planting season (from July to September), smallholder farmers gather to display, exchange or trade their saved seed. Local CSO supporting farmers, local extension services and sometimes the National Gene Bank services provide technical support in identifying and properly labelling the seed, as well as sometimes assessing the quality of the seed. Seed fairs happen at various levels: village, ward, district, national. The diversity, quantity and quality of seed displayed tend to increase with the level the seed fair is organised at. A prize system might be put in place as an incentive for farmers to engage in saving an increased variety of local seeds of high-quality standards. Seed inventories are usually conducted at seed fairs to monitor the types, quantities and quality of local seed available in the community on a yearly basis. These inventories allow to observe and analyse

trends over the years, and hence help informing decisions regarding the promotion and strengthening of farmer-led seed systems.

- 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) (max. 200 words)

The SADC harmonised seed regulation that sets rules, standards, procedures and supporting measures to facilitate the trade of commercial seed between countries in the region is in place since 2014. The COMESA Seed Harmonisation Implementation Plan (COMSHIP) to expedite implementation of the harmonised regional seed regulations is in place since 2014. COMESA will soon launch a Regional Seed Certificate system for commercial seeds.

Malawi, Zambia and Zimbabwe have aligned their seed laws to the above. In South Africa, new seed laws (the Plant Breeders Rights Bill and the Plant Improvement Bill) were approved by the Parliament Committee last year. The harmonisation of seed laws under these regional blocks has been a closed system with minimal participation of farmers.

All these frameworks inspired by the UPOV 91 convention while promoting the formal industrial seed sector tend to undermine diverse and resilient farmer-led seed systems. They often put a threat on the African age-old practices of saving, exchanging and selling farmer saved seed by imposing draconian restrictions on them (if not prohibiting them completely).

Other information, if applicable:

- Objective
To facilitate smallholder farmers' access to a wide diversity of local seed (both crop and variety diversity) of (relatively) controlled quality to contribute to enhanced food security and nutrition in the context of climate change.
- Target group(s) and numbers of involved and affected farmer
Main target group: Rural smallholder farming communities in Southern Africa (but also other local stakeholders such as the local traditional leadership, local government, local agricultural extension services, mainly for advocacy purposes)
Number of farmers involved: about 3,000 farmers
Number of farmers affected: about 9,000 farmers
- Location(s) and geographical outreach
Northern Malawi
Mpumalanga, Limpopo and KZN provinces in South Africa
Southern Province and Lusaka province in Zambia
Nationwide in Zimbabwe, with hotspots in Masvingo and Manicaland provinces.
- Resources used for implementation of the measure/practice
USD 50,000 over 3 years in 4 countries.

How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture? Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Lost seeds/varieties and associated knowledge reappeared such as *svoboda*, a small grain cereal grown in the Bikita district of the Masvingo province of Zimbabwe.

Seed fairs enabled an increasing quantity of local seeds, which are more nutritious and/or more resilient to drought, pest, or more adapted to local production conditions, to be available to communities.

Over the years, the quality of local seeds exchanged/traded has increased through the involvement of local extension officers and other seed specialists in providing advice to participating farmers. As a result, it can be assumed that yields have increased (but not yet documented).

Seed fairs also provide the opportunity for strengthening farmers knowledge on seed identification, name standardisation, and saving.

- Other national level instruments that are linked to the measure/practice
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- Are you aware of any other international agreements or programs that are relevant for this measure/practice?

United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas

In addition to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the Second Global Plan of Action on PGRFA, the Convention on Biological Diversity (CBD) also acknowledges the challenges facing the biological diversity (including PGRFA) and calls for parties to institute measures that enhances the conservation and sustainable use of biological diversity.

- Other issues you wish to address, that have not yet been covered, to describe the measure/practice
 - While seeds provided through government farmer input subsidy programmes or seed aid interventions are often not timely distributed and not always adapted to local production conditions and needs, seed fairs provide farmers with a timely access to well adapted seed. They decrease dependence on ex-situ seed sources.

Seed fairs also reaffirm the value of farmer saved seeds amongst farming communities and others local actors (such as local extension officers and local leaders and officials). Seed fairs have been particularly effective in promoting awareness among government officials, ward councillors, and traditional leaders, and in garnering their support. For some farmers, they provide an income generating opportunity. Furthermore, they offer a precious space for knowledge exchange and other learning opportunities between farmers, other stakeholders and also between generations as seed custodians are often elders while children and youth also attend or even participate through entertainments (play, songs, sport games, etc.). Not only effective in promoting seed-saving and crop diversity, seed fairs also enhance community safety-nets and support mechanisms, local farmer knowledge, and farmer agency. Hence seed fairs not only importantly contribute to farmers empowerment but also to social cohesion in farming communities.

Lessons learned

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

Farmers need to be involved in the organisation of seed fairs, and if possible, the main organisers. Not only for ownership and sustainability purposes, but also for political

legitimacy as local governments might be reluctant to authorise a practice that is not promoted/supported by national seed laws.

Sustained technical support and other incentives (such as prizes) help with building farmers' interest and quality participation in seed fairs. Proper identification as well as appropriate quality of the seed displayed is a challenge that takes several years to address. Technical support from local extension officers, seed specialist staff of farmer supporting organisation as well as Gene bank officers and other seed scientists is key in that regard.

Involving the youth through sport or cultural events enables raising their interest on local seeds as well as inter-generational knowledge transfer on local seed towards sustaining such intervention in the longer term.

- What challenges encountered along the way (if applicable) (max 200 words)
Proper identification and labelling as well as appropriate quality of the seed displayed has been a challenge. It requires the sustained involvement of seed specialists and extension officers to be addressed.

Local authorities may be opposed to the organisation of farmer seed fairs as the national legislation tend to focus on the commercial seed sector. Farmers need to exercise their lobbying power to convince government on the critical importance of these farmer events to access and exchange farm saved seed, while 80% of the latter are self-provisioning in seed in the region.

- 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)

Farmers need to be involved in the organisation (or be the main organisers).

Local authorities and technical departments should be on-board. Not only for getting their authorisation but also for avoiding (or minimising) contradictory messages sent to farmers towards larger adoption of the practice, bigger impact and faster positive change.

Seed specialists from agricultural services, the gene bank, farmer supporting CSOs need to be involved for enhancing/ensuring the identification, labelling and the quality of the seed displayed.

In between seed fairs, a Seed Exchange Network can be established around seed outlets in villages to enable continuous farmer seed exchanges throughout the year as and when need be, on a smaller scale though.

Further information

- Link to further information about the measure/practice

- Practice: **Household seedbanks**
- Name(s) of country/countries in which the measure/practice is taking place:
South Africa

Mandatory information:

- Biowatch's work supporting smallholder farming began in 2004. Household seedbanks were revived in 2011 as a core practice for ensuring that farmer varieties of seed are conserved and that farming households remain seed secure, which is the foundation for food security.
Seed saving prioritises traditional food crops especially grains and legumes. These are saved in a convenient space within the household: traditionally seeds are hung above the hearth in the cooking or meeting enclosures; and in traditional containers of clay and grass, or modern glass bottles. In 2011 farmers agreed that a farmer must save a minimum of 7 traditional crop types and this was increased to a minimum of 14 in 2014.
- Promotion of household seedbanks emerged from the resistance to the introduction of GM crops and the promotion and validation of indigenous knowledge systems that support seed sovereignty. Industrialised agriculture dominates in South Africa and smallholders are coerced into adopting hybrid and GM seeds through government and industry extension and subsidies. This is eroding the availability of free and resilient traditional seeds; necessitating conservation interventions centred on the revival of farmer seed systems.

Other information, if applicable:

- **Objective:** to ensure that farmer seed varieties are conserved, and smallholder farmers are seed sovereign to ensure that diverse, appropriate, resilient seed is available for planting to ensure food security.
- **Target group(s):** smallholder/family farmers numbering 200 -300 households (actual numbers have varied per year depending on family circumstances)
- **Geographic area:** Ingwavuma, KwaNgwanase, Tshaneni, Pongola and KwaHhohho in Mtubatuba in northern KwaZulu-Natal in South Africa

Household seedbanks are promoted through training in each project area with farmer groupings. Processes are facilitated to enable validation and sharing of traditional knowledge on seed saving; identification of community seed custodians who have traditional varieties; knowledge of lost varieties and uses; and exchange between farmer groups to share knowledge and seed. Banked seed is also celebrated annually through seed blessing ceremonies. Farmers are supported with additional technical information on harvesting and storage techniques that promote quality seeds and pest control and training for seed bulking.

The South African gene bank was approached to assist in restoring lost seed varieties but need more capacity to support such requests. Seed custodians in communities were better able to share seed of some of the traditional varieties.

Household seed saving has become a foundation practice of Biowatch supported agroecological farmers. The farmers have identified a household seed bank as a requirement for being recognised as an agroecological farmer in a project-based participatory certification system. Farmers also raised the minimum number of traditional crop types that a farmer must save seed for from 7 to 14 leading to increasing revival of traditional crop types and varieties. Biowatch is exploring research and monitoring interventions (such as the Inqolobane seed survey described below) to assess the extent to which this is contributing to seed and food sovereignty.

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

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- Household seedbanks were promoted following negative experiences with community seed banks, which were not maintained when external funding support fell away. Communal banking requires good management systems to verify the origin of the seed, ensure that seeds brought into the bank are of a good quality and disease and pest free, that contributions and withdrawals are properly documented, and that loaned seeds are replaced. There must also be

an adequate turn-over of seeds in the bank to maintain seed vigour and ensure that they will germinate (oil seeds can lose their viability in a few years). This management, as well as the upkeep of the infrastructure, can become a burden for farmers without external support from NGOs or donors. Often community seed banks are established by agencies external to the community and when their support is withdrawn the project collapses. Biowatch is committed to supporting farmers to establish household seed banks and community seed networks which create a “virtual” community seed bank which means that if a neighbour or a member of the community loses their seed for whatever reason, there is support at a community level.

Lessons learned

- Describe lessons learned:
 - Household seed banks work because each farmer has direct control and oversight of the seed, and benefits from their quality and safe-keeping. Household seed banks also align with traditional seed saving practices, which have always been centred around homesteads albeit nuanced with hierarchical family relationships. However, training interventions should focus on strengthening community solidarity networks and shared learning to enable the reciprocal relationships of support between individual farmers.
 - Individual farmers/households are not alone but contribute to a local seed network which shares learning and resources. The household seed bank acts as seed source/library for other farmers if their seed is lost or they experience production challenges through the community and inter-community networks.
 - It is crucial to integrate local traditional knowledge by learning from experienced farmers particularly on storage techniques – drying, pests managements and appropriate containers.
 - A household seedbank cannot be divorced from journeying with farmers on seed development whereby experiences, techniques, ideas, extension, exposure visits, and farmer-to-farmer learning exchanges are shared. Seed development should be farmer-led with support and mentoring from various stakeholders including researchers.
- Challenges and conditions for success:
 - Seeds should be sourced from community seed guardians to begin the process of building household seed banks if farmers have lost their seed. Participatory techniques to map the location of seed guardians within the community and exercises such as the biodiversity wheel can help to uncover seed resources in the community and identify varieties which may be lost in an area.
 - There is insufficient government support for traditional varieties of crops and the conservation of these genetic resources through household seed banks. The extension service is ill-equipped to support farmers and actively largely discourages traditional and open-pollinated seed varieties.

Further information

- <http://www.biowatch.org.za/list.php?cat=Agroecology%20is%20best%20practice>
- <http://www.biowatch.org.za/docs/fs/2016/Household%20seed%20banks%20PRINT%2006102016.pdf>

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- Practice: **Seed Development Programme (SDP)**
 - Name(s) of country/countries in which the measure/practice is taking place:
[South Africa](#)

Mandatory information:

- Biowatch initiated the Seed Development Programme in March 2016.
- **Core components:** The SDP is a facilitative process that provides space for farmers to share their own experiences and techniques along with training that brings more ‘scientific’ elements to build on this traditional knowledge. Introduced practices include:
 - establishing a dedicated field for seed bulking which has water and soil conservation features incorporated in the design including swales and planting basins (a basin shaped depression where compost and organic matter is concentrated, and seeds are planted with close spacing.
 - Variety isolation practices including barrier crops and phased planting for temporal isolation
 - Seed harvesting, drying and storage practices for maintaining seed quality
- **Short description of the context and the history:** Since 2015, South Africa has been experiencing drought. In KZN this correlated with the El Nino weather phenomenon, which was exacerbated by climate change. It is predicted that climate change will worsen this situation; the western three-quarters of the country will become even drier and the east will experience higher but more variable rainfall and more frequent extreme weather events¹. Because of the drought, farmers were losing large quantities of seed as they planted, hoping for rain that often didn’t come and then planted again. Some areas lost varieties of their traditional crops. Loss of such large quantities of seeds resulted in farmers becoming seed insecure, as well as food insecure.

Other information, if applicable:

- **Objective:** The Seed Development Programme, developed in 2016, aims to combat food insecurity, livelihood insecurity and drought, by engaging farmers in a process that cultivates diversity, increases nutrition, conserves water, improves seed security, protects seeds, increases soil fertility and offers the potential for improved livelihoods. The Seed Development Programme specifically aims to assist in the revival and preservation of traditional seeds by improving production techniques to bulk seed and improve seed quality building from traditional seed knowledge and practice.
- **Target group(s):** smallholder/family farmers numbering 34 households
- **Geographic area:** Ingwavuma, KwaNgwanase, Tshaneni, Pongola and Kwahhohho in Mtubatuba in northern KwaZulu-Natal in South Africa
 Resources used for implementation of the measure/practice: resource people to provide technical inputs that build and support traditional practices; and basic and easily accessible materials for measuring plots, drawing designs for plot layouts, and assessing seed germination. Biowatch has procured technical training support from the Curator, Genetic Resources & Biotechnology Institute of Zimbabwe.
- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture? Please describe the achievements of the measure/ practice so far (including quantification)

¹ Earthlife Africa Johannesburg. (2009) Climate Change development and energy problems in South Africa: another world is possible. Accessed: https://www.oxfam.org/sites/www.oxfam.org/files/oi_climate_change_south_africa.pdf

Thirty-one of the farmers participating in the programme are also part of the annual seed survey. Data collected in this survey comparing results from the 2017 to the 2018 growing season found that those farmers involved in the seed development programme:

- Tended to grow more traditional crops before the programme started. The survey revealed that these farmers had a higher than average amount of seed saved for all the traditional crops recorded in the survey including cowpea, finger millet, juko beans and sorghum. All the farmers also increased their quantity of seed saved in 2018 compared to 2017, except for cowpeas – although the downward trend in cowpea saving also occurred in the overall farmer group.
- Had a higher than average increase in seed saved for commercial (western) crops and vegetables.
- Saving of seed for traditional maize varieties amongst the programme farmers increased massively from 2017 to 2018. Farmers had 894g each in 2017 and this increased to 3436g in 2018. Maize on cobs increased from 247g in 2017 to 2007g in 2018. Other farmers also increased their maize production but not on the scale of the farmers in the programme.

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

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

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

Lessons learned

- Through the process farmers agreed to work towards having sufficient amounts of seed for food security, community seed sovereignty and disaster resilience. To enable this, they will keep 5 stores of seed:
 - Seed for planting in the next season
 - Seed for replanting if germination fails
 - Seed saved for following year
 - Seed for sharing
 - Seed for selling
- Through observation and reflection, some of the farmers have innovated larger planting basins of 100x100cm instead of 30x30 cm.

Challenges and conditions for success:

- The seed plots that the farmers are developing are approached quite scientifically to enable evidence-based reflection on progress and adjustments based on these observations. Farmers were encouraged to measure their seed plots and note down the techniques used in their planting stations, the amount of seed used, and any changes they make.
- The process must be very facilitative with trainings always having the space for farmers to share their own experiences and techniques along with the more ‘scientific’ elements that are taught.
- The land for seed production should properly secured and treated differently from land for food. It must also be protected from livestock through good communication between crop farmers and livestock farmers to avoid conflicts.

Further information

- <http://www.biowatch.org.za/list.php?cat=Agroecology%20is%20best%20practice>

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- Practice: **Inqolobane seed survey**
 - Name(s) of country/countries in which the measure/practice is taking place:
South Africa

Mandatory information:

- The Inqolobane Seed Survey was first conducted in 2016 and has run annually to date.
- Core components of the measure/practice (max 200 words)
To date, the survey has been conducted by a consultant with Biowatch staff and farmer committee support. Each year the research focuses on the amount, variety and state of seeds that farmers have. Other key issues such as the amount of land available for use by the farmers, water sources, household dynamics, and nutrition are also briefly explored. As part of the process young people from the communities have been trained as data collectors and engaged each year in this project. The results then feed into Biowatch programming, such as the Seed Development Programme, as well as back to farmers during the annual farmer gathering. These discussions and reflections are a critical part of the learning process.
- 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) (max. 200 words) Northern KZN is a largely rural area which has high levels of poverty and unemployment. In this context, the need for the Inqolobane seed survey came as a response to the drought in KZN, as Biowatch and farmers were concerned about its impact on seed diversity and seed saving. It was important to have a deeper understanding of the status quo of farmers' seed in the five areas where Biowatch works in northern KZN, and so a process and questionnaire tool were developed and refined over the last 3 years. In the current context there is also a lack of research which directly addresses seed issues at a localised level, making this intervention more important. Participation in, and facilitation of, the wider SKI project also supported a stronger focus on research in Biowatch.

Other information, if applicable:

- The objectives of the survey were to:
 - Collect and document biographical data of individual farmers
 - Understand the household information that agricultural activities are carried under
 - Determine the amount of selected seeds available to the farmers
 - Determine key the consumption/nutritional information about of each household
 - Use GPS mapping to identify the location of the farms
- Target group(s) and numbers of involved and affected farmer: Over 200 farmers participated in the seed survey each year from 2016 to 2018. The exact number of participants per year were as follows: 2016 had 313 respondents, in 2017 there were 269 participants, and in 2018 222 farmers participated. The results are fed back to representatives from the farmer committees.
- Location(s) and geographical outreach: Ingwavuma, KwaNgwanase, Tshaneni, Pongola and Kwahhohho in Mtubatuba in northern KwaZulu-Natal in South Africa
- Resources used for implementation of the measure/practice:
The survey used mobile devices to capture the GIS location and input the data (answers to interview questions, observations and measurements) in pre-designed and loaded questionnaires with drop-down menus for ease and accuracy of inputs. The data was then uploaded from the mobile device to a central computer for collation and analysis.

How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture? Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

The results of the survey enable Biowatch and the farmers to identify trends in terms of seed availability and quantity, and waning or increasing interest in growing of traditional crop varieties. This has led us to explore the changes with the farmers and identify underlying challenges that influence farmer choices. For example, Biowatch followed up in meetings about the minimal increase in finger millet: farmers were challenged to harvest and process the millet as many areas had lost the traditional knowledge associated with utilisation of the crop. Biowatch then organised a skill share workshop where farmers from KwaNgwanase who still have this knowledge, shared their harvesting, winnowing, and cooking techniques with farmers from the other groups.

Other national level instruments that are linked to the measure/practice [The Stats SA household survey and agricultural statistics](#)

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

[United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas](#)

- Other issues you wish to address, that have not yet been covered, to describe the measure/practice [No](#)

Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices
 - The importance of farmer buy-in to the successful implementation and use of the research.
 - The process re-emphasised to us the need to have a pilot phase to iron out any of the initial research issues.
 - The benefits of upskilling local young people in the collection of data – it allows for skills transfer and income generation, it supports community buy in and ownership, it encourages continuity and learning between the different surveys. Proper training (regarding the purpose of the research, identification of seeds types, variety and quality issues, accurate measuring, use of the data capturing mobile technology) is key here.
 - It is important to account for the technical complexities of researching varieties. What Biowatch found to be practical and meaningful was to select certain crops to explore at varietal level.
 - It is important to account for different storing methods when weighing seeds – for example maize seeds may be stored in jars or on the cob so in this case cobs should be counted, and the seeds weighed.
- What challenges encountered along the way (if applicable) (max 200 words) What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity?
 - Farmer buy in is crucial and requires sustained relationship building.
 - Training of the data capturers (see above).
 - Raised expectations among certain households that resources were going to be distributed remained a challenge despite communications to the contrary.
 - Spatial distribution of homesteads, road access and transport availability, and poor mobile coverage in remote areas for uploading data all posed logistical challenges that increased the time and expense of the survey.

- It was felt that there could be improvement in the packaging and sharing of the results to different audiences. Time and further resources were key obstacles here.

(max 100 words)

Further information

- Link to further information about the measure/practice:
[A synthesis report is still being prepared.](#)

Examples on Farmers' Rights in Zambia by Community Technology Development Trust (CTDT) (also submitted separately)

Basic information

Title of measure/practice

The measures contributing to Farmers' Rights include community Seed multiplication of farmer varieties for distribution in the community and for exchanges within the community, between communities in different districts and between Zambia and Zimbabwe. This includes supporting community seed banks including establishing seed bank committees and training them in the principles of seed storage. The community seed bank programme includes seed acquisition and depositing and identification of structures in the community to house the community seed bank.

Farmer field schools have been established and become avenues for farmer knowledge sharing on genetic diversity and improvements of their varieties through participatory variety selections.

Awareness creation on the ITPGRFA including Farmers' Rights and its relation to the national seed policy and legislation is being done for farmers and all stakeholders. The seed stakeholder definition has been broadened to include all sectors that impact on small scale crop production. Apart from just the seed companies and national seed authority, seed stakeholders now include the national genebank, the national focal point for the ITPGRFA, national focal point for Access and Benefit Sharing (ABS) and CBD, national focal point for Traditional Knowledge, Genetic Resources and Folklore, civil society and farmer organizations.

Capacity building is being done for government extension staff, civil society and policy makers in ITPGRFA and Farmers Rights. This is intended to empower this group and other stakeholders to improve the quality of their input into the various national seed programs so that Farmers' Rights are fully realised.

Seed diversity fairs are regularly held and hosted by communities in various districts to showcase the available seed diversity in these areas. These events provide additional opportunities for seed exchanges by the farmers as well as information sharing. Traditional food fairs are held to link to the seed diversity and to relate to healthy diets including for the urban consumers.

Demonstration plots are established in various communities to show the crops that are produced from the existing and introduced seed diversity. These are also used to compare crop performance of the many varieties that are available to the farmers including those from germplasm received from other communities, national genebank and the CGIAR such as sorghum and millet from ICRISAT and cowpea from IITA.

Responsible institution/organization

Community Technology Development Trust (CTDT)
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PO Box 310234, Lusaka, Zambia

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Tel: +260 966 754520

Type of institution/organization

CTDT is a Zambian registered non-profit making organization with offices in Lusaka and programmes in the four districts of Chikankata, Chirundu, Rufunsa and Shibuyunji. The vision of CTDT is conserving biodiversity for food and agriculture and promoting its use in support of national and household food security and sustainable development.

Collaborating/supporting institutions/organizations

Community Technology Development Trust (CTDT) in Zambia has been implementing projects on farmer managed seed systems that have included addressing various aspects of Farmers' Rights as espoused in the ITPGRFA. The activities have been conducted as part of the Seed and Knowledge Initiative (SKI) programme with support of Bread for the World (BftW) and the Benefit Sharing Fund of the ITPGRFA supported joint project in Malawi (Centre for Environmental Policy Analysis), Zambia (CTDT) and Zimbabwe (CTDT).

Description of the examples

Brief history

CTDT commenced working on some measures that support Farmers' Rights in 2011 with support from Hivos. In 2016 the full complement of measures that support Farmers' Rights commenced under the Benefit Sharing Fund supported joint project entitled "*Policies and practices to facilitate the implementation of developed Strategic Action Plans for Plant Genetic Resources conservation and use for the improvement of food and nutrition security under changing climatic conditions*" together with CTDT-Zimbabwe and CEPA of Malawi. The same year CTDT began to participate in the Seed and Knowledge Initiative (SKI) on farmer managed seed systems.

Core components of the measure/practice

Strengthening the on-farm conservation of genetic diversity of local crops is a major core component in support of Farmers' Rights. CTDT enables farmers to own, manage, control and benefit from agro-biodiversity through restoration and enhancement of plant genetic resources. CTDT helps farmers to increase their ability to manage agro-biodiversity and to benefit from it through establishment of community seed banks and collection of the diversity of local crops, documenting and conserving it. Programmes include all activities that feed into the community seed bank such as diversity fairs, diversity blocks, biodiversity registers and community seed multiplication.

Programme activities are intended to increase household food security through improved access to all seeds that they desire to produce food crops. Households are trained and have capacity to adapt to climate change using local resources, biodiversity and appropriate agriculture technologies, soil and water conservation.

To advocate for changes to policies on seed and to push for the realization of Farmers' Rights, CTDT engages in research, policy and advocacy and lobbying designed to bring the voice and experience of local communities to the attention of policy makers. Mechanisms for farmer benefit sharing from the use of their plant genetic resources are explored with all stakeholders including farmers, policy makers, technocrats and general citizenry to also make them fully aware of what Farmers' Rights constitute. There is continued engagements that are intended to result in the revision of the Plant Breeders Rights Act to remove articles that limit the farmers' right to save, sale and exchange all forms of seed amongst themselves.

Short description of the context and the history of the measure/practice

While the country recognizes both the informal and formal seed sectors in policy pronouncements, the seed laws and regulations governing the seed industry have tended to address only the formal sector to the disadvantage of the small-scale farmers. An elaborate seed control and certification system is in place that makes it difficult for these farmers' participation because of the need for various fees and conditions. The Plant Breeders Act has been enacted to the exclusion of consideration for the small-scale farmers. The Act prohibits these farmers to practice their traditional systems of seed saving, exchanges and sales for protected varieties. Farmers who cannot purchase hybrid seeds often source second generation hybrid seed from those that are able to purchase it. But second-generation hybrid seeds give unpredictable yield. The government policy in Zambia does provide for Farmers' Rights and for conservation and sustainable use of local varieties. Therefore, it is still feasible to revise the Plant Breeders' Rights or enact legislation that addresses the needs of small-scale farmers and rural communities.

Objective of seeds projects

The main objective of work on farmer seeds is to contribute to help ensure sustainable food security by assisting farmers to adapt to climate change through a targeted set of high impact activities on the conservation and sustainable use of plant genetic resources for food and agriculture. Specifically, the focus has been:

- To strengthen the conservation of genetic diversity of local crops
- To improve household food and nutrition security using local crop diversity
- To improve the capacity of local communities to adapt to climate change using local resources, biodiversity and conservation farming practices
- To improve the livelihoods of local communities through market support and improved entrepreneurship
- To advocate for changes to policies on seed and to push for the realization of Farmers' Rights
- To increase the participation of women in all community programmes and in decision making processes as well as programme management and implementation

Target groups and numbers

The projects addressing aspects of Farmers' Rights have targeted about 8,000 farmers in marginalised communities of four districts of which 40% are women.

Locations and geographical outreach

The geographical area covered includes the drier areas of four districts in three provinces as shown below.

Province	District
Central	Shibuyunji
Lusaka	Chirundu
	Rufunsa
Southern	Chikankata

Resources used for implementation

The seeds projects are intended to contribute to the improvement of food and nutrition security of rural households in four districts of Zambia (Chikankata, Chirundu, Rufunsa and Shibuyunji) through improving the management of the diversity of sorghum, millet and cowpea in addition to promoting farmer varieties of all traditional crops that contribute to household livelihoods. Sorghum and millet have been reintroduced in some areas in order to respond to the changing climate where there has been a reduction in annual rainfall and increase in occurrences of drought. In addition, CTDT has been

addressing national policy and legislative issues that hinder sustainable improvement, management and utilization of PGR.

The intention has been to contribute to the improvement of food and nutrition security of rural households in through improving the management of the diversity of sorghum, millet and cowpea. CTDT has promoted these target crops which have been reintroduced in targeted districts. As a strategy for building climate resilient communities CTDT also seeks to identify the PGR which are best suited for the area through participatory variety selection. To fully promote utilisation and adoption of these crops' activities such as seed fairs, participation in national seed and food festivals and farmer exchange visits are carried out for sensitization and to allow exchange and sell of germplasm among the farmers.

The programme has thus created stronger linkages between community seed banks, the national gene bank and other civil society organisations and the farmers themselves to share expertise with regards to the importance of these PGR and how they relate to climate change, food and nutrition security of rural households.

Through this work on seed, CTDT has been identified as a key expert on the National Committee for Plant Genetic Resources. This effort has strengthened collaboration, dialogues and linkages between the key players in the seed sector.

The seed programme has provided for increased availability of seed of local crops in the target areas where seed of sorghum, pearl millet, finger millet and cowpea are being multiplied by the community and distributed through the community seed bank committees that farmers have established. Through training on climate resilient production, farmers' knowledge on climate and linkages with use of their traditional crops and varieties has increased tremendously. Farmers are much more appreciative of the importance of biodiversity in helping them to adapt to the changing climate.

Many farmers had over the years forgotten how to cultivate millets and the project is helping to rebuild this knowledge as many farmers are participating in establishment and management of demonstration plots and in community seed multiplication. Farmers are contributing to increased conservation of PGRFA by adopting a wider diversity of traditional varieties. They are adopting more varieties and crops to counter the negative effects of climate change and to fulfil their food and nutrition requirements but in so doing are helping to conserve this diversity.

Farmers and other stakeholders are benefiting from increased knowledge and understanding of how the farmer seed systems can sometimes be negatively impacted by the national seed law and the plant variety protection system. Farmers are now voicing their own views and fears as well as suggestions on how seed laws can be turned to their benefit.

Other relevant international agreements

Apart from being a party to the ITPGRFA, Zambia has been a member of the World Intellectual Property Organization (WIPO) since 1977 and has participated in the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore with the objective of reaching agreement on an international legal instrument for the protection of traditional knowledge, traditional cultural expressions and genetic resources. Zambia has since enacted a law: The Protection of Traditional Knowledge, Genetic Resources and Expressions of Folklore Act of 2016.

This is an Act to provide for a transparent legal framework for the protection of, access to, and use of, traditional knowledge, genetic resources and expressions of folklore, which also guarantees equitable sharing of benefits and effective participation of holders. The Act sets out:

- i. to recognise the spiritual, cultural, social, political and economic value of traditional knowledge, genetic resources and expressions of folklore of holders;

- ii. to promote the preservation, wider application and development of traditional knowledge, genetic resources and expressions of folklore;
- iii. to recognise, protect and support the inalienable rights of traditional communities, individuals and groups over their traditional knowledge, genetic resources and expressions of folklore;
- iv. to confer rights on traditional communities, individuals and groups and promote the conservation and sustainable utilisation of the country's biodiversity resources;
- v. to promote fair and equitable distribution of the benefits derived from the exploitation of traditional knowledge, genetic resources and expressions of folklore;
- vi. to promote the use of traditional knowledge, genetic resources and expressions of folklore for the benefit of traditional communities, the country and mankind in general;
- vii. to ensure that exploitation of traditional knowledge, genetic resources and expressions of folklore takes place with the prior informed consent of a traditional community, individual or group;
- viii. to prevent the granting of patents based on traditional knowledge, genetic resources and expressions of folklore without the prior informed consent of a traditional community.

Zambia is also a party to the World Trade Organisation (WTO) Trade-Related Intellectual Property Rights Agreement (TRIPS) which allows for development of a *sui generis* system of plant variety protection that could address Farmers' Rights.

Need for explicit law on Farmers' Rights

It is desirable for the country to push for a holistic seed policy and legal framework that enables the inclusion of all types of seed, including farmers' varieties that may currently not be acceptable for inclusion on the official variety list. There is need to support a multi-actor dialogue process that involves all stakeholders in a broader seed value chain that links crop diversity to seed in a more appropriate and direct manner than has so far happened. This will allow farmers, civil society and other relevant farmer organizations to participate in the decision-making process regarding the organization of a national seed system. Farmers are the major custodians of PGR and there is therefore a need to increase farmer knowledge and appreciation about Farmers' Rights amongst the farmers. Farmers should be empowered to take more responsibility about their destiny about crop diversity and seed system.

Lessons learned

Lessons from implementation

Due to the implementation of the various measures, farmers have begun to realise the importance of their plant genetic resources that they have been losing over the past years. They have since begun to realign their production system to become more diverse to conserve the plant genetic resources through adopting the targeted PGRFA. Farmers' interest has also been driven by the need to become more resilient especially due to climate change. The trainings in climate resilient production generated a lot of interest with farmers eager to spread risk by planting diverse crops and varieties.

There is a response of commodity buyers when they see increasing production of any crop. Initially there were no known buyers for the target crops but recently, there have been increasing queries from potential buyers about quantities of cowpea, sorghum, finger millet and pigeon pea that can be produced by farmers in the project areas. This is also related to increasing awareness about non-communicable diseases that is causing an increase in the interest in the target crops especially finger millet which is becoming popular as a safe cereal for diabetes control.

Another lesson learnt is the importance of women participation in programmes. Women have played significant roles in accessing, sharing and planting seed of the target crops. While men have tended to

target what they consider commercial crops like maize with a ready market, it has been easier for women to grow these crops because their immediate need is household food and they grow even if there is no pre-determined market. Women have also been more likely to plant many different varieties of a crop thereby contributing more to conservation and sustainable use of PGRFA.

Implementation of seed projects has enabled CTDT to realize that there is a lot of interest by farmers and various stakeholders to work on farmer seed systems. It is not just a few volunteer farmers willing to adopt the targeted PGRFA but most of them especially after awareness through training and their own experiences with climate change. There is therefore a much bigger scope than anticipated to work with more farmers on the targeted crops. Most of the organizations that work with farmers have also shown interest to work more on PGRFA preceded by their own capacity building which CTDT has been providing.

Challenges encountered

There is always an ever presence threat to PGRFA that is caused by the changing lifestyles being influenced by urban life styles. This necessitates the need to create more awareness both in rural and urban areas. There are also the ever-increasing pressures from negative effects of developmental messages targeting specific crops such as the government subsidy program on maize. CTDT continues to raise awareness among policy makers so that they can better appreciate some of the negative effects of policy. The trend in which seed policy and legislation are moving towards alienating farmer seeds and farmer varieties requires that more resources be placed in awareness creation and information provision for farmers and all stakeholders including policy makers. So far there are no direct impediments in carrying out activities that promote traditional crop varieties, but this could change.

Conditions for success

Participation and collaboration of a wide stakeholder has made it possible to implement Farmers' Rights activities by utilizing a wide range of expertise and experiences. Policy support for field work is guaranteed when other actors take up field experiences and use to inform advocacy. Networking has also increased knowledge and understanding about Farmers' Rights and how they contribute to conservation and sustainable use. Networking has contributed to spreading information about target PGRFA beyond CTDT where partner organizations are now promoting the target PGRFA among the farmers they work with in other areas of the country not targeted by this project.

To ensure efficiency of project implementation, the target community is organized in farmer groups that are composed of both men and women. This strives to ensure that all groups have no less than 50% women and that the group leadership and other decision-making structures also have similar levels of women participation. This arrangement also allows for smooth monitoring of farmer activities as they train together and re-train each other to update those that may have missed training. They establish demo plots together and manage them throughout the growing season. This visibility has also been used to attract more farmers to participate in the programmes. It is also a good sustainability strategy because these groups tend to continue to do things together even beyond project boundaries. Deliberate targeting of women participation has proved very fruitful especially that women have shown a natural inclination towards diversity and appreciate PGRFA. So, increasing their participation especially in decision making structures such as seed bank committees ensure that smaller varieties with no significant economic value are also included in the seed collection. This is because women play a bigger role in ensuring household food security especially nutrition since they also have the responsibility for food preparation and therefore appreciate diverse PGRFA more than their spouses.