

CAPACITY BUILDING MATERIAL FOR THE REALIZATION OF FARMERS' RIGHTS IN MALAWI

Farmers' rights related to plant genetic resources for food and agriculture in Malawi





CAPACITY BUILDING MATERIAL FOR FARMERS' ORGANIZATIONS, DECISION MAKERS AND RELEVANT STAKEHOLDERS

FARMERS' RIGHTS RELATED TO PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE IN MALAWI

The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is the only legally binding international agreement that explicitly recognizes Farmers' Rights. The International Treaty does, however, not define Farmers' Rights. A working definition of Farmers' Rights that was provided based on research done by the Fridtjof Nansen Institute through its Farmers' Rights Project is read as: those rights that consists of the customary rights of farmers to save, use, exchange and sell farm-saved seed and propagating material, their rights to be recognized, rewarded and supported for their contribution to the global pool of genetic resources as well as to the development of commercial varieties of plants, to participate in decision making on issues related to crop genetic resources and protect their traditional knowledge, innovations and practices relevant for the use and conservation of plant genetic resources for food and agriculture. According to the International Treaty, Farmers' Rights should be promoted at national and international levels, but the responsibility for their realization rests with national governments.

This capacity building material is developed in response to requests made by small-scale farmers and relevant stakeholders in Malawi to support their capacity development for the implementation of Farmers' Rights in the country. This capacity building material is intended, mainly, for small-scale farmers, local leaders that live and depend directly on family farming; farmers' organizations and decision makers, including the Ministry of Agriculture; the Malawi Plant Genetic Resource Centre; agricultural research institutes; and the Seed Certification Unit of Malawi as well as Civil Society Organizations.

This capacity building material on Farmers' Rights is framed within the Capacity Building Programme on the Implementation of Farmers' Rights implemented by GFAR; and the Community Based Agro Biodiversity Management Programme of the Development Fund of Norway undertaken in Malawi supporting small-scale farmers to achieve and sustain food security, including through their empowerment and increased local capacity.

The aims of the capacity building material include to increase the capacity development on Farmers' Rights and their implementation at the national and local levels; increase awareness of Farmers' Rights as crucial for food security among small-scale farmers, relevant sectors and decision makers; increase the awareness of the role women farmers' play in agriculture and food security; provide policy direction and guidance for the development of policies and legal instruments implementing Farmers' Rights, and the review and adjustment of national measures affecting those rights; promote the co-existence and mutual reinforcing of Farmers' Rights and breeders' rights.





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INTRODUCTION TO THE CAPACITY BUILDING MATERIAL

The Global Forum on Agricultural Research – GFAR; and the Development Fund of Norway-DF, with its local partner in Malawi, the Centre for Environmental Policy and Advocacy- CEPA, have developed this capacity building material for small-scale farmers, farmers' organizations, decision makers and relevant stakeholders. These three institutions are aware of the need and importance of recognizing and implementing the rights of farmers over plant genetic resources for food and agriculture and associated traditional knowledge.

This capacity building material is intended, mainly, for small-scale farmers, local leaders that live and depend directly on farming; farmers' organizations, relevant stakeholders and decision makers, including the Ministry of Agriculture; the Malawi Plant Genetic Resource Centre; agricultural research institutes; and the Seed Certification Unit of Malawi.

The capacity building material on Farmers' Rights is framed within the Capacity Building Programme on the Implementation of Farmers' Rights implemented by GFAR; and the Community Based Agro Biodiversity Management Programme of the Development Fund of Norway undertaken in Malawi supporting small-scale farmers to achieve and sustain food security, including through their empowerment and increased local capacity.

It is expected that small-scale farmers will be able to increase their capacity and knowledge on the rights over plant genetic resources for food and agriculture and associated traditional knowledge. This will contribute to strengthening farmers' understanding the value of agrobiodiversity and responding to their rights over plant genetic resources for food and agriculture.

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In addition, the capacity building material is a contribution to other efforts being made by other organizations including mandated ministries and its departments to ensure the rights of small-scale farmers over their plant genetic resources for food and agriculture and associated traditional knowledge. The material recognizes the work done by the Farmers' Rights Project lead by Fridtjof Nansen Institute and builds up on that initiative.

Note

The capacity building material on Farmers' Rights is framed within the International Treaty on Plant Genetic Resources for Food and Agriculture.

The International Treaty on Plant Genetic Resources for Food and Agriculture, in force since 2004, is the only international legal binding instrument recognizing the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources. The Treaty recognizes that such contributions are the basis of Farmers' Rights.

According to the International Treaty, Farmers' Rights should be promoted at national and international levels, but the responsibility for their realization rests with national governments.

The Treaty establishes as measures to protect and promote Farmers' Rights the following:

- protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
- equitably participate in sharing benefits arising from the use of plant genetic resources for food and agriculture;
- participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture; and
- save, use, exchange and sell seeds and propagating material saved in farms.

This list is not exhaustive and governments could adopt additional measures to realize Farmers' Rights at the national level. However, the Treaty recognizes that the implementation of the mentioned measures is fundamental to the realization of Farmers' Rights.

The capacity building material on Farmers' Rights offers useful mechanisms for advancing in the implementation of the International Treaty in Malawi, especially in the realization of Farmers' Rights.

Aims of the capacity building material

- *Provide* tools to inform and create awareness amongst farmer communities, relevant stakeholders and decision makers on Farmers' Rights.
- *Inform* on national and international discussions being made relevant for the implementation of Farmers' Rights.
- *Encourage* dialogue among stakeholders on what Farmers' Rights are, their scope and implementation at national level.
- *Provide* relevant information that can serve as input in the development of protocols, community instruments, policies, legal and administrative measures ensuring the recognition and implementation of Farmers' Rights.

Main beneficiaries

The capacity building material on Farmers' Rights is intended for organizations of small-scale farmers; local leaders and community facilitators; development agents, policy makers and technocrats in the government institutions, teachers and others interested in the protection and enforcement of Farmers' Rights. It is expected that they can communicate and teach others about Farmers' Rights contributing with their implementation.

Where can it be used

The capacity building material on Farmers' Rights could be used at:

- Farmers or community meetings
- Schools, universities and research institutions
- Workshops of farmers' communities, technocrats and policymakers; and
- Policy dialogue sessions

What can be done with this material

The capacity building material on Farmers' Rights could be used for:

- Motivating the performance of self-diagnosis of the state of the recognition and implementation of Farmers' Rights in Malawi
- Designing national or/and local strategies, research protocols and other instruments of governance to ensure the respect and protection of Farmers' Rights
- Supporting public awareness and better understanding of Farmers' Rights promoting its implementation in practice

INTRODUCTION TO FARMERS' RIGHTS IN MALAWI

The International Treaty on Plant Genetic Resources for Food and Agriculture, adopted in 2001 and in force since 2004 is the only international legal binding instrument recognizing Farmers' Rights. Past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources are the basis of Farmers' Rights. The role that small-scale farmers have played and play for food security in developing countries is quite significant.

Malawi has a total land area of 11.8 million hectares, of which Lake Malawi occupies one-fifth of the total. The country has 9.4 million hectares of land (56%) that is cultivable. However, its economy is highly dependent on agriculture. 85% of Malawi's total population (around 13 million) live in rural communities. There are approximately 2.67 million households engaged in small-scale agricultural production contributing to 80% of Malawi's food¹. Small-scale farmers contribute with 70% of Malawi agricultural GDP, which contributes 39% of the total GDP.

According to the International Treaty Farmers' Rights should be promoted at national and international levels, but the responsibility for their realization rests with national governments.

Despite the Treaty does not define what Farmers' Rights are, it lists the following measures countries shall adopt to protect and promote Farmers' Rights:

- protect traditional knowledge relevant to plant genetic resources for food and agriculture;
- ensure the right to equitably participate in sharing benefits arising from the use of plant genetic resources for food and agriculture;
- ensure the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture; and
- ensure the right to save, use, exchange and sell seeds and propagating material saved in farms.

As already mentioned, while the list is not exhaustive, the Treaty in its Preamble says that the mentioned measures

are fundamental to the realization of Farmers' Rights, as well as the promotion of Farmers' Rights at national and international levels.

The main purpose of Chapter 1 is to explain what Farmers' Rights are and how they can be implemented in practice in Malawi.

What do we mean by Farmers' Rights

Before talking about Farmers' Rights, it might be important to understand the concept of "rights" in general terms.

Rights are legal, social or ethical principles of freedom or entitlement. They are fundamental normative rules about what is allowed of people or owed by people.

Rights are often considered fundamental to civilization, as being considered pillars of society. According to the Stanford Encyclopedia of Philosophy "rights structure the form of governments, the content of laws and the shape of morality as it is currently perceived".

Human rights are those rights inherent to human beings, irrespective of nationality, place of residence, sex, national or ethnic origin, colour, religion, language or other status distinction. These rights can be civil, political, economical, social, cultural and collective.

Collective human rights aim to protect the interests and identity of a group of people, rather than of individuals.

In addition to the rights inherited to all human beings, including the right to life; freedom of expression; the right to work; to development and self-determination, farmers are entitled to very special collective human rights known as Farmers' Rights.

Farmers' Rights are the rights of farmers to:

i) Conserve their seeds and propagating material. It includes *in situ* conservation, meaning the conservation of ecosystems and natural habitats and the maintenance and recovery of plant species in their natural surroundings or where they have developed their distinctive properties. The right to conserve also includes on-farm conservation and management, where small-scale farmers play a very important role. On-farm conservation is important as it preserves evolutionary interactions necessary for climate change, pests and diseases. It is also the best way to protect the traditional knowledge of small-scale farming systems in which food crops have evolved.

1. Food and Agriculture Organization of the United Nations, "WTO Agreement on Agriculture: The Implementation Experience - Developing Country Case Studies" in FAO Corporate Document Repository viewed on 26 February 2015, <http://www.fao.org/docrep/005/y4632e/y4632eOn.htm#bm23.1>



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The International Treaty on Plant Genetic Resources for Food and Agriculture recognized the specific role small-scale farmers have in conserving plant genetic resources for food and agriculture. Community seed banks are one way small-scale farmers could use to conserve their seeds and propagating material.

ii) Use their seeds and propagating material. It implies the right to keep farming systems, which are important to small-scale farmers as they are closely linked to their livelihoods. Small-scale farmers have the right to keep using their seeds and propagating material for their food security and improve their livelihoods, by sowing and re-sow their seeds and propagating material. Restrictions through the recognition of intellectual property rights over improved seeds could restrict or limited the right of farmers to further use (sow and re-sow) seeds.

The right of farmers to continue using their seeds also includes their right to keep using local and locally adapted varieties and underutilized species.

iii) Exchange seeds and propagating material. Farmers have the right to keep exchanging their seeds and propagating material, as they have done it for centuries. An example on how farmers exchange their seeds is explained later in this document.

iv) Sell seeds and propagating material saved in their farms. Small-scale farmers have the right to commercialize their seeds and propagating material. A legal framework

allowing this activity is needed, which recognizes the special characteristics of the informal seed system.

v) Participate in making decisions, at various levels relevant for the conservation and use of plant genetic resources for food and agriculture. Small-scale farmers have the right to participate in the process of taking decisions, and to be able to participate, small-scale farmers should have strong organizations representing their interests.

vi) Protect their traditional knowledge, innovations and practices relevant for the conservation and use of plant genetic resources for food and agriculture. Farmers' have the right their traditional knowledge, which is under threat of erosion, is protected.

vii) Receive benefits, in an equitable way, arising from the use of plant genetic resources for food and agriculture. The right of farmers to benefit from the use of their resources and traditional knowledge was recognized by the international community when Farmers' Rights were recognized in the framework of the United Nations.

Plant Genetic Resources for Food and Agriculture (PGRFA) is the technical way to refer to seeds and propagating material of plant origin of actual or potential value for food and agriculture. Also, in this context, associated traditional knowledge includes traditional innovations and practices relevant for the conservation and use of plant genetic resources for food and agriculture.

It has been recognized by the whole international community that farmers from all regions of the world, especially those living in centres of origin and diversity, have conserved, improved and made available plant genetic resources for food and agriculture indispensable for crop improvement, adapt to unpredictable environmental changes, future human needs and ensure local, national and global food security.

The Food and Agriculture Organization of the United Nations recognized Farmers' Rights in the 80s. However, only in 2001, this recognition was reflected in an international law "the International Treaty on Plant Genetic Resources for Food and Agriculture". Malawi is a Contracting Party of the International Treaty since 2002 and therefore is obliged to implement the Treaty nationally. (More information about the International Treaty is available in Chapter 4 of this document and the Treaty website <http://www.planttreaty.org/>)

Plant genetic diversity in Malawi

Malawi has a rich diversity of plants due to its diverse range of agro-ecological systems. Around 555 species have been reported as food crops and wild edible plants. The principal food crops in Malawi are maize, rice, sorghum, cassava, potatoes, beans and bananas.

Malawi has a very important maize genetic diversity. Local maize varieties include black maize, purple, red, yellow, white and maize with mixed coloured ears, of varying lengths and circumferences.

The country has also diversity of rice varieties. The most common cultivated species is *Oryzasativa* (*Mpunga*). Other species of wild rice (*mpunga wantchire*) include *Oryzapunctata*, *Oryzalongistaminata* and *Oryzabarhii*. These landraces carry traits such as disease and pest resistance and drought tolerance that breeders and future generations may find extremely useful to sustain food production.

However, according to recent studies, most of the local varieties of maize, sorghum and finger millet have been lost. Some of the varieties that have been lost include *kanjerenjere* (early maturing maize variety); *kamchiputu* (aromatic sweet potato); *saopa-alendo* (fast cooking bean variety); and most of the indigenous vegetables². This, among other causes, has reduced small-scale farmers' choices of planting seeds and increased vulnerability of their crop production to climate change hazards like drought.

Mr Olivier De Shutter, the UN Special Rapporteur on the right to food, said in 2013 that in Malawi more than 50% of its population was stuck in poverty and about half of its children suffering from acute or severe malnutrition. The Rapporteur also stated that although the country is often identified as an example of how hunger can be tackled by subsidizing inputs for farmers, it is also a case of missed opportunities when too little is done to empower the poor and break cycles of dependency³.

2. Malawi Government, "Country Report on the State of Plant Genetic Resources for Food and Agriculture- Malawi" in *Food and Agriculture Organization of the United Nations*, viewed on 19 January 2015 <http://www.fao.org/docrep/013/i1500e/Malawi.pdf>

3. United Nations Radio, 'Food insecurity and malnutrition still rife in Malawi' in News and media United Nations Radio, viewed on 29 January 2015 <http://www.unmultimedia.org/radio/english/2013/07/food-insecurity-and-malnutrition-still-rife-in-malawi/>

According to the Report of the State of Food Insecurity in the World of 2014, hunger and food inadequacy in Malawi have been declining since 2005. Malawi has been one of the 39 countries achieving the Millennium Development Goal of halving the proportion of hungry people in their territories. Nevertheless, food nutrition and security remain challenges in Malawi.

In 1996 at the World Food Summit, Heads of State and Governments reaffirmed the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the right of everyone to be free from hunger. In 2004, voluntary guidelines to support countries' efforts to achieve the realization of the right to food in the context of national food security were developed.

The right to food is a social, economic and cultural right aiming that everyone has adequate food and is free from hunger. This right was first recognized by the International Covenant of Economic, Social and Cultural Rights and other relevant international instruments.

According to the guidelines, countries may consider the following towards the realization of the right to food at the national level:

- Promoting democracy, sustainable development and good governance
- Promoting adequate and stable supplies of safe food
- Adopting a holistic approach and comprehensive approach to hunger and poverty reduction
- Ensuring access to adequate food, investing in productive activities to improve the livelihoods of the poor and hungry
- Developing appropriate institutions and functioning markets
- **Encouraging the conservation and sustainable management of natural resources**
- Improving access to land, water, and appropriate and affordable technologies, productive and financial resources
- Promoting the participation of the poor in economy policy decisions, share the benefits of the productivity gains and invest in rural infrastructure, education and research
- Putting legislation, policies, procedures and regulatory and other institutions in place to ensure non-discriminatory access to markets and to prevent uncompetitive practices in markets
- Promoting small-scale local and regional markets
- **Promoting access by medium and small-scale farmers to research results enhancing food security**
- Promoting women's full and equal participation in the economy and securing their equal access to, control over, and benefit from productive resources, including credit, water and appropriate technologies, and
- **Protecting traditional knowledge**⁴.

How are Farmers' Rights implemented in practice

1. Farmers' Right to conserve and use seeds and propagating material saved in their farms

Farmers have the right to keep doing what they have done for centuries: conserving and developing crops in their farms, particularly in the face of climate change and human needs.

4. 'Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security; in *Food and Agriculture Organization of the United Nations*, viewed in 2 February 2015 <http://www.fao.org/3/a-y937e.pdf>

In 2010, the Food and Agriculture Organization of the United Nations noted in the Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture the need for and importance of on-farm conservation and management of landraces and underutilized species.

Landraces are unique varieties of crops that have adapted to local conditions through a process of farmer selection. They are traditional crop varieties with important genetic diversity for resilience and associated with traditional farming systems.

Landraces and underutilized crops are very important to food and livelihood security, particularly in the context of climate change. Seeds from these crops are the main input for small-scale subsistence agriculture and the genetic diversity is important for development of new varieties of crops to adapt our agriculture to changing climate and sustainably increase production to fulfil human needs and preferences. It is important to recall that the modern varieties we use in agriculture today contain genes coming from wild relatives of crops and genes from traditional varieties⁵.

Landraces are crops adapted to local environments and therefore may be more productive and nutritious. They have a wider range of culinary uses, are less likely to suffer from pests and diseases. However, there is an increasing loss of many landraces due to a number of reasons, including:

- Their replacement with modern cultivars. Let's not forget that non-utilisation of cultivars implies their inevitable demise;
- Climate change, which increases their susceptibility to drought, pests and diseases; and
- Lack of incentives through extension, finance, policies and regulations for participatory action research to develop new crop varieties and on-farm conservation.

One of the most important international conventions for the conservation and sustainable use of natural resources, the Convention on Biological Resources of 1992, adopted Biodiversity Targets in 2010, which drew attention of the importance of conserving the genetic diversity of crops, livestock and other valuable species. It established as a target by 2020 that 70% of genetic diversity of crops including their wild relatives and other socio-economically valuable plant genetic resources are conserved, while respecting, preserving and maintaining associated traditional knowledge.

There are different strategies for the conservation of landraces or wild crop relatives, including:

- *Ex situ* conservation: meaning the conservation of plant genetic resources for food and agriculture outside their natural habitats (e.g. in national and international genebanks and botanical gardens). "Defacto" *ex-situ* conservation strategy practiced

by small-scale farmers such as traditional and local storage facilities (clay pots, gourds, underground pits, community seed banks) appears to be more dynamic than formal genebanks in that they are more integrated with farmers' practices of crop management in their fields. It is important to link the conservation practices by small-scale farmers with the formal *ex-situ* conservation.

- *In-situ* conservation: the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings.
- On-farm conservation: meaning the management and conservation of plant genetic resources for food and agriculture especially traditional varieties of crops in farmers' fields. Small-scale farmers practised on-farm conservation for millennia. Each season the farmers keep a proportion of harvested seed for re-sowing in the following year, which is highly adapted to the local environment and likely to contain locally adapted genes. For instance, farmers grow a diversity of small populations of plants in their back yard or home garden and use the produce especially for home consumption contributing to the sustainable management of genetic diversity of locally developed traditional crops.

According to the 2008 Status Report of Plant Genetic Resources for Food and Agriculture in Malawi, there is limited scientific methodology or strategies for implementing on-farm conservation in the country. This is the reason why most of the activities that are implemented towards supporting on-farm conservation in the country have generally involved pilot studies rather than long-term programs.

Practical ways to implement Farmers' Rights to conserve and use seeds and propagating material saved in their farms

A. Community Seed Banks

Community seed banks and grain banks are a system where seed multiplication, production, storage, exchange, marketing, participatory plant variety selection and breeding is coordinated and managed by organized group of farmers to facilitate access to diverse seeds and flow of genetic resources. It is built on informal seed systems and seed loan system plays a key role in seed diffusion. Community seed banks are a local level institution that strengthens the informal seed supply system and promotes the rights of farmers to save, exchange, use and sell seeds collectively. The multiple complementary functions and services of community seed banks are to:

- Ensure the availability of locally adapted good quality seeds and enhance farmers' access to such seeds
- Encourage the conservation, enhancement and sustainable use of genetic resources
- Strengthen the local seed system by promoting the multiplication, saving, exchange and sale of local seeds among small-scale farmers
- Counter erosion of crop diversity and provide a safety net for access to local seeds during natural disasters

5. N Maxted, S Kell and J Magos, 'Options to Promote Food Security: On-farm management and in situ conservation of Plant Genetic Resources for Food and Agriculture' in *Background Study Paper No. 51 Commission on Genetic Resources for Food and Agriculture, Food and Agriculture Organization of the United Nations*, viewed on 2 February 2015 <http://www.fao.org/docrep/meeting/022/am489e.pdf>.

The functions and services are also well described in the Table below⁶:

On the other hand, community seed banks can also provide an opportunity for interaction and integration of informal and

| FUNCTION | SERVICES |
|----------------------------------|---|
| Conservation | Short-term conservation of mostly local varieties |
| | Longer-term conservation of heirloom and rare varieties |
| | Restoration of “lost” varieties |
| | Development of protocols for conservation of healthy seed and training of local communities |
| Access and availability | Platform offering multiple channels of access and availability of seeds at the community level |
| | Maintenance of locally adapted seed at a low cost |
| | Fostering of seed exchanges at local and supra-local levels |
| | Access to novel diversity not conserved locally |
| | Provision of adapted seed to marginal communities not served by commercial seed dissemination efforts |
| | When quantities suffice, capacity to respond to local crises/disasters/ acute shortages of seeds |
| | Seed multiplication including varieties bred through participatory activities |
| Seed and food sovereignty | Maintenance of local control over seed conservation, exchange and production activities (community-based biodiversity management) |
| | Income generation through the sales of seeds |
| | Sharing of agricultural biodiversity knowledge and expertise |
| | Links between <i>in situ</i> and <i>ex situ</i> conservation |
| | Support of traditional and ethnic food culture and cultural use |
| | Contribution to ecological agriculture and food sovereignty movements |

From the International Treaty on Plant Genetic Resources for Food and Agriculture's point of view, community seed banks as platforms of community-based management of agricultural biodiversity, ensure the protection of local knowledge of agricultural biodiversity; promote the participation of farmers in decision-making and empowerment concerning conservation and development of adaptable local crop varieties. Community seed banks provide the opportunity or serve as a platform at community level to design a system for access and benefit sharing agreements with potential companies that intend to use local genetic diversity for commercial purposes i.e. a system that links farmers, community seed banks, genebanks (national and international) plant breeding institutions (public and private) including through the Multilateral System of Access and Benefit-Sharing of the International Treaty on Plant Genetic Resources for Food and Agriculture.

formal seed systems for the promotion of *in-situ* and *ex-situ* linkages to back up genetic resources locally and as building blocks of crop improvement, food security and sustainable community development.

The management of community seed banks is often coordinated among members and run by community elected leaders. Those responsible in managing community seed banks are generally trained in:

- Recording information on seed samples conserved at the community seed bank and data on type, quality and quantity of seed stock
- How to manage seed distribution (registration and control of seed loan and seed recovery), evaluation, regeneration and multiplication
- Measures for keeping stored seeds pure and healthy
- Techniques for measuring seed moisture and drying
- Storage techniques and identifying good and crop specific storage infrastructure (e.g. bags, jars, silos, etc.)
- Identify seed suppliers in the community

6. Rooney V, Bhuwon S, Gea G and Pitambar S 'The Multiple Functions and Services of Community Seed Banks' in Resources 25 November 2014 viewed on 17 February 2015 <http://www.mdpi.com/2079-9276/3/4/636> www.mdpi.com/journal/resources

- Financial management and administration of farmers' group (in-depth knowledge on bylaws and system for financial management)

For example, it is important to note that farmers are obliged to repay the seeds based on an agreement signed with the management/committee of the community seed bank. It is, therefore necessary that the community seed bank have functioning monitoring and control system of seeds stored and returned by farmers, as well as the inventory of the equipment inside the community seed bank.

Although some community seed banks were started through financial and technical support of some nongovernmental organizations and farming communities, recently in some countries, governments have developed plans and provide technical and financial support for the establishment and maintenance of community seed banks. The recognition of the value of community seed banks by national governments is very important for their sustainability. Concrete examples of such recognition are mentioned in **Chapter 2** of this capacity building material.

Additionally, in some cases according to Vernooy⁷, community seed banks have built also strong linkages with the private seed sector where the banks have become local contractors for commercial seed enterprises or government seed agencies.

Among the main activities carried out at the community seed banks include:

- The loan of specific amount of seeds to farmers associated to the community seed bank during planting
- Seed recovery after harvested periods
- Keeping good storage conditions
- Control of insects pests and diseases from damaging the stored seeds
- Management of participatory plant breeding and plant variety selection trials, technical and management training of committees and community members

There are approximately 25 community seed banks in Malawi located in the Rumphu District Extension Planning Areas; Bolero; the Mhuju Extension Planning Area; and Katomo. However, only few of them are currently functioning. Most of these were constructed in 2010 by a nongovernmental organization called Find Your Feet (FYF) with funding from the Development Fund of Norway and the European Union.

B. Participatory Plant Variety Selection

Although crop yield and performance of varieties can be improved by fertilizer application, better crop management practices, disease and pest control, breeding of new crop varieties is the only stable method of crop improvement. Availability of good crop varieties as well as good seed stocks are important in increasing crop production and improving food security in a country.

In conventional plant breeding, farmers rely on both public and private plant breeders. In this sector the main objectives in crop breeding are improvements in resistance to diseases; insects and droughts; adaptation to shorter or longer seasons; market quality; seed quality; and harvesting quality. The main methods of crop improvement commonly used are introduction, selection and hybridization. These days biotechnology is also used in crop improvement.

The concepts and rationale of participatory approaches to conservation and use of plant genetic resources have been derived from agricultural research associated with farming systems research in the 1980s. Since the 1980s, farmer participation has become an integrated element of all agricultural development strategies. The importance of participation by farmers to sustainable development has been widely accepted within the United Nations and among the international donor organizations.

There are two different rationales for research and development organizations to engage in participatory approaches: to improve cost; effectiveness and empowerment of stakeholders.

The motive to engage in participatory approaches is that projects are likely to be successful if farmers or stakeholders are involved. Farmers and others (local leaders and chiefs) who participate actively in a project are likely to be more committed, facilitating acceptance of policies and technologies being promoted. Participation of farmers may also enhance the use of local technical knowledge. In this case, science can make most contribution to research and development for small-scale farmers when it takes account of and utilizes farmers' indigenous knowledge based system. Therefore, participatory approach to improvement of farmers' plant genetic resources management offers the potential to reach a large number of farmers and make local crop genetic diversity an integral component of agricultural development of farmers in less-favoured environments. Participatory approaches require recognizing the central role that rural women play in agricultural production. Therefore, gender mainstreaming is a must in participatory variety selection.

PROPOSED WORKING EXERCISE

1. Analyse and discuss the seed system in Malawi
2. Identify existing community seed banks in farming communities and evaluate how they meet the objectives of on-farm conservation and support Farmers' Rights to save, use and exchange farm-saved seeds and propagating material.
3. Analyse the impacts of the community seed banks over small-scale farmers' food and nutrition security and discuss possible measures to scale up these

4. Discuss the need and importance of establishing additional community seed bank; identify the crops of relevant importance that should be conserved, multiplied and distributed; identify criteria and selection of the locality of future community seed banks; and next steps to make this idea feasible in the near future.

7. Ibidem

Furthermore, participatory approaches empower small-scale farmers by enhancing local management capacity, increasing confidence in farmers' abilities as individuals and the community. It also empowers small-scale farmers by strengthening their local capacity to manage local participatory rural appraisal techniques and to formulate effective demands for external science – based assistance. Table 1 is a summary of classification of participation as observed in development projects.

Table 1. Classification of rural development participation⁸

| | |
|---|------------------------------------|
| Kinds of participation | Participation in decision - making |
| | Participation in implementation |
| | Participation in benefits |
| | Participation in evaluation |
| Who participates | Local residents (farmers) |
| | Local leaders |
| | Government personnel |
| | Foreign personnel |
| How is the participation occurring | Basis of participation |
| | Form of participation |
| | Extent of participation |
| | Effect of participation |

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C. Participatory plant breeding

Participatory plant breeding is a form of participatory research that involves farmers, scientists, as well as other partners such as extension workers, seed producers, traders and nongovernmental organizations in the process of development of a new variety, seed production and distribution.

Unlike the conventional plant breeding method where decisions are taken exclusively by scientists, farmers have an active role and decision making (defining breeding goals and priorities; selecting or providing sources of germplasm; hosting trials on their land; selecting lines for further crossing; discussing results with the scientists; planning for the following year's activities; suggesting methodological changes; evaluating varieties; and multiplying and commercializing the seed of the selected lines) in participatory plant breeding. Women farmers in particular have a priority place because they often have intimate knowledge of crop production and reproduction. They often also have particular needs and interests in food security, and play leading roles in households, extended families and social networks.

Participatory plant breeding utilizes reinforcing accumulated knowledge and experiences of farmers, scientists and other

8. Uphoff N. 'Feasibility and application of rural development participation a state – of – art – paper'. Cornell University. 1979.

stakeholders to develop a new crop variety adapted to the needs of farmers and consumers.

Participatory plant breeding is characterized by:

- Using, respecting and valuing traditional varieties of crops and associated local knowledge
- Maximizing the use of local varieties of crops based on needs and realities of farmers
- Beneficiaries are actors of their own solutions
- Beneficiaries have the right of decision-making
- Beneficiaries have control and responsibility of the breeding process
- It is an interactive process of communication, reflection and action
- Empowering gender equity

Participatory plant breeding also helps to strengthen local capacity through developing skills and generating new knowledge both for small-scale farmers and researchers.

Another greater advantage of the participatory plant breeding is the secured access to improved crop varieties with out restriction by local communities and increasing the genetic diversity on-farm.

PROPOSED WORKING EXERCISE

1. Assess the activities of participatory plant breeding in which farmer communities have been involved, in order to identify how these activities have supported the implementation of Farmers' Rights to use and improve local varieties, responding to new climate challenges and community needs and preferences.
2. Discuss what is needed to engage in participatory plant breeding activities and identify the benefits resulted in terms of access to information, improved crops and capacity.

C. Repatriation of plant genetic resources for food and agriculture

As we noted above, national and international institutions conserve plant genetic resources in genebanks. The resources conserved *ex situ* by those institutions might have been collected from small-scale farmers' farms.

Farmers have the right for the repatriation and restoration of plant genetic resources collected from their farms and conserved *ex situ* for their use and on-farm conservation and management.

In a restoration effort, local varieties are reintroduced to the communities in the same area where they are collected from, but they may have disappeared since.

Restoration of local varieties is a good example of how the *ex situ* conservation can be linked to the on-farm conservation, management and sustainable use of plant genetic resources for food and agriculture.

PROPOSED WORKING EXERCISE

1. Identify local varieties that have been lost in farmer communities and where repatriation is needed due to the importance of those local varieties for local food security or other reasons.

2. Identify possible sources where relevant local varieties are conserved including genebanks and identify mechanisms to request their repatriation.

Remember: Farmers have the right to conserve and use farm/saved seeds and propagating material. They should have access to seeds, as they are crucial for food security. There should not be any restriction limiting Farmers' Rights to conserve and use farm saved seeds and propagating material for their own use and survival.

2. Farmers' Rights to exchange and sell seeds and propagating material saved from their own farm harvest

Farmers have the right to save, exchange and sell farm-saved seeds and propagating material. Farmers have the right to sell their seeds in local, regional and national markets. This is usually seen as a challenge as only certified seeds can be commercialized. Only those seeds fulfilling with the legal requirements of production process and quality are allowed to be commercialized. Usually, seeds coming from the informal sector do not fulfil these requirements and the sale of these seeds could be seen as an illegal act given national seed regulations. Further information about this matter is explained in **Chapters 3 and 8**.

However, seed exchange and sell among small-scale farmers is a common practice. The right of farmers to sell their seeds goes beyond selling their seeds to their peers, and extends to their right to commercialize their seeds in local, national or regional markets.

Practical ways to implement Farmers' Rights to exchange and sell seeds and propagating material saved from their own farm harvest

A. Local Seed Fairs

Local seed fairs are common platform where farmers, scientists, private sector, government and media can share information and knowledge to manage important diversity. It offers a space for farmers to show their seed diversity and facilitate exchange of seeds. Local seed fairs facilitate the right of farmers to exchange and sell seeds and propagating material saved in their farms and also become an incentive for the conservation and use of important landraces for food security.

Seed fairs promote Farmers' Rights in different ways, including:

- Supporting exchange of seeds among farmers
- Supporting access to improved or adaptable seeds of crop varieties
- Promoting the rescuing and sharing of traditional knowledge, local innovations and practices
- Promoting the conservation and use of seeds and local varieties
- Providing opportunities to explore for value-addition and promotion activities

Seed fairs are a platform to reach out many people, where small-scale farmers can sell or buy and exchange their seeds. Seed exchange allows recovery, restoration and improvement of local varieties, ensuring productivity and food security. In addition, seed fairs promote community control over their

own seeds and local varieties, the empowerment of farmers and increase awareness about their rights over genetic resources.

The case of Rumphi district seed fair

Seed fairs enhance farmers' knowledge on agro-biodiversity; strengthen the informal seed sector amongst small-scale farmers who rely on farm-saved seed and community seed exchange from farmer to farmer; and also promote the transfer of indigenous knowledge on utilization of agro-biodiversity among farmers. Seed fairs also provide an opportunity for farmers to exhibit the rich agro-biodiversity they manage, and sale some of their products. To the agro-biodiversity conservationist, seed fairs provide an indication of the diversity of plant genetic resources in the area.

With support from the Development Fund of Norway, the Biodiversity Conservation Institute in collaboration with other partners including the Centre for Environmental Policy and Advocacy, Find Your Feet and Mzuzu Agriculture Development Division conducted the Rumphi District Seed Fair on 19 September 2014 at Chikwawa Community Seed Bank. The theme of the Seed Fair was 'Promoting production and use of diversity of farmers' varieties key to improving household food security in times of climate change.' The guest of honour was the Chairperson on Parliamentary Committee for Agriculture, Honourable Felix Jumbe, Member of Parliament for Salima Central Constituency.

The seed fair provided a platform for the Centre of Environmental Policy and Advocacy,, the Development Fund of Norway and the Global Forum on Agricultural Research to lobby for Farmers' Rights, by engaging policy makers such as the Chairperson on Parliamentary Committee for Agriculture.

PROPOSED WORKING EXERCISE

1. Discuss and identify how seed fairs you have participated in have promoted the conservation and sustainable use of local varieties; the protection of traditional knowledge; the improvement of the diversity of seeds on-farm and raise awareness about the rights of farmers to exchange and sell their own seeds.
2. Identify measures that should be taken at seed fairs for the conservation and use of genetic resources that are specifically useful or/and threatened.
3. Discuss how seed fairs should be strengthened and promoted to enhance the implementation of Farmers' Rights to save, exchange and sell farm-saved seeds and propagating material.

Guiding questions for the exercise:

- How many seed varieties were exchanged in the last seed fair you participated in?
- Approximately how many people were involved? How many women? What was the role of women and men?
- What were the varieties that were exchanged in greater numbers? What were their characteristics?
- How and what traditional knowledge was exchanged among farmers?

B. Access to markets

As farmers have the right to sell farm saved seeds and propagating material, they should have access to markets (local, national and regional) to be able to realize this right.

One way to support the sale of farm saved seeds and propagating material is definitely supporting the awareness creation to increase demand for these resources. To do so, it requires, among other things, assess the actual and potential uses of local seeds and promote them outside the communities as important resources for food and nutrition security.

Another form of support is through value addition (e.g. collective production of quality seeds, labelling and packaging) of farm saved seeds and propagating material. Value addition should enable improvement for use and generate a new niche market for identified plant genetic resources. Building and strengthening the link between farmers and consumers is also important.

Seed regulation is another very important issue to consider when discussing the right of farmers to sell farm saved seeds and propagating material. There is national legislation governing the sale of commercial seeds, for which the seed must be certified by the mandated national authority. However, the sale of non-certified seed falls outside the scope of such national legislation and may lead to prohibition. Countries can create a legal framework recognizing the rights of farmers to also allow them to exchange and sell their farm saved seeds and propagating material, fulfilling the requirements of quality declared seed certification and allow its public commercialization.

The absence of regulation for the commercialization of local seed should not be an obstacle to deny the right of small-scale farmers to sell their seeds. Instead, it should be an incentive to regulate, with farmers' participation, this activity as soon as possible.

Currently seed regulations do not provide for commercialization of local seeds in Malawi.

PROPOSED WORKING EXERCISE

Discuss what is the demand for seeds of local varieties; and the aspects that need to be improved for the sale of farm saved local seeds and propagating material in Malawi. What can be done in the short, medium and long term?

Remember: *Farmers have the right to exchange and sell farm saved seeds and propagating material. Seed fairs are the most common space where small-scale farmers exchange seeds of local varieties and traditional knowledge with their peers. But farmers have the right to commercialize their seeds and propagating materials beyond their local communities, and therefore, they should have access to local, national and regional markets. Farmers' Rights to exchange and sell farm saved seeds and propagating material should be recognized and encouraged by national policy and legal frameworks. Perhaps it would be necessary to adopt new legal systems allowing the commercialization of seeds of locally adapted varieties currently in the informal seed systems.*

3. Farmers' Right to participate in making decisions at national level relevant for the conservation and use of plant genetic resources for food and agriculture

The right of farmers to participate in decision-making is guaranteed when ensuring the right of farmers to participate in discussions of the various regulatory, administrative and policy processes related to the conservation and use of plant genetic resources for food and agriculture.

To ensure the participation of small-scale farmers in decision-making, it is necessary to ensure that they have the necessary information and understanding of the issues under discussion. Farmers should have the capacity and knowledge to fully and effectively participate in the discussions for informed decision-making.

It is important to remember that participation should be full and effective at all stages of any action that may affect farmers directly or indirectly in their rights to continue conserving and using plant genetic resources for food and agriculture and their traditional knowledge: formulation of policy or national laws; decision making; implementation; monitoring and evaluation.

Participation of farmers in decision-making should be:

- Free and;
- Informed

This implies that participation of farmers should be by providing them full and comprehensive information on the issues for discussion and decision. Farmers need to understand the consequences of different decision points on Farmers' Rights and sustainable management of plant genetic resources for food and agriculture.

A common situation when involving small-scale farmers in discussions to make decisions is to simply inform them of the decisions that will be taken. However, the right of farmers to participate in decision-making goes beyond that and it involves building partnerships and supporting capacity building in their local communities (empowerment).

Participation of small-scale farmers in decision-making implies they are organized to represent the interests of their social groups.

Practical ways to implement Farmers' Right to participate in making decisions on matters relevant to the conservation and sustainable use of plant genetic resources for food and agriculture

A. Farmers representatives as members of national commissions or decision-making groups

The right of farmers to participate in decision-making could be ensured by inviting farmers' representatives to national commissions on plant genetic resources for food and agriculture; interagency groups where decision-making is discussed and adopted.

Small-scale farmers could also be part of interagency groups where the country's position is established in face of international and regional policy and other technical meetings.

In Malawi the draft National Seed Policy and Strategies proposes to establish a Malawi National Seed Commission Board. A representative of farmers is expected to sit on this board.

PROPOSED WORKING EXERCISE

1. Discuss and analyse how small-scale farmers have been involved in the discussions and development of policies and laws relevant for the conservation and sustainable use of plant genetic resources for food and agriculture.
2. Identify gaps in terms of their capacity to enable greater participation in making decisions, including challenges for access to information, representation of farmers' interests, among others.

B. Participatory plant breeding

As it has been explained above, participatory plant breeding allows farmers to actively participate in the development of new plant varieties, according to their needs and preferences.

Through participatory plant breeding farmers participate in making decisions specifically in defining breeding goals and priorities; evaluating and selecting varieties; and multiplying and commercializing the seed of the selected lines. Farmers have the control and are co-responsible of plant breeding.

PROPOSED WORKING EXERCISE

Identify ways to improve Farmers' Right to participate in making decisions through participatory breeding activities.

Remember: Farmers have the right to participate in making decisions relevant for the conservation and use of plant genetic resources for food and agriculture. To participate is different from being informed about a decision already adopted. In order to be able to participate in decision-making, farmers shall have the information needed; they should understand the issue and be able to represent the interests of their communities. They need to be organized and have the capacity to participate.

4. Farmers' Right to protect traditional knowledge, innovations and practices relevant for the conservation and use of plant genetic resources for food and agriculture

For indigenous people and small-scale farmers, knowledge, territory and culture are all parts of the whole system. Traditional knowledge of communities over their natural resources is a collective knowledge, which is passed orally from one generation to another.

Traditional knowledge is heritage of local communities and therefore must be protected considering its characteristics as part of local indigenous and small-scale farmer cultures.

Practical ways to implement Farmers' Right to protect traditional knowledge, innovations and practices relevant for the conservation and use of plant genetic resources for food and agriculture



Photo by Mahara Nyirenda

A. Documenting traditional knowledge, innovations and practices

Traditional knowledge, innovations and practices are getting lost, as they are not been passed to the younger generations. Young members of farming communities are not staying in the rural areas but looking for other profession in the cities. Majority youth are not interested in traditions, or learning about traditional practices for managing agricultural biodiversity from their parents or grandparents. Since traditional knowledge, innovations and practices are transferred orally from generation to generation there is probability for loss of them.

Documenting traditional knowledge, innovations and practices will protect them from disappearance and for use by future generations. It can be done through the development of local community biodiversity registers (catalogues) or databases.

Community biodiversity registers (catalogues) of local varieties and associated traditional knowledge, innovations and practices:

Catalogues or records of local varieties and associated traditional knowledge, innovations and practices are tools that allow to value and maintain the resources and knowledge attached to them. They are called *in situ* catalogues or records.

In situ catalogues could include information regarding:

- The farming community conserving the local variety
- The biological and local name of the local variety and botanical description
- Traditional knowledge associated with the local variety, including small-scale farmer's management practice, uses, stories, recipes, etc.
- Forms of storage, agronomic (e.g. resistance to pests or drought tolerance) and culinary features
- Propagation means and source of seed/ planting material
- The state of the genetic resource (abundant, rare or threatened)
- Photographs of the local variety



Photo by Mahara Nyirenda

The catalogue shall clearly indicate that traditional knowledge included in the catalogue is owned by the farming community to prevent misappropriation by third parties. It provides the basis for legal protection to the owners of genetic resources and traditional knowledge and ensures fair equitable sharing of benefits.

When varieties and traditional knowledge, innovations and practices are documented, catalogues or registries become a living proof of the existence of these resources and knowledge and therefore cannot be considered the result of the work of the intellect of other person outside the community who wants to claim their property. *In situ* catalogues or registries will give confidence to farmers sharing their varieties and knowledge with others, in that access cannot be restricted by others through intellectual property rights, and instead these varieties and knowledge will continue to be freely accessible to the farmers.

In situ catalogues are also useful as they serve as a basis to monitor changes that occur in local varieties, loss of materials and knowledge. They make visible the diversity and richness of varieties in the farmer's fields and give them the credit and recognition for their work in the conservation and development of these materials.

Catalogues can also be an educational tool to teach young people about the wealth of local varieties and traditional knowledge. They can also be useful for policy and decision makers to assist them in the recognition of certain natural

areas of high plant genetic diversity and to adopt legal and economic measures for its protection.

PROPOSED WORKING EXERCISE

Develop a catalogue of locally important crops for food security of farmer communities. The catalogue may include information on:

- *The site where the registered variety is found*
- *The farmer or farmers who cultivate it*
- *Time that the farmer or farmers have conserved it*
- *Biological, common and local name of the variety*
- *Type of soil where it grows*
- *Season of cultivation*
- *General characteristics of the variety (colour, size, flavour, etc.)*
- *Important dates or festivities where it is usually consumed*
- *Traditional histories or myths related to the variety*
- *Recipes*
- *Conservation methods*
- *Other uses, like medicinal uses.*

B. Community protocols

The aim of customary rules is to regulate internal relations of the farmer community, which is essential for the conservation and protection of traditional knowledge.

These rules consolidated in farmer community protocols can be used to regulate how the community will relate to outsiders when they want to access their natural resources, including plant genetic resources and associated traditional knowledge, innovations and practices.

PROPOSED WORKING EXERCISE

Discuss the conditions to apply when an outsider asks to have access to local varieties and traditional knowledge. For example, information about the results of researches done based on the resources and knowledge; and the prohibition for outsiders to claim intellectual property rights on local varieties or traditional knowledge..

C. Keep using plant varieties in traditional rituals and maintain plant varieties' local names

Language is one of the most important means for the protection of traditional knowledge. Therefore it is recommended to continue using traditional names of plants, farming systems and ancestral rituals that are performed in relation to the growing seasons, special parties or ceremonies.

PROPOSED WORKING EXERCISE

Discuss why is it important to protect traditional knowledge, innovations and practices? What kind of traditional knowledge and practices are most threatened or lost? How much of the local language is conserved? What are the main causes of the loss of traditional knowledge? What would be the best way to protect traditional knowledge?

Remember: Farmers have the right their traditional knowledge, innovations and practices be protected. The protection has two objectives: i) to protect traditional knowledge from its disappearance as cultural heritage of local communities and relevant for their cultural identity; ii) to avoid the misappropriation by outsiders and to allow the on going access of resources and traditional knowledge by small-scale farmers.

5. Farmers' Right to receive benefits, in an equitable way, arising from the use of plant genetic resources for food and agriculture

Farmers have the right to benefit from the use of plant genetic resources for food and agriculture.

It is important to note that benefits to which farmers are entitled are not only monetary benefits. They could also be non-monetary benefits, including training in conservation and use of natural resources; technology transfer; access to information in databases or *ex situ* conservation centres; participation in product development, among others.

Given that traditional knowledge and local varieties are part of the cultural heritage of farmer communities, and therefore have a collective nature, distribution of benefits must also be collective. In other words, benefit sharing shall benefit the community and not only a particular farmer.

In some countries, farmer communities have established common funds where benefits arising from the use of local

varieties or traditional knowledge are used for the benefit of the community as a whole, through the financial and technological support for instance in training farmers, establishing community seed banks and providing loans for groups engaged in value addition in local crops.

PROPOSED WORKING EXERCISE

Analyse how benefits arising from the use or commercialization of plant genetic resources for food and agriculture and/or traditional knowledge, innovations and practices could be used for the benefit of farmer communities.

Remember: Farmers have the right to receive benefits from the use of plant genetic resources for food and agriculture and their traditional knowledge. Those benefits could be monetary or non-monetary. Benefits have a collective nature, and therefore they should benefit farmer communities as a whole and not only a specific farmer or household.



Photo by Mahara Nyirenda

Final suggestions and challenges

Some nongovernmental organizations and institutions implement some aspect of Farmers' Rights at the local level, through research projects; institutional activities; plans and programmes. Those activities require the formal recognition of national laws and policies, as measures to implement Farmers' Rights. Some of the challenges include:

1. Reviewing and adjusting existing national laws relevant for the commercialization of seeds; conservation and use of plant genetic resources might be necessary to ensure those laws do not affect the implementation of Farmers' Rights, and promote the co-existence of the formal and informal seed in the agricultural sector.
2. Adopting new legislation recognizing and implementing Farmers' Rights in Malawi.

WHO DOES NOT KNOW HIS/HER RIGHTS CANNOT REQUEST FOR THEIR IMPLEMENTATION.

COMMUNITY SEED BANKS FOR CONSERVATION AND SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

As explained in **Chapter 1** of this capacity building material, farmers have the right to conserve plant genetic resources in their farms, particularly in the face of emerging environmental challenges and human needs.

This important right of farmers is recognized by the International Treaty on Plant Genetic Resources for Food and Agriculture, which states that governments shall promote or support farmers and local communities' efforts to manage and conserve on-farm plant genetic resources for food and agriculture (Article 5).

As mentioned in Chapter 1, community seed banks are a community local level institution strengthening informal seed supply systems and promoting the rights of farmers to save, exchange, use and sell seeds collectively; protecting farmers' traditional knowledge; promoting their participation in decision making regarding the conservation of plant genetic resources, among others. They also promote seed multiplication.

As described in **Chapter 1**, the purposes of community seed banks include:

- Short and long term conservation of local varieties
- Restoration of lost varieties
- Make available genetic resources for their further access at the community level
- Maintenance at low cost of locally adapted seeds
- Seed exchange
- Provide adapted seeds to marginal communities
- Capacity to respond to local crisis disasters
- Seed multiplication
- Maintenance of local control over seed conservation, exchange and production activities (community-based biodiversity management)
- Income generation through the sales of seeds
- Sharing of agricultural biodiversity knowledge and expertise
- Links between *in situ* and *ex situ* conservation

Women farmers are usually very active in community seed banks. In many countries they are the main seed selectors and guardians of plant genetic resources.

This chapter aims to recall the importance of community seed banks for the conservation of plant genetic resources; their contribution to local food security and Farmers' Rights implementation. It also provides specific recommendations

to decision makers to support community seed banks, improve their awareness of the value and importance of this local initiative to promote and contribute with the co-establishment and subsequent maintenance of community seed banks.

Background

The first community seed banks were established around 30 years ago in different parts of the world to respond to the: i) loss of agricultural biological diversity; ii) limited access to quality seeds by small-scale farmers; iii) demand of small-scale farmers to participate in on-farm conservation activities.

The key challenges faced in running community seed banks have been on seed recovery and repayment due to unfaithfulness of some members, and at times due to crop failure as a result of weather conditions. However, some nongovernmental organizations work with the members and provide all the technical support required for the farmers to produce the seed. They also empower the communities to manage the seed banks to ensure ownership.

Although there are many seed banks in Malawi under different organizations, some of them are inactive.

Community seed banks: an example of practical implementation of Farmers' Rights

Farmers' Rights under the International Treaty on Plant Genetic Resources for Food and Agriculture includes:

- Protection of traditional knowledge
- Save, use, exchange and sell farm-saved seeds and propagating material
- Participate in decision making regarding plant genetic resources for food and agriculture
- Participate in sharing benefits arising from the use of plant genetic resources for food and agriculture

Community seed banks are local and collective initiatives by which Farmers' Rights can be implemented, as explain below:

a. Save and use farm-saved seeds and propagating material

Community seed banks contribute both for the conservation and the sustainable use of local and improved varieties relevant for local food security.

They play an important role to maintain, restore and increase genetic diversity at the local and national level, improving access and availability of seeds, reviving cultivation practices and generating income to small-scale farmers.

Community seed banks are important for keeping seeds under the control of small-scale farmer communities for their easy access and use for food security at the community level.

b. Exchange farm-saved seeds and propagating material

Community seed banks promote and allow the exchange of seeds and traditional knowledge relevant for the conservation and use of plant genetic resources.

Experiences have shown that community seed banks facilitate the exchange of information regarding the seeds conserved in terms of their use, conservation methods, traditional use, including medicinal use, etc.

c. Prior Informed Consent for access to genetic resources and traditional knowledge

Community seed banks could be recognized as legitimate local institutions capable to give the prior informed consent to a third person when accessing genetic resources and associated traditional knowledge, innovations and practices, in compliance with regulations of national access and benefit sharing legislation.

d. Certification of quality seed for local commercialization

Community seed banks could be recognized entities certifying quality seeds for their commercialization, as it has been the case in Brazil where a national law has approved to legalize the distribution of seeds produced by community seed banks without the required formal certification by national entities.

e. Protection of traditional knowledge

Community seed banks are relevant for the conservation of plant genetic resources and traditional knowledge, innovations and practices relevant for their conservation and sustainable use.

d. Strengthening local institutions and capacities

One of the main important characteristics of community seed banks is that are governed by local farmers through local adapted rules and regulations. Therefore, small-scale farmer communities must strength their local institutions and organizations and regulate how they are going to document the community diversity conserved in community seed banks, what associated information (passport data) will be also registered and how the monitoring process of seed transactions and impacts is going to take place.

Specific recommendations to decision-makers to co-establish and support community seed banks

Maintenance of community seed banks and the establishment of new ones require a number of activities including the identification, selection, collection, conservation, distribution of seeds; and the acquisition and maintenance of equipment, such as moisture equipment, seed containers, bags, among others. It is clear that sustainability of community seed banks depend on the support of the local and national governments, and not

only by nongovernmental organizations and other institutions supporting on-farm conservation through funding and temporal projects. The support required by local authorities to community seed banks includes technical and financial support, with the aim of establishing and maintaining conservation and on-farm management of PGR through local and collective initiatives. The upcoming National Seed Policy needs to provide for guidance for the establishment of community seed banks.

It is important that local authorities are aware of the importance of community seed banks, feel proud of these initiatives and adopt as part of national program for conservation and sustainable use of plant genetic resources for food and agriculture and ensure the sustainability of those community seed banks located in their jurisdiction.

Local authorities should work jointly with small-scale farmer communities in the conservation and on-farm management of plant genetic resources, ensuring food security and promoting a sustainable agriculture.

It is recommended that local authorities could visit community seed banks and see by first hand the important initiatives to conserve on-farm improved and local crops relevant for food security.

The recognition of such important contribution of small-scale farmers to the conservation and management of plant genetic resources by local authorities, researchers, consumers, donors and other stakeholders provides local legitimacy and motivation to its continuity.

The Malawi Plant Genetic Resources Centre (MPGRC), based at Chitedze Agricultural Research Station in Lilongwe is already providing support to nongovernmental organizations such as the Biodiversity Conservation Institute (BCI) in the establishment of community seed banks. The MPGRC has been involved in training BCI staff in long – term seed germplasm storage. The training has included preparing seed for long – term storage. Members of the CSBs have also been able to visit the MPGRC at Chitedze Research Station to acquaint themselves with germplasm storage, multiplication, evaluation and characterization.

Farmers have also benefited from the visit to the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) regional office at Chitedze Research Station. Here, farmers observed how commercial groundnut and pigeon pea seed is produced and processed. Farmers also made a deal to increase commercial seed on contract for ICRISAT. Sixteen members of the Mkombezi CSB won a contract for growing 10 ha of groundnut seed. This will be a good income generation for the farmers.

PROPOSED WORKING EXERCISE

1. Identify and discuss the benefits of community seed banks for farmer communities
2. Identify the needs to achieve sustainability of community seed banks
3. Identify what is needed by local authorities to support community seed banks
4. Identify milestone activities for the recognition and implementation of community seed banks, as a national program in Malawi

POLICY AND LEGAL FRAMEWORK IN MALAWI RELEVANT FOR THE IMPLEMENTATION OF FARMERS' RIGHTS

Malawi is yet to adopt policies and legislation relevant for the implementation of Farmers' Rights in the country. Some of them relate to food security; access and collection of genetic resources; among others. This framework recognizes relevant rights, such as access to and use of safe food and nutrition; or their right to consent access to genetic resources.

The legal and policy framework regulating the seed system in Malawi does not provide for promotion of an integrated seed system where the formal and informal systems can co-exist with each other. Until now, the legal and policy framework has not taken into consideration the different and unique features existing in the wider farming system.

Malawi has not adopted any specific national law and policy recognizing the informal seed sector and protecting Farmers' Rights. In the contrary, due to this legal gap some of small-scale farmer activities, such as the commercialization of seeds from the informal seed sector could become an illegal activity, as it does not fulfil with the legal requirements established in the current legal framework.

It is therefore necessary to review and if needed, adjust adopted national laws and policies affecting the implementation of Farmers' Rights in Malawi.

There is a need to balance breeders' rights and Farmers' Rights as they are recognized in the International Treaty on Plant Genetic Resources for Food and Agriculture. Promoting an integrated seed system approach, recognizing the importance of the informal seed system for food security and the conservation of plant genetic diversity and recognizing the rights of small-scale farmers over their seeds, propagating material and traditional knowledge is a good way to find the balance between breeders' rights and Farmers' Rights.

The purpose of this chapter is to provide an easier understanding of the policy and legal framework in Malawi relevant to Farmers' Rights.

Constitution of Malawi

The Constitution of Malawi recognizes that access to and utilization of nutritionally adequate and safe food in the right quantities is a right of each individual. This will enable them to lead an active and healthy life.

Seed Act, 1996

The Seed Act of 1996 is currently under revision. This Act

provides for the minimum standards to regulate and control the production, processing, sale, importation, exportation and testing for the certification of seeds. It also recognizes plant varieties.

The Act provides for the appointment of a Controller of Seeds who is responsible for the administration of this Act. Only varieties that have been approved by the Controller of Seeds and included in the Variety List shall be placed on the market.

The Act specifies the conditions for the recognition and denomination of a variety. The Minister may establish or designate seed laboratories for purposes of this Act. The Controller of Seeds shall keep registers of official seed analysts and seed testing laboratories. The Act also provides for the appointment of seed inspectors and the registration of sellers of seeds. The Minister may declare a seed to be a Quality Declared Seed and shall specify for each kind of such seed minimum standards.

The Seed Act of 1996 regulates the certification of seeds, particularly from the formal seed sector and their commercialization. Requirements to be fulfilled to get the seed certification follow the needs and characteristics of the formal seed sector and do not consider the main characteristics of seeds arise from the informal seed sector.

This national law for the commercialization of seeds in Malawi does not consider the main features of the informal seed system, putting the commercialization of local or traditional seeds under a legal gap or forcing the informal seed sector to comply with requirements completely alien to its means and ways of function. In fact, traditional varieties or landraces are heterogeneous by nature and cannot comply with the requirements requested for the commercialized formal seeds (uniform, distinctive, novel and stable).

As is common in many countries in the world, the Malawi regulatory framework addresses intensive agriculture and leaves low input varieties out of the market and field.

To solve this unbalanced situation, an integrated seed system is needed in Malawi where commercialization of seeds and propagating material is flexible.

In the case of national legislation or Acts regulating the commercialization of formal seed systems, it is key to make sure that their scope covers only material put into the market and not farm saved seeds or propagating material and non protected varieties of farmers who reproduce them on their own farm.

Procedures and Guidelines for Access and Collection of Genetic Resources in Malawi, 2002

The Environmental Management Act of 1996, among others, imposes restrictions on the collection and export of genetic resources without the prior informed consent of the responsible minister. The National Commission for Science and Technology (NCST)'s Genetic Resources and Biotechnology Committee is responsible to grant approvals for the collection and exportation of genetic resources for research purposes. This Committee is expected to monitor and document the genetic resources that are collected or researched upon by foreign scientists and those dispatched by local researchers to foreign institutions. However, this has not been fully implemented, and as a result, genetic resources have continued to be collected for export and exchange without proper approvals and permits, and without Malawi realizing benefits from the results and commercialization of such research.

It was necessary to develop some guidelines that set up the procedure for seeking the approval for research and collection of genetic resources to ensure that the government is committed to promote research in the proper management and sustainable use of biodiversity for research, so the country is benefiting from the use of its resources.

Among the objectives of the guidelines is the encouragement of genebanks and genetic data banks (*in situ and ex situ*).

The Guidelines established the need to ensure the prior informed consent from communities/authorities under whose jurisdiction falls, the desired genetic resources prior to commencement of any research work that involves the collection of those resources.

This is a clear example where guidelines are needed in order to support the implementation of a national Act. Despite the guidelines recognize the rights of communities, including farmer communities, to prior informed consent for accessing genetic resources, it lacks in recognizing other relevant rights closely related to the right of prior informed consent, such as the right to receive benefits from the use of the genetic resources and associated traditional knowledge.

On the other hand, communities need to be prepared and organized to be able to exercise their right of prior informed consent, which is an expression of their right to participate in decision-making.

Food Security Policy, 2006

According to this Policy, the government will be committed to ensuring that no government actions or those of private traders would reduce any Malawians access to safe nutritious food and that there is no discrimination in the buying and selling of food.

Every person has the right to food security and a standard of living adequate for health. Recognizing that there will always be a part of the society that will require social protection in order to meet their food requirements, the government will provide distinctly targeted safety nets cautious of the need to avoid creating dependency and negative impacts.

The policy recognizes the existence of the National Environmental Policy and advocates for participation of all stakeholders in sound management, conservation and utilization of natural resources and the environment to achieve increased but sustainable productivity and development now and in the future.

The National Gender Policy and the National Gender Programme, stipulates that equality must be promoted in all food security initiatives to ensure improved nutritional status and health for women, children and men. Efforts shall be devoted to improving women's social status relative to that of men in all aspects of food security.

The long-term goal of this Policy is to significantly improve food security of the population. The goal implies increasing agricultural productivity as well as diversity and sustainable agricultural growth and development. Both the production and consumption of food are governed by social values that are just and equitable as well as moral and ethical.

Some of the strategies included in the Policy are to:

- Encourage domestic production of high quality improved varieties
- Promote establishment of community seed banks for easy access and sustainability
- Encourage farmers to follow appropriate cultural and management practices
- Support and empower micro-finance institutions (MFIs) to provide financial services to farmers
- Encourage the formation of farmer club, associations and cooperatives to benefit from financial services
- Strengthen demand-driven research and research based extension system using participatory approaches
- Strengthen farmer based organizations to improve extension service delivery
- Promote the production of indigenous foods
- Promote traditional and cultural practices that improve food security for women and men, girls and boys.

In order to fulfil the goal of the Food Security Policy, government should implement activities to increase genetic diversity of crops available for small-scale farmers; strengthen the capacity, including the capacity of farmers, to develop new crops and varieties specifically adapted to local environments; promote the use of underutilized crops, among others.

Informal seed systems should be promoted and protected as they embrace the way in which farmers themselves produce, disseminate and access seed: directly from their own harvest; through the exchange with other small-scale farmers and local markets. The strengthening of the informal seed system and improvements on the informal seed quality will ensure the non-dependence of small-scale farmers on the formal seed sector for their survival.

Draft Malawi Plant Breeders' Rights Bill, 2007

Malawi has drafted a Plant Breeders' Rights Bill with the aim to protect plant breeders' rights. Usually, national breeders' rights laws follow UPOV Convention.

According to the draft Plant Breeders' Rights Bill the breeder in relation to a new variety is the person, or his/her legal representative, who directed the final breeding of a new variety or who discovered the new variety.

The fact that the Draft Malawi Bill considers a "breeder" to be the person discovering a new variety implies expanding the scope of intellectual property rights, which were originally created to protect innovations and promote inventiveness. The draft Plant Breeders' Rights Bill then allows to grant intellectual property rights to discoveries, where no innovation is involved.

According to the draft Bill, a new variety is the one that before the date of application was not available to the public in trade in Malawi for longer than 1 year; any other country for more than 4 years, or in case of trees and grapevine for longer than 6 years; not generally known before the date of application; it is distinct by at least one characteristic from any other variety which existence is a matter of common knowledge at the date of application; is uniform and stable.

On the other hand according to the draft Bill, "general" or "common knowledge" may be established by reference to plant varieties, which are already in cultivation or accepted for commercial purpose; or included in any commercial or botanical reference collection; or described precisely in any magazine, journal or other publication.

The question could be if on-farm management of crop varieties and catalogues of plant genetic resources conserved *in situ* by small-scale farmers could be considered when defining if a plant variety is new.

Section 11 of the draft Bill states that the application for breeders' rights shall be accompanied by a complete description of distinctness, uniformity, stability and value for cultivation and use tests of the plant concerned.

The draft Bill also established exemptions to the rights of breeders, including:

*"c) farmers will be free to save, sell, exchange and use part of the seed from the first crop of plants which they have grown for sowing in their own farms to produce **a second and subsequent** crop provided they do not sell in the seed industry on a commercial scale"*

It seems that the draft Bill limits the exemptions to the rights of breeders even as provided in the UPOV 91 Act.

According to UPOV 91 breeders' rights shall not extend to acts done privately and for non commercial purposes. While UPOV does not define what private and for non commercial purposes means, it is clear that the propagation of a variety by a farmer exclusively for the production of food crops to be consumed by him or his family; or to be used for further breeding with non commercial purposes may fall within this exception. It may not be that clear in the case of exchange of protected seeds with other farmers for further breeding and improvement. Can this be considered a private act? Lets not forget that farmers' seed systems are the main source of seed and new varieties for most crops for small-scale farmers. Intellectual property rights may reduce the effectiveness of these systems by limiting the saving, exchanging and selling of farmer-produced seed of protected varieties. The Malawi draft Plant Breeders Rights Bill however,

specifies that a person (a farmer) will not infringe the breeders' rights when propagating, growing and using the protected variety for purposes other than commerce.

The question to be made would be if saving and exchanging protected varieties for purposes other than commercial will be outside the scope of the breeders' exception under the Breeders' Rights Act.

Another exception of plant breeders' rights according to UPOV 91 includes acts for experimental purposes.

However, the draft Plant Breeders Rights Bill seems to limit such exception when only considering an exception on the use of protected varieties as a source of variation for the purpose of creating any other new plant variety. Experimental purposes beyond the intention of creating a new plant variety will be limited by breeders' rights.

Finally, the Bill limits the rights of farmers to save, exchange and use plant varieties on their own holdings on part of the seed from the first crop of plants, which they have grown from a protected seed for future sowing in their own farms.

Draft Seed Policy and Strategies, 2014

Before analysing the Draft Seed Policy and Strategies of Malawi, it could be relevant to clarify what is a seed policy. According to the Commission on Plant Genetic Resources for Food and Agriculture of FAO, a seed policy is "a statement of principles that guides the government action and explains the roles of relevant stakeholders in the coordination, structure, functioning and development of the seed system comprising both formal and informal sectors... [A] well prepared seed policy[ies] help stakeholders to understand their roles, responsibilities and contributions within defined boundaries, thus facilitating the smooth operation of the sector". Seed policies should integrate approaches that strengthen both the formal and informal seed systems and the connections between them.

According to FAO, a seed policy should include as key elements the conservation and sustainable use of plant genetic resources for food and agriculture; seed production in both formal and informal sectors; seed quality assurance; agricultural extension; seed marketing; seed import and export; seed enterprise development; seed value chain; seed security; capacity building and seed legislation/standards.

FAO also notes the importance of the formulation process to be conducted in a participatory manner, especially with participation of farmers and women farmers.

The policy should be regarded as a living document and therefore, subject to periodic revision as necessary.

a) Overview of Seed Policy and Strategies 2014

The Ministry of Agriculture, Irrigation and Water Development presented the 2014 Draft Malawi National Seed Policy and Strategies aiming to have a vibrant, sustainable and dynamic seed industry supported by a comprehensive and dynamic seed policy.

9. 'Draft Guide for National Seed Policy Formulation' in *Commission on Genetic Resources for Food and Agriculture of FAO*. Document CGRFA-15/15/Inf.25 December 2014, viewed on 17 February 2015 <http://www.fao.org/3/a-mm546e.pdf>

The draft Seed Policy recognizes that the seed industry in Malawi is comprised of the formal and informal seed systems as main sources of seeds to farmers. The formal seed system is comprised of local and multinational seed companies most of which have their own breeding, production and distribution programmes. On the other hand, the informal seed sector constitutes the major source of seed for the majority of small-scale farmers. Sources of seed in the informal sector are largely from farm saved seed, farmer to farmer exchange, local markets, nongovernmental organizations (NGOs) and Community Based Organizations (CBOs).

Nevertheless the above recognition similar to the Seed Act of 1996 and the draft Plant Breeders' Rights Bill of 2007, the draft Policy focuses mainly on the formal seed system, as it considers this sector to be the only system having scientifically traceable sources and mechanisms of the genetics in the seed used, making quality control easily applicable due to this traceability phenomena. It also recognizes that it is the system that seed breeders use in order to develop, improve and sustain particular varieties.

The draft Policy does not recognize the importance of the informal seed sector neither the valuable contribution of small-scale farmers for the conservation and development of plant genetic resources for food and agriculture, which constitute the basis of food and agriculture production in Malawi. The draft Policy becomes incomplete in its scope and regulation by ignoring small-scale farmers as key players of the agricultural sector; and the need to support and improve this sector by increasing seed quality, seed conservation, protection of traditional knowledge; ensure small-scale participation in decision making, guaranteeing that small-scale farmers' needs and interests are protected; and ensuring their right to save, use, exchange and sell farm-saved seed and propagating material.

Nevertheless, the draft Seed Policy has implications for the informal seed sector. For example, it establishes the Malawi National Seed Commission, which in collaboration with the private sector will establish and develop institutional, regulatory and legal framework for the effective and efficient functioning of the seed industry. It is clear that the interests and needs of the formal seed sector will be ensured, while the ones of the informal seed sector, particularly the interests and needs of small-scale farmers will not have any representation within the Commission.

On the other hand, the commercialization of formal seeds will be promoted and favoured as the Malawi National Seed Commission, in collaboration with the private sector will operate a market-oriented variety improvement programme for all the main crops grown in Malawi. However, no strategies have been proposed to promote, strengthen and encourage participatory crop improvement and the commercialization of quality informal seeds ensuring the conservation of genetic diversity of crops, essential in adapting to unpredictable environmental changes and future human needs.

Thirdly, the Malawi National Seed Commission will play a key role in the seed certification and quality control, using the system created specifically for the formal seed sector (test for distinctiveness, uniformity and stability). This does not consider any special measures to test the quality of seeds coming from the informal sector.

The draft Policy also encourages the establishment of village

seed banks by extension programmes at the village level as suppliers of planting materials for the crops, which are not handled by the existing commercial seed sector. This will be done through Smallholder Seed Multiplication Groups aiming to improve the informal seed sector to an organized formal seed production system. However, the draft Policy again fails when limiting the aim of community seed banks, also called as village seed banks, as providers of planting materials not handled by the existing commercial sector. In addition, the draft Policy document misconceptualized community seed banking and its role in national seed security.

Community seed banks are much more than simple providers of raw material to the formal sector. They are crucial for agrobiodiversity conservation; promoting farmer-to-farmer exchange of local seed varieties; crucial for local food security and a contingency measure in case of natural disasters or emergency situations. Also, community seed banks or village seed banks should be a collective initiative with the participation of small-scale farmers, and not an exclusive activity of researchers. The responsibility of the management and sustainability of community seed banks should be of farmer communities.

On the other hand, it is not about formalizing the informal seed sector, as it is pretended by the draft Policy when establishing the Smallholder Seed Enterprises to improve the informal seed sector to an organized formal seed production system. Contrary, it shall be about strengthening the informal seed sector to become an effective and complementary of the formal seed sector.

Additionally, it is important to recall that Malawi is a Contracting Party of the International Treaty on Plant Genetic Resources for Food and Agriculture, as it ratified the instrument in 2002. This international instrument recognizes Farmers' Rights and establishes that the responsibility for realizing those rights, as they relate to plant genetic resources for food and agriculture, rests with national governments. In this context, national governments should take measures to protect and promote Farmers' Rights.

The draft Policy includes some provisions that could affect Farmers' Right to save, use and re-sow farm-saved seeds, as it establishes that farmers' organizations will be pressured to not recycle seeds and encourage farmers to buy and use newly purchased seed annually from certified seed agencies. Finally, the draft Seed Policy includes a chapter on breeders' right but not on Farmer's Rights.

2.0 Recommendations

In order to improve the draft Policy and include some balance and equity among actors of the seed sector (formal and informal), with the goal of attaining food security and adaptation to climate change, the draft Policy could consider the following additional elements recognizing Farmers' Rights:

2.1 Conservation of plant genetic resources relevant for food and nutrition security

- Farmers and local communities' efforts to manage and conserve their seeds on-farm will be supported and promoted; and
- *In situ* conservation of wild crop relatives and wild plants for food production will be promoted by supporting the efforts of small-scale farmers.

Strategies

The Malawi National Seed Commission will:

- Undertake an inventory of local crops and wild relatives, as well as of the traditional knowledge of local communities relevant for the conservation and sustainable use of these resources, with the participation of local communities;
- Identify main bottlenecks especially political, technical and organizational capacity for the conservation and sustainable use of on-farm seeds and wild relatives; and
- Adopt incentives (monetary, political and institutional) addressing small-scale farmers contributing to the conservation and sustainable use of agrobiodiversity and improving the conservation and sustainable use practices of local crops and wild relatives.

2.2 Sustainable use

Strategies

The Malawi National Seed Commission will:

- Promote the participatory plant breeding to develop new varieties that allow farmers adapt to climate change and meet their socio-economic and cultural needs and preferences; and
- Strengthen farmers' organizations for the production and commercialization of local seeds and agricultural products.

2.3 Protection of traditional knowledge relevant for the conservation and use of seeds and propagating material

Strategies

The Malawi National Seed Commission will:

- Promote the documentation, use and exchange of traditional knowledge, innovations and practices relevant for the conservation and use of seeds and propagating material.
- Promote and protect the right of farmers to participate, in a fair and equitable way, in the benefits arising from the use of their traditional knowledge, innovations and practices.

2.4 Recognition, strengthen and promotion of local seed systems

Malawi Government will recognize and promote local seed systems that facilitate access, use and conservation of seeds on-farm.

Strategies

The Malawi National Seed Commission will:

- Conduct national inventories of farmers and farmers' organizations working towards the conservation and use of agro biodiversity;
- Identify factors to ensure the sustainability and promotion of local seed systems;
- Promote the establishment of community seed

- banks, with the participation of small-scale farmers;
- Encourage local seed systems through local seed fairs, field days, exchange of experiences to facilitate dialogue among farmers and researchers and exchange of seeds;
- Increase awareness among researchers, farmers, decision makers and consumers on the importance of local seed systems;
- Establish a monitoring system for local seed systems;
- Establish and strengthen value chains of local products and add value through the use of intellectual property rights, such as the denomination of origin; and
- Promote greater use of nutritious local crops and varieties to existing feeding programs.

2.5 Quality declared seed certification

Quality declared seeds (QDS) guarantees that farmers have access to, and use, good quality seed to produce their crops. The most common mechanism used for this purpose is flexible seed certification.

QDS in principle is an alternative quality control scheme that recognizes plurality in existing seed system and the need for flexibility seed standards. It accommodates more and diverse crops, minimizes costly implementation, shift responsibility to producers without compromising seed quality by adhering to basic principles of quality control. It neither replaces nor duplicate the current system. The system established for quality declared seed certification should take into consideration the different features of both seed systems (informal and formal) in Malawi. In this context, the system established should include different recognized seed certification mechanisms.

Seed certification mechanisms could include:

- Truth in labelling in which seed supplier is required to label the seed container strictly according to the quality specification of its content, without adhering to specific standards. With this mechanism, there is little government involvement in verifying the quality of seeds and the buyer decides whether the seed meets his or her needs;
- Mandatory certification with established quality standards and government enforcement of prescribe quality declared seed standards;
- FAO Quality Declared Seed System in which seed producing farmers are responsible for seed quality and the government plays a monitoring role, for example, using its extension staff for field inspections;
- Non-certified seed, in which the producer bears final legal responsibility for seed quality, must comply with minimum quality standards and conducts its own inspection. Government could make random technical checks.

Strategies

The Malawi National Seed Commission will:

- Establish a *sui generis* system of quality declared seed certification of seeds of small-scale farmers produced under local seed systems, which recognizes their distinctive features and problems; and

- Establish alternatives for registration of seeds produced under the informal seed system.

2.6 Institutional, Regulatory and Legal Framework

Strategies

The Malawi National Seed Commission will:

- Promote the institutional support to community seed banks, for example through the inclusion in local policies and plans for adaptation to climate change and food security;
- Establish joint programmes between public and private organizations to add value and promote the use of quality declared seeds, for example through the denomination of origin, regional food fairs, food tourism, organic and natural products, etc.;
- Include the promotion of the use of local crops in policies and budgets for food security and family agriculture;
- Establish mechanisms to include measures to support the establishment and maintenance of community seed banks contributing to food security and disaster response;
- Identify national laws and policies recognizing and protecting Farmers' Rights;
- Implement legal measures to protect traditional knowledge;
- Develop mechanisms to guarantee the right of small-scale farmers to participate in making decisions on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture; and
- Promote facilitated access to small-scale farmers of segregating and stable lines of crop varieties developed by public breeding institutions (universities, agricultural research centres) to allow them to multiply it and produce quality seed under quality declared seed certification schemes and commercialize it.

2.7 Implementation of Treaties and Protocols on Seeds

Strategies

The Government of Malawi, through the Malawi National Seed Commission and other relevant national authorities will:

- Implement the International Treaty on Plant Genetic Resources for Food and Agriculture, particularly on those issues relevant for the conservation and sustainable use of plant genetic resources for food and agriculture and Farmers' Rights;
- Implement legal, administrative and policy measures for the protection of the traditional knowledge, according to international treaties, protocols and conventions; and
- Promote the equitable participation of small-scale farmers in the benefits arising from the use of plant genetic resources and traditional knowledge, in line with the Convention on Biological Diversity, its Protocol of Nagoya and the Multilateral System of Access and Benefit Sharing of the International Treaty on Plant Genetic Resources for Food and Agriculture.



Photo by Mahara Nyirenda

2.7 Farmers' Rights

The Government of Malawi recognizes:

- The contributions of small-scale farmers in conserving, improving and making available plant genetic resources for food and agriculture, which constitutes the basis of Farmers' Rights;
- The rights of small-scale farmers to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision making and in the fair and equitable sharing of benefits arising from the use of plant genetic resources for food and agriculture;
- The need to improve the capacity and increase awareness on Farmers' Rights and how they can be implemented in practice;
- Farmers' Rights and breeders' rights should not be antagonistic, but mutually reinforcing.

Strategies

The Malawi National Seed Commission will:

- Develop a national action plan for the implementation of Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture on Farmers' Rights, with the participation of farmers' organizations and other relevant stakeholders for the consideration of the Minister of Agriculture and its possible adoption;
- Review, and if necessary, recommend the adjustment of national legal, administrative and policy measures affecting the implementation of Farmers' Rights; and
- Promote and support capacity building and public awareness efforts relevant for the implementation of Farmers' Rights in Malawi.

PROPOSED WORKING EXERCISE

1. Identify weaknesses and needs to achieve the recognition and effective implementation of Farmers' Rights in Malawi.
2. Identify the mechanisms to exercise Farmers' Right to participate in national law and policy decision-making.

FARMERS' RIGHTS ACCORDING TO THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The International Treaty on Plant Genetic Resources for Food and Agriculture adopted in 2001 and in force since 2004, is the only international legal binding instrument recognizing the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources. The Treaty recognizes that such contributions are the basis of Farmers' Rights.

According to the International Treaty, Farmers' Rights should be promoted at national and international levels, but the responsibility for their realization rests with national governments.

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The Treaty establishes as measures to protect and promote Farmers' Rights the following:

- The protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
- The right to equitably participate in sharing benefits arising from the use of plant genetic resources for food and agriculture;
- The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture;
- The right to save, use, exchange and sell seeds and propagating material saved in farms.

The aim of this chapter is to explain the most relevant provisions of the International Treaty relevant for Farmers' Rights implementation, as well as the most recent decisions taken in the sessions of the Governing Body of the International Treaty to advance in the implementation and promotion of Farmers' Rights.

Background

During the negotiation of the International Treaty, countries including Malawi recognized that over generations, farmers have maintained, used and improved diversity of food crops to develop better crop varieties that currently feed the world's population. Farming communities have domesticated wild plants, and through a process of selection and breeding, they have made them suitable for modern agriculture.

To maintain stable performance and the ability of crops to adapt to climatic conditions, diseases and pests it is necessary to maintain genetic diversity within species.

To ensure this, countries have recognized that the future development of agriculture and sustainable food production depend on men and women farmers who can continue to have access to seeds, including information and knowledge related to genetic resources, as well as technical and financial resources.

Malawi is obliged to comply with the International Treaty since 2004, when the Treaty entered into force. The Department of Agricultural Research Services (DARS) under the Ministry of Agriculture and Food Security is the focal point for the Treaty in Malawi. DARS host Malawi Plant Genetic Resources Centre at Chitedze Research Station and is mandated national authority for the communication bridge amongst the Secretary of the International Treaty and the government of Malawi. This organization receives all the information regarding meetings to be held organized by the International Treaty; request for information and experience to the national government relevant for the implementation of the International Treaty at the national level as well as requests for funding and technical support available to Contracting Parties by the International Treaty.

It is important to recall that at the fifth meeting of the Governing Body of the International Treaty (international meeting where representatives of all Contracting Parties adopt important decisions for the implementation of the International Treaty), governments agreed that countries must submit in 2016 to the Compliance Committee of the International Treaty, a report on the measures taken to implement their obligations under the International Treaty, using an adopted reporting format.

Malawi, as Contracting Party to the International Treaty, will need to submit such report to the Secretariat of the International Treaty through its National Focal Point.

The reporting format to be used by Malawi, include the following information to be submitted:

- Laws, regulations, procedures or policies in place in Malawi that implement the Treaty (including Farmers' Rights)
- Laws, regulations, procedures or policies in Malawi that need to be adjusted/ harmonized to ensure conformity with the obligations of the International Treaty
- Efforts of local communities and farmers to manage and conserve plant genetic resources on-farm

- promoted or supported in Malawi
- Wild crop relatives and wild plants for food production promoted in Malawi
- Policy and legal measures adopted in Malawi promoting the development and maintenance of diverse farming systems (including small-scale farmers' farming systems) that enhance the sustainable use of plant genetic resources for food and agriculture
- Policy and legal measures adopted in Malawi promoting participatory plant breeding
- Policy and legal measures adopted in Malawi supporting the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops
- Policy and legal measures adopted in Malawi reviewing and adjusting breeding strategies and regulations concerning variety release and seed distribution
- Any measure taken to protect and promote Farmers' Rights in Malawi

Relevant articles related to Farmers' Rights

Article 9 – Farmers' Rights

According to Article 9 of the Treaty, the responsibility for implementing Farmers' Rights is of national governments. Therefore, according to their needs and priorities, each country should, as appropriate and in accordance with their national legislation, take appropriate measures to protect and promote Farmers' Rights regarding plant genetic resources for food and agriculture.

As mentioned several times, according to the Treaty, the following measures shall be taken in order to protect and promote Farmers' Rights:

- protect the traditional knowledge relevant to plant genetic resources for food and agriculture
- ensure that farmers equitably participate in sharing benefits arising from the use of plant genetic resources for food and agriculture
- ensure that farmers to participate in making decisions at the national level on matters related to the conservation and use of plant genetic resources for food and agriculture
- ensure that the rights of farmers to save, use, exchange and sell farm-saved seeds and propagating material.

This list is not exhaustive and therefore, each country could adopt additional measures to implement Farmers' Rights at the national level.

Information regarding how to implement each of the mentioned measures can be found in **Chapter 1** of this capacity building material.

Article 5- Conservation, exploration, collection, characterization, evaluation and documentation of plant genetic resources for food and agriculture

Other articles of the Treaty also provide measures that national governments could adopt to support the implementation of Farmers' Rights.

Article 5 of the Treaty mentions that national governments shall, as appropriate, take measures to:

- Promote or support the efforts of farmers and local communities to manage and conserve on-farm plant genetic resources for food and agriculture.

The on-farm conservation and management of plant genetic resources was recognized as one of the priority activities to receive funding from the Benefit-sharing Fund of the International Treaty. Support for the on-farm conservation and management of these natural resources is the most direct way to benefit small-scale farmers in developing countries.

- Promote *in situ* conservation of wild crop relatives and wild plants for food production, including in protected areas, by supporting *inter alia* the efforts of indigenous and local communities.

Genetic diversity of wild, endemic and endangered plants and crop relatives is very important to increase the agricultural production and maintain sustainable agro-ecosystems. Wild biodiversity provides a wide variety of edible plants and species that have been used and are still used as wild food sources. These food crops are usually important in complementing a balanced diet food.

Article 6- Sustainable use of plant genetic resources

Article 6 of the Treaty suggests measures that national governments could adopt for the sustainable use of plant genetic resources for food and agriculture, including the following measures related to the use of resources by farmers:

- Pursuing fair agricultural policies that promote, as appropriate, the development and maintenance of diverse farming systems that enhanced the sustainable use of agricultural biological diversity and other natural resources.

The sustainable use of plant genetic resources is crucial for food security in the short and long term. Under this recognition, the Treaty calls national governments to promote different farming systems promoting the conservation of biodiversity.

- Strengthening research which enhances and conserves biological diversity by maximizing intra and inter specific variation for the benefit of farmers, especially those who generate and use their own varieties and apply ecological principles in maintaining soil fertility and in combating diseases, weeds and pests.

Traditional farming practices increase genetic diversity among crops achieving more stable yields and greater resistance to pests and diseases, as well as greater adaptability to new environmental pressures.

- Promoting, as appropriate, plant breeding efforts which, with the participation of farmers, particularly in developing countries, strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas.

The Treaty calls on national governments to promote the participation of farmers in plant breeding for new varieties particularly adapted to social, economic and ecological conditions. Participatory plant breeding is also a measure to promote the right of farmers to participate in decision-making.

- Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers.

The introduction of new varieties can increase genetic diversity, but as farmers increasingly use these new varieties replacing previously existing varieties mainly to increase their productivity, can in turn reduce diversity of local crops. Such practice increases uniformity at the expense of diversity resulting in vulnerability to climatic changes, pest and diseases. Therefore it is important to broaden the genetic diversity of crops. Increasing the genetic diversity of crops available to farmers is one of the basic objectives of the Treaty. The modalities of doing so could include, for example, facilitating access to farmers to plant genetic resources conserved *ex situ* in genebanks and ensuring facilitated access to plant genetic resources included in the Multilateral System of the International Treaty.

- Promoting, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized species.
In many developing countries, underutilized crops are essential for food security. Countries should ensure value addition to local crops, better market opportunities and enabling policies for locally adapted crops, but underutilized. Countries should increase incentives for farmers to continue using underutilized crops and maintaining traditional

knowledge related to the conservation and management of these resources. Many local and underutilized crops lend themselves to more widespread use contributing not only to generate local income, but also to food and nutrition security. They are also key for crop diversification to meet the challenges of climate change. The International Treaty encourages conservation programmes, research and development to promote these crops and underutilized species. To do this, there need to be, for example, capacity building among farmers, scientists and extension workers to identify underutilized crops that may have a greater use and establish best management practices as well as value addition, and marketing.

- Supporting, as appropriate, the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops and creating strong links to plant breeding and agricultural development in order to reduce crop vulnerability and genetic erosion, and promote increased world food production compatible with sustainable development goals.

Broadening the diversity of varieties adapted to local conditions and ensuring access to plant genetic resources for small-scale farmer communities is very important. In this context, the existence and availability of a wide range of plant genetic resources give local farmers many benefits, including their ability to grow them in different environments, mitigate production risks by combating pests and diseases, meet rituals, forge social bonds, increase their nutrition and reduce dependence on private and commercial seed companies. It is important that farmers not only conserve crop



diversity, but also have the capacity to produce and distribute seeds of food crops and not rely on private and commercial seed companies.

- Reviewing, and, as appropriate, adjusting breeding strategies and regulations concerning variety release and seed distribution.

Access to seeds is a vital element for food security and the sustainable development of small-scale farmers. The review and adjustment of strategies and regulations affecting the right of farmers to use, exchange and sell seeds and propagating material saved from own harvest has been reiteratively highlighted by all the countries that are part of the International Treaty, including Malawi, as important for the implementation of Farmers' Rights at the national level.

Decisions taken in the International Treaty scenario relevant to Farmers' Rights

Since the adoption of the International Treaty there has been little progress in the implementation of Farmers' Rights. In the International Treaty context, Contracting Parties have recognized the importance of sharing experiences to advance in the implementation of these rights. However, to date, countries do not have guidelines that enable them to advance in the implementation of these rights and there is still a lack of knowledge about these rights among farmers, government authorities, policy makers, civil society, etc.

Lack of capacity at the national level to implement Farmers' Rights has been frequently highlighted by national governments during the international meetings of the International Treaty.

In 2010 a Global Consultation was held co-organized by the Fridtjof Nansen Institute of Norway; the Swedish International Biodiversity Programme (SwedBio); the Norwegian Agency for Development Cooperation (NORAD); the Norwegian Ministry of Agriculture and Food; the Development Fund of Norway; and the Spanish Agency for International Development Cooperation (AECID); with the participation of representatives of national governments of all the regions, non-governmental organizations and representatives of farmers' organizations.

The Global Consultation recommended the following measures to be taken to advance in the implementation of Farmers' Rights:

- Guidelines and support to develop or adjust national laws, policies, strategies and programmes to realize Farmers' Rights;
- National measures to strengthen informal seed systems, through, inter alia, appropriate standards;
- Raise awareness and adopt capacity building measures to implement Farmers' Rights;
- Provide technical and financial support to implement Farmers' Rights at the national level;
- Up-scaling and institutionalize successful small-scale farmers' activities that contribute with the implementation of Farmers' Rights;
- Facilitate the documentation of traditional knowledge;
- Develop and implement legal provisions for the protection of traditional knowledge;
- Support on-farm conservation activities by farmers;
- Review the efficiency and effectiveness of financial resources provided by the International Treaty under the Benefit-sharing Fund; to ensure those funds contribute to the implementation of Farmers' Rights;
- Give support to national governments in establishing measures to ensure the effective participation of farmers in decision making processes;
- Ensure that farmers have the right to conserve and improve plant varieties protected under the Union for the Protection of New Varieties of Plants –UPOV;
- Promote participatory research, including participatory plant breeding, both at the national and local level;
- Adopt policy, legal and administrative measures for the development and improvement of plant varieties by farmers and for their registration, release and commercialization. Formal and informal seed systems should not be seen as opposing systems, and instead should be recognized as complementary. Therefore, legal space for each seed system should be ensured; and
- Explore the possibility of establishing national benefit sharing funds to promote the conservation and sustainable use of agrobiodiversity among small-scale farmers.

In 2011, national governments acknowledged that there is uncertainty in many countries as to how Farmers' Rights can be implemented and that the challenges related to the realization of Farmers' Rights are likely to vary from country to country; and recognized that the Treaty may give support in the implementation of Farmers' Rights.

In 2013, the situation did not change, as national governments requested the Treaty to facilitate support in building capacity for the implementation of Farmers' Rights, upon request and availability of resources.

The meeting of the Treaty held in Oman in 2013 was very important for advancing in the implementation of Farmers' Rights. Countries through the Governing Body of the Treaty decided to:

- Request the Treaty Secretary to revise views, experiences and best practices and provide examples that will be considered as options for governments to implement Farmers' Rights at the national level. This means that a guide, consisting of examples and best practices already implemented by governments, non-governmental organizations, and other stakeholders at local and national level, will be developed as options to help governments to implement Farmers' Rights at the national level.
- Invite national governments to involve farmers' organizations on issues related to the conservation and use of plant genetic resources for food and agriculture, and to consider their contributions to raise awareness and build capacities in these areas.

This is nothing but an invitation to governments to ensure the right of farmers to participate in making decisions on matters related to the conservation and use of plant genetic resources.



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- Invite national governments to consider developing action plans to implement Farmers' Rights;
- Invite national governments to consider reviewing and if necessary adjusting national measures affecting the implementation of Farmers' Rights;
- Invite national governments and organizations to conduct regional workshops and consultations, with the participation of farmers, to exchange views, best practices and experiences relevant for the implementation of Farmers' Rights;
- Request the Treaty Secretary to provide support initiatives to implement Farmers' Rights;
- Invite national governments and development cooperation organizations to consider providing financial and technical support for the implementation of Farmers' Rights;
- Invite farmers' organizations to continue participating in the sessions of the Governing Body and relevant inter-sessional processes;
- Request the Secretary of the International Treaty to facilitate support to national governments in building capacity for the implementation of Farmers' Rights, upon their request and availability of funds;
- Request the Secretary of the International Treaty to report on relevant discussions that relate to Farmers' Rights within FAO;
- Request the Secretary to invite the International Union for the Protection of New Varieties of Plants – UPOV and the World Intellectual Property Organization- WIPO to jointly identify possible areas of interrelations among their respective international instruments;
- Invite national governments to promote facilitated access to local farmers and indigenous communities to plant genetic resources included in the Multilateral System of the Treaty.

Furthermore, national governments adopted a Programme of Work for the Sustainable Use of Plant Genetic Resources for Food and Agriculture, including relevant elements for promoting the implementation of Farmers' Rights at the national level.

In 2011, national governments emphasized the link between Farmers' Rights and the conservation and sustainable use of plant genetic resources for food and agriculture.

One of the main objectives of the Programme of Work is to provide support to national governments and stakeholders to implement the provisions of conservation and sustainable use of plant genetic resources for food and agriculture and Farmers' Rights.

National governments would need to adopt measures to ensure the implementation of the Programme of Work and the articles of the Treaty related to conservation and sustainable use of plant genetic resources for food and agriculture and Farmers' Rights. It is recommendable to keep following the discussions of the Ad Hoc Technical Committee on the Sustainable Use of Plant Genetic Resources for Food and Agriculture of the Treaty, commissioned to develop tools and follow up the implementation of the Programme of Work.

PROPOSED WORKING EXERCISES

1. Respond to the following questions:

Have any measures been taken to protect and promote Farmers' Rights in Malawi? If your answer is yes, please indicate whether such measures were related to:

- Recognition of the enormous contribution small-scale farmers of all regions of the world to the conservation, development and use of plant genetic resources;
- The protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
- The right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture
- The right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture;
- The right to save, use, exchange, and sell farm-saved seed/propagating material.

If such measures were taken, discuss any difficulties encountered in implementing them. Identify concrete proposals on how to advance the above measures to realize Farmers' Rights in Malawi.

2. Discuss the recommendations made in 2010 listed above by participants to the Global Consultation and identify how much the situation in Malawi has changed in the last 4 years, according to what was identified as needs and challenges for the implementation of Farmers' Rights at that time.

Remember: The International Treaty on Plant Genetic Resources for Food and Agriculture is the only international law recognizing Farmers' Rights regarding plant genetic resources for food and agriculture. Under the Treaty, the implementation of these rights rests in national governments. The Treaty provides in several articles measures that countries shall adopt to implement Farmers' Rights.

‘WOMEN FARMERS’ RIGHTS

According to the World Bank, three of every four people in developing countries live in rural areas and most of them depend on agriculture for their livelihoods. They form the backbone of food production; preserve traditional food crops; and contribute with the conservation of agrobiodiversity and the sustainable use of natural resources.

In many parts of the world, women constitute a higher percentage of farmers and producers, but their role is hardly recognized and rewarded. Furthermore, the majority of Malawian women live in rural areas and they are among the world’s most vulnerable people to social-cultural norms. Their main recognised role is custodians of food sovereignty.

Women are still not well supported by agricultural and development policies, perhaps because they do not own the land they farm and often produce food primarily to meet household needs.

In agriculture, like other sectors, of our society suffers discrimination between men and women and of the existence of inequality conditions for participating in decision-making; accessing inputs; resources; services; technologies; and the sharing of benefits arising from the use of natural resources and traditional knowledge, innovations and practices.

Gender inequalities limit agricultural productivity and efficiency. UN studies¹⁰ have revealed the close relationship between malnutrition and discrimination of women farmers: the more discrimination, greater food insecurity. It is a reality that women farmers have limited access to land, productive resources and information. Some cultural conditions and education have contributed to the invisibility of women farmers, ignoring their contribution to food security and development.

In Malawi, women constitute 70% of the agricultural workforce contributing with 80% of food for family consumption. These women are holders of relevant traditional knowledge, innovations and practices, which need to be more visible and valued in farming production processes¹¹.

It is time to take into account the role of women in agricultural production and promote and protect their rights as farmers.

According to the UN Women Executive Director Phumzile Mlambo-Ngcuka “we must enforce and protect the rights of rural women. When women have access to land, there are improvements in household welfare, agricultural productivity



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and gender equality. And great progress is made against poverty, gender-based violence and HIV/AIDS. It makes everybody better off”.

The recognition of the role women farmers play in agriculture must be translated into effective measures for closing the gender gap, where women are better trained on their rights and able to enforce them.

This chapter aims to highlight the role of women farmers in household food and nutrition security and identify effective measures for realizing their rights as farmers.

The role of women in agriculture

Although women provide 70% of the labor force and produce 80 % of food for home consumption they have little control over the produce and benefit less from the income earned. They also continue to have poor access to and control over the means of agricultural production and services, including agricultural inputs, extension services, credit and land. This limits their ability to effectively practice sustainable agricultural development.

10. ‘Women in agriculture. Closing the gender gap for development’ in *Food and Agriculture Organization of the United Nations. The State of Food and Agriculture*. 2010, 2011 viewed on 20 February 2015 <http://www.fao.org/docrep/013/i2050e/i2082e00.pdf>

11. C. Lauterbach and I. Matenje, ‘Gender, Ifis and Food Insecurity. Case study in Malawi’ in *Gender Action*. February 2013, viewed on 20 February 2015 <http://www.genderaction.org/publications/malawifoodsecurity.pdf>

Apart from access and control over benefits, inequalities in terms of access to and control over factors of production limits women's participation in meaningful agriculture. Women also have limited access to agricultural markets due to inadequate access to affordable modes of transport, appropriate marketing technologies and price negotiation skills. Men dominate in the commercial sub-sector which gives them an economic advantage over women.

Almost 30% of the households in Malawi are headed by women. In some households men are engaged in off-farm activities. Many women therefore are consequently responsible for management of agricultural activities at household level.

In other areas where societies sustain rigid male supremacy, women's work and economic contributions tend to be viewed as nonessential and are regarded as assisting men. The labeling of agricultural production as a male activity has resulted in women facing challenges in striving to make ends meet in agriculture.

Women acquire rights to land through their membership in households especially through marriage as kins. This generally means that these rights might be revoked in cases of divorce or sometimes widowhood as some relatives resort to grabbing land since the women do not own the land. In terms of Inheritance of land, in most societies inheritance is determined by whether they are patrilineal or matrilineal. Inheritance in patrilineal societies is through the father's lineage whilst in matrilineal is through the mother's lineage. These systems have tended to give more authority to either men or women which then leave the other gender vulnerable in terms of access and control over land. The gender profile of Malawi indicates that two thirds of the population follows the matrilineal system where inheritance is through the woman. However, in Malawi, though matrilineal societies' ownership of land is by the women the authority over the land is vested in the maternal uncle. As a result of women having limited rights to access and control over land, they do not have the power to make decisions or to be involved in the decision making process involving land use.

Women have also been given entitlements on decision making and control for certain traditional crops like legumes, grains, roots and tubers. These crops have limited impact on income for women since food security is mostly conditioned on maize, the staple food which they don't control.

As a way of recognising the contribution made by women and empowering them in agriculture, programmes that target women have been developed by the government of Malawi and nongovernmental organizations to increase women access to inputs, credits, extension services and capacity building.

Malawi is among the poorest countries in the world, ranking 171s out of 186, according to the 2013 Human Development Report. One third of the population in Malawi is food insecure.

To this end, governments, the international community and civil society must work together to: eliminate discriminatory laws that prohibit women's access to finance, land and other key agricultural inputs; promote equity in access to resources and opportunities; and give visibility to women in sustainable development.

In recent years, the Government of Malawi has demonstrated political commitment to dedicate resources to address gender inequality. However, more efforts are needed to improve women participation in decision-making and control over production and natural resources.

The Report of the State of Food and Agriculture of FAO stated that the agricultural sector has not done well in some countries, in part because women do not have the same access as men to inputs and opportunities to be better and more productive.

In 2008, FAO issued the "Gender in Agriculture Source book" aiming to give practical advice, guidelines, principles and descriptions of approaches to achieve the inclusion of gender in agricultural policies.

What seems clear is that Farmers' Rights of women farmers need to be equally promoted at the international and national levels.

Women Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture

The International Treaty text does not recognize explicitly the important role and contribution women farmers have done for the conservation of plant genetic resources and food security.

In very few opportunities, Contracting Parties in the context of the International Treaty have recognized the work of women farmers. Resolution 9/2009 of the Governing Body of the International Treaty recognized the great contribution of indigenous and local communities for the conservation and sustainable use of plant genetic resources for food and agriculture, particularly the important role of women farmers in this regard.

This reflects the lack of consideration of women farmers in the international discourse on Farmers' Rights, which is very important for women farmers. Despite the minimum recognition of their important role, women farmers play a vital role in the conservation and sustainable use in the conservation, sustainable use of plant genetic resources and food security.

There is the urgent need to recognize the important role of women farmers in agriculture, as guardians of endemic and endangered genetic resources and traditional knowledge, and identify specific women's rights as farmers, in order to take appropriate measures to ensure their implementation.

The Gender in Agriculture Source Book provides the following measures, which are relevant for supporting the recognition and implementation of women Farmers' Rights:

A. Good governance is necessary to ensure women Farmers' Right to participate in decision-making

According to the definition of the United Nations Development Programme, good governance implies participation, accountability, transparency, consensus, sustainability and the rule of law.

Despite women farmers playing a very important role in food preparation and conservation the design of many agricultural policies assume wrongly that farmers and rural workers are men.

In this context, it is necessary to develop agricultural policies that are sensitive to gender differentials; gender specific; empowering to women and create more opportunities for rural women's participation in political processes. Additionally, special provisions may be required to ensure women's participation in the planning and decision-making process.

Women's participation shall also be promoted and ensured in international policy, especially when international agreements relevant to agriculture are written, negotiated and implemented.

Awareness and training for women is important to ensure full and meaningful participation in decision-making. The capacity should also be extended to men to ensure that men recognise the role of women.

Although good policies are important, they are not enough. Public institutions must have the will and the capacity to implement policies and programmes characterized by gender equity in the agricultural sector.

Resources could be allocated for changing community practices and encouraging more transparent information flows, broad and gender sensitive community participation in local decision-making. Special provisions, such as quorum rules for women's participation in community meetings, may also help to achieve gender equity.

B. Access to technology, natural resources, finance and markets

Women farmers shall increase their access to seeds and markets. Understanding the dynamics of markets is crucial to identify opportunities and needs of women farmers.

Programmes and plans should encourage the exchange of quality seeds among women farmers through seed fairs and campaigns on "seeds in the hand of women farmers" in collaboration with food security programmes.

On the other hand, even though 70% of the world farmers are women, most programmes offering farmers credit at the multilateral, bilateral and national levels target men farmers. There are very few policy commitments for investing in women farmers and few budget lines allocated and no methods of analysing, monitoring and measuring these initiatives¹².

With the aim of counteracting this panorama, donors could make sure their investments in agriculture support to women farmers and improve their aid and ensuring space is created at the decision making level of global funds for women farmers' organizations.

C. Institutional environment for the emergence of robust women community organizations

Participation in group organizations has clear benefits for women farmers in terms of increasing assets, income and increase control over decision-making processes affecting their lives. Women community organization (cooperatives,

associations, etc.) can be useful for collective management of common property resources, such as collective seeds and traditional knowledge; development of self-esteem, solidarity and shared identity.

D. Capacity building

Building women's leadership and self-esteem can result in more active participation and benefit sharing. Women with low levels of literacy find it impossible to participate in decision-making processes that are mostly dependent on written work. Therefore, women need to receive education and specific training in policies, group management and leadership.

E. Public awareness

Women farmers need to know and understand their rights as farmers, in order to enforce their realization at the national and local levels.

F. Promoting and protecting traditional knowledge

In traditional societies women are the keepers of certain traditional knowledge systems and make use of different resources than those used by men. In small-scale agriculture, women farmers are largely responsible for the selection, storage, improvement and adaptation of seeds. They have specialized knowledge of homegarden agrobiodiversity and wild plants used for food, fodder and medicine.

Through their daily work, rural women have accumulated knowledge about the ecosystem, including the management of pests, soil conservation, development and use of food crops.

Gender differentiated traditional knowledge about the local environment, plant and animal species, their products and uses plays a decisive role in the *in situ* conservation, management and improvement of genetic resources for food and agriculture.

Measures could be adopted for the protection, strengthening and production of women's traditional knowledge, innovations and practices.

PROPOSED WORKING EXERCISE

Discuss and answer the following questions:

1. How do women farmers contribute to agriculture in your community and region?
2. Identify bottlenecks limiting women farmers' rights and possible measures to improve the situation.
3. How is the participation of women farmers in local communities and at the national level of women farmers in making decisions relevant to the conservation and use of plant genetic resources for food and agriculture?
4. How could the implementation of women Farmers' Rights be improved? Identify concrete measures.
5. How could equity and justice be elements in the design and implementation of seed policies and legal frameworks relevant to agrobiodiversity conservation and use, to implement women Farmers' Rights?

12. 'Farming as Equals. How supporting women's rights and gender equity makes the difference' in Act on Aid. May 2011, viewed on 23 February 2015 http://www.actionaid.org/sites/files/actionaid/aa_farming_as_equalslores.pdf

RECOGNITION OF RIGHTS OF LOCAL COMMUNITIES OVER THEIR BIOLOGICAL RESOURCES AND TRADITIONAL KNOWLEDGE BY INTERNATIONAL FRAMEWORKS

For over thirty years, the international community has adopted international laws that recognize the close relationship of indigenous and local communities and natural resources and their important contribution to the conservation and availability of biological resources.

Important rights have been recognized including their right to: i) protect their traditional knowledge, innovations and practices relevant for the conservation and use of biodiversity; ii) continue using the natural resources according to traditional/cultural practices; iii) participate in decisions that affect them; and iv) participate in the benefits resulting from the use of their resources and knowledge.

The aim of this chapter is to present different international instruments recognizing the rights of local communities over their natural resources and traditional knowledge; as well as some of the decisions and recommendations taken by the international community; international programmes of work and measures for the protection of these rights.

a. The Convention on Biological Diversity (CBD)

The urgent need to conserve natural resources and use them sustainably in order to reduce poverty, hunger and improve the quality of life of people led in 1992 to the adoption of an international agreement called the Convention on Biological Diversity.

The CBD recognizes the close and traditional dependence between indigenous and local communities and natural resources. It also recognizes the need to share with them the benefits resulting from the use of their knowledge, innovations and practices.

It recognizes that the economic, social development and poverty eradication are high priorities in developing countries.

Article 8(j) states that:

Each Contracting Party shall, as far as possible and as appropriate, subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use

of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

Article 10 (c) of the CBD states that:

Each Contracting Party shall, as far as possible and as appropriate protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

Decisions taken by the international community

During the last 22 years, a number of decisions have been taken by the international community in the framework of the CBD to support the implementation of Articles 8 (j) and 10 (c) at the national level.

Below are some decisions and recommendations taken by the CBD that Malawi needs to look into.

Measures to implement Article 8 (j)

- Develop national legislation and corresponding strategies for the implementation of Article 8 (j) in consultation particularly with representatives of their indigenous and local communities (Third Conference of the Parties, 1996);
- Recognized that traditional knowledge should be given the same respect as any other form of knowledge in the implementation of the Convention (Fourth Conference of the Parties, 1998);
- Integrating the full and effective participation of indigenous and local communities in national, regional and international strategies, policies and action plans (Fifth Conference of the Parties, 2000);
- Provided sufficient capacity in national institutions to respond to the needs of indigenous and local communities related to Article 8(j) and related provisions (Fifth Conference of the Parties, 2000);
- Provided case-studies on methods and approaches that contribute to the preservation of traditional knowledge, innovations and practices, including



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through their recording where appropriate (Fifth Conference of the Parties, 2000);

- Support the control and decision-making of indigenous and local communities over the sharing of their knowledge, innovation and practices (Fifth Conference of the Parties, 2000);
- Recognized that the maintenance of knowledge, innovations, and practices of indigenous and local communities is dependent on the maintenance of cultural identities and the material base that sustains them (Fifth Conference of the Parties, 2000);
- Take measures to promote the conservation and maintenance of indigenous and local community identities (Fifth Conference of the Parties, 2000);
- Support the development of registers of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity (Fifth Conference of the Parties, 2000);
- Strengthen legislation, customary practices and traditional systems of resource management, such as the protection of traditional knowledge against unauthorized use (Fifth Conference of the Parties, 2000);
- Recognized that indigenous and local communities have their own systems for the protection and transmission of traditional knowledge as part of their customary law (Sixth Conference of the Parties, 2002);
- Recognized the need to strengthen national laws, policies and other measures, where necessary,

and the need for synergies with measures at the international level for the protection of traditional knowledge, innovations and practices of indigenous and local communities (Sixth Conference of the Parties, 2002);

- Need for further action in relation to the potential impacts of GMOs on the indigenous and local communities and on Farmer's Rights (Sixth Conference of the Parties, 2002);
- Support the efforts of indigenous and local communities to undertake field studies to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, with the full involvement and approval of these communities (Seventh Conference of the Parties, 2004);
- Bear in mind that registers are only one approach to the protection of traditional knowledge, innovations and practices, and as such their establishment should be voluntary. Registers should only be established with the prior informed consent of indigenous and local communities (Eight Conference of the Parties, 2006);
- Assist indigenous and local communities to address the underlying and community-specific causes of the decline of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity through

capacity-building and practical measures to develop community action (Ninth Conference of the Parties, 2008);

- Noted the unique value of biodiversity related traditional knowledge, innovations and practices of indigenous and local communities, especially those of women, in contributing to the understanding and evaluation of impacts of climate change, including vulnerabilities and adaptation options and other forms of environmental degradation (Ninth Conference of the Parties, 2008);
- Document, analyse and apply, as far as possible and where appropriate, with the participation of indigenous and local communities, the traditional knowledge in ways that complement science-based knowledge (Ninth Conference of the Parties, 2008);
- Recognized that the documentation and recording of traditional knowledge should primarily benefit indigenous and local communities and their participation in such schemes should be voluntary (Ninth Conference of the Parties, 2008);
- Special systems (also called *sui generis* systems) for the protection of the knowledge, innovations and practices of indigenous and local communities should be developed taking into account customary laws, practices and community protocols, with the effective participation, approval and involvement of those communities (Tenth Conference of the Parties, 2010);
- Developed *sui generis* systems for the protection of traditional knowledge (Tenth Conference of the Parties, 2010);
- Report on any regional measures that have been taken to protect traditional knowledge, innovations and practices, including *sui generis* systems that are being developed or have been developed and/or implemented (Eleventh Conference of the Parties, 2012);
- Recognized that Article 8(j) and 10(c) are interconnected and mutually reinforcing (Eleventh Conference of the Parties, 2012);
- Request to donors support for indigenous and local communities to organize themselves to develop community plans and protocols to document and register their community conservation areas (Twelve Conference of the Parties, 2014).

Exchange of information and experiences

- Exchange relevant information and share experience on measures taken to implement Article 8 (Second Conference of the Parties, 1995)

Cooperation for the implementation of Article 8 (j)

- Stressed the importance of regional and international cooperation for the implementation of Article 8 (Second Conference of the Parties, 1995)

Capacity building

- Emphasized the importance of capacity-building as well as the availability of adequate financial resources to assist countries in the implementation of Article 8 (Second Conference of the Parties, 1995)

Since its entry into force, the CBD adopted different work programmes. Following are the programmes of work of

the Convention relevant for the recognition of the rights of indigenous and local communities over their natural resources, especially the agricultural diversity and associated traditional knowledge.

Work Programme on Agricultural Biodiversity

At the third meeting of the CBD held in 1996, the countries decided to establish a multiannual programme of work on agricultural diversity.

In 2000, the Programme of Work was adopted and much of the work done within the Programme has been carried out in cooperation with FAO.

The objectives of the Programme include:

- Promote the conservation and sustainable use of seeds with real or potential value for food and agriculture; and
- Promote the fair and equitable sharing of benefits arising from the use of seeds.

The implementation of the Programme takes into account, among others, the knowledge, innovations and practices of indigenous and local communities.

Some of the elements worth mentioning are:

1. Assessment: It aims to make a full analysis of the status and trends of agricultural natural resources, including an analysis of the local knowledge relevant for its management. While there is much information on land use, water, climate zones, among others, there is still the need to improve information on the regulation of pests and diseases and the socio economical aspects of agriculture for indigenous and local communities. Assessments of the interactions between agricultural practices, sustainable agriculture, conservation and sustainable use of agricultural resources are also needed.

To accomplish this first goal, the CBD will:

- Provide support to on going or new assessments, for example those reports and evaluations developed by organizations upon request by national governments; and
- Conduct an evaluation of the knowledge, innovations and practices of farmers and indigenous and local communities relevant for maintaining agricultural services for food production and food security.

2. Adaptive management: The aim is to identify management practices, technologies and policies that promote the positive impacts of agriculture and improve productivity and the ability to maintain the livelihood of the population, expanding knowledge, understanding and awareness of goods and services provided by agricultural natural resources.

The activities to be carried out to achieve this goal include:

- Promoting underutilized crops and varieties;
- Promoting the knowledge, innovations and practices of farmer indigenous and local communities;
- Taking steps to add value to products from production systems conserving biological diversity;
- Taking measures to ensure the fair and equitable

sharing of benefits arising from the use of resources and traditional knowledge;

- Offering capacity building;
- Promoting sustainable agriculture methods using management practices, technologies and policies that promote the positive impacts of agriculture, with special attention to the needs of farmer indigenous and local communities.

3. Capacity Building: The aim is to strengthen the capacity of farmers, indigenous and local communities and their organizations to sustainably manage natural agricultural resources in order to increase profits and promote responsible action.

Among the activities to be undertaken to achieve this goal are:

- Promoting farmers' organizations in research and developing programmes for the conservation and sustainable use of agricultural natural resources;
- Encouraging countries to establish and maintain forums for farmers; researchers and other stakeholders to create partnerships among all of them;
- Increase farmers' capacities to develop strategies and methodologies for the conservation, sustainable use and management of agricultural biodiversity, building on traditional knowledge;
- Provide opportunities for farmers, indigenous and local communities to participate in the development and implementation of strategies, plans and programmes related to agricultural natural resources, decentralized policies and plans; and
- Promote networks and farmers' organizations at regional level to exchange information and experiences.

4. Mainstreaming: The objective is to support the development of national plans and strategies for the conservation and sustainable use of agricultural natural resources and promote its incorporation into plans and programmes in other sectors.

The activities to be undertaken to fulfil this objective include:

- Promote public awareness of the goods and services provided by agricultural natural resources, and the value and importance of such diversity for agriculture and human society in general;
- Promote on-farm conservation activities, particularly in the countries of origin of plant genetic resources; and
- Improve communication and coordination between stakeholders, with the support of international organizations.

Since the adoption of the Programme of Work in 2000, the Initiative on Biodiversity for Food and Nutrition was also adopted, with the purpose of:

- Check the links between biodiversity, food and nutrition. Associated traditional knowledge will be collected;
- Conserve and promote the wider use of biodiversity for food and nutrition, through the use and conservation of wild crops, underutilized species with real or potential use for food and nutrition; and

- Increase public awareness of the relationship between biodiversity, food and nutrition and the importance of biodiversity conservation to eradicate hunger.

Since the adoption of the Programme of Work, the international community called upon countries to protect native species and traditional knowledge, paying special attention to farmer indigenous and local communities, and recognizing and supporting the efforts of farmers to conserve agricultural resources.

Governments have been invited to incorporate agrobiodiversity issues in plans, actions and strategies, with the active participation of farmer indigenous and local communities, and to recognize and support their efforts for the conservation of agricultural biological diversity.

Analysis of possible implications of Genetically Modified Organisms on conservation and use of agrobiodiversity

Two years after the adoption of the Programme of Work, FAO submitted an analysis on the possible implications of GMOs (genetically modified organisms) for the conservation and use of agrobiodiversity. Since then, a debate on the flow of genetic material and seed conservation practices in traditional systems was initiated. Countries stressed the need to further adopt biosafety measures at national level.

The group of experts hired by the Director General of FAO to study this issue, unanimously declared that "terminator seeds (those that have been genetically modified with modern technologies to prevent germination)" are generally unethical as is unacceptable to commercialize seed whose offspring cannot be used again by farmers, because their seeds do not germinate (CGRFA/WG-PGR/1/01/7).

On the other hand, the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity recommended in 2000 that in the absence of reliable data on GMOs, not allowing for adequate basis for assessing potential risks, Governments should not approve products incorporating GMOs for field testing and commercial use until appropriate scientific data can justify those activities and conditions for safe and beneficial use are taken to protect biodiversity, food security and human health (CGRFA/WG-PGR/1/01/7).

The study on the impacts of GMOs also noted that the use of these organisms involve the displacement of locally adapted genetic material through a process of substitution, with potentially negative consequences for agrobiodiversity. The loss of traditional varieties, that are locally adapted, could affect the resilience and long-term productivity of agricultural systems (CGRFA/WG-PGR/1/01/7).

Additionally, the Ad Hoc Open-ended Inter sessional Working Group on Article 8 (j) and Related Provisions of the Convention on Biological Diversity has analysed negative impacts of the use of GMOs, particularly the:

Contamination of non GMO crops: The scape of genes from GMO crops, through water, wind or animal pollinators can contaminate local crops, causing genetic changes, which

can have negative effects in terms of performance and even cause sterility in local crops.

Displacement of local varieties: Genetically modified crops are monoculture and can displace local varieties or local crops, when consumers prefer crops with the new genetic characteristics. Furthermore, GMOs tend to reduce the quality and variability of cultivated varieties for adaptation to local conditions.

Loss of traditional knowledge: The use of GMOs can contribute to the loss of traditional knowledge, innovations and practices of indigenous and local communities associated with biological resources. Similarly, dependency on GMOs can displace traditional seed systems and cultural uses of local crop varieties.

The use of patented GMOs can also have negative impacts on the rights of small-scale farmers, for example, by restricting traditional practices such as seed storage, on farm plant breeding, re-sowing, selling and seed exchange.

From the analysis on the possible implications of GMOs prepared by FAO it is worth reflecting on:

- The limited independent studies or documentation about GMOs and their impacts on food security and eradication of hunger so far. There is not enough documentation on the safety of GMOs for environment and human health.
- Genetic modification is still dominant for two important features in crops i.e. insect resistance and herbicide tolerance. Even these features seem to be not sustainable as resistant insects and tolerance weeds are evolving and the dose usage of pesticide is increasing according to some studies.
- The loss of genetic diversity. GMOs may appear beneficial during the first few years as farmers may ignore the costs involved in its production. The GMO seed and pesticides needed for growing it is expensive and may not be economically sustainable for small-scale farmers. In the meantime local diversity and associated traditional knowledge disappear, become hard to restore them once they are lost.
- Patents over plant genetic resources make impossible to realize Farmers' Rights to save, sow, re-sow, exchange and sell patented seeds. It is impossible to use patented seeds for further breeding, contributing to narrow genetic diversity and local innovation.

Programme of Work on Article 8 (j) and Related Provisions

This Programme of Work as adopted in 2000 to:

- respect, preserve and maintain traditional knowledge, innovation and practices of indigenous and local communities embodying lifestyles relevant for the conservation and sustainable use of biodiversity,
- promote the wider application of traditional knowledge, innovations and practices with the approval and involvement of the holders; and
- encourage the sharing of benefits arising from the use of traditional knowledge, innovations and practices.

The general principles of the Programme are:

- The full and effective participation of indigenous and local communities in the identification and implementation phases of the Programme;
- The right of the communities to control their traditional knowledge; and
- Access to traditional knowledge, innovations and practices of indigenous and local communities should be subject to their prior informed consent of its holders.

The elements of the Programme of Work include:

1. Participatory mechanisms: Governments should adopt measures to improve and strength the capacity of indigenous and local communities to participate effectively in decision-making;
2. Equitable sharing of benefits: Guidelines will be prepared to develop mechanisms, legislation and other initiatives to ensure that: i) communities can take advantage of the fair and equitable sharing of benefits arising from the use and application of their traditional knowledge; and ii) public and private institutions interesting in using traditional knowledge, practices and innovations obtain the prior informed consent of the communities before making use of the knowledge, innovations and practices.
3. Legal elements: Legal instruments at the national level (laws, decrees, resolutions) or international treaties and agreements, particularly those related to intellectual property rights that may come to have an impact on the protection of traditional knowledge, innovations and practices should be evaluated and synergies between the legal frameworks must be sought.

The Ad Hoc Open-ended Inter-sessional Working Group to address the implementation of Article 8 (j) and related provisions

This Group was established in 1998 and since then has discussed and make recommendations on:

- The status and trends of traditional knowledge of indigenous and local communities;
- Measures to protect traditional knowledge, including *sui generis* systems;
- Measures to ensure the participation of communities in decision making;
- Possible impacts of GMOs for small-scale farmers and their rights; and
- Measures for repatriation of traditional knowledge.

During its meeting in 2013, the Group adopted the Plan of Action on the Customary Sustainable Use of Biodiversity. The Plan was endorsed by all countries of the CBD in 2014.

According to the Plan, traditional knowledge should be valued, respected and considered useful and necessary for the conservation and sustainable use of natural resources just like other forms of knowledge. The Plan recognized that indigenous and local communities are the holders of their knowledge, innovations and practices, and therefore their access should be subject to their prior informed consent, approval and participation.

The cultural and spiritual values and practices of indigenous and local communities play an important role in the conservation and sustainable use of natural resources and its transfer is important to future generations.

The Plan of Action recommends Governments, among others, to:

- Incorporate practices of customary sustainable use, with the participation of indigenous and local communities in biodiversity strategies and plans of action;
- Promote and strengthen community initiatives that support and contribute to the customary use of natural resources, in accordance with traditional practices; and
- Promote the use of customary protocols to promote the customary use of natural resources.

Sui generis systems to protect traditional knowledge:

The Working Group on Article 8 (j) discussed the possibility of protecting traditional knowledge through special systems called “*sui generis* systems”.

The Group recognized that indigenous and local communities have their own systems of protection and management of their traditional knowledge, as part of their customary law. It also recognized the:

- collective character of traditional knowledge;
- need to stop the abuse and misappropriation of the traditional knowledge through effective mechanisms that protect the rights of indigenous and local communities;
- relevance of having a special protection system that includes a mix of both positive and defensive measures.

At its meetings, the Group analysed various national measures and protocols that protect indigenous traditional knowledge, including measures to protect indigenous languages, registration of traditional knowledge, strengthening traditional institutions and community organizations.

At its meeting in October 2013, the Group adopted, inter alia, the following recommendations:

- Invite Governments, international organizations and indigenous and local communities to submit information on the progress in the implementation of Article 8 (j);
- Invite Governments, international organizations, programmes and funds to provide technical and financial support to indigenous and local communities for the implementation of programmes and projects that promote customary sustainable use of natural resources; and
- Invite Governments to recognize, support and encourage the development of *sui generis* systems for the protection of traditional knowledge, including through the development of protocols, action plans and national strategies.

Countries at the international meeting of the CBD held in 2014 took note of the revised elements for *sui generis* systems for the protection, preservation and promotion of traditional knowledge, innovation and practices of indigenous and local

communities and invited Governments to make use of them, in accordance with national legislation.

According to the CBD, the purpose of a *sui generis* system for the protection of traditional knowledge should be to respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities, and to recognise their right to control the use of their knowledge, based on their own vision, needs, customary laws and practices, and for their primary benefit.

Instead of focusing on protecting the rights over knowledge, *sui generis* systems should protect traditional knowledge in a holistic way, protecting also the rights of the communities over biodiversity, cultural and spiritual values, customary laws and institutions.

Key objectives of the *sui generis* system to protect traditional knowledge includes:

- To recognize that traditional knowledge, innovations and practices are a collective heritage of indigenous and local communities, and their use is subject to their prior informed consent;
- To recognize that biological and genetic resources associated with traditional knowledge are collective heritage of indigenous and local communities and their use is subject to their prior informed consent;
- To promote the customary use of traditional knowledge and biological and genetic diversity by indigenous and local communities.

Malawi and the Convention on Biological Diversity

Malawi ratified the Convention on Biological Diversity in 1994 and therefore is obliged, as a Contracting Party, to implement the CBD at the national level.

Since Malawi ratified the CBD some actions have been taken towards its implementation. In recognition that Malawi's Environmental Management Act (EMA) does not address biodiversity issues comprehensively, a process to revise the EMA was initiated in 2006. The reform was also in response to the requirements of the CBD. The revised EMA when passed by Parliament will have comprehensive guidelines and legal framework for access of genetic resources and benefit sharing arising from the use of these resources, and for the creation of an Environmental Protection Authority to coordinate environmental activities in Malawi.

In 2006, Malawi published a National Biodiversity Strategy and Action Plan (NBSAP). The goal of the NBSAP is to conserve, protect and manage all forms of life for all people by the year 2020, with full participation of all stakeholders, and to use the biodiversity sustainably and where benefits accrue to share them fairly and equitably.

Malawi has made significant progress in the implementation of the NBSAP. In addition to revising EMA, Malawi also initiated a process to develop the National Agrobiodiversity Policy, though the process was suspended preferring inclusion of agrobiodiversity in the National Agricultural Policy. This initiative is in keeping with the requirements of Article 15 on sustainable use of agrobiodiversity and Decision V/5 of the Fifth Conference of the Parties of the CBD regarding the Work Programme on Agricultural Biodiversity. When approved, the policy will provide for mechanisms for protection of

indigenous knowledge and benefit sharing that may arise from using the genetic resources collected from farmers.

The Nagoya Protocol on Access and Benefit Sharing

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the CBD was adopted in 2010 and entered into force in 2014.

Malawi is Party of the Nagoya Protocol since November 2014 and therefore, obliged to comply with the obligations there established.

This Protocol's objective is the fair and equitable sharing of benefits arising from the use of genetic resources.

The Nagoya Protocol and the International Treaty on Plant Genetic Resources for Food and Agriculture are two international instruments co-existing and not affecting the rights and obligations of the countries deriving from each of them.

According to Article 4 of the Nagoya Protocol, nothing in the Protocol shall prevent governments from developing and implementing other relevant international agreements, such as the International Treaty on Plant Genetic Resources for Food and Agriculture.

Farmers' Rights implementation arises from the commitment of governments to implement the International Treaty on Plant Genetic Resources for Food and Agriculture at the national level.

The Nagoya Protocol is mutual supportive of the International Treaty. It includes relevant provisions for the protection of the rights of indigenous and local communities, including to:

- Take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources;
- Endeavour to support, as appropriate, the development by indigenous and local communities of community protocols in relation to access to traditional knowledge and the fair and equitable sharing of benefits arising from the use of such knowledge;
- Take measures, as appropriate, with the aim of ensuring that traditional knowledge held by indigenous and local communities is accessed with their prior informed consent or approval and involvement, and the establishment of mutually agreed terms;
- Secure the fair and equitable sharing of benefits arising from the use of traditional knowledge; and
- As far as possible, not restrict the customary use and exchange of genetic resources and associated traditional knowledge within and amongst indigenous and local communities.

Mechanisms to participate at meetings of the CBD

The Convention has established a Voluntary Fund to facilitate the participation of representatives of indigenous and local communities in meetings under the CBD, in particular but not exclusively the meetings that relate to the objectives of

Article 8 (j) of the Convention. Applications of representatives of indigenous and local communities can be sent as soon as the notification of the meeting at which you want to participate has been published on the website of the Convention on Biological Diversity (www.cbd.int) The request for a special meeting must be accompanied by a letter of recommendation from the indigenous or local community and sent to the Secretary of the CBD at least three months before the meeting. The request must be sent to the following e-mail secretariat@cbd.int

b. The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization (WIPO)

In 2000 WIPO proposed the establishment of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, in order to reach agreement on a legally binding instrument for the effective protection of traditional knowledge, cultural expressions and folklore. Malawi participates in this Committee as a member of WIPO.

It's been around 14 years since the creation of this Committee and it is still discussing a special system of protection of traditional knowledge, also called *sui generis* systems.

The protection of the traditional knowledge is important in the framework of WIPO, considering the:

- need to preserve traditional practices to maintain biological and cultural diversity;
- need to prevent third parties from appropriating of traditional knowledge without the consent of indigenous and local communities; and
- importance of traditional knowledge for social, economic and cultural development.

WIPO has developed a database for indigenous communities, called "*Indigenous peoples and local communities Portal*" compiling catalogues of traditional knowledge, laws and measures in different countries to protect traditional knowledge and arrangements for access and benefit sharing. This information is available on the following website <http://www.wipo.int/tk/en/indigenous/>

The Committee has discussed the elements that would be part of the *sui generis* system for the protection of traditional knowledge. However, governments have not reached an agreement on all the elements, but it is important to mention some points on which there is agreement among countries:

Objectives of the protection of traditional knowledge:

- Recognize the intrinsic value of traditional knowledge, including its social, spiritual, intellectual, scientific, ecological, technological, educational and cultural value, and accept that traditional knowledge systems are frameworks of ongoing innovation important for indigenous and local communities and with scientific value, as other knowledge systems.
- Promote awareness and respect for traditional knowledge systems, including the contribution of indigenous and local communities to the conservation and sustainable use of biodiversity,



Photo by Mahara Nyirenda

food security, sustainable agriculture, the progress of science and technology.

- Reply to the rights and needs of holders of traditional knowledge, contribute to their economic, cultural and social welfare and recognize the value of the contribution they make to their communities and to the advancement of science and technology of the benefit of society.
- Promote the conservation of traditional knowledge.
- Support traditional knowledge systems, respecting and facilitating the use, development, exchange and continuous customarily transmission of traditional knowledge.
- Prevent missappropriation and misuse of traditional knowledge.
- Promote innovation and creativity by encouraging and rewarding creativity and innovation based on traditions.
- Ensure prior informed consent and exchange of information and knowledge based on mutual agreed terms.
- Promote the equitable sharing of benefits arising from the use of traditional knowledge.
- Promote the development of communities, encouraging the use of traditional knowledge and promoting the creation of business opportunities for products derived from traditional knowledge.
- Catalogue the traditional knowledge encouraging its disclosure, learning and use.

Mechanisms to participate at meetings of the Intergovernmental Committee of WIPO

WIPO, with its Voluntary Fund since 2005, has accredited indigenous and local representatives, facilitating their participation in the work of the Intergovernmental Committee. Only representatives of indigenous and local communities who are already accredited to the Intergovernmental Committee

may apply to this funding. In the website <http://www.wipo.int/tk/en/indigenous/> you will find more information on the procedure for accreditation, rules and operation of the Fund, as well as application forms, deadlines, etc.

PROPOSED WORKING EXERCISE

1. Analyse the international framework where the protection of traditional knowledge and the rights of indigenous and local communities over their natural resources are discussed; and identify how Malawi is complying with the provisions of these international framework in order to implement the rights of small-scale farmers.
2. Identify gaps and needs for the protection of the rights of local communities over their natural resources and associated traditional knowledge and suggest measures relevant to Malawi's reality.

Remember: There are international instruments that recognize the rights of indigenous and local communities over their traditional knowledge and natural resources. These instruments include the Convention on Biological Diversity and the Intergovernmental Committee on Intellectual Property Rights and Traditional Knowledge, Cultural Expressions and Folklore of WIPO. Decisions made under these agreements are binding for governments and active participation of indigenous and local communities' representatives is important for decision-making and the adoption of the position relevant to the implementation of the rights of small-scale farmers.

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Final Suggestions and Challenges

Although, Malawi has put in place conducive legislation, policies, strategies and programmes to facilitate biodiversity conservation and sustainable use, biodiversity conservation is still problematic. There are a number of priority issues that must be implemented first in order to establish a solid background for effective implementation of the Convention. Some of the priority issues include:

- The Department of Environmental Affairs should establish a Coordinating Unit and a Monitoring and Evaluation Unit. This will provide basis for measuring success as Malawi implements various elements of the Convention.
- In order to raise the profile of biodiversity on the national agenda, biodiversity should be included into the Malawi Growth and Development Strategy.
- To improve coordination of biodiversity programmes in Malawi the current institutional arrangement has to be strengthened, and the coordinating role of EAD must be clarified.
- All partner institutions must designate biodiversity desk officers. In this regards, the EAD should lobby parliament to speed up approval the revised Environmental Management Act.
- An overall National Biodiversity Policy should be developed to guide the implementation of biodiversity conservation and sustainable use including agrobiodiversity. Implementation of specific areas such as agrobiodiversity, invasive alien species, incentive measures etc may be guided by strategies.

RECOGNITION OF RIGHTS OF LOCAL COMMUNITIES OVER THEIR BIOLOGICAL RESOURCES AND TRADITIONAL KNOWLEDGE BY THE AFRICAN REGIONAL FRAMEWORK

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Protection of the rights of indigenous and local communities, including small-scale farmers over their biological resources and traditional knowledge, innovations and practices relevant for their conservation and sustainable use can be possible also through regional frameworks, such as regional programmes, plans of action, etc.

While such approaches are African born to protect the rights of indigenous and local communities over their biological resources and associated traditional knowledge, there are a contradictory process going on for harmonization of Africa's seed laws for border control measures, phytosanitary control, variety release systems, certification standards and intellectual property rights.

Harmonization of intellectual property rights (namely plant variety protection) is based on the 1991 Act of UPOV (see **Chapters 3 and 8** of this capacity building material for details about UPOV and national plant variety protection laws). The processes underway in developing harmonized seed policies and legal frameworks exclude farmer participation and it may violate customary rights of African small-scale farmers and communities.

This chapter aims to highlight some of the critics of the regional harmonization of Africa's seed law and analyze the African Union Legislation recognizing and protecting local communities rights over their resources and knowledge, and identify relevant elements to be included in the regional framework to protect Farmers' Rights.

Regional harmonization of Africa's seed laws

In the last years, one by one African countries are been pressured to review their seed laws and support the implementation of legislation for plant variety protection through a regional harmonization process. The strategy adopted has been to first harmonize seed trade regional laws, including boarder control measues, phytosanitary control and quality certification standards, to then harmonize laws for plant variety protection based on UPOV 91.

For instance, the Ministries of Agriculture from the Southern African Development Community (SADC) approved in 2010 the Common Market for Easter and Southern Africa (COMESA)

Regional Harmonization of Seed Trade Policies. Funding has apparently been available to implement this Protocol in four countries, including Malawi¹³.

Other regional processes related to plant variety protection include African Regional Intellectual Property Organization (ARIPO), which has regional instruments making provision for regional harmonization on intellectual property rights.

The harmonization process of seed laws has not recognized the current practice of 80% of African small-scale farmers neither their rights over seeds/propagating material and traditional knowledge, innovations and practices, particularly the customary rights of farmers to save, use, exchange and sell farm saved seed and propagating material.

Furthermore, the harmonization process of seed laws has addressed only the formal seed sector recognizing, ensuring and protecting only its rights and interests and excluding from participating in the debates, analysis and adoption of new seed regulations the civil society and farmers' organizations.

"Governments shall put in place mechanisms ensuring the active participation of farmers in decisions related to the conservation and sustainable use of plant genetic resources for food and agriculture, particularly in the design of legislation covering the protection of plant varieties so as to strike the right balance between the development of commercial and farmers' seed systems" (UN Special Rapporteur on the Right to Food).

The harmonized seed laws for plant variety protection tends to marginalize informal seed systems; increase and accelerate the loss of local plant varieties and their genetic diversity due to their uniformization encourage by the use of commercial varieties; increase the dependency of small-scale farmers on expensive inputs and seeds; and create an imbalance between the private and public sectors in agricultural research,

13. 'Harmonization of Africa's seeds laws: a recipe of disaster. Players, motives and dynamics' in The African Centre for Biosafety. November 2012, viewed on 24 February 2015 <http://www.acbio.org.za/images/stories/dmdocuments/Harmonisation-of-seed-laws-in-Africa.pdf>.

considering that research and development is been focus towards meeting the needs of professional or commercial breeders, while the needs of small-scale farmers are usually ignored.

Malawi and Regional Seed Laws

Malawi is a member of ARIPO, COMESA and SADC and has therefore the chance to contribute to the development of these instruments before taking requisite policy, legal and administration actions to implement them. In making contributions to the development of the regional instruments, Malawi needs to consider its national context and interest, especially the place of small-scale agriculture in the overall regional harmonization process. In addition, Malawi is a Party to a number of international conventions that have a bearing on plant genetic resources for food and agriculture, intellectual property rights issues and international trade.

The regional instruments being negotiated are using UPOV 91 with very serious consequences for the small-scale farming communities, which characterize many of the agriculture landscapes across southern Africa. These approaches do not sit particularly well with the international obligations to which Malawi and other countries in the region have committed under the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture. In particular, the CBD provisions requiring due attention to and implementation of access and sharing of benefits arising from the utilization of genetic resources are rarely considered. The requirements of the Cartagena Protocol on Biosafety that require risk assessment of genetically modified organisms are now in conflict with regional harmonization approaches under the ARIPO legal framework on plant variety protection and the COMESA Seed Trade Harmonization Regulations.

African Union relevant legislation

All African States (54), including Malawi and excluding Morocco are currently members of the African Union established in 1963 as the Organization of African Unity and launched as the African Union in 2002. The aim of the African Union is to accelerate the process of integration in the continent to enable it to play its rightful role in the global economy while addressing social, economic and political problems. The African Union looks for promoting unity and solidarity among African Member States; coordinate and intensify cooperation for development to safeguard the sovereignty and territorial integrity of Member States.

The African Union provides an effective forum that enables all Member States to adopt coordinated positions on matters of common concerns and defend the interests of Africa effectively.

In 2000, the African Union adopted the “*African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources*”, after three years of discussions. This Regional Model Legislation recognizes breeders’ rights but balance such protection against the rights of small-scale farmers and communities. As a model law it states some guidelines for adaptation to African national frameworks and realities.

Ethiopia has implemented the African Model Legislation through the Proclamation on Access to Genetic Resources and Community Knowledge and Community Rights, 2006.

African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources - 2000

According to the Preamble of the African Model Legislation:

- The rights of local communities over their biological resources, knowledge and technologies that represent the very nature of their livelihood systems and that have evolved over generations of human history, are of a collective nature and, therefore, are priori rights which take precedence over rights based on private interest;
- The vital role that women play in the generation, conservation, and sustainable use of biological diversity and associated knowledge and technologies is self evident, and it thus becomes essential to make it possible for their full participation at all levels of policy-making and implementation in relation to biological diversity, and associated knowledge and technologies;
- It is necessary to protect and encourage cultural diversity, giving due value to the knowledge, technologies, innovations and practices of local communities with respect to the conservation, management and use of biological resources;
- The State recognizes the necessity of providing adequate mechanisms for guaranteeing the just, equitable and effective participation of its citizens in the protection of their collective and individual rights and in making decisions which affect its biological and intellectual resources as well as the activities and benefits derived from their utilization;
- There is the need to promote and support traditional and indigenous technologies for in the conservation and sustainable use of biological resources and to complement them by appropriately developed modern technologies;
- There is the need to implement the relevant provisions of the Convention on Biological Diversity, in particular Article 15 on access to genetic resources, and Article 8(j) on the preservation and maintenance of knowledge, innovations and practices of indigenous and local communities; and
- The patenting of life, or the exclusive appropriation of any life form or part or derivative thereof violates the fundamental human right to life.

The aim of the African Model Legislation

The aim of the African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders is to ensure the conservation, evaluation and sustainable use of biological resources, including agricultural genetic resources, knowledge and technologies to maintain and improve their diversity as a means to sustain all life support systems.

Among the specific objectives, the following are relevant to highlight:

- Recognize, protect and support the inalienable rights of local communities including farming communities over their biological resources, knowledge and technologies;
- Promote appropriate mechanisms for a fair and equitable sharing of benefits arising from the use of biological resources, knowledge and technologies;
- Ensure the effective participation of concerned communities, with a particular focus on women, in making decisions as regards the distribution of benefits which may derive from the use of their biological resources, knowledge and technologies;
- Provide appropriate institutional mechanisms for the effective implementation and enforcement of the rights of local communities, including farming communities and breeders, and the conditions of access to biological resources, community knowledge and technologies;
- Promote the conservation, evaluation and sustainable utilisation of biological resources with a particular focus on the major role women play;
- Promote the supply of good quality seed/planting material to farmers; and
- Ensure that biological resources are utilised in an effective and equitable manner in order to strengthen the food security of the nation.

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Access to biological resources, knowledge and technologies of local communities

According to this African Model Legislation, access to biological resources, knowledge and technologies of local communities, including farmers, shall be subject to their prior informed consent, ensuring that women are also involved in decision making.

The recipient of biological resources and/or traditional knowledge and technologies shall not transfer the biological resources or any of its derivatives or the community's knowledge or innovations to a third party without the authorization of the concerned local community. Nor could the recipient apply for any form of intellectual property rights over the biological resource, parts or derivatives, community innovations, practices, knowledge or technologies without the prior informed consent of the original providers.

Access will be conditioned upon a commitment to contribute in the regeneration and conservation of biological resources and the maintenance of the innovation, practice, knowledge or technology of local communities.

The State and local communities shall be entitled to a share of the earning derived from when any biological resource and/or knowledge collected generates, directly or indirectly, a product used in a production process.

Community Rights

Part IV of the African Model Legislation deals with Community Rights, meaning those rights held by local communities over their biological resources, parts or derivatives, and over

practices, innovations, knowledge and technologies.

According to this Regional Legislation, communities have rights to:

- Collectively benefit from the use of their biological resources
- Collectively benefit from the use of their innovations, practices, knowledge and technologies
- Use their innovations, practices, knowledge and technologies in conserving and use biological diversity
- Exercise their collective rights as legitimate custodians and users of their biological resources.

Local communities have the right to refuse access to their biological resources, innovations, practices, knowledge and technologies when such access will be detrimental to the integrity of their natural or cultural heritage. Also local communities have the right to withdraw consent or place restrictions on the activities related to access where such activities will be detrimental to the integrity of their natural or cultural heritage.

The African Model Legislation is clear when stating that local communities shall exercise their right to access, use, exchange or share their biological resources in sustaining their livelihood systems as regulated by their customary practices and laws. Furthermore, no legal restrictions shall be placed on the traditional exchange system of the local communities in the exercise of their rights.

The legislation also recognized that the non-registration of community innovations, practices, knowledge and technologies is not to mean that these are not protected by Community Intellectual Rights.

Farmers' Rights

Part V of the African Model Legislation deals specifically on Farmers' Rights. According to the legislation, for farmers to continue conserving, developing and using plant and animal genetic resources, Farmers' Rights have to be recognized and protected.

According to Article 15, farmers' varieties and breeds shall be protected. The local community shall hold intellectual protection to its varieties through a variety certificate which does not have to meet the criteria of distinction, uniformity and stability. The variety certificate entitles the community to have the exclusive right to multiply, cultivate, use or sell the variety, or to approve the use to third persons without prejudice the Farmers' Rights.

It is clear that the variety certificate is a *sui generis* mechanism established to recognize the rights of small-scale farmers over their plant varieties to multiply, cultivate, use or sell them. It is similar to breeders' right granted to commercial breeders. However, the variety certificate ensures a collective right which not prescribe in time.

Additionally, the African Model Legislation establishes that Farmers' Rights include the:

- protection of traditional knowledge relevant to plant and animal genetic resources;
- right to obtain and equitable share the benefits from the use of plant and animal genetic resources;
- Participate in decision-making;
- right to save, use, exchange and sell farm-saved seed and propagating material of farmers' varieties;
- right to use a protected variety to develop farmers' varieties, including material obtained from genebanks or plant genetic resources centres;
- right to collectively save, use, multiply and process farm-saved seed of protected varieties.

Farmers should not sell farm-saved seed or propagating material of a protected variety in the seed industry on a commercial scale.

On the other hand, breeders' rights over new varieties shall be subject to restriction with the aim of protecting food security, health, biological diversity, or any other requirement of the farming community for propagating material of a particular variety.

It is important to note that while under the framework of UPOV 91, breeders' rights can be restricted within reasonable limits and only if the LEGITIMATE INTERESTS OF THE BREEDER ARE STILL PROTECTED; under the African Model Legislation breeders' rights must be restricted for PROTECTING FOOD SECURITY, HEALTH, BIOLOGICAL DIVERSITY, OR ANY OTHER REQUIREMENT OF THE FARMING COMMUNITY FOR PROPAGATING MATERIAL OF A PARTICULAR VARIETY.

Exemptions to Breeders' Rights

The African Model Legislation also provides exemptions to breeders' rights, particularly as farmers' communities may:

- Propagate, grow and use plants of the protected variety for purposes other than commerce;
- Sell plants or propagating material of the protected variety for food or other use that does not involve the growing of the plants or propagating material of the variety;
- Sell within a farm or any other place at which plants of that variety are grown any plants or propagating material of that variety at that place;
- Use plants or propagating material of a protected variety for the purpose of developing another new plant variety. Farmers cannot make repeated use of plants or propagating material of the first mentioned variety for the commercial production of another variety;
- Sprout the protected variety as food for home consumption or for the market; and
- Use the protected variety for further breeding, research or teaching.

Farmers will be free to save, exchange and use part of the seed from the first crop of plants which they have grown for sowing in their own farms to produce a second and subsequent crop.

Institutional framework for implementation of African Model Legislation

Regarding the institution framework needed to implement the provisions of the African Model Legislation, the Legislation established that each Member State shall designate or establish a National Competent Authority to implement and enforce the provisions of this legislation, including to:

- Create and operate a regulatory mechanism that will ensure effective protection of community intellectual rights and Farmers' Rights;
- Carry out the process of consultation and participation of local communities, including farmers' communities, in the identification of their rights under the customary practices and community laws;
- Identify types of community intellectual rights and Farmers' Rights;
- Identify and define the requirements and procedures necessary for the recognition of community intellectual rights and Farmers' Rights;
- Develop a system of registration items protected by community intellectual rights and Farmers' Rights according to their customary practices and laws; and
- Identify relevant technical institutions that will assist local communities, including farmers' communities in the categorization and characterization of their biological resources, innovations, practices, knowledge and technologies.

A National Inter-Sectoral Coordination Body at the highest level, composed by representatives of relevant public sectors; scientific and professional organizations; nongovernmental organizations and local community organizations shall be created as a body to coordinate and follow up the implementation of this legislation at the national level.

Among the functions of the Inter-Sectoral Coordination Body are to:

- Ensure that the rights of local communities, including Farmers' Rights are protected, with due regard to gender equity; and
- Recommend policies and laws on the sustainable use of biological resources, including new laws on intellectual property rights, community intellectual rights and Farmers' Rights.

Establishment of Community Gene Fund

The African Model Legislation set to Member States to establish a Community Gene Fund, deriving its funds from the shares with local communities, including farmers' communities for the use of their biological resources and innovations, practices, knowledge and technologies. It can

also receive contributions from national and international bodies and others interested in genetic conservation by local communities.

A royalty to be fixed by the National Competent Authority based on the gross value of the breeders' rights protected seeds sold shall be credited also to the Community Gene Fund for the benefit of farmers' communities whose varieties have been the basis for the breeding of the breeders' varieties.

Funds from the Community Gene Fund shall be used to finance projects developed by farming communities, ensuring equity for women, aimed at solving their problems, including the development, conservation and sustainable use of agricultural genetic diversity.

The Community Gene Fund will have a Fund Management Committee comprising representatives of farming local communities, professionals, nongovernmental organizations, and the public and private sector.

The African Model Legislation is not legally binding for Member States. As reflected in its own name, it is a model that could guide Member States when developing their national legislation for the protection of the rights of local communities, farmers, breeders and for the regulation of access to biological resources.

It is a good guideline enabling African countries, including Malawi, to meet numerous challenges and commitments regarding biodiversity, intellectual property, community rights, balancing breeders' rights and Farmers' Rights, among others.

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PROPOSED WORKING EXERCISE

1. Compare the intentions, relevance and benefits of regional harmonisation of Africa's seeds laws in relation to the dominant small-scale farming system in the region with the African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources.

2. Review and understand the different elements included in the African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources relevant for the protection of Farmers' Rights in Malawi; and take them into consideration as an example of elements to be included in Malawi's national legal and policy frameworks.

Relevant regional institutions

Regional institutions in Africa play an important role in the regulation of matters relevant for Farmers' Rights such as intellectual property rights, protection of traditional knowledge;

1. African Regional Intellectual Property Organization- ARIPO

ARIPO was born from a recommendation made by the World Intellectual Property Organization and the United Nations Economic Commission for Africa to establish a regional organization to take advantage from the exchange

of information, harmonization and coordination of the laws and activities of all English speaking countries in Africa in industrial property matters.

With this aim, ARIPO would, among others:

- Promote the harmonization and development of industrial property laws and related matters, relevant to the needs of its members (such as Malawi) and of the Region as a whole
- Establish schemes for the training of staff in the administration of industrial property matters;
- Promote the exchange of ideas, experiences, research and studies relevant for industrial property matters;
- Promote and evolve a common view and approach of all countries members on industrial property matters.

ARIPO has adopted various protocols, including the Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore of 2010¹⁴. This Protocol came into force in 2012, but will come into operation once a Sixth State has signed it.

The Protocol recognizes the intrinsic value of traditional knowledge, traditional cultures including their social, cultural, spiritual, economic, intellectual, scientific, ecological, agricultural, medical, technological, commercial and educational value.

Traditional knowledge systems are frameworks of ongoing innovation and creativity that benefit local and traditional communities and all humanity.

According to the Protocol, the protection of traditional knowledge shall not be subject to any formality. Relevant national authorities and ARIPO office may maintain registers of traditional knowledge, subject to relevant policies and laws and the needs and aspirations of the legal holders of that knowledge.

Holders of the traditional knowledge (small-scale farmer communities; local communities, etc.) have the right to authorize the exploitation of their traditional knowledge and prevent anyone to exploit their knowledge without their prior informed consent.

The protection of traditional knowledge includes the right of holders to the fair and equitable sharing of benefits arising from the commercial or industrial use of the knowledge. The protection of traditional knowledge should not limit the continued availability of traditional knowledge for the practice, exchange, use and transmission of the knowledge by its holders and within traditional context.

2. Southern African Development Community- SADC

Among the objectives of SADC are to achieve development, peace, security, economic growth, alleviate poverty, enhance

14. 'Harmonization of Africa's seeds laws: a recipe of disaster. Players, motives and dynamics' in The African Centre for Biosafety. November 2012, viewed on 24 February 2015 <http://www.acbio.org.za/images/stories/dmddocuments/Harmonisation-of-seed-laws-in-Africa.pdf>.

the standard and quality of life of people from Southern Africa. This organization was established in 1992 as a legally binding agreement for Member States. Malawi is a Member State. One of the matters of interest for SADC is agriculture and food security. Member States agreed to remove the serious obstacles of food security, including sustainable access to safe and adequate food at all times.

SADC also aims to protect seed sources. Maintaining and enhancing crop production offers regional opportunities for economic growth and food security. To achieve the above, SADC identified the following areas of work:

- Access to new farming technologies and inputs (seeds, fertilisers, etc)
- Marketing infrastructure and information
- Harmonize strategies and policies
- Capacity for coordination



Photo by Mahara Nyirenda

SADC should consider the formal and informal seed sector in any intent to harmonize strategies and policies to achieve food security in Southern African Member States.

Coordination to maintain diverse farming systems, including traditional farming systems enhancing conservation and sustainable use of agricultural biological diversity and other natural resources should be promoted.

The introduction of new and improved plant varieties may increase genetic uniformity, as small-scale farmers turn to them for greater productivity, reducing crop diversity. There is a need to balance the use of new and improved plant varieties and local varieties and landraces.

3. Common Market for Eastern and Southern Africa- COMESA

COMESA was established in 1993 and ratified in 1994 aims for the integration of Africa in which regional economic communities would constitute a strong force. During the late 1980s and beginning of 1990s most of the Eastern and Southern African countries followed an economic system which involved the state in almost all aspects of production, distribution and marketing, leaving the private sector to

play a minor economic role. However, this system presented significant economic decline in those countries.

This regional organization is the only regional trade arrangement in Africa notified to the World Trade Organization. Sixteen COMESA Member States are members of WTO, including Malawi.

The challenge which faces the countries of the region is how to become more involved in the decision-making under the framework of the World Trade Organization, and the implications of implementing existing WTO rules and regulations on the economies of the region.

The challenge for COMESA is to ensure full preparedness and adequate technical negotiating and implementation capacity among Member States, and also to maintain a common stand during the negotiations.

Therefore, COMESA could be an important regional scenario for ensuring a common understanding and work plan to recognize and implement the rights of local communities over their resources and traditional knowledge.

PROPOSED WORKING EXERCISE

1. Discuss how the regional framework in Africa has been a useful tool for the recognition and implementation of Farmers' Rights
2. Identify how the regional institutional framework could improve the participation of small-scale farmers in decision making processes
3. Identify steps to be taken to improve the role of the region institutional framework to support the implementation of Farmers' Rights at the national level, and promote Farmers' Rights at the regional and international levels.

Final Suggestions and Challenges

Malawi has a draft Plant Breeders Rights Bill, which provides for registration of plant breeders' rights in line with UPOV model and the draft SADC Protocol on Protection of New Varieties of Plants. This draft Bill however has been in draft for over 18 years and needs to be finalized. The Bill should take into account regional harmonization approaches but ensure that plant breeders' rights are granted only upon compliance with national legislation.

Furthermore, the drafting of the Bill needs to take into account the protection of Farmers' Rights that is the basis of the conservation of genetic stock used by formal plant breeders. It is therefore important that the Bill incorporates Farmers' Rights provisions. Another option is to draft a separate bill addressing Farmers' Rights. However this runs the risk of making Farmers' Rights legislation an orphan law considering the policy-makers focus and interest towards plant breeders' protection.

It is important for a possible plant breeders' rights and Farmers' Rights draft bill to encourage the development of farmers varieties. This can be done through protecting them with a sui generis system as proposed under the African Union Model Law where a variety certificate can be given without compliance with the requirements of distinct, uniform and stable, as is the case with plant breeders' rights.

BALANCING FARMERS' RIGHTS AND BREEDERS' RIGHTS

Farmers and professional plant breeders play a significant role in crop genetic resource improvement. Discussions have been going on for a number of years on how Farmers' Rights and breeders' rights can be balanced, in order to ensure an equitable system that can facilitate farmers' continued access to – and use of – crop genetic resources.

When talking about Farmers' Rights and plant breeders' rights we are considering the seed sector and its two complementary systems namely: the informal/local and formal seed systems. These two sectors have their own features, problems and needs. They have their own duties and responsibilities and, of course, different rights and instruments to realize them.

Malawi is currently discussing a draft Seed Policy, which recognizes breeders' rights. A more detailed analysis of this draft policy is included in **Chapter 1** of this capacity building material, to identify if and how the draft Policy also should recognize Farmers' Rights. In addition Malawi also has a Plant Breeders' Rights Bill. The aim of this Bill is to protect plant breeders' rights.

Seed policies and national agricultural policies are appropriate tools to recognize and balance breeders' rights and Farmers' Rights at the national level.

The aim of this chapter is to understand the basis for the recognition of the rights of small-scale farmers and professional plant breeders; how those rights have been recognized; and what is needed to redress the balance of the recognition and protection of the rights by looking at formal and informal seed systems; how and who should lead those actions, recalling that the rights of one should not go on the expense of the other, rather supportive to integrate the two seed systems in particular and considering that the two should be supportive for a complementary seed sector development.

a. Plant Breeders' Rights

Plant breeders' rights are those rights granted to the breeder of a new variety of a plant to exercise exclusive control over the propagating material (seeds, cuttings, tissue, etc.) and harvested material (cut flowers, fruit, foliage) of a new variety for a number of years (often ranges between 15-25 years). It is a monopolistic right to restrict certain activities by third parties.

Until late 18th century, crop varieties were developed by farmers through seed saving, exchange, selling, re-planting and selecting for various characteristics that suited local growing conditions. Plant variety protection (breeders' rights) was born in developed countries in the 19th century, when professional plant breeders begun producing uniform commercial varieties of crops suited to mechanized commercial farming. Breeding became a business activity and breeders start demanding exclusive rights over new plant varieties, considering the challenge faced of competitors that easily copied and flooded the market with competing products.

Despite the fact that nursery companies in developed countries were not actually breeding varieties, but mainly relying on farmers' selection and fortuitous discovery of plant mutations, breeders were slowly able to expand the idea that they merited the same protection as inventors through intellectual property rights.

Therefore, it seems clear that the basis of breeders' rights is the challenge faced by commercial breeders of competitors that easily copied and flooded the market with competing products, and the need to promote investment, innovation plant breeding and fair competition.

Commercial breeders, through some policy lobby, were able to articulate their interests through legislative processes, resulting in the recognition of breeders' rights by international and national laws.

International agreements related to breeders' rights

The Paris Convention on the Protection of Industrial Property adopted in 1883 opened up the possibility of industrial property protection for plant genetic material. According to Article 10 of the Convention, governments shall ensure the protection against any act of competition contrary to honest practices in industrial or commercial matters.

Latter in 1961, the International Convention for the Protection of New Varieties of Plants, establishing the International Union for the Protection of New Varieties of Plants (UPOV, its acronym in French), was adopted. UPOV currently has 72 member states and Malawi is not party to the Union. However, developing countries in most cases have been required to join UPOV to comply with obligations imposed in free trade agreements entered into with the United States of America or the European Union.



Photo by Mahara Nyirenda

The UPOV convention set out binding minimum standards for plant variety protection. It was revised in 1972, 1978 and 1991. While the first two revisions did not substantially alter the system of protection, the 1991 revision brought about significant changes, as it expanded and strengthened the rights conferred to breeders while limiting the rights of farmers' to save, re-plant, exchange and sell propagating material from protected plant varieties. A more detailed analysis of UPOV is found later in the document.

Another important international agreement relevant for the protection of plant varieties through the intellectual property rights system is the World Trade Organization's (WTO), Agreement on Trade-Related Aspects of Intellectual Property Rights, also known as the TRIPs Agreement, adopted in 1994.

According to TRIPs (Article 27.3 (b)), members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. This may refer to an option that governments have to exclude protecting plant varieties through patents, but must provide plant variety protection through an effective *sui generis* system, meaning a unique system. Therefore, governments have some space and flexibility in terms of modalities and level of protection of plant varieties, and to adopt legal measures to implement this obligation.

Some countries (mostly industrial countries) have chosen to apply UPOV as a *sui generis* system to protect plant varieties. However, this is just an option and governments (especially developing countries) are free to choose other mechanisms

of protection for plant varieties based on their realities and needs in their agricultural production systems.

A review of this Article of TRIPS was foreseen to happen 4 years after the date of entry into force of the WTO agreement, showing how difficult the negotiations were regarding the protection of plant varieties. In fact, the revision never happened. According to the African Region, a balance is needed between the interests of the community as a whole and the need to protect Farmers' Rights¹⁵. To achieve this, the African Region has proposed to consider that a *sui generis* system for plant variety protection can provide for the protection of traditional knowledge of indigenous and farming local communities in developing countries; the continuation of traditional farming practices, including the right of small-scale farmers to save and exchange seeds and sell farmers' harvest; and the prevention of anti-competitive rights or practices which threatens food security of developing countries¹⁶.

UPOV and its possible implications for Farmers' Rights

As plant variety protection through intellectual property rights aims to respond to the needs of commercial breeders, UPOV convention sets special requirements

15. 'Taking forward the review of Article 27.3 (b) of the Trips Agreement' in World Trade Organization Document IP/C/W/404, June 2003.

16. World Trade Organization. Document IP/C/W/163

in order for the new plant variety to be subject of such protection. These requirements have been thought for commercial breeders, which is now days becoming a standard in national seed and plant variety protection laws.

Plant varieties for protection must be:

- **New:** if, at the date of filing of the application for a breeder's right, propagating or harvested material of the variety has not been sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety, in the territory of the Contracting Party in which the application has been filed earlier than one year before that date and in a territory other than that of the Contracting Party in which the application has been filed earlier than four years or, in the case of trees or of vines, earlier than six years before the said date (Article 6, UPOV 91)
- **Distinct:** if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of the filing of the application (Article 7, UPOV 91)
- **Uniform:** if, subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics (Article 8, UPOV 91); and
- **Stable:** if its relevant characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle (Article 9, UPOV 91).

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Special requirements and small-scale farmers

This does not mean that a farmer, including small-scale farmers, complying with these requirements cannot seek for breeders' rights of his new plant variety. However, this is not actually what small-scale farmers do and their varieties usually do not comply with these characteristics. This is another reason to think that UPOV and breeders' rights were adopted to protect the rights of certain professional plant breeders, commercial breeders, rather than small-scale farmer breeders.

Recognizing and protecting breeders' rights in the commercial seed sector would not be a problem, if the customary rights of small-scale farmers to save, exchange, use and sell seeds in the informal sector have also been respected.

What has been the tendency in the last years is an increasing scope of breeders' rights that could go against the customary rights of small-scale farmers of the informal seed sector.

For example, UPOV 91 introduced the concept of essentially derived varieties (EDVs). According to the concept, a variety that is considered to be an EDV cannot be commercialized without the authorization of the breeders' right-holder of the initial variety from which the essentially derived varieties arose. It is not equitable and fair to allow breeders to freely use farmers' varieties as raw material for developing new crop varieties and protect them for commercialization without authorization of farming communities, while farmers are not allowed to commercialize varieties they develop using protected varieties as raw material in adaptation breeding without the authorization of breeders holding rights over protected varieties.



Photo by Mahara Nyirenda

On the other hand, under UPOV 78 some important activities for small-scale farmers were still authorized, for example, saving, re-using and exchanging seeds of protected plant varieties for non-commercial purposes. However, the text of UPOV 91 expands radically the activities that will need breeders' authorization, for example, the production or reproduction (multiplication) of propagating material of a protected variety; conditioning for the purpose of propagation; stocking for the purpose of production, multiplication, among others. In that order of ideas, farmers, including small-scale farmers would not be able to reproduce seeds of protected varieties for commercial purposes, multiply propagating material or settle down nurseries for propagating the material without the authorization of the breeders' right holder. Under UPOV 91 the right of farmers to save, use, exchange and sell farm-saved/propagating material of protected varieties is restricted.

Currently, under UPOV 91 the breeders' exclusive rights have been expanded to cover harvested materials. This means rights of farmers to use the product of the harvest, which they have produced by planting a protected variety could be restricted. This is not mandatory as governments are encouraged to do, which means it is subjected to political will of national governments, who may recognize such rights, within reasonable limits and balance the interest of breeders and farmers.

UPOV 91 generally restricts the basic rights of farmers to save and exchange farm saved seeds and propagating materials. While some interpret the provisions as protected varieties are not allowed for farmers to practice these basic customary rights, others could interpret that as Article 15 of UPOV 91 establishes that breeders' rights shall not extend to acts done

privately and for non-commercial purposes; and acts done for experimental purposes; the right of farmers to save and exchange propagating material for non-commercial purposes of protected varieties stills respected and guaranteed.

Recalling that one does not fit all; that the current UPOV system was conceived to protect the rights of professional or commercial plant breeders and promote the formal seed sector for national seed security; the existence of two different seed systems (informal and formal) of the seed sector and the fact that the rights of breeders should not undermine Farmers' Rights, there needs to be a mechanism for balancing both rights.

b. Farmers' Rights

Recognition of Farmers' Rights by the international community, in the framework of the Food and Agriculture Organization of the United Nations (FAO), happened in 1989 as a response to the recognition and protection of commercial breeders' rights.

While the basis for recognizing commercial breeders' rights is the challenge faced by commercial breeders of competitors that easily copied and flooded the market with competing products; the basis of Farmers' Rights are the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available those resources for further improvement in adapting to unpredictable environmental changes and future human needs.

Another difference between breeders' rights and Farmers' Rights is their nature: breeders' rights are exclusive intellectual property rights granted to an individual for a certain period of time, while Farmers' Rights are collective human rights; which does not prescribe in time.

Farmers' Rights include the rights of farmers to save, use, exchange and sell seeds and propagating material saved from own farms; protection of traditional knowledge relevant to plant genetic resources for food and agriculture; equitably participate in sharing benefits arising from the use of plant genetic resources for food and agriculture and; participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

Some duty bearers in relation to Farmers' Rights implementation in Malawi are related with the fact that the right-holders of Farmers' Rights may be identified as small-scale farmers and their communities, meaning farmers who produce relatively small volumes of produce on relatively small plots of land; depend on family labour; and whose production remains at subsistence level.

Even though Farmers' Rights were recognized in the 80s by the international community, such recognition only became included in an international legal instrument in 2001 with the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture. However, contrary to the international framework protecting breeders' rights (UPOV), the protection of Farmers' Rights by the International Treaty is quite soft, as it establishes that the responsibility for realizing Farmers' Rights rests with national governments. Therefore, each Contracting Party of the International Treaty, should, as appropriate and subject to its national legislation take

measures to protect and promote Farmers' Rights. While 72 member countries of UPOV have adopted national legislation to protect breeders' rights based on UPOV convention, very few countries (maybe less than 10) have adopted national laws to protect Farmers' Rights.

While commercial breeders' saw the need for a stringent system to protect their new plant varieties from competitors that easily copied and flooded the market with competing products; farmers depending on the informal seed sector, particularly small-scale farmers; have the need for a *sui generis* system to protect their rights over their seeds and propagating material, as well as over their traditional knowledge, innovations and practices to continue their present and future activities in conserving, using, improving and making available plant genetic resources for food and agriculture.

PROPOSED WORKING EXERCISE

Discuss how relevant stakeholders and small-scale farmers can lead the process for the adoption of sui generis systems to protect Farmers' Rights in Malawi.

Start discussing and, identifying if possible:

- *The institution in Malawi that can lead the process and coordinate the development of sui generis systems for the protection of Farmers' Rights;*
- *Ways to ensure the participation of farmers' organizations in decision making;*
- *Malawi's international commitments and national priorities when relevant for drafting a sui generis system;*
- *Possible elements to be included in a sui generis system, including the rights conferred to farmers; ways to promote their right to save, use, sell, exchange farm-saved seeds and propagating material; means to ensure quality declared seeds from the informal seed sector, etc.*

Final suggestions and challenges

More lobby addressing decision makers is needed by farmers and other relevant stakeholders to articulate the need to protect small-scale farmers through legislative processes, resulting in the recognition and protection of Farmers' Rights by national laws. It is unrealistic to pretend that commercial breeders will secure seeds and other planting material for sustainable food production. A lobby that is lead by farmers' organizations and small-scale farmers should target ensuring the recognition and implementation of Farmers' Rights as defined by the International Treaty on Plant Genetic Resources for Food and Agriculture and strengthening local seed systems which are the main seed supply system in Malawi and other developing countries.

The adoption of *sui generis* systems at the national level recognizing and protecting Farmers' Rights is urgently needed to prevent that commercial breeders' rights continue extending their scope of protection, limiting Farmers' Rights in Malawi.

Such *sui generis* system needs to be recognized and protected by national legal and policy frameworks.

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Institutional Information:

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The Development Fund - Norway is an independent non-government organization that supports small scale farmers in their fight against hunger and poverty. The global programme on Agricultural Biodiversity and Climate Change supports local partners in Africa, Asia and Central America in community based agricultural biodiversity management. The work at the field level is complemented by policy advocacy and information work at the national and international levels. The programme is supported by NORAD.

The Centre for Environmental Policy and Advocacy (CEPA) is a not-for-profit, public interest, non-governmental organization that seeks to contribute to the development of environment and natural resources management best practices in Malawi. It also provides advice and conducts research in environment and natural resources management policies and legislation with a view to designing appropriate interventions for promoting sustainable environment and natural resources management. CEPA's work concentrates on sound environmental governance; in this respect, issues of accountability, institutional strengthening and representation are at the core of its activities.

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