



Food and Agriculture  
Organization of the  
United Nations



**The International Treaty**  
ON PLANT GENETIC RESOURCES  
FOR FOOD AND AGRICULTURE

# Farmers' Rights





# Farmers' Rights

**This is the fifth educational module in a series of training materials  
for the implementation of the International Treaty on Plant  
Genetic Resources for Food and Agriculture**



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
on behalf of

THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE  
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## Foreword

For thousands of years farmers all over the world have domesticated plants, developed new varieties, saved seeds and planting material for the following season, and exchanged seeds and plants with their neighbours and other farmers. Through both deliberate efforts and trial and error, they bred and grew crops that are adapted to their environment and provide for their nutritional and various other needs. In so doing they created diversity – a wealth of plant genetic diversity of global importance for food and agriculture. With their knowledge and skills, they improved, managed and conserved the food crops that feed the world today. However, this important role of farmers, as custodians and innovators of plant genetic diversity that are of global significance to food and agriculture, was not formally and explicitly recognized at the international level, with its essential dimensions, until the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture.

Farmers' Rights were part of the background against which, following many years of discussions, the Members States of the Food and Agriculture Organization of the United Nations (FAO) adopted the International Treaty on Plant Genetic Resources for Food and Agriculture. The International Treaty was adopted by the FAO Conference on 3 November 2001, entered into force on 29 June 2004. The International Treaty explicitly recognises, in Article 9, the efforts and the enormous contribution of farmers, local and indigenous communities in developing and conserving crop diversity.

Farmers' Rights are important for millions of farmers throughout the world, particularly in developing countries whose agriculture is based on the cultivation of traditional varieties or varieties that farmers themselves conserve and improve. In many developing countries these farmers, who are both custodian and innovators, are by far the largest sector of the population. Through this legally binding instrument, Governments agree to realise and protect Farmers' Rights as they relate to plant genetic resources through various provisions. For example, by protecting relevant traditional knowledge; by making it possible for farmers to participate equitably in the sharing of benefits derived from their use; and by ensuring the right of farmers to participate in national decision-making processes related to the conservation and use of plant genetic resources. It also stipulates that these provisions should not limit the rights of farmers to save, use, exchange and sell farm-saved seeds and propagating material.

While the International Treaty is a binding agreement, the implementation of Farmers' Rights rests with the national governments. The translation of the provisions into policy and actions at the national level has been very challenging to a majority of the governments and stakeholders, both from developing and developed countries. The need for capacity development and understanding the concept and its multiple dimensions has been expressed by Contracting Parties and various stakeholder groups. Consequently, this educational module is one means through which the Secretariat seeks to provide information and strengthen capacities on the implementation of the International Treaty, in particular Article 9.

The Farmers' Rights module is the fifth in a series of educational modules focusing on different aspects of the International Treaty. Similar to the other modules, the lessons are aimed at a broad target group, especially for those that are new to the International Treaty or to the topic of Farmers' Rights. Through this module, readers will explore the conceptual foundation of Farmers' Rights, as well as the crucial role of farmers and indigenous local communities in the conservation and sustainable use of plant genetic resources for food and agriculture.

This module, edited by the Secretariat of the International Treaty, is authored by experts who have vast experience in this area and have written numerous papers about Farmers' Rights. It was finalized with the assistance and input of peer reviewers from different stakeholder groups.

In 2017, after the educational module was first published, the Governing Body commended the Secretariat for the work undertaken and invited Contracting Parties to disseminate and use the educational module - an invitation that it reiterated in 2019.

With this slightly revised and updated version, the Secretariat corrected some minor editorial errors and included a reference to the Inventory of National Measures, Best Practices and Lesson Learned on the Realization of Farmers' Rights finalized by the Ad Hoc Technical Expert Group on Farmers' Rights in 2019.

It is our hope that this training module will substantially contribute to the further understanding of Farmers' Rights and it is also hoped that, by the examples provided along with the Inventory, it will stimulate innovative ways of putting Farmers' Rights into practice within various country-specific contexts.



**Kent Nnadozie**

Secretary

International Treaty on Plant Genetic Resources for Food and Agriculture

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This module is the fifth in a series of training materials on the International Treaty. We owe a lot to the experts and reviewers in the area of capacity development. Our very special thanks go to Patrick Mink who started the development of this module in 2011 (when he was working in the Secretariat), to Regine Andersen of Fridtjof Nansen Institute of Norway and Leontino Rezende Taveira, for Lessons 1 and 2, respectively.

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Mario Marino, Tobias Kiene and Mary Jane Ramos dela Cruz were the main editors of this module.

Kent Nnadozie, Secretary of the International Treaty, had the overall responsibility for this publication.

## Acronyms and abbreviations

AHTEG-FR	Ad Hoc Technical Expert Group on Farmers' Rights
ASAP	Adaptation for Smallholder Agriculture Programme
BSF	Benefit-sharing Fund
CBD	Convention on Biological Diversity
CBM	Community Biodiversity Management
CEPA	Centre for Environmental Policy and Advocacy (Malawi)
CGRFA	Commission on Genetic Resources for Food and Agriculture
CIA	Centro de Investigaciones Agronómicas (of the University of Costa Rica)
CIAL	Comite de Investigación Agrícola Local
CIPO	Canadian Intellectual Property Office
CPVR	Community Plant Variety Rights
CSO	Civil Society Organization
EC	European Commission
ECOSOC	Economic and Social Council
EPO	European Patent Office
EPPB	Evolutionary Participatory Plant Breeding
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIPAH	Fundación para la Investigación Participativa con Agricultores de Honduras (Honduras)
FR	Farmers' Rights
GB	Governing Body (of ITPGRFA)
GEF	Global Environment Facility
GPO	German Patent Office
ICARDA	International Center for Agriculture Research in the Dry Areas
IFAD	International Fund for Agricultural Development
IGO	Intergovernmental organization
ILO	International Labour Organization
IPAF	Indigenous Peoples Assistance Facility
IPRs	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
JPO	Japan Patent office
MEA	Multilateral Environmental Agreement
MLS	Multilateral System
NGO	Non-governmental Organization
PBR	Plant Breeders' Rights
PGR	Plant Genetic Resources
PGRFA	Plant Genetic Resources for Food and Agriculture



PPB	Participatory Plant Breeding
PPV&FR	Protection of Plant Varieties and Farmers' Rights Act (PVP&FR Act of 2001 in India)
PVP	Plant Variety Protection
SDG	Sustainable Development Goal
SMTA	Standard Material Transfer Agreement
TK	Traditional Knowledge
TKDL	Traditional Knowledge and Digital Library (India)
TKRC	Traditional Knowledge Resource Classification System
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UKPTO	United Kingdom Patent & Trademark Office
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UPOV	International Union for the Protection of New Varieties of Plants
USPTO	United States Patent & Trademark Office
WTO	World Trade Organization



## Preparation of this document

Capacity development is crucial for the effective promotion of the objectives of the International Treaty. This educational module is a tool that helps strengthen both technical and functional capacities necessary for the implementation of the International Treaty among key stakeholders particularly in promoting the realization of Farmers' Rights at the national level.

FAO's Corporate Strategy on Capacity Development defines 'capacity development' as the process of unleashing, strengthening and maintaining the ability of people, organizations and society as a whole to manage their affairs successfully. The FAO capacity development framework is based on the enhancement of technical and functional capacities across the three dimensions of individuals, organizations and the enabling environment.

Functional capacities refer to policy and normative capacities, knowledge management, partnering and programme implementation capacities. In the context of the International Treaty, these capacities are required to enable Contracting Parties, civil society organizations, particularly farmers and farmers' organizations, and other relevant institutions, to engage in policy dialogue and establish programmes and projects that lead to the realization of Farmers' Rights, and therefore, support the conservation and sustainable use of PGRFA. The various stakeholders, such as agricultural researchers, gene bank personnel, breeders and farmers themselves, who work to develop capacities of farmers and indigenous local communities in the conservation and sustainable use of crop diversity in their daily activities, require technical capacities to carry out their respective roles in the conservation and the sustainable use of PGRFA.

National civil servants involved in the establishment of programmes to implement international instruments that their governments have ratified often need to become fully acquainted with the technical details of these instruments. Technical stakeholders, in turn, often are not familiar with all the legal aspects of the international policy frameworks within which they operate, and require further training. This educational module aims at strengthening both technical and functional capacities by presenting the conceptual foundation of Farmers' Rights and the critical role of farmers and indigenous local communities in the conservation and sustainable use of PGRFA, and providing some ideas or examples that could lead to the realization of Farmers' Rights.

This module is designed to strengthen stakeholders' capacities for implementing Farmers' Rights as reflected in Article 9 of the International Treaty and to enhance information and raise awareness among other interested parties, including academia and the media. The material can be used for self-learning purposes, as reference material on the International Treaty, and as an information resource for the development of awareness-raising material. Thus, it addresses the three capacity development dimensions of individuals, organizations and the enabling environment. In addition to this material, an interactive course of this module is also available at the **InforMEA Portal**.

## Development process of this module

The first educational module of this series (“Introduction to the International Treaty on Plant Genetic Resources for Food and Agriculture”) was presented to Contracting Party delegates and other stakeholders in a launching event on the occasion of the Fourth Session of the Governing Body of the International Treaty in March 2011. The Governing Body welcomed the educational modules and encouraged the Secretariat to continue its work on training materials. The second educational module “Conservation and Sustainable Use under the International Treaty” was published in 2012. Around the same time, the work on this module “Farmers’ Rights” had begun, however, it was not finalized.

In 2015, the Governing Body through its Resolution 5, requested the Secretariat to finalize the module in consultation with the Bureau.

Following the initial work, the Secretariat continued the development process of the module and the outline of the lessons were consulted with the Bureau. The main features of the development process for this module were the following:

- The main target learner groups and their learning needs were identified.
- A support group of experts representing different stakeholders and target learner groups was established.
- Knowledgeable experts in the relevant technical areas were invited to act as authors and peer reviewers of the lessons.
- A draft curriculum outline with learning objectives and lessons’ outlines responding to these needs was designed by the Secretariat in consultation with the Bureau.
- Some ideas and examples to demonstrate practical ways of implementing Farmers’ Rights were extracted from the available publications and on-going programmes and initiatives within and outside FAO.
- A peer review process was set up in order to ensure correctness, coherence and balance of the lessons.
- The Secretariat of the International Treaty coordinated the inputs of the peer reviewers into the draft lessons and ensured the editing and publication of the module.
- Collaboration with UNEP project team on MEA Information and Knowledge Management Initiative, for the development of the interactive course.

In 2019, the Ad Hoc Technical Expert Group on Farmers’ Rights finalized the *Inventory of National Measures, Best Practices and Lessons Learned on the Realization of Farmers’ Rights*. In the same year, the Governing Body welcomed the Inventory, and invited Contracting Parties and other stakeholders to use this educational module along with the catalogue of measures contained in the Inventory, as appropriate.

## How to use this module

The range of different stakeholders involved in the implementation of the International Treaty is very broad, with different stakeholders having different backgrounds and roles and thus different learning needs.

Lesson 1 describes the foundation of Farmers' Rights, and the critical role played by farmers and indigenous communities in the conservation and sustainable management of PGRFA. It includes a short narratives of the negotiations that led to adoption of Farmers' Rights, as contained Article 9 of the International Treaty and how the concept has been enshrined in other international processes. Lesson 2 describes the different measures that can be undertaken to promote and protect Farmers' Rights and its linkages with other International Treaty's provisions on conservation and sustainable use of PGRFA. As the implementation of Article 9 rests with national governments, each country is free to choose the measures deemed necessary and appropriate in accordance with its own needs and priorities. Lesson 3 describes some ideas and practical activities implemented by different stakeholders which demonstrate some of the ways in which the provisions of Farmers' Rights can be put into practice, with varying degree of success.

The lessons are composed as follows:

- **Learning objectives** presenting the knowledge that learners will acquire throughout their lecture are indicated at the outset of each lesson.
- **Target learner groups** have been defined for each lesson. They are indicated on the same page as the learning objectives. Although the lessons have been designed for specific target learner groups, each of them may contain relevant information for learners of other groups, too. The lessons are cross-referenced accordingly.
- **Overview of the lesson.** Each lesson provides an overview of about one page, presenting the topics that are dealt with on the subsequent pages.
- **Key points to remember** are brought together after the main sections of the lessons in order to help learners remember the main contents and messages.
- **Cross-references** to related content of the other lessons and relevant internet resources are also indicated for each main section of the lessons.
- **Conclusion.** Each lesson ends with a conclusive summary of about one page, summarizing the key points of the lesson.
- **References** on which the lessons are based and that are useful for further reading on the topic can be found at the end of each lesson. For ease of reference Internet links are provided for the resources, where available.

## **Learning objectives**

At the end of these lessons, the learner will:

- understand the crucial role of farmers in the conservation and sustainable use of crop genetic resources and diversity worldwide;
- be familiar with the concept of Farmers' Rights and its foundations; and
- be encouraged to develop ideas on how to enhance understanding and promote the realization of Farmers' Rights in the present context of national government.

## **Target learner groups**

As a capacity development tool for the effective implementation of the International Treaty, this module is targeted mainly at the International Treaty's stakeholder groups. In addition, the module also represents a valuable resource for the media and academia which play a particular role in raising awareness on the importance of the International Treaty for food security and climate change adaptation by popularizing it among the general public.

The main learner groups thus include:

- Policy makers and their staff;
- Civil servants;
- Gene bank staff;
- Plant breeders;
- Farmers' organizations and indigenous local communities;
- other civil society organizations;
- Media; and
- Academia.

# Overview

## LESSON 1

### Introduction to Farmers' Rights

Page 1

This first learning step describes the foundation of Farmers' Rights, and the critical role played by farmers and indigenous communities in the conservation and sustainable management of plant genetic resources for food and agriculture (PGRFA). It discusses how farmers, local and indigenous communities conserve and use PGRFA in a sustainable way, as well as the importance of protecting traditional knowledge, the sharing of benefits derived from use of PGRFA, and participation in decision-making related to these valuable resources. The lesson presents a summary of the major milestones in the development of Farmers' Rights, to give learners an understanding of how the concept emerged at international level, and was consolidated in the International Treaty on Plant Genetic Resources for Food and Agriculture, which was adopted in 2001, and came into force in 2004.

## LESSON 2

### Farmers' Rights in the context of the International Treaty

Page 29

This lesson explains the main components of Farmers' Rights as reflected in Article 9 of the International Treaty. Article 9 provides the following list of measures for Contracting Parties to take at national level for the protection and promotion of Farmers' Rights. It is important to note that these are proposals, rather than legally binding mandates, and are at the discretion of each Contracting Party:

- protect traditional knowledge relevant to PGRFA;
- ensure equitable participation in benefit sharing from use of PGRFA;
- ensure the right to participate in decision-making related to PGRFA;
- recognize the rights of farmers to save, use, exchange and sell farm-saved seed, propagating material, subject to national law.

## LESSON 3

### Current development and practical activities leading to implementation of Farmers' Rights

Page 51

This lesson presents ideas and practical activities implemented by Contracting Parties and stakeholders aimed at promoting understanding and realization of Farmers' Rights. There are a number of ways to foster implementation of Farmers' Rights' provisions, through different policies, programmes and projects. Approaches that have produced promising results include participatory plant breeding programmes, community seed and gene banks, and seed fairs. Strategies for sharing benefits with farmers are also discussed, with examples highlighting the wide variety of options available, including both monetary and non-monetary benefits, such as technology transfer and facilitated access to plant genetic resources for food and agriculture.





# Introduction to Farmers' Rights



## LESSON 1





## Overview of the lesson

Farmers' Rights refer to rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity. They are an important precondition for the maintenance of crop genetic diversity, which is the basis of all food and agricultural production worldwide. This lesson explains the foundation of Farmers' Rights, and the important, though largely uncompensated role played by farmers and local and indigenous communities in the conservation and sustainable management of plant genetic resources for food and agriculture (PGRFA).

The International Treaty on Plant Genetic Resources for Food and Agriculture (hereafter known as the International Treaty), which was adopted in 2001, addresses the issue of Farmers' Rights in Article 9, and in its preamble. The International Treaty advises Contracting Parties to protect and promote Farmers' Rights in accordance with national laws. To help achieve this objective, a range of measures are suggested, to be examined in greater detail in subsequent lessons.

Presenting a short history of the negotiations that led to the adoption of Farmers' Rights, as contained in the International Treaty, the lesson examines how the notion of Farmers' Rights has been refined since it was first considered in international negotiations, in 1986. It traces its genesis as a political notion developed by civil society activists to highlight the valuable contributions of farmers to PGRFA, and explores how the concept has also been enshrined in other international processes.



*Solanum melongena*, eggplant, by Elizabeth Blackwell (1739)

## 1. Introduction

Farmers' Rights can be seen as one important precondition for the maintenance of crop genetic diversity, which is the basis of all food and agriculture production in the world. Therefore they are also central to the realization of the objectives of the International Treaty on Plant Genetic Resources for Food and Agriculture (hereafter "International Treaty"). This lesson will look further into why these rights are so important. The main elements of the history of the negotiations that led to the adoption of Farmers' Rights as contained in the International Treaty will also be presented. Much of the foundation for the international understanding of these rights was laid already in the early years after the first consideration of Farmers' Rights in international negotiations in 1986, however important clarifications have been made since.

To understand the provisions on Farmers' Rights in the International Treaty, it is therefore useful to know more about its background.

### 1.2. The rationale of Farmers' Rights

It is probably fair to say that plant genetic diversity is more important for farming than any other environmental factor, because it enables adaptation to changing environmental conditions, such as those caused by climate change. Since farmers are custodians and developers of crop genetic diversity in the field, their rights in this regard are critical if they are to be able to maintain this vital role for food security.

Farmers' Rights are central to the protection and continued use of traditional knowledge related to the conservation and sustainable use of PGRFA, as well as to the sharing of benefits

derived from the use of those resources. Such rights can help to promote farmer participation in decision-making related to PGRFA, and in saving, using, exchanging and selling farm-saved seed. Realizing Farmers' Rights enables farmers to continue to maintain, develop and manage crop genetic resources, and involves recognizing and rewarding them for their indispensable contribution to the global pool of genetic resources. So why are these rights important?

#### 1.2.1 The conservation and sustainable use argument

Since the dawn of agriculture, farmers around the world have been the custodians and innovators of agricultural biodiversity. Through careful selection of their best seeds and propagating material, and exchange with other farmers, it became possible to develop and diversify crop varieties. New crops were found in the wild, and some of these were cultivated. Over thousands of years of continuous management and innovation by farmers, a small range of initial crops and varieties evolved into an unconceivable wealth of plant diversity for food and agriculture.

The development of crop diversity changed profoundly with the modernization of agriculture and the Green Revolution, which introduced improved, high-yielding varieties of wheat, rice, maize and other cereals in the 1960s and 1970s. While on a global scale, this contributed to a substantial increase in food production, it also led to the replacement of a significant amount of locally adapted crop varieties that were vital to small-scale farmers and to future plant breeding.<sup>1</sup>

A separate challenge has been posed by the emergence of various types of legal

<sup>1</sup> For more background on the Green Revolution, refer to section 1.2.1 of Lesson 1 (A Global Treaty for Food Security) and section 3.2.1 of Lesson 3 (History of the International Treaty) of Educational Module I.





regimes resulting in restrictions to access in, and using available genetic resources – thus creating difficulties for stakeholders in agriculture, including researchers, public and private breeders, and especially crop producers. Farmers' access to, use of, and opportunities for exchanging seed and propagating material are strongly affected by seed regulations (variety release and seed marketing regulations), legislation linked to intellectual property rights (patents and plant breeders' rights), and regulations concerning the bioprospecting of genetic resources. As a result, it has been reported that in many countries the conservation and sustainable use of plant genetic diversity in agriculture has become more difficult for farmers, who are still engaged in diversity farming.<sup>2</sup>

Farmers' Rights are important, in order to ensure the legal space and framework conditions required so that farmers can continue in their roles as custodians and innovators of PGRFA.

### 1.2.2 Food security and nutrition

Farmers' Rights represent a valuable channel for increasing food security and nutrition in developing countries. The main challenge to increase food security is not just about food production but also about access to food. In addition, it is not simply a matter of delivering more calories to people. Millions of people are either not eating enough or eating the wrong types of food diets, resulting in a double burden of malnutrition that can lead to illnesses and health crisis. A 2020 report found that nearly 690 million people or 8.9 per cent of the global population are hungry, up by nearly 60 million in five years.<sup>3</sup> Food insecurity can worsen diet quality and increase the risk of various forms of malnutrition, potential leading to undernutrition as well as people being overweight and obese. The cost of healthy diets is unaffordable for the estimated 3 billion people – around 40 per cent of this global



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<sup>2</sup> This has been documented in several international consultations on Farmers' Rights, see for example: [http://www.farmersrights.org/resources/global\\_works\\_18.htm](http://www.farmersrights.org/resources/global_works_18.htm). The challenge has been addressed in different fora, inter alia through Art. 6.2.g of the International Treaty, which suggests that regulations concerning variety release and seed distribution are reviewed as a measure to ensure the sustainable use of crop genetic resources. Also, the UN Rapporteur on the Right to Food has addressed the challenge and highlighted the need to take measures in this regard. See United Nations (2009): The right to food. Seed policies and the right to food: enhancing agrobiodiversity and encouraging innovation. New York, The United Nations. (available at <https://digitalibrary.un.org/record/663241#record-files-collapse-header> ).

population live in rural areas of developing countries.<sup>4</sup> Majority of the rural population, depend largely on traditional agriculture where climate change also poses serious challenges to about 370 million of the poorest farmers (Altieri *et al.*, 2015). For most of these farmers, access to commercial varieties and the required production inputs, such as fertilizers and pesticides, are unaffordable. They depend on the diversity of cultivated plants to maintain yields and quality, adapting their food production to often marginal environments and difficult conditions. Diversity between and within crops is a means of spreading the risk of crop failure due to pests and diseases, or adverse climatic conditions, such as drought. Enabling farmers to maintain and develop this diversity, and recognizing and rewarding them for their contribution to the global genetic pool, are therefore critical prerequisites for the achievement of Sustainable Development Goals 1 (no poverty), 2 (zero hunger) and 15 (life on land).<sup>5</sup>

### 1.2.3 The farming context argument

Farmers, particularly those in marginal environments, face extensive challenges. Farming is intrinsically linked to access to land, water and other input factors, such as labour, knowledge and technology, as well as seeds and other propagating material. For this reason, when farmers are asked to identify what they regard as their rights, they often mention issues such as land rights, access to

water, seed and other related factors, such as access to information, and the right to health and safety. They frequently highlight the interrelations between these different rights. In such a context, the rights of farmers are commonly referred to as a bundle of rights.<sup>6</sup>

**This module focuses on the rights of farmers in relation to plant genetic resources for food and agriculture – as they are set out and recognized in the International Treaty. That is not to say that the other issues are not important. Rather, the aim here is to facilitate targeted action within this critical area for farming, and for the achievement of the objectives of the International Treaty.**

### 1.2.4 The participatory approach to development argument

During the 1990s, an understanding emerged that the realization of Farmers' Rights depends largely on the ability to respond to the realities and needs of farmers, and that as a result, the participation of farmers and their organizations in relevant decision-making processes is essential. This recognition reflects the increased attention paid by donor organizations in the 1980s and 1990s to participatory approaches to development. Books such as *Rural development: Putting the last first*<sup>7</sup> *Putting people first*,<sup>8</sup> and *Listen to the people*<sup>9</sup> contributed to framing this acknowledgement of the importance of including target groups in decision-making, if development cooperation is to be successful. To ensure such participation,

<sup>3</sup> FAO, IFAD, UNICEF, WFP and WHO. 2020. The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets. Rome, FAO. (available at <http://www.fao.org/publications/sofi/2020/en/>)

<sup>4</sup> FAO, 2017. The future of food and agriculture – Trends and challenges. Rome. (available at: <http://www.fao.org/3/a-i6583e.pdf>)

<sup>5</sup> For more information, see the 17 Sustainable Development Goals, <https://www.un.org/sustainabledevelopment/>

<sup>6</sup> Andersen, 2005; Gerald Moore and W. Tymowski, 2005. Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture. IUCN, Gland, Switzerland and Cambridge, UK. pp. 67-69; Chiarolla *et al.*, 2013. An analysis of the Relationship between the Nagoya Protocol and Instruments related to Genetic Resources for Food and Agriculture and Farmers' Rights.

<sup>7</sup> Robert Chambers. 1983. Rural development: Putting the last first (Harlow: Pearson Education Limited).

<sup>8</sup> Michael M. Cernea (ed.) 1985. Putting people first: sociological variables in rural development. Published for the World Bank (Oxford University Press).

<sup>9</sup> Lawrence F. Salmen. 1987. Listen to the people : participant-observer evaluation of development projects. Published for the World Bank. (Oxford University Press).





new project planning methodologies were introduced in many donor organizations and non-governmental organizations (NGO) engaged in development cooperation in the second half of the 1980s and the beginning of the 1990s. The understanding had a profound influence on the framing of the Farmers' Rights concept. This is reflected in the International Treaty, where farmers' participation in making decisions at national level on matters related to the conservation and sustainable use of PGRFA is termed a right. The focus on participatory decision-making may also have contributed to the acceptance of Farmers' Rights as a part of the International Treaty.

### 1.3. The emergence of Farmers' Rights as a concept

The first use of *Farmers' Rights* as a political concept dates back to the early 1980s.<sup>10</sup> The term was coined by civil society activists<sup>11</sup> to highlight the valuable but unrewarded contributions of farmers to PGRFA<sup>12</sup>. At the beginning, the idea developed as a way of countering increased demand for plant breeders' rights being voiced at the time in international negotiations. It soon emerged as a way of drawing attention to the unremunerated innovations of generations of farmers, who provided the foundation of all modern plant breeding.



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<sup>10</sup> Based on Regine Andersen. 2005. The Farmers' Rights Project – Background Study 1: The history of Farmers' Rights – A guide to central documents and literature. FNI Report 8/2005. Lysaker, Norway, The Fridtjof Nansen Institute; and Regine Andersen. 2008. Governing Agrobiodiversity: Plant Genetics and Developing Countries. Aldershot, Ashgate.

<sup>11</sup> The first to use the term in this context were Pat Roy Mooney and Cary Fowler of the Rural Advancement Foundation International (RAFI, now ETC-group).

<sup>12</sup> Cary Fowler. 1994. Unnatural selection: Technology, politics and plant evolution. p. 192. Yverdon, Switzerland, Gordon and Breach; and Svanhild-Isabelle Batta Bjørnstad. 2004. Breakthrough for 'the South'? An analysis of the recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture. FNI Report 13/2004. p. 35. Lysaker, Norway, The Fridtjof Nansen Institute.



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In 1983, *The law of the seed: Another development and plant genetic resources*, was published.<sup>13</sup> This booklet argued for benefits to be given to farmers, in recognition of their contribution to the global genetic pool. It also made the case for support in conservation. Proposing that a fund be established for the purpose, and arguing against any legal arrangements that might hinder farmers in their practice of saving, reusing, improving and developing seeds, the booklet foreshadowed many of the elements which later, during international negotiations within FAO, came to form the cornerstones of the concept of Farmers' Rights.

#### 1.4. Towards a common understanding of the concept of Farmers' Rights

Controversies regarding control over genetic resources in the 1980s were marked by broad disparities between the positions of different countries.<sup>14</sup> For this reason, the then Chair of the US National Board for Plant Genetic Resources made contact with the Keystone Centre in Colorado, to launch a dialogue on plant genetic resources among international stakeholders.<sup>15</sup> The Keystone Approach was to invite stakeholders as individuals, with the

<sup>13</sup> Pat Mooney. 1983.

<sup>14</sup> FAO Member States.

<sup>15</sup> The Chair at the time was William Brown. Cary Fowler (1994): *Unnatural selection. Technology, politics and plant evolution*. p. 197. Yverdon, Switzerland, Gordon and Breach.







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aim of reducing conflict levels and fostering off-the-record discussions, leading to a report to be produced on the basis of consensus only.

### 1.4.1 The Keystone Dialogues

The Keystone Dialogues took place in 1988, 1990 and 1991, in Keystone, Madras (now Chennai) and Oslo, respectively, and were chaired by Prof. M. S. Swaminathan. The Dialogues gathered a total of 92 stakeholders from 30 countries in the course of the three sessions. These were important in framing international discussions on such issues as Farmers' Rights, the common heritage of mankind, international funding and, to some extent, intellectual property rights. The 1990 session in Madras provided the clearest account of the participants' recommendations regarding Farmers' Rights:<sup>16</sup>

“We propose that the best way of recognizing Farmers' Rights would be a mandatory fund, such as the fund currently existing at FAO, which supports genetic conservation and utilization programs particularly, but not

exclusively, in the Third World. The logic is that such a fund would benefit farmers and farm communities in general, and would compensate them for their past and present contributions. We are not talking about designing a system to reward or compensate individual farmers, farm communities, Third World countries or governments. We do not propose to design a system which compensates anyone or anything based strictly on their contributions of germplasm. We speak of ‘compensation’ because it implies a relationship with obligation. We agree on the concept of Farmers' Rights and we agree that contributions to a fund in recognition of these rights should not be voluntary. Practically speaking, a voluntary fund is a fund without resources. Thus, there should be a compulsory funding mechanism. This would insure that Farmers' Rights are recognized in a real way and should insure the fund has substantial resources. All of us agree that current conservation and utilization efforts are underfunded. The concept of ‘Farmers' Rights’ includes recognition of the fact that farmers have

<sup>16</sup> Keystone Center. 1990. Madras Plenary Session. *Final Consensus Report of the Keystone International Dialogue Series on Plant Genetic Resources, Second Plenary Session, 29 January – 2 February, 1990*. pp. 25–26. Madras, India.





developed and continue to help develop genetic diversity. In many cases, farmers engage in conscious and creative practices as they 'select' and 'breed' their crops."

As illustrated below, these ideas found support when the agreed interpretations of the *International Undertaking*, which were adopted in 1989 and in 1991, were to be formulated.

### 1.4.2 FAO Conference resolutions on Farmers' Rights in 1989 and 1991

In April 1989, the Commission on Genetic Resources for Food and Agriculture at its Third Regular Session prepared two resolutions on Agreed Interpretations of the *International Undertaking* to be presented at the Twenty-fifth Session of the Conference of FAO in November 1989. The draft resolutions, preserving the principle of unrestricted availability of germplasm, recognized the rights of both donors of technologies and donors of germplasm to be compensated for their contributions through the simultaneous "recognition of plant breeders' and farmers' rights".

In November 1989, the Conference of FAO adopted the two resolutions by consensus: (i) *Resolution 4/89 'Agreed Interpretation of the International Undertaking'*; and (ii) *Resolution 5/89 'Farmers' Rights'*. The Conference decided that they were to be annexed to the *International Undertaking*.<sup>17</sup>

The Conference recognized that both resolutions were intended to lay the foundations for an equitable and lasting global system for sharing the costs and benefits of the world's plant genetic resources for present and future generations.

Resolution 4/89 endorsed the fact that the agreed interpretation was intended to provide the basis for an equitable, and therefore solid and lasting global system. It thereby sought to facilitate the withdrawal of reservations that countries had made with regard to the

*International Undertaking*, and to secure the adherence of others. The Resolution presented the rationale behind the agreed interpretation, before listing its components:

1. Plant Breeders' Rights as provided for under UPOV (International Union for the Protection of New Varieties of Plant) are not incompatible with the *International Undertaking*.
2. A state may impose only such minimum restrictions on the free exchange of materials covered by Article 2.1 (a) of the *International Undertaking* as are necessary for it to conform to its national and international obligations.
3. States adhering to the *Undertaking* recognize the enormous contribution that farmers of all regions have made to the conservation and development of plant genetic resources, which constitute the basis of plant production throughout the world, and which form the basis for the concept of Farmers' Rights.
4. The adhering states consider that the best way to implement the concept of Farmers' Rights is to ensure the conservation, management and use of plant genetic resources, for the benefit of present and future generations of farmers. This could be achieved through appropriate means, monitored by the Commission on Plant Genetic Resources, including in particular the International Fund for Plant Genetic Resources, already established by FAO. To reflect the responsibility of those countries which have benefited most from the use of germplasm, the Fund would benefit from being supplemented by further contributions from adhering governments, on a basis to be agreed upon, in order to ensure for the Fund a sound and recurring basis. The International Fund should be used to support plant genetic conservation, management and utilization programmes, particularly within developing countries, and those which are important sources of plant

<sup>17</sup> On 29 November 1989. C 1989/REP, Paragraphs 108 and 109. (Available at: <http://www.fao.org/3/z4968en/z4968en.pdf>; Commission on plant genetic resources and the international undertaking: progress report, available at <http://www.fao.org/docrep/x5588E/x5588e06.htm#e>





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genetic material. Special priority should be placed on intensified educational programmes for biotechnology specialists, and strengthening the capabilities of developing countries in genetic resource conservation and management, as well as the improvement of plant breeding and seed production.

The resolution on Farmers' Rights (paragraph 108, Resolution 5/89) represented a milestone in international negotiations on the topic, as it outlined the contents and implications of this concept:

“THE CONFERENCE,

**Recognizing that:**

- a) plant genetic resources are a common heritage of mankind to be preserved, and to be freely available for use, for the benefit of present and future generations,
- b) full advantage can be derived from plant genetic resources through an effective programme of plant breeding, and that, while most such resources, in the form of wild plants and old landraces, are to be found in developing countries, training and facilities for plant survey and identification, and plant breeding, are insufficient,

or even not available in many of those countries,

- c) plant genetic resources are indispensable for the genetic improvement of cultivated plants, but have been insufficiently explored, and are in danger of erosion and loss,

**Considering that:**

- a) in the history of mankind, unnumbered generations of farmers have conserved, improved and made available plant genetic resources,
- b) the majority of these plant genetic resources come from developing countries, the contribution of whose farmers has not been sufficiently recognized or rewarded,
- c) the farmers, especially those in developing countries, should benefit fully from the improved and increased use of the natural resources they have preserved,
- d) there is a need to continue the conservation (*in situ* and *ex situ*), development and use of the plant genetic resources in all countries, and to strengthen the capabilities of developing countries in these areas,



**Endorses** the concept of Farmers' Rights (Farmers' Rights mean rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity. These rights are vested in the International Community, as trustee for present and future generations of farmers, for the purpose of ensuring full benefits to farmers, and supporting the continuation of their contributions, as well as the attainment of the overall purposes of the International Undertaking) in order to:

- a) ensure that the need for conservation is globally recognized and that sufficient funds for these purposes will be available;
- b) assist farmers and farming communities, in all regions of the world, but especially in the areas of origin/diversity of plant genetic resources, in the protection and conservation of their plant genetic resources, and of the natural biosphere;
- c) allow farmers, their communities, and countries in all regions, to participate fully in the benefits derived, at present and in the future, from the improved use of plant genetic resources, through plant breeding and other scientific methods."

Although this resolution was a milestone, it was not legally binding, nor were the ways in which it was to be implemented specified. Furthermore, the resolution did not actually define the concept; it merely stated where the notion had arisen and the purpose of Farmers' Rights. The substance of the rights, who the rights holders were, and how the rights were to be maintained – these issues were not clarified. Thus it may be said that the resolution marked an important start, but the realization of Farmers' Rights would require a great deal more in the way of conceptualization and operationalization.

In 1991, the Conference considered a progress report on the FAO Global System for the Conservation and Utilization of Plant Genetic Resources, including information

on the outcome of the Fourth Session of the Commission on Plant Genetic Resources (PGR). The Conference noted with satisfaction the atmosphere of cooperation and harmony that had developed in the last years in the FAO debates on PGR and welcomed the consensus reached during the last Session of the Commission on a number of major issues. The Conference also noted that the Ninety-ninth Session of the Council had extensively reviewed the report of the Fourth Session of the Commission on PGR (Rome, 15 - 19 April 1991), and had endorsed its conclusions and recommendations. The Conference considered a draft Resolution submitted by the Council at its Ninety-ninth Session and noted that this Resolution was an important step forward in obtaining universal acceptance of the International Undertaking and in making it more operative. The Conference recognized the important consensus reached on a number of delicate issues such as sovereignty over PGR, access to breeders' and farmers' material and implementation of Farmers' Rights through an international fund. It also recognized that other relevant matters, such as conditions of access to PGR and nature and size of the fund, needed to be further discussed and negotiated in the light of the decisions on access to biodiversity and funding mechanisms of the 1992 UN Conference on Environment and Development. The Conference, recognizing that the text of the draft Resolution was the final result of wide-ranging and intensive discussions and negotiations among many countries, including non-members of the Commission and countries that did not adhere to the Undertaking or adhered to it with reservations, adopted the following Resolution and agreed that it would be the third annex to the International Undertaking:

#### Resolution 3/91

#### Annex 3 to the International Undertaking on PGR

The Conference,

#### **Recognizing that:**

- the concept of mankind's heritage, as applied in the International Undertaking on Plant Genetic Resources, is subject to the





- sovereignty of the states over their plant genetic resources,
- the availability of plant genetic resources and the information, technologies and funds necessary to conserve and utilize them, are complementary and of equal importance,
- all nations can be contributors and beneficiaries of plant genetic resources, information, technologies and funds,
- conditions of access to plant genetic resources need further clarification;

***Considering that:***

- the best way to guarantee the maintenance of plant genetic resources is to ensure their effective and beneficial utilization in all countries,
- the farmers of the world have, over the millennia, domesticated, conserved, nurtured, improved and made available plant genetic resources, and continue to do so today,
- advanced technologies and local rural technologies are both important and complementary in the conservation and utilization of plant genetic resources,
- *in situ* and *ex situ* conservation are important and complementary strategies for maintaining genetic diversity;

***Endorses the following points:***

1. that nations have sovereign rights over their plant genetic resources;
2. that breeders' lines and farmers breeding material should only be available at the discretion of their developers during the period of development;
3. that Farmers' Rights *will be implemented through an international fund on plant genetic resources which will support plant genetic conservation and utilization programmes, particularly, but not exclusively, in the developing countries;*
4. that the effective conservation and sustainable utilization of plant genetic resources is a pressing and permanent need, and therefore the resources for the international fund as well as for other funding mechanisms should be substantial, sustainable and based on the principles of equity and transparency;

5. that through the Commission on Plant Genetic Resources, the donors of genetic resources, funds and technology will determine and oversee the policies, programmes and priorities of the fund and other funding mechanisms, with the advice of the appropriate bodies.

(Adopted 25 November 1991)

## 1.5. Reaffirmation of the concept of Farmers' Rights in other international processes

Since the adoption of the concept of Farmers' Rights, considerable empirical evidence has highlighted the role of traditional farmers in relation to plant genetic resources. The idea of recognizing Farmers' Rights transcended FAO and the International Undertaking, and was also supported in other international fora. The concept of Farmers' Rights has to date been reaffirmed in various contexts, namely:

- Chapter 14.59(a) of Agenda 21 (approved at the UN Conference on Environment and Development held in Rio de Janeiro in 1991), stated that the appropriate United Nations agencies and regional organizations should "strengthen the Global System on the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture (PGRFA) by ...and taking further steps to realize Farmers' Rights".
- Resolution 3 of the Nairobi Conference for the Adoption of an Agreed Text of the Convention on Biological Diversity, identified the realization of Farmers' Rights as one of the 'outstanding issues' for further negotiation.
- A June 1999 study by the Economic and Social Council (ECOSOC) on the Right to Food, submitted to the Commission on Human Rights, urged that Farmers' Rights be promoted as part of the 'Right to Food', especially since "our future food supply and its sustainability may depend on such rights being established on a firm footing" (Commission on Human Rights, 1999).



### 1.5.1 Agenda 21

Agenda 21 was adopted at the United Nations Conference on Environment and Development in Rio de Janeiro (UNCED) in June 1992, as a dynamic programme, to be implemented by various actors according to the differing situations, capacities and priorities of countries and regions. Farmers' Rights related to PGRFA are addressed in Chapter 14 of Agenda 21, which highlights the promotion of sustainable agriculture and rural development. In this context, Agenda 21 deals with the conservation and sustainable utilization of PGRFA (Section G). It states that these resources are essential to meet future needs for food, and that the primary objective is to safeguard the world's genetic resources while preserving them for sustainable use. Several necessary measures towards this end are listed, and actions to be taken by governments are indicated. The appropriate UN agencies and regional organizations are requested to take action in this regard, *inter alia* by taking further steps to realize Farmers' Rights (ibid, Paragraph 14.59.a).

### 1.5.2. The Convention on Biological Diversity

In 1992, the Convention on Biological Diversity (CBD) was adopted in Nairobi and opened for signatures at UNCED, which also adopted Agenda 21 (see above).

The CBD was the first legally binding international treaty to address the conservation, sustainable use and equitable sharing of benefits derived from the utilization of biological diversity in general. It covered domesticated, as well as undomesticated biodiversity, and entered into force on 29 December 1993.

The CBD did not explicitly address the issue of Farmers' Rights. Nevertheless, according to

Article 8j, each Contracting Party should "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".*

Despite the absence of any specific reference to the concept of Farmers' Rights in Article 8j, subsequent CBD COP meetings showed interrelations between the two regimes.<sup>18</sup> Several publications also showed an interrelations between CBD Article 8j on traditional knowledge and International Treaty Article 9 on Farmers' Rights.<sup>19</sup>

### 1.5.3 Follow-up by FAO: initiating negotiations of the International Treaty

At its following session, in November 1993, the FAO Conference requested the Organization's Director-General to provide a forum for negotiations on adapting the International Undertaking in harmony with the CBD (Resolution 7/93)<sup>20</sup> as follows:

- (a) for the adaptation of the International Undertaking on Plant Genetic Resources, in harmony with the Convention on Biological Diversity,
- (b) for consideration of the issue of access on mutually agreed terms to plant genetic resources, including ex situ collections not addressed by the Convention, as well as

<sup>18</sup> UNEP/CBD/COP/DEC/VIII/23 Agricultural Biodiversity (item 1a Respect traditional knowledge and Farmers' Rights to the preservation of seeds under traditional cultivation; and 3 Invites the governing body of the International Treaty on Plant Genetic Resources for Food and Agriculture to examine, within the context of its work, priorities and available resources, the potential impacts of genetic use restriction technologies with special consideration to the impacts on indigenous and local communities and associated traditional knowledge, smallholder farmers and breeders and Farmers' Rights

<sup>19</sup> Andersen, R. 2016. Governing Agrobiodiversity: Plant genetics and developing countries, see Chapter 8; page 62, The protection of traditional knowledge

<sup>20</sup> Report of the Conference of FAO Twenty-seventh Session Rome, 6-24 November 1993. Revision of the international undertaking on plant genetic resources. Available at <http://www.fao.org/3/x5586E/x5586E00.htm>



- (c) for the issue of realization of Farmers' Rights.

The Commission on Plant Genetic Resources followed up with a mandate and a proposed process.<sup>21</sup> This marked the point of departure for the long-lasting negotiations, during which the issue of Farmers' Rights was debated in detail, leading up to adoption of the International Treaty in 2001.

### 1.6. Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture

In 1996, representatives from 150 countries met for the Fourth International Technical Conference on Plant Genetic Resources in

Leipzig, Germany. In a declaration from the meeting, the representatives stated that major gaps existed in national and international capacities to conserve, characterize, evaluate and sustainably use plant genetic resources.<sup>22</sup> They also stated that access to, and the sharing of both genetic resources and technologies was essential in order to ensure world food security and meet the needs of the growing world population. On this basis, the representatives adopted the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (hereafter referred to as the Global Plan of Action). In November 1996, the Global Plan of Action was endorsed by the FAO Council,<sup>23</sup> by the Conference of the Parties to the CBD,<sup>24</sup> and by the World Food Summit at FAO, where the heads of state and government committed their countries to its implementation.<sup>25</sup>



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<sup>21</sup> CPGR-Ex1/94/3. 1994. *Revisions of the International Undertaking: Mandate, context, background and proposed process*. Rome, FAO. Available at <http://www.fao.org/3/a-be288e.pdf>

<sup>22</sup> FAO1996, The Leipzig Declaration on Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture adopted by the International Technical Conference on Plant Genetic Resources in Leipzig, Germany, 17–23 June 1996. Available at: <http://www.fao.org/FOCUS/E/96/06/more/declar-e.htm>

<sup>23</sup> Resolution CL 111/1, in CL 111/REP. Report of the Council of FAO, Hundred-and-eleventh Session, Rome. October 1996. Available at <http://www.fao.org/3/w3145e/W3145E00.htm#TOC>

<sup>24</sup> Decision CBD/COP III/11 in UNEP/CBD/COP/3/38. Report of the Third Meeting of the Conference of the Parties to the CBD, Buenos Aires, Argentina. November 1996. Available at <https://www.cbd.int/decision/cop/?id=7107>

<sup>25</sup> WFS Commitment 3, Objective 3.2(I), in FAO WFS 96/REP. Appendix to the Report of the World Food Summit, 13–17 November 1996.



### 1.6.1 Farmers' Rights in the Second Global Plan of Action

The First Global Plan of Action adopted in 1996 acknowledges the need to realize Farmers' Rights. The Second Global Plan of Action,<sup>26</sup> prepared under the aegis of the Commission on Genetic Resources for Food and Agriculture, was adopted by the FAO Council on 29 November 2011.<sup>27</sup> The Global Plan of Action contains a set of recommendations and activities intended as a framework, guide and

catalyst for action at community, national, regional and international levels. It provides a framework for the identification of priority areas by the countries, and support for capacity enhancement towards those ends. Priority activities are to be identified within the areas of *in situ* conservation and development, *ex situ* conservation, the utilization of plant genetic resources, institutional development and capacity enhancement. One of the long-term objectives is to realize Farmers' Rights, as defined in FAO Resolution 5/89,



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<sup>26</sup> FAO 2012. Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture, Rome, Italy. (Adopted by the FAO Council, Rome, Italy, 29 November 2011.

<sup>27</sup> FAO 2011. Report of the Council of FAO. One Hundred and Forty-Third Session. Rome, 28 November-2 December 2011.



at international, regional and national levels (paragraph 32). The Global Plan of Action identifies several activities that would benefit farmers with regard to on-farm management and improvement of crop genetic resources.

### 1.6.2 Farmers' Rights in the State of the World's Plant Genetic Resources

The Global Plan of Action was developed with the participation of 154 countries. Each prepared a comprehensive report on the state of PGRFA in its territories. These documents were analysed in a comprehensive and detailed report, the State of the World's Plant Genetic Resources for Food and Agriculture (hereafter known as the State of the World Report), covering biological, technical and institutional concerns, including Farmers' Rights.<sup>28</sup>

The State of the World Report addressed the implementation of Farmers' Rights focusing on the agreed international fund and on efforts to define the concept and components of Farmers' Rights. On the question of the international fund, suggestions were made for linking this with the Global Plan of Action, in an effort to make it a reality. It also states that:

“The concept of Farmers' Rights may include several dimensions: compensation for innovation in the development of farmers' varieties; compensation to farmers for making plant genetic resources available; provision of incentives for continued conservation of these resources; and support for particular conservation and

utilization activities.<sup>29</sup>

During the discussions and on-going negotiations for a revised International Undertaking,<sup>30</sup> and during the preparatory process for the International Technical Conference,<sup>31</sup> it has been suggested that Farmers' Rights may have other operational dimensions including:<sup>32</sup>

- The traditional rights of farmers and their communities to keep, use, exchange, share and market their seeds and plant reproductive material, comprising the right to reuse farm-saved seed known as the ‘farmers’ privilege’;
- The needs of farmers and their communities as custodians of plant genetic resources and related indigenous and local knowledge (in line with Article 8(j) of the Convention) to have their rights protected and to share in the benefits derived therefrom.

Some NGOs also proposed that Farmers' Rights be developed as a ‘bundle of rights’, including the right to conserve, develop and protect plant genetic resources, the right to receive financial support for conservation and utilization activities, the right to benefit from the commercial exploitation of resources under their stewardship, and the right to determine the extent to which such resources and related practices, information and knowledge are made available.<sup>33</sup>

Many countries argue that there is a need for a legal framework for the

<sup>28</sup> The Second Report of the State of the World's Plant Genetic Resources for Food and Agriculture was published by FAO in 2010.

<sup>29</sup> Report of the Tenth Session of the Working Group of the Commission on Plant Genetic Resources, CPGR-6/95/REP, Appendix C, particularly paragraphs 23–26 ; Report of the Sixth Session of the Commission on Plant Genetic Resources, CPGR-6/95/REP, Appendix K.

<sup>30</sup> Ibid.

<sup>31</sup> Including: Subregional preparatory meeting: Southern Africa Report, para 12 (xi); Subregional preparatory meeting: East Africa and the Indian Ocean Islands Report, paras 13(b), 14(xii); Subregional preparatory meeting: West and Central Africa Report, para 39; Subregional preparatory meeting: South and Southeast Asia and the Pacific Report, recommendation 31.

<sup>32</sup> Note, however, that FAO Conference Resolution 5/89 states that Farmers' Rights are ‘vested in the international community’.

<sup>33</sup> Genetic Resources Action International (GRAIN), a small international non-profit organization that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems, proposes a biological diversity community rights regime based on the principles of local heritage, tenurial rights and communal ownership over resources. GRAIN 1995. Towards a biodiversity community rights regime. Seedling, 12(3):2.







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implementation of Farmers' Rights. Some have proposed that such a framework first be developed at the international level. Several countries have also suggested that certain aspects of Farmers' Rights be protected through the development of intellectual property rights, or similar systems, to protect indigenous knowledge.<sup>34</sup> Some countries consider that the implementation of certain aspects of Farmers' Rights could be facilitated through an appropriate *sui generis* system, in line with the TRIPS Agreement. Such an approach could incorporate the 'farmers' privilege' (as is already the case with the UPOV 1978 Convention), and could also include benefit-sharing mechanisms, such as those under consideration in India. Benefits might be awarded to particular farming communities or accrue to a fund. All of these matters are under discussion in various forums, including FAO in the context of the renegotiation of the

International Undertaking."

Finally, the Second Global Plan of Action,<sup>35</sup> as agreed by the Commission at its Thirteenth Regular Session and approved by the FAO Council at its 143<sup>rd</sup> Session in 2011 included provisions:

"to assist countries, as appropriate and subject to their national legislation, to take measures to protect and promote Farmers' Rights, as provided in Article 9 of the International Treaty"

### 1.7. Negotiation outcome: Farmers' Rights in the International Treaty on Plant Genetic Resources (ITPGRFA)

After a long negotiation process, the International Treaty on Plant Genetic Resources for Food and Agriculture was finally adopted by Resolution 3/2001 of the Thirty-First Session of the FAO Conference in

<sup>34</sup> The difficulties of such a system are explored in Annexes 1–4 of the State of the World's Plant Genetic Resources for Food and Agriculture, FAO.

<sup>35</sup> FAO, 2012. Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture Adopted by the FAO Council, 29 November 2011, paragraph 18(e).





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November 2001, and entered into force in June 2004.

The negotiation outcome, i.e. Article 9 of the International Treaty, is a compromise, containing most important elements of the rights of farmers with regard to plant genetic resources from the developing country perspective. However, it does not lay down any concrete legal obligations, as to how these elements of Farmers' Rights should be implemented.

### 1.7.1 International Treaty, Article 9, Farmers' Rights

In Article 9, the Contracting Parties of the International Treaty recognize the enormous contribution that farmers of all regions of the world have made, and will continue to make, for the conservation and development of plant genetic resources as the basis of food and agricultural production throughout the world. They further agree that the responsibility for implementing Farmers' Rights rests with national governments, and that they can choose

the measures to do so according to their needs and priorities. Certain measures are suggested, covering the protection of traditional knowledge, benefit-sharing and participation in decision-making. Also the rights of farmers to save, use, exchange and sell farm-saved seeds and propagating material are addressed, but without giving any particular direction for implementation.

In addition, Farmers' Rights are addressed in the preamble, and other articles in the Treaty clearly support these rights, albeit not explicitly (for example, the provisions on conservation and sustainable use and on benefit sharing).<sup>36</sup>

There are no legally binding provisions in the International Treaty on how to implement Farmers' Rights at national level. While some stakeholders have seen this as a weakness, others regard it as a reflection of the very different realities in the various Contracting Parties of the International Treaty. As a result, there is a need for leeway in implementation, according to differing national and local circumstances. Article 9 provides a platform, from which



<sup>36</sup> To learn more about how the provisions on Farmers' Rights are linked to other provisions of the International Treaty, see Lesson 2 of this module (Farmers' Rights in the Context of the International Treaty). For the provisions on conservation and sustainable use of PGRFA, refer to Lesson 2 of Module II (Conservation and Sustainable Use under the International Treaty), and for the provisions on Benefit-sharing in the context of the Multilateral System, see Module IV.



the further understanding and realization of Farmers' Rights can be developed. While the choice of measures to promote Farmers' Rights remains at the discretion of national authorities, the International Treaty advises Contracting Parties to implement national regulations related to Farmers' Rights, and to provide farmers with a basis from which to advocate their rights.<sup>37</sup> Since the entry into force of the

International Treaty in 2004, there has been a steady process of international consultations and discussions in the Governing Body. More recently, the Governing Body established the Ad Hoc Technical Expert Group (AHTEG) on Farmers' Rights.<sup>38</sup> Through these updates, a joint understanding of what is required in order to promote the realization of Farmers' Rights is currently emerging.<sup>39</sup>



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<sup>37</sup> See FAO 2012, Introduction to the International Treaty on Plant Genetic Resources for Food and Agriculture, p. 119.

<sup>38</sup> Refer to Resolution 7/2017. Implementation of Article 9, Farmers' Rights. Seventh Session of the Governing Body of the International Treaty. Available at <http://www.fao.org/3/a-mv102e.pdf>

<sup>39</sup> For up-to-date information and reference materials related to the implementation of Farmers' Rights, see the website of the International Treaty. Available at <http://www.fao.org/plant-treaty/areas-of-work/farmers-rights/en/>



## 2. Conclusion

This lesson illustrates the notion of Farmers' Rights, which developed during the early 1980s to counter increased demands for Plant Breeders' Rights (PBR) being voiced in international negotiations. The aim was to draw attention to the unremunerated innovations of farmers, which were seen as the foundation of all modern plant breeding. The concept first emerged in international negotiations within FAO in 1986. Already in 1987, practical solutions were being proposed, serving as the foundation for all further negotiations on Farmers' Rights, and providing substantial input to the framing of current understanding of the issue.

In 1989, Farmers' Rights gained formal recognition by the FAO Conference. In 1991, the Conference decided to set up a fund for the realization of these rights, but this has never materialized. In May 1992, the Convention on Biological Diversity (CBD)<sup>40</sup> was adopted, and with it a resolution on the interrelationship between the CBD and the promotion of

sustainable agriculture. In this resolution, FAO was urged to commence negotiations for a legally binding international regime on the management of PGRFA, and in this context, to resolve the question of Farmers' Rights. Agenda 21, a dynamic programme approved at the UN Conference on Environment and Development held in Rio de Janeiro in 1991, had voiced similar demands. This marked the start of lengthy negotiations, which finally led to adoption of the International Treaty.

Other international processes added their support to the principle of Farmers' Rights. These included the Global Plan of Action, which was adopted by the FAO Council in 1996 and updated in 2011. Both the first and second Global Plan of Action addressed the issue of Farmers' Rights.

The International Treaty, adopted in 2001, addresses the issue of Farmers' Rights in Article 9 and in its preamble. It advises Contracting Parties to take measures to protect



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<sup>40</sup> Nairobi Final Act, Resolution 3, Nairobi, 22 May 1992.

and promote Farmers' Rights in accordance with national laws, and provides farmers with a basis for advocating their rights. The main arguments for recognizing Farmers' Rights were as follows:

- *Conservation and sustainable use of plant genetic resources and related knowledge:* Direct measures would be required to enable farmers to continue acting as custodians of the plant genetic heritage and as innovators in agriculture. Measures to conserve plant genetic resources and related knowledge, and to stimulate innovations, were therefore seen as essential. Even if such measures were addressed in other contexts of the negotiations, such as provisions on conservation, sustainable use and benefit sharing, they were also deemed important as an independent component of Farmers' Rights, crucial to present and future food security.
- *Reward to farmers:* The second argument was the practical recognition of the enormous collective contribution of past, present and future farmers to the global genetic pool.
- *Balancing Farmers' Rights and IPRs:* The concept of Farmers' Rights emerged in the context of the debate on IPRs related to plant genetic resources for food and agriculture.

These points reflect the results of long and complex negotiations. But they also provide an important background to a better understanding of ongoing negotiations and developments under the International Treaty on the further implementation of Farmers' Rights, and closely related topics. The arguments outlined above are reflected in the discussion on Farmers' Rights – at international, as well as national levels in many countries – which still continues today.

### Key points to remember:

- The idea of Farmers' Rights related to crop genetic resources emerged in the early 1980s, the purpose was to draw attention to the unremunerated innovations of generations of farmers who provided the foundation of all modern plant breeding.
- Discussions on Farmers' Rights during the formative years, from 1980s until the FAO Conference adopted a Resolution endorsing the concept of Farmers' Rights in 1989, of which the main elements concerned balancing the rights of breeders and of farmers, ensuring rewards to farmers for their contribution to the global genetic pool, supporting farmers in conserving and sustainably using crop genetic resources and an international fund to facilitate the funding of such measures. This provides an important background for understanding the contents of Article 9.
- Farmers' Rights mean rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity.
- International processes within FAO had supported the principle of Farmers' Rights. Both the Global Plan of Actions adopted by the FAO Council in 1996 and the updated version in 2011 - addressed the implementation of Farmers' Rights.
- Other international processes had supported the development of the concept of Farmers' Rights: Agenda 21, UNCED, CBD - with it a resolution on the interrelationship between the CBD and the promotion of sustainable agriculture.
- The International Treaty, adopted in 2001, addresses the issue of Farmers' Rights in Article 9 and in its preamble "...recognizes the enormous contribution that local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agricultural production throughout the world."









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# Farmers' Rights in the context of the International Treaty



LESSON 2



## Overview of the lesson

The International Treaty was the first legally binding instrument to acknowledge the immense contribution made by farmers and indigenous communities in developing and conserving the plant diversity that continues to serve as the basis for most food crops to this day. This lesson examines the importance of conserving crop diversity to agroecosystem resilience and food security, and underscores the need to maintain traditional agricultural practices, so as to ensure continuity in the development of crop genetic resources in the future.

Exploring in some detail how the International Treaty addresses Farmers' Rights, the lesson explains that Article 9 includes measures for the protection of local and indigenous communities' and farmers' traditional knowledge relevant to PGRFA, their right to share in benefits, and to participate in decision-making related to these resources.



*Piper indicum*, red peppers, by Elizabeth Blackwell (1739)

## 1. Introduction

The concept of Farmers' Rights, as formulated in FAO Conference Resolutions in 1989, and ultimately enshrined in the International Treaty, is related to PGRFA. Farmers' Rights are often confused with the issue of generic human rights, such as those related to land tenure, access to water and mineral resources, health care, education and living conditions in rural areas. These are all crucial factors that affect the general well-being, working and living conditions of farmers.<sup>1</sup> However, the focus of this lesson is **Article 9, and specifically Farmers' Rights, as they relate to plant genetic resources for food and agriculture.**

Farmers' Rights are an important component of the International Treaty, and protecting them is designed to enable farmers and farming communities to continue performing their role as guardians and developers of the plant genetic resources used for food and agriculture. The International Treaty promotes a complementary approach to strategies for the conservation and sustainable use of PGRFA, for both in situ and ex situ conservation. Over the past 50 years, there has been growing appreciation of the important contribution made by farmers and indigenous peoples and local communities for developing and conserving crop genetic diversity, and of the importance of that diversity to agro-ecosystem resilience and food security. The farmer is viewed as ultimately responsible for the conservation of plant genetic resources, and any successful approach must involve the maintenance and promotion of traditional agricultural systems and the continued conservation of plant genetic diversity within farming

environments. Maintaining traditional agricultural practices is a recognized strategy for ensuring continuity in the development of crop genetic resources. These have evolved over thousands of years. Over the centuries, diverse farming systems have been shaped by physical land limitations, the combination of varied topographies and harsh climates, as well as by cultural values and collective forms of social organization, including customary institutions for agro-ecological management, festivities and associated knowledge systems. In the process, these agricultural systems have in turn maintained and contributed to the development of crop genetic diversity. All today's major food crops were developed through these time-honored farming systems. Traditional agriculture prospered because of diversity. It has provided communities with varied diets and stability in production, minimizing risks and reducing crop losses due to pests and diseases, particularly in highly variable environments. Farmers have traditionally attached importance not only to crop yields, but also to many attributes, such as food and taste, field adaptation, cultivation requirements, and cultural values associated with certain crops. These creative farming communities are responsible for the wide range of crops and varieties of food that we enjoy today.

Farmers' Rights, as laid out in Article 9, are backed up by other provisions of the International Treaty, including the preamble and a number of measures proposed for promoting the conservation and sustainable use of PGRFA. Certain provisions linked to benefit-sharing under the Multilateral System are also supportive of Farmers' Rights.

<sup>1</sup> See the generic scope of human rights at United Nations Human Rights website. Available at <http://www.ohchr.org/EN/Issues/Pages/WhatAreHumanRights.aspx>; [http://undocs.org/A/RES/217\(III\)](http://undocs.org/A/RES/217(III))



Farmers' Rights, as they pertain to plant genetic resources for food and agriculture, are an issue of central importance in countries where most of the population lives in rural areas, with livelihoods based on farming – particularly so when farming systems centre on traditional varieties. This is the case in most developing countries. In Northern countries, Farmers' Rights concern a much smaller segment of

the population, though here too the issue of producers' roles in stewarding crop genetic diversity is an important one. Although most farmers in the North rely on commercial plant varieties, saving and re-using of propagating material is still practised to some extent, and among eco-farmers there is increasing interest in developing plant breeding based on traditional varieties.



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## 2. Farmers' Rights under the International Treaty

The International Treaty is the first legally binding international agreement to recognize the contribution of local and indigenous communities and farmers to the conservation and development of PGRFA, and on this basis to affirm Farmers' Rights with regard to PGRFA. Article 9 of the International Treaty states the following:

### Article 9 - Farmers' Rights

- 9.1 The Contracting Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.
- 9.2 The Contracting Parties agree that the responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments. In accordance with their needs and priorities, each Contracting Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including:
- (a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
  - (b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and
  - (c) 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.
- 9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate.

In addition to farmers, the wording of Article 9.1 refers to the importance of local and indigenous communities for the conservation and development of PGRFA. This is a clear indication of the growing recognition of the role played by indigenous communities in the creation and preservation of knowledge of value for the society as a whole. This distinction also has the effect of giving states the option of treating local and indigenous communities as a distinct class from that of farmers though in many cases indigenous people and farmers may be one and the same.<sup>2</sup> Several sources highlight the important role and contribution of family and small-scale farming in sustaining world food security, particularly in contributing to a balanced diet, conserving, developing and managing world's agrobiodiversity.<sup>3</sup>

Although Article 9.1 does not establish any obligation for the Contracting Parties to the International Treaty, it provides the rationale for the subsequent substantive provisions on Farmers' Rights and choose the measures to do so according to their needs and priorities.

Measures listed under Article 9.2 (a) to (c) are considered the core for the realization of Farmers' Rights at the national level, yet legally speaking they are neither mandatory nor exhaustive. Contracting Parties are encouraged to evaluate their needs and to decide on the measures that offer incentives to farmers to continue to conserve and to further develop PGRFA, in accordance with their national legal system and prevalent agricultural practices. The realization of Farmers' Rights can also include other measures than those listed, as appropriate.

<sup>2</sup> Moore and Tymowski, 2005. Explanatory guide to the International Treaty of Plant Genetic Resources for Food and Agriculture. IUCN Environmental Policy and Law Paper No. 57. Pp. 66-78

<sup>3</sup> For example, see information resources in IYFF website <http://www.fao.org/family-farming-2014/resources/publicationslist/en/>; AED and FAO 2011: Deepening the Dialogue: Agriculture and Nutrition Collaboration to Enhance Global Food Security Summary Report from the Open Forum held on 1 November 2010, Washington, DC ([http://www.fao.org/fileadmin/user\\_upload/fsn/docs/Agriculture\\_nutrition/Deepening\\_the\\_Dialogue\\_Summary\\_Report.pdf](http://www.fao.org/fileadmin/user_upload/fsn/docs/Agriculture_nutrition/Deepening_the_Dialogue_Summary_Report.pdf)); IAASTD 2009: Agriculture at a Crossroads. International Assessment of Agricultural Knowledge, Science and Technology for Development. Island Press, Washington DC.



## 2.1. Protection of traditional knowledge

Paragraph (a) of Article 9.2 encourages measures for the “protection of traditional knowledge relevant to plant genetic resources for food and agriculture”. Given the scope and objectives of the International Treaty, the type of traditional knowledge to be protected is limited to that which is “relevant to plant genetic resources for food and agriculture”. In this sense, the provision is narrower in scope than Article 8j of the CBD which addresses a broader range of biological resources. In another sense, however, the scope of the provision may be broader than that of the CBD in the sense that it is not limited to traditional knowledge “of indigenous and local communities embodying traditional lifestyles” as in Article 8j<sup>4</sup> of the CBD. Under the International Treaty, traditional knowledge would appear to refer more to the traditional knowledge of farmers, mainly to the knowledge used to develop, and it thus incorporated in, farmers’ varieties (landraces)<sup>5</sup> and certain traditional agricultural knowledge that are crucial in the process of conserving genetic resources by local farming communities.<sup>6</sup>

Traditional knowledge and plant genetic resources have contributed significantly to technological advancement of society and improvement of livelihoods.<sup>7</sup> Traditional

knowledge gained in the long history of agricultural development have been of great help to farmers for conservation and the proper selection of genetic resources, from different natural habitats such as fields, meadows, and forests in their immediate environment.<sup>8</sup> The development and sustainable use of plant varieties and crop diversity that meet the specific needs of farmers under local conditions, within the context of traditional farming systems, can encompass a broad range of forms of traditional knowledge. But also, there is growing recognition and attention to the role of women farmers<sup>9</sup> in plant genetic resources conservation. Women farmers have been recognized at the international level for their efforts in environmental and agricultural biodiversity protection, as keepers of traditional knowledge and stewards of in situ conservation.<sup>10</sup> Most forms of traditional knowledge are location-specific, evolving in time in a particular habitat and culture, but many of these knowledge systems share common features (i.e. crop diversity, high structural diversity, exploitation of a full range of microclimates, dependence on local resources and indigenous cultivars, etc).<sup>11</sup> There are extensive studies and literature about the importance of traditional knowledge related to conservation and sustainable use of PGRFA. The traditional knowledge of farmers, indigenous peoples and local communities is perceived as

<sup>4</sup> Article 8(j) states that each contracting Party shall, as far as possible and as appropriate: Subject to 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 through 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. See CBD website: <https://www.cbd.int/traditional/>

<sup>5</sup> Moore and Tymowski, 2005.

<sup>6</sup> Z. Aksoy, 2016. Global Governance of Traditional Knowledge and its justice implications: a case for an alternative approach. An International Colloquium, 4-5 February 2016, Colloquium Paper No. 3. The Hague, The Netherlands.

<sup>7</sup> Andersen, 2008. Governing Agrobiodiversity: plant genetics and developing countries. Ashgate Publishing, 420 p; Andersen and Winge, 2013. Realising Farmers’ Rights to Crop Genetic Resources Success Stories and Best Practices.

<sup>8</sup> Jovic Z. and S. Kratovalieva, 2016. Global strategies for sustainable use of agricultural genetic and indigenous traditional knowledge. In: Plant genetic resources and traditional knowledge for food security. Pp. 39-72

<sup>9</sup> FAO, 2011. The role of women in agriculture. ESA Working Paper no. 11-02 <http://www.fao.org/docrep/013/am307e/am307e00.pdf>

<sup>10</sup> FAO, 2013: Gender Equality and Food Security: Women’s empowerment as a Tool against Hunger. <https://www.adb.org/sites/default/files/publication/30315/gender-equality-and-food-security.pdf>

<sup>11</sup> Altieri and Nicholls 2013: The adaptation and mitigation potential of traditional agriculture in a changing climate. <https://doi.org/10.1007/s10584-013-0909-y>





dynamic reservoir for the development of new varieties and for the transmissions of desirable genetic traits.<sup>12</sup> Family farmers<sup>13</sup> have tended to utilize a diverse selection of crop species in order to assure their harvests; seed production in many instances has been on the collection and domestication of locally known wild varieties. Farmers, particularly women farmers often have different types of traditional knowledge related to crop biodiversity management, e.g. crop breeding to cope with unusual weather events, pest and diseases; genetic diversity management; crop diversification, cropping systematization, harvesting and storing seed/grain; and other related farming practices.<sup>14</sup>

Modern agricultural practices depend on crop varieties that promote productivity and resistance to disease that can only be maintained with the continuous input of new germplasm. This diversity of landraces and the associated information on their specific qualities contribute invaluable information to formal breeding processes. It has been noted that the loss of biological diversity is parallel by the loss of traditional knowledge.<sup>15</sup>

For the majority of rural people, agricultural activities continue to be one of their main livelihood strategies. Production of food crops is not dependent on any formally acquired knowledge of farming but is solely based on traditional knowledge passed from generation

to generation through experience and careful observations. Resource-poor farmers, especially in rural areas, follow traditional knowledge systems to produce their food crops and these are specifically tailored to suit their agroecosystem. These systems have contributed to enhance and promote biodiversity conservation at the local level and aid in maintaining healthy ecosystems in their specific contexts.<sup>16</sup>

Hence, the protection of traditional knowledge within its dynamic context is likely to make an effective contribution to the maintenance of its practical use and use for future development and it would be an important element for safeguarding the evolution of crop diversity. In this regard, Contracting Parties may consider a wide range of possibilities to promote its continued evolution and protect against misappropriation but also against its use without the consent of knowledge holders (farmers and indigenous local communities). Contracting Parties can devise their own measures, it could be similar to the establishment of intellectual property regulations, establishment of registries, licensing mechanisms and access and benefit sharing initiatives. The promotion of production and consumption of farmers' traditional varieties can also foster local economy development, thus supporting the use of farmers and indigenous local communities' traditional knowledge along with their own crop varieties.

<sup>12</sup> Michael Blakeney, 2009. Traditional Agricultural Knowledge and Farmers' Rights. In Intellectual Property Rights and Food Security. pp. 122-127. <https://doi.org/10.1079/9781845935603.0000>

<sup>13</sup> Note: Family farmers, small holders or small scale farmers are used indistinctly in this module.

<sup>14</sup> FAO, 2009. FAO and traditional knowledge: the linkages with Sustainability, food security and climate change Impacts. <http://www.fao.org/3/a-i0841e.pdf>

<sup>15</sup> There are extensive documentation published about traditional knowledge and relevance to biodiversity and development, e.g. authored by Abramovitz for the World Resources Institute, The Center for Our Common Future, the Consultative Group on International Agricultural Research, Hawkes for The World Bank, IUCN/UNEP/WWF, McNeely *et al.* for the International Union for Conservation of Nature and Natural Resources, the Global Biodiversity Strategy: Policy-makers' Guide produced by the World Resources Institute, The World Conservation Union, and the United Nations Environment Programme, and several FAO and UNESCO publications.

<sup>16</sup> Salgotra and Gupta, 2016. Plant genetic resources and traditional/indigenous knowledge: potentials and challenges. In: Plant Genetic Resources and Traditional Knowledge for Food Security. R.K. Salgotra and B.B. Gupta (eds). Springer. pp.1-22



## 2.2. Equitable participation in the sharing of benefits

According to paragraph (b) of Article 9.2 of the International Treaty, measures that Contracting Parties should take, as appropriate and subject to their national legislation, include those to ensure the right of farmers “to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture”. In this regard, Contracting Parties should establish mechanisms in order for farmers and indigenous and local communities to benefit from the use of PGRFA that have been developed and conserved by them.

The International Treaty provides no further details as to how and what Article 9.2b might mean in practice. Article 13 on the Multilateral System on Access and Benefit Sharing provides further description and lists the most important benefits. The Multilateral System sets up opportunities for users (farmers, researchers, breeders, etc.) in all Contracting Parties, both developing and developed countries, to build on what the farmers in all regions of the world have accomplished in their fields.

### *Facilitated access*

Under the International Treaty and its Multilateral System, certain collections of

local, national and international gene banks share a set of efficient rules of facilitated access. This includes plant genetic resources that are in the public domain and under the management and direct control of Contracting Parties. Facilitated access is also provided to the vast collections of the Consultative Group for International Agricultural Research (CGIAR), a consortium of 15 international research centers, as well as other international collections held by institutions that have entered into an agreement with the Governing Body of the International Treaty (for example CATIE, ICBA and the International Coconut Genebanks). Moreover, plant genetic resources may be included in the Multilateral System voluntarily, including by associations, private companies or even individuals.

### *Benefit-sharing*

The fair and equitable sharing of the benefits arising from the use of plant genetic resources for food and agriculture, including commercial, is one of the objectives of the International Treaty. Benefits should primarily flow to farmers in all countries, especially in developing countries, who conserve and sustainably use these resources. The two main categories of mechanisms for benefit-sharing under the International Treaty are non-monetary benefit-sharing (exchange of information, capacity-







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building, access to and transfer of technology, facilitated access to crops) and monetary benefit-sharing resulting from commercial use. The Benefit-sharing Fund (BSF) of the International Treaty was launched in 2009.<sup>17</sup> The BSF supports projects that manage plant genetic resources for food and agriculture for the benefit of farmers in developing countries. Activities supported by this Fund include conservation, characterization and development of these crop genetic resources and making them available for farmers to improve their livelihoods and increase food security. Furthermore, the BSF supports activities that ensure that local crop varieties of importance to our food security are preserved, reintroduced, developed and maintained in farmers' fields, so that they remain available to farming communities.

### **Monetary Benefits:**

In accordance with the terms and conditions of the Standard Material Transfer Agreement (SMTA):<sup>18</sup>

- Recipients pay an equitable share of financial benefits into the International Treaty's Benefit-sharing Fund whenever a commercialized product resulting from material obtained from the Multilateral System is not freely available for further research and breeding;
- These funds are complemented with voluntary contributions from users, Contracting Parties, international foundations and the private sector; and
- The funds that accumulate in the Benefit-sharing Fund flow primarily to farmers in developing countries who use and conserve crop diversity.

### **Non-monetary Benefits**

The International Treaty foresees the sharing of non-monetary benefits from the Multilateral System in the form of:

- Exchange of information: making available information such as catalogues and inventories of crop diversity and results

<sup>17</sup> For more information on the BSF, see ITPGRFA webpage: <http://www.fao.org/plant-treaty/areas-of-work/benefit-sharing-fund/overview/en/>; The Benefit-sharing Fund: Crop Diversity for Food Security, <http://www.fao.org/3/a-bb146e.pdf>

<sup>18</sup> For more information on the Multilateral System and the SMTA, see ITPGRFA webpage: <http://www.fao.org/plant-treaty/areas-of-work/the-multilateral-system/the-smta/en/>



of technical, scientific and socioeconomic research, for example, research related to characterization, evaluation and utilization of agricultural crops, including through the Global Information System;

- Technology access and transfer: facilitating access to technologies for the conservation, characterization, evaluation and use of crop diversity, especially to developing countries. The International Treaty encourages all types of partnerships in research and development and in commercial joint ventures, especially relating to the material received, to human resource development, and to effective access to research facilities.
- Capacity building: support capacity building through:
  - o programmes for scientific and technical education and training;
  - o research facilities in developing countries; and
  - o scientific research, preferably in developing countries, in cooperation with national institutions.

For further details on how the Multilateral System benefits farmers in practice, especially in developing countries, and on the Multilateral System in general, see Educational Module IV. For information on the Benefit-sharing Fund and the Funding Strategy, see Educational Module III.

### 2.3. Participation in decision-making

Another core aspect of the protection and promotion of Farmers' Rights included in Article 9.2 of the International Treaty is stated under paragraph (c) as “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”. This represents a recommendation for Contracting Parties to the International Treaty to strengthen the representation of farmers or farming communities in decision-making bodies, according to each country's existing institutions.

Since agriculture is heavily dependent on high quality seeds/propagating materials, it is natural that farmers or farming communities should participate in the decision-making processes, in particular, laws and regulations governing the management of crop production, as well as seed regulations and standards.

Farmer participation taken in a broader sense than that laid down in the International Treaty can encompass the representation of farmers and farming communities in a variety of decision-making bodies, as they are regarded as relevant stakeholders in all discussions that affect their farming systems or livelihoods. In this sense, farmers have a particular stake in the shaping of agricultural policies, including food security and nutrition, sustainable agriculture and rural development.

Also, another important aspect to take into account when promoting the right to participate in making decision, although not directly mentioned in the International Treaty, is gender balance in participation. The role of women in agriculture is often neglected, despite the fact that they are in many cases responsible for a range of different tasks, including the management of seeds and planting materials. The important role of women in conservation and sustainable use of PGRFA has been underlined by the Governing Body at its Third Session,<sup>19</sup> and the role of women in agriculture and rural areas are stressed in several meetings and important documents.<sup>20</sup>

<sup>19</sup> Third Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture. Tunis, Tunisia, 1 – 5 June 2009. IT/GB-3/09/. Report available at: <http://www.fao.org/3/a-be112e.pdf>

<sup>20</sup> See policy documents and references on: European parliament Report on the role of women in agriculture and rural areas (2010/20154(INI)); UN Women webpage: <http://www.unwomen.org/en/docs/2011/6/the-vital-role-of-women-in-agriculture-and-rural-development>; FAO Document on The Role of Women in Agriculture. ESA Working Paper 11-02 available at <http://www.fao.org/docrep/013/am307e/am307e00.pdf>



## 2.4. Respect of existing rights under national law to save, use, exchange and sell farm-saved seed

Article 9.3 of the International Treaty states that “nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate”.

This article seeks to guarantee that the actions Contracting Parties may take with a view to promoting the realization of Farmers' Rights, in line with the measures proposed under Article 9.2, will not run counter to any existing rights that farmers may have under national law to save, use, exchange and sell farm-saved seed or propagating material. The importance of these rights is recognized in the preambular text of the International Treaty, and Article 9.3 implicitly acknowledges that farmers may have the right to save, use, exchange and sell farm-saved seeds in certain national settings. Nevertheless, Article 9.3 remains neutral in this respect and does not request Contracting Parties to promote these rights where they are not established.

While Article 9.3 does not provide a legal basis to encourage Contracting Parties to regulate operations regarding nationals under

a Contracting Party's jurisdiction, nothing in the article prevents them from putting in place regulations for such operations, according to their needs and available options.

Intellectual Property Rights (IPRs), such as plant breeders' rights, are relevant aspects of countries' strategies to support investments in plant variety development, and to balance or direct the allocation of public funds. Article 9.3 does not limit IPR and therefore should not be seen as incompatible with breeders' rights, such as those provided under the different Acts of the UPOV.<sup>21</sup> The compromise language in Article 9.3 is neutral with regard to both the rights of plant breeders and the rights of farmers to save, use, exchange and sell farm-saved seed or propagating material.<sup>22</sup>

It is important to note that countries should be consistent with regard to their obligations contracted under different international instruments. In this regard, countries would need to ensure a good balance between rights and obligations under their legal systems, so as to allow farmers or farming communities to preserve their farming systems, thereby enabling them to continue with their customary practices for the conservation and sustainable use of PGRFA. This is also commonly referred to as the necessary 'legal space' for the realization of Farmers' Rights.<sup>23</sup>

<sup>21</sup> Regine Andersen. 2008. Governing agrobiodiversity – Plant genetics and developing countries. See Farmers' Rights Project [http://www.farmersrights.org/resources/global\\_works\\_12.html](http://www.farmersrights.org/resources/global_works_12.html).

<sup>22</sup> To learn more about the policy area of IPR in the domain of genetic resources, see Lesson 5 of Module 1, The Legal Architecture Governing Crop Diversity and Partnerships for Implementation available at <http://www.fao.org/3/i2631e/i2631e05.pdf>

<sup>23</sup> Ministry of Agriculture and Food and Fridtjof Nansen Institute, Norway, and the Zambia Agriculture Research Institute of the Ministry of Agriculture, Food and Fisheries. 2007. Informal International Consultation on Farmers' Rights, 18 –20 September 2007. Lusaka, Zambia. Available at: [http://www.farmersrights.org/pdf/farmers\\_rights\\_lusaka\\_consultation\\_final\\_report.pdf](http://www.farmersrights.org/pdf/farmers_rights_lusaka_consultation_final_report.pdf)





### 3. The linkages between Article 9 (Farmers' Rights) and Articles 5 and 6 (conservation and sustainable use of PGRFA)

While many provisions of the International Treaty are related to Article 9 and the realization of Farmers' Rights, this is especially true in the case of Articles 5 and 6,<sup>24</sup> which contain provisions on conservation and sustainable use of PGRFA and are crucial for implementation of the International Treaty.

Under Article 5.1, the Contracting Parties are encouraged to promote an integrated approach to the conservation, exploration, collection, characterization, evaluation and documentation of plant genetic resources for food and agriculture. The proposed measures are, as follows:

*a) Survey and inventory plant genetic resources for food and agriculture, taking into*

*account the status and degree of variation in existing populations, including those that are of potential use and, as feasible, assess any threats to them;*

*b) Promote the collection of plant genetic resources for food and agriculture and relevant associated information on those plant genetic resources that are under threat or are of potential use;*

*c) Promote or support, as appropriate, farmers and local communities' efforts to manage and conserve on-farm their plant genetic resources for food and agriculture;*

*d) 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;*



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<sup>24</sup> See Educational Module II – Conservation and Sustainable Use under the International Treaty. Available at <http://www.fao.org/3/i2579e.pdf>

- e) *Cooperate to promote the development of an efficient and sustainable system of ex situ conservation, giving due attention to the need for adequate documentation, characterization, regeneration and evaluation, and promote the development and transfer of appropriate technologies for this purpose with a view to improving the sustainable use of plant genetic resources for food and agriculture;*
- f) *Monitor the maintenance of the viability, degree of variation, and the genetic integrity of collections of plant genetic resources for food and agriculture.*

Looking into these proposed measures, it means that farmers and farming communities might need to participate in surveys and inventories, as well as in the collection of PGRFA and associated information on plant genetic resources of potential use, or that are under threat.<sup>25</sup> Also, Article 5.1 specifies the role of farmers and local communities in the conservation of PGRFA. It states that Contracting Parties shall “promote or support, as appropriate, farmers’ and local communities’ efforts to manage and conserve on-farm their plant genetic resources for food and agriculture”. This means, in connection with Article 6.2 of the International Treaty, that Contracting Parties shall take measures to support farmers and local communities to maintain a high level of genetic diversity within and among cultivated crops. Although listed under conservation activities, support for on-farm management is also an important measure for the sustainable use of PGRFA, including, with reference to Article 6.2(a) as appropriate, assistance to guarantee the maintenance of the agricultural systems where they evolve and adapt to changing environmental conditions.

As stated above, Article 5.1(d) requests Contracting Parties to “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”. Living close to the protected areas and also managing wild plants, it is clear that these communities know how to preserve those plants, and their initiatives in this regard are therefore worthy of support. Measures to promote the in situ conservation of crop wild relatives are also important for the promotion of neglected and underutilized species, as well as for the preservation of relevant traits that could be used as a source of resistance against limiting factors in agriculture.

According to Article 6.1, Contracting Parties shall develop and maintain appropriate policy and legal measures that promote the sustainable use of PGRFA. Most of these policies and legal measures, as suggested to Contracting Parties under Article 6, may benefit farmers and farming communities. A non-exhaustive list of measures is provided in Article 6.2, given here.

Accordingly, Contracting Parties shall develop and maintain appropriate policy and legal measures that promote the sustainable use of PGRFA. The sustainable use of PGRFA may include such measures as:

- a) *Pursuing fair agricultural policies that promote, as appropriate, the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources;*
- b) *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;*
- c) *Promoting, as appropriate, plant breeding efforts which, with the participation of farmers, particularly in developing countries, strengthen the capacity to*

<sup>25</sup> The International Treaty on Plant Genetic Resources for Food and Agriculture, Articles 5.1 and 5.2.





- develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;*
- d) Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers;*
  - e) Promoting, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized species;*
  - f) 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; and*
  - g) Reviewing, and, as appropriate, adjusting breeding strategies and regulations concerning variety release and seed distribution.*



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## 4. Conclusion

For the first time in history, the efforts and “*the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world*” have been recognized in an international legally binding instrument, through Article 9 of the International Treaty. The International Treaty provides measures that could serve as a common ground for the understanding of Farmers' Rights, in particular:

- Protection of traditional knowledge;
- Equitable participation in benefit-sharing;
- Participation, at national level, in matters relating to the conservation and use of PGRFA; and
- Using and exchanging farm-saved seeds/propagating materials.

The International Treaty advises Contracting Parties to take measures to protect and promote Farmers' Rights in accordance with national laws, and provides farmers with a basis on which to advocate for their rights.

Prior to the adoption of the International Treaty, in the absence of any internationally agreed common ground, the concept of Farmers' Rights had come to mean different things to different people, in various parts of the world. While some associated it with a desire for a new form of intellectual property rights for materials developed by farmers, others saw it as more of an acknowledgement and recognition of farmers' contributions

to the conservation and sustainable use of PGRFA and support for their activities in this regard. To many, it conveyed the importance of protecting the ability of farmers to continue conserving PGRFA and using them in a sustainable way, as well as enabling farmers to take an active role in decision-making related to crop diversity.<sup>26</sup> Clearly, Farmers' Rights are not intellectual property rights, but the basis for recognition of the collective innovation on which agriculture is based.

The specific way in which Contracting Parties could realize Farmers' Rights and support farming systems that conserve PGRFA and use them in a sustainable way depends to a great extent on, inter alia, their economy and internal market structures. Contracting Parties are encouraged to balance IPRs within their regulatory systems. The challenge lies in striking a balance between private rights over seeds and the interests of farmers. Both can be fully compatible and it is essentially a matter of providing that they coexist in harmony, and in line with a Contracting Party's economic and agricultural development plan.

Finally, the International Treaty specifies that responsibility for implementing Farmers' Rights (Article 9) lies with the various national governments. Each country is free to choose the measures deemed necessary and appropriate, in accordance with its own needs and priorities. Other provisions of the International Treaty are also of importance to the implementation of Farmers' Rights. Most often referred to in this context is Articles 5 and 6 on conservation and sustainable use, and also Article 13 on benefit-sharing in the Multilateral System. The preamble of the

<sup>26</sup> Fowler, 1997.



Treaty confirms that “the right to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making regarding, and in the fair and equitable sharing of the benefits arising from,

the use of plant genetic resources for food and agriculture, are fundamental to the realization of Farmers' Rights, as well as the promotion of Farmers' Rights at national and international levels”.

#### Key points to remember:

- The International Treaty is the first legally binding instrument that recognizes the enormous contribution of local and indigenous communities and farmers worldwide to the development and conservation of crop diversity. It advises Contracting Parties to take measures to protect and promote Farmers' Rights in accordance with national laws, and provides farmers with a basis to advocate for their rights.
- Farmers' Rights in the International Treaty are strictly related to plant genetic resources for food and agriculture.
- The International Treaty does not offer a definition of Farmers' Rights but simply describes the measures that need to be undertaken, such as for the protection of local and indigenous communities' and farmers' traditional knowledge relevant to PGRFA, their right to share in benefits arising from the use of PGRFA, as well as their right to participate in decision-making related to PGRFA. In addition to these measures, the importance of the rights of farmers to save, use, exchange and sell farm-saved seed is affirmed in the preamble of the International Treaty.
- The realization of Farmers' Rights falls under the responsibility of national governments, and the adoption of measures for the promotion of Farmers' Rights therefore remains at the discretion of national authorities.
- Although there is no binding agreement for the implementation of Farmers' Rights, it is clear that farmers need to be supported, so that they may continue their role as stewards of plant genetic diversity in agriculture.





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# Current development and practical activities leading to implementation of Farmers' Rights



LESSON 3



## Overview of the lesson

Despite international acknowledgement, and the call to governments to adopt measures to promote and safeguard Farmers' Rights, these are still not promoted or protected by national legal and policy frameworks in most countries. Contracting Parties and many other stakeholders have frequently highlighted the inadequate capacity regarding Farmers' Rights, as well as a lack of common understanding of what these mean, and how to implement them in real terms.

This lesson presents some ideas and practical activities implemented by Contracting Parties and stakeholders, aimed at promoting an understanding of Farmers' Rights, and ensuring that they are realized. A selection of policies, programmes and projects presented here demonstrate some of the different ways in which Farmers' Rights are taken into account or have been realized.

Learners are encouraged to share their own experiences, views and perceptions, together with possible approaches for promoting and advocating the realization of Farmers' Rights, in their own country specific context.



*Amoris pomum*, tomato, by Elizabeth Blackwell (1739)

## 1. Article 9, Farmers' Rights: some practical explanations and progress in the implementation

When implementing Article 9 of the International Treaty, it is important to bear in mind the historical context of Farmers' Rights, as outlined in Lesson 1. Farmers are custodians and developers of plant genetic resources, so recognizing and rewarding them for their indispensable contribution to the global gene pool and associated knowledge is crucial, in order that they can maintain this role for local and global food security. Farmers' Rights constitute a cornerstone of the International Treaty. Their realization is a precondition for achieving its three objectives of *conservation, sustainable use, and fair and equitable benefit sharing*.

The components of Farmers' Rights are:

- i) protection of traditional knowledge;
- ii) the fair and equitable sharing of benefits;
- iii) the right to participate in decision-making; and
- iv) the rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material.

Despite the many challenges and barriers in the realization of Farmers' Rights at national level,<sup>1</sup> efforts are already underway with regard to implementation of components of Farmers' Rights in the International Treaty. Progress is being made with regard to the protection of traditional knowledge, equitable benefit sharing, the participation in decision making and the right of farmers to save, use, exchange and sell farm-saved seed/propagating material. This indicates that there exists an opportunity for sharing and learning from the examples of

different countries and stakeholders in putting Farmers' Rights into practice.

Lesson 2 has provided some explanation for the above components of Farmers' Rights, additional thoughts to further understand these components are given here, together with some examples of practices that directly or indirectly contribute to the realization of one or more of the components of Farmers' Rights. These examples are extracted from the results of initiatives, projects, policies and actions implemented by different stakeholders and from different countries. The examples are sorted into four categories: (1) protection of traditional knowledge; (2) the fair and equitable sharing of benefits; (3) participate in decision-making; and (4) the right that farmers have to save, use, exchange and sell farm-saved seed/propagating material.

### 1.1 Farmers' Rights in relation to the protection of traditional knowledge

Traditional knowledge (TK) includes expertise in the selection, storage, use and management of seed. This knowledge is vital for understanding the properties or characteristics of plants and varieties, their uses, cultural significance and cultivation practices. Traditional knowledge is disappearing at an alarming pace, alongside genetic erosion. Safeguarding traditional knowledge can involve two approaches: (1) protection against extinction; and (2) protection against misappropriation.<sup>2</sup>

<sup>1</sup> Stakeholders' Consultation on Farmers' Rights: African Position Paper, 27-29 June 2016, Harare, Zimbabwe (<http://www.fao.org/3/a-bq550e.pdf>); Global Consultation on Farmers' Rights, 27-30 September, 2016, Bali, Indonesia; The Farmers' Rights Project: resource pages for decision-makers and practitioners (<http://www.farmersrights.org/state/index.html>)

<sup>2</sup> R. Andersen, 2016. Farmers' Rights: evolution of the international policy debate and national implementation. In: Farmers' Crop Varieties and Farmers' Rights. Challenges in taxonomy and law (ed) M. Halewood. Bioversity International, Earthscan from Routledge. pp 129-152.



Protecting TK against extinction means ensuring that it is kept alive and developed further. Measures for its protection are considered crucial by farmers who therefore engage in farming practices in which the use of PGRFA, or agrobiodiversity in general, is promoted through community biodiversity management (CBM). The best way of protecting traditional knowledge against extinction is to use and share it. Measures for diffusing traditional knowledge can include the organization of seminars, conferences and gatherings among farmers, to share knowledge associated with crop diversity.<sup>3</sup>

One of the practical examples of protecting traditional knowledge by using and sharing is through the Community Seed (gene) Banks, a practice that exists for the last 30 years. These are community-managed seed banks where indigenous, local variety seeds are stored and shared with the members. This is very vital for sharing not only seed and varieties, but also the associated knowledge in conservation and the cultivation of crops. They perform multiple functions, depending on the objectives set by their own members. These might include undertaking awareness-raising and educational activities; documenting TK and information; collecting, distributing and exchanging seeds; sharing knowledge and experience; promoting agro-ecological practices; conducting participatory crop improvement experiments; networking and policy advocacy; and many other activities related to seed conservation.

## 1.2 Farmers' Rights to participate equitably in the sharing of benefits

Mechanisms for benefit sharing may vary, depending upon the type of benefits, the specific conditions in the country and the stakeholders involved. The benefit sharing mechanism must be flexible, as it should be determined by the partners involved in benefit sharing, and will vary on a case by case basis. Benefits to be shared may be influenced by numerous factors, including the extent of sharing, and the nature of the final product development. Most regulations envisage forms of direct benefit sharing between the 'owners' and 'buyers' of genetic resources, often upon prior informed consent on mutually agreed terms, as set out in the CBD and its Nagoya Protocol.<sup>4</sup> Under the International Treaty, facilitated access to genetic resources that are included in the Multilateral System is itself recognized as a major benefit of the system. Means of benefit sharing arising from the use of PGRFA that are to be shared on a 'fair and equitable' basis were presented in Lesson 2.<sup>5</sup>

To interpret this provision of Farmers' Rights, some guidance can be found in Article 13 of the International Treaty on the Multilateral System of Access and Benefit-sharing, the most important benefits are the following:

- 1) facilitated access to plant genetic resources for food and agriculture.

<sup>3</sup> Community Biodiversity Management is a methodology for promoting conservation and the sustainable utilization of biodiversity at local level, with an emphasis on agrobiodiversity or plant genetic resources. CBM distinguishes itself from other strategies that target in situ conservation, or on-farm management, by its focus on increasing the decision-making power of communities and securing access to and control over their biological and genetic resources for sustainable livelihood management. Source: Community Biodiversity Management: promoting resilience and the conservation of plant genetic resources. (eds) W.S. de Boef, A. Subedi, N. Perono, M. Thijssen, and E. O'Keefe, 2013. Earthscan from Routledge.

<sup>4</sup> Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, UNEP/CBD/COP/DEC/X/1 of 29 October 2010.

<sup>5</sup> According to paragraph (b) of Article 9.2 of the International Treaty, measures that Contracting Parties should take, as appropriate and subject to their national legislation, include those to ensure the right of farmers "to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture".





- 2) the exchange of information: this includes catalogues and inventories, information on technologies and results of technical, scientific and socio-economic research on PGRFA including data on characterization, evaluation and information on use.
- 3) access to and transfer of technology: Contracting Parties agree to provide or facilitate access to technologies for the conservation, characterization, evaluation and use of PGRFA. The International Treaty lists various means by which transfer of technology is to be carried out, including participation in crop-based or thematic networks and partnerships, commercial joint ventures, human resources development and through making research facilities available. Access to technology, including that protected by IPR, is to be provided and/or facilitated under fair and most-favorable terms, including on concessional and preferential terms where mutually agreed. Access to these technologies is provided while respecting applicable property rights and access laws.
- 4) capacity-building: the International Treaty gives priority to programmes for scientific education and training in the conservation and use of PGRFA, to the development of facilities for conserving and using PGRFA and to the carrying out of joint scientific research.

Article 13 specifies that benefits arising from the use of plant genetic resources for food and agriculture PGRFA that are shared under the Multilateral System should flow primarily, directly and indirectly, to farmers in all countries, especially in developing countries and countries with economies in transition, who conserve and sustainably utilize PGRFA.

The most frequently mentioned form of sharing includes the following:<sup>6</sup>

- Conservation activities, including local gene banks and community seed banks;
- Access to seed and propagating material, and related information, and the strengthening of farmers' or informal seed systems;



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<sup>6</sup> Electronic Survey on the Implementation of Farmers' Rights - Report, 2017; R. Andersen, 2016. Farmers' Rights: evolution of the international policy debate and national implementation. In: Farmers' Crop Varieties and Farmers' Rights. Challenges in taxonomy and law (ed) M. Halewood. Bioversity International, Earthscan from Routledge. Pp 136-151.



- Enhanced utilization of farmers' varieties, including value adding and market access;
- Participatory plant breeding/crop improvement and its variations in methods that facilitate collaboration between farmers and scientists;
- Community biodiversity management that aims to contribute to the empowerment of communities assuming responsibilities in the conservation and use of PGR, which are in turn transformed into actions that guide the communities towards asserting their Farmers' Rights.

The Benefit-sharing Fund of the International Treaty, which was launched in 2009, is also relevant for provisions on Farmers' Rights. The Fund provides funding to conserve and develop crop genetic resources, assisting farming communities in developing countries improve food security by helping them cope with climate change and other threats to food production.

Bilateral and multilateral development cooperation represents another source of benefit sharing, which supports many biodiversity conservation development programmes and projects at local level.

### 1.3 Farmers' Rights to participate equitably in decision-making

The participation of farmers in the development of laws, regulations, policies and programmes related to plant genetic resources is critically important. Farmers are the key actors and ideally, policies and programmes that target them should take into account their situation and perspectives as points of departure. In many countries, mechanisms for participation include extensive use of public hearings at various stages in the process of policy development. Farmers' participation is also relevant in the implementation of laws and regulations, or in what may be referred to as PGRFA governance. Consultative processes of various kinds are central, and the stronger the representation of farmers and farmers' organizations, the greater the legitimacy of results, and the more likely that they will lead to effective measures for the conservation and sustainable use of PGRFA, as well as the realization of Farmers' Rights. Of fundamental importance is the need to raise awareness and enhance understanding and capacity building among farmers, policy-makers and decision-makers alike on this



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issue, and to ensure their participation in the decision-making process.

Community seed/gene banks offer another mechanism for implementing farmer participation in decision-making. Community seed banks have multiple functions. They promote recognition of farmers' knowledge systems and seed resources, encourage participation in decision-making and benefit sharing, and could encourage the development of supportive policy and seed regulatory frameworks. Community seed bank practices

and participatory plant breeding activities build on existing, and mostly informal forms of access and benefit sharing, while adding new elements. Depending on the purpose agreed by members, a community seed bank may engage in participatory plant breeding and variety selection, which can strengthen access to and availability of improved seeds and increase diversity. In participatory plant breeding, farmers, researchers, local consumers and other actors join forces in a continuous, highly dynamic and complex process of selection and exchange of seeds,

### The importance of conserving and using plant genetic resources

The value of both traditional farmers' varieties and wild relatives of cultivated plants in crop improvement and agricultural development cannot be overemphasized. There are many examples of this, highlighted below by a few examples.

Traditional farmers' varieties have provided many individual traits that have been introduced into existing, improved breeding lines:

- One local variety of wheat that is found in Turkey, collected by J. R. Harlan in 1948, was ignored for many years because of its many negative agricultural characteristics. But in the 1980s it was discovered that the variety carries genes that are resistant to many disease-causing fungi. It has since been used as a source of resistance to a range of diseases.
- The primitive Japanese dwarf wheat variety, Norin 10, introduced into America in 1946, had a key role in the genetic improvement of wheat during the so-called 'Green Revolution'. It was used as a donor of the genes that are responsible for dwarfism, which allow increased nitrogen uptake and therefore increased production in intensive farming systems.

Wild relatives of current crop plants, although agronomically undesirable, might also have acquired many desirable characteristics as a result of their long exposure to natural selection, and can therefore make very useful contributions to crop improvement:

- An outstanding example is the genus *Lycopersicon*, in which many wild species can be crossed with the cultivated tomato *L. esculentum* and have been successfully used as donors of fungus-resistant genes (*L. hirsutum* and *L. peruvianum*), nematode-resistant genes (*L. peruvianum*), insect-resistant genes (*L. hirsutum*), genes for quality improvement (*L. chmielewskii*), and genes for adaptation to adverse environments (*L. cheesmaniae*).
- Wild forms of Beta collected in the 1920s were used in the 1980s in California as a source of resistance to rhizomania, a devastating sugar-beet root disease. Meanwhile, it was found that the collections also show *Erwinia* root-rot resistance, sugar-beet root maggot tolerance, and moderate leaf-spot resistance.

These examples show that genetic material that once seemed to be of no particular value has proved to be crucial in crop improvement. The concept of 'usefulness' is a relative one, which might vary according to the needs and the information available.

Source: Extracted from J. Esquinas-Alcázar. Protecting crop genetic diversity for food security: political, ethical and technical challenges. *Nature Reviews Genetics* 6, 946-953 (December 2005) at: <http://www.nature.com/nrg/journal/v6/n12/pdf/nrg1729.pdf> or <http://www.farmersrights.org/pdf/2006%20Art.JEA%20in%20Nature,%20English.pdf>







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and interactions between farmers and seed producers, research institutions and other relevant stakeholders. Benefits are generated throughout the process of collaboration and are shared dynamically and at all times among the diverse stakeholders.

### 1.4 Farmers' Rights to save, use, exchange and sell farm-saved seed

Article 9.3 states that nothing in the relevant article 'shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate'. The preamble notes that 'the rights... to save, use, exchange and sell farm-saved seed and other propagating material... are fundamental to the realization of Farmers' Rights.' This indicates the importance of the

issue, but does not give any clear guidance. Farmers are granted rights in this direction subject to state sovereignty. Countries are free to define the legal space they deem sufficient for farmers regarding their rights to save, use, exchange and sell farm-saved seed. However, countries' scope for defining such legal space for farmers is generally restricted by other international commitments. Most countries in the world are members of the World Trade Organization (WTO), and are thus obliged to implement the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). The TRIPS Agreement states that all WTO member countries must protect plant varieties, either by patents, or by an effective *sui generis* system (a system of its own kind), or a combination. The limits to a *sui generis* system and the meaning of an 'effective' *sui generis* system are not explicitly defined in the text. In other words, the countries have to introduce some sort of plant breeders' rights.





## 2. Some practical examples of realization of Farmers' Rights

Since the adoption of the International Treaty, progress on the implementation of Farmers' Rights at national level has been very limited<sup>7</sup> and many countries face a number of challenges.<sup>8</sup> Despite this situation, many development organizations and funding institutions now require recipient government institutions (or project implementers) to establish meaningful and effective local communities and farmer-centred measures for the implementation of projects, or insist that target beneficiaries should be first and foremost small-scale farmers and local communities.<sup>9</sup> Aside from a focus on farmer-centred projects, there is increasing interest in the issue of Farmers' Rights, with a growing body of literature and substantial work carried out at different levels by a wide range of experts, including agronomists, anthropologists,

biologists, scientists, lawyers, farmers, development practitioners and activists. These studies have examined Farmers' Rights from various angles, among them the conceptual foundation of Farmers' Rights, attributes of Farmers' Rights, and laws and policies related to them.

In addition, an increasing number of development projects and initiatives demonstrate Farmers' Rights on the ground, either directly or indirectly. Some practitioners believe that to advocate for the realization of Farmers' Rights, it is better to demonstrate how they can be implemented in practice, on the ground. Such an approach not only achieves the project's objectives, goes the argument, but also enables the results to feed into policy bodies, either at national or local level. The core

<sup>7</sup> Tsoumani, E. Benefit-sharing and Farmers Rights, 2014, Web publication/site, BeneLex Blog. [https://www.research.ed.ac.uk/portal/files/17674611/Benefit\\_sharing\\_and\\_Farmers\\_Rights.pdf](https://www.research.ed.ac.uk/portal/files/17674611/Benefit_sharing_and_Farmers_Rights.pdf)

<sup>8</sup> Stakeholders' Consultation on Farmers' Rights: African Position Paper, 27-29 June 2016, Harare, Zimbabwe (<http://www.fao.org/3/a-bq550e.pdf>); Electronic Survey on the Implementation of Farmers' Rights - Report 2017.

<sup>9</sup> For example, Multilateral and bilateral funding institutions, such as:

- (i) Global Environment Facility (GEF) Trust Fund was established on the eve of the 1992 Rio Earth Summit, to help tackle our planet's most pressing environmental problems. GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements. Website: <https://www.thegef.org/>
- (ii) The International Fund for Agricultural Development (IFAD) is dedicated to eradicating rural poverty in developing countries. IFAD's Strategic Framework 2016-2025 is aimed at catalysing country and global progress towards the following overarching goal: rural people overcome poverty and achieve food security through remunerative, sustainable and resilient livelihoods. IFAD supported programmes is consistently aim to target and benefit the largest number of poor rural people possible, empower them socially and economically, and promote gender equality. Website: <https://www.ifad.org/en/>
- (iii) FAO's mandate is to raise the levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. <http://www.fao.org/about/en/>
- (iv) Development Fund of Norway, supports small scale farmers in their fight against hunger and poverty. The Development Fund contributes to attaining this goal by working to give poor people in the countryside sufficient and healthy food and an improved economy, by assuring that they are well prepared for climate change and crises, and that they acquire increased power and influence over their own lives. Website: <https://www.utviklingsfondet.no/en>
- (v) Swiss Development Cooperation, provides support to small farmers of both genders for the efficient use of natural resources conserving them for future generations. Its purpose is to alleviate need and poverty around the world, to foster respect for human rights, to promote democracy and to conserve the environment. Website: <https://www.eda.admin.ch/deza/en/home/themes-sdc/agriculture-food-security.html>



idea in implementation of these development projects is that it serves as an entry point to raise awareness and understanding of Farmers' Rights, as well as enacting the initiative itself.

In the following sections of this lesson, several examples are showcased of how to implement and realize Farmers' Rights. These have been extracted from various publications, as well as from submissions by Contracting Parties and stakeholders.

## 2.1 Protection of traditional Knowledge

### *Seed Mothers*

The Adivasi communities of Odisha, India, have experienced substantial losses of many natural resources from their area. These are key elements in ensuring people's food

and livelihood security. Many farmers from the Adivasi communities have lost diverse varieties of traditional local crops, such as millet-based mixed crops, while trying out market seeds. As a result, these small-scale, marginal farmers have become food insecure. As their investments in farming have increased, so has the debt burden on farmers.

As a change agent, ORRISSA NGO promoted agriculture in these villages, encouraging improved practices based on modern farming approaches, with support received from MISEREOR Germany. However, conventional support, such as market seeds, chemical fertilizer and pesticides, small irrigation pumps, post-harvest machines and farm tools, did not yield any sustainable results. It was found that the farmers could not sustain the efforts and build value using these inputs. The challenge lay in understanding why farmers were not adopting modern practices.



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Community consultations revealed that traditional farming still holds ground. The village level farmers' groups recognized the inherent knowledge of Adivasi women with respect to traditional farming wisdom. The male-dominated Adivasi People's Organizations identified resourceful Adivasi women in the villages and gave them the name of Seed Mothers. These Seed Mothers proved to be the key to helping the ORRISA team challenge the assumptions of modern farming methods and stimulate new learning from the community.

The initial challenge was to restore dignity to local seeds, and practices associated with them. Another important hurdle to overcome involved adding objective value to traditional practices in the minds of young farmers. Seed Mothers mobilized the community at village level. They also gathered knowledge from fellow farmers.

Source: Extracted from Family Farming Knowledge Platform. Website: <http://www.fao.org/family-farming/detail/en/c/425702/>

### *India's Traditional Knowledge Digital Library*

Traditional knowledge is integral to the identity of most local communities. It is a key constituent of a community's social and physical environment, so safeguarding it is of paramount importance. The preservation, protection and promotion of traditional knowledge-based innovations and practices of local communities is particularly important for developing countries. Their rich endowment of TK and biodiversity plays a critical role in their health care, food security, culture, religion, identity, environment, trade and development. The Traditional Knowledge Digital Library (TKDL) is a pioneer initiative launched in India to prevent misappropriation of the country's traditional medicinal knowledge by international patent offices. The health care needs of more than 70 percent of the population, and the livelihoods of millions of Indian people depend on traditional medicinal knowledge. TKDL's genesis dates back to Indian efforts to revoke a patent on the wound

healing properties of turmeric at the United States Patent & Trademark Office (USPTO).

The Traditional Knowledge Digital Library is translated into five languages: English, French, German, Japanese and Spanish, using information technology tools and an innovative classification system – Traditional Knowledge Resource Classification (TKRC).

India has successfully concluded TKDL Access Agreements with the Canadian Intellectual Property Office (CIPO), European Patent Office (EPO), German Patent Office (GPO), IP Australia, the Japan Patent Office (JPO), the United Kingdom Patent & Trademark Office (UKPTO) and USPTO, amongst others. TKDL Access Agreements have inbuilt safeguards on non-disclosure, so as to protect India's interests against any possible misuse. Under the agreement, the patent examiners at international patent offices can utilize TKDL for patent search and examination purposes only, and cannot reveal the content to any third party, unless this is required for citation.

TKDL is proving to be an effective deterrent against biopiracy and is being recognized as a global leader in the area of traditional knowledge protection. The system has attracted wide international interest, particularly in countries that are rich in traditional knowledge, by demonstrating the advantages of taking a proactive approach and the power of strong deterrence. The idea is not to restrict the use of traditional knowledge, but to ensure that patents are not wrongfully granted due to lack of access to prior art for patent examiners. Currently, many countries have started establishing their own TKDL.

Source: Extracted from India TKDL. Website: <http://www.tkdl.res.in>

### **European Union's Community Plant Variety Rights (CVPR)**

The European Union (EU) has been a member of UPOV since 29 July 2005. The EU legislation on Community Plant Variety Rights (CPVR) has been aligned with the UPOV 1991 AC since 1994. As regards the International







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Treaty, the EU has been a Contracting Party since 31 March 2004. The International Treaty has not been transposed as such into EU legislation, and there is no overarching EU strategy on plant genetic resources. However, the conservation of genetic resources as related to farmers is integrated into various EU legislative frameworks and strategies. These include:

*Community Plant Variety Office (CPVO).* EU's intellectual protection regime for plant varieties, in force since 1995, can be considered as a success. CPVO manages the world's biggest regime of variety protection. Over the past 20 years, CPVO has granted over 30 000 Community plant variety rights to varieties of more than 1 700 plant species. Today, around 2 500 applications/year are received of which 93% are made on-line and around 25 000 rights are currently in force. More information can be found on the following website: <http://www.cpvo.europa.eu>.

*Agricultural exemption (farm-saved seed).* An important provision of the CPVR legislation relating to Farmers' Rights concerns agricultural exemption. In order to safeguard agricultural production, and the legitimate interests of both farmers and breeders, farmers

are authorized to use for propagation purposes in the field, on their own holding, the product of the harvest of a variety which is covered by a CPVR. The exemption concerns a list of species of several agricultural crops: fodder plants, cereals, potatoes and oil and fibre plants, which are commonly used as farm-saved seed in the EU. Six conditions are laid down, including equitable remuneration for the holder of the CPVR and derogation to small-scale farmers for payment. In principle, 50 percent of the amounts charged for the licensed production are used for remuneration. Other conditions concern monitoring compliance as a matter of exclusive competence of holders, and an obligation to provide information on request of the holder by farmers and suppliers of processing services, or by official bodies involved in the monitoring of agricultural production. Detailed procedures are laid down in the implementing rules (Commission Regulation (EC) No 1768/95). The CPVR legislation should not be confused with the EU legislation on the marketing of plant reproductive material (12 basic Directives), which regulates the general market access of varieties and plant reproductive material. Technical requirements on variety registration and certification are laid down, so as to ensure their identity, health and quality. The EU plant





variety database includes around 40 000 plant varieties of agricultural and vegetable species for EU farmers and growers to use. Specific legislation on conservation varieties has been introduced, with less stringent rules, to support in situ conservation and use of plant genetic resources in the spirit of the International Treaty. The derogatory rules concern varieties traditionally grown in certain regions, threatened by genetic erosion and varieties with no intrinsic value for commercial production, but developed under particular conditions. Currently, around 1 160 such varieties are listed in the EU Common Catalogues.

**Common Agricultural Policy.** In the framework of EU legislation on the Common Agricultural Policy, a number of measures contribute to the objectives of the International Treaty. For example, community programmes on the conservation, characterization, collection and utilization of genetic resources in agriculture are provided for in Council Regulation (EC) No 870/2004. This facilitates the conservation and development of plant genetic resources (<http://ec.europa.eu/agriculture/genetic-resources>). In addition, the protection of traditional knowledge is implemented through rules on the protection of geographical indications

and designations of origin for agricultural products and foodstuffs through Commission Regulation (EC) No 1898/2006. This specifies the detailed rules of implementation of Council Regulation (EC) No 510/2006 and the rules on quality schemes for agricultural products and foodstuffs (Regulation (EU) No 1151/2012).

*Source:* Extracted from the presentation and article of Päivi Mannerkorpi, European Commission, DG Health and Food Safety, submitted to the Symposium on possible interrelations between the International Treaty and the International Convention for the Protection of New Varieties of Plants (UPOV convention), held 26 October 2016, WIPO, Geneva, Switzerland. Available at <http://www.fao.org/3/a-bq631e.pdf>.

## 2.2. Farmers' Rights to participate equitably in the sharing of benefits

### *The Potato Park in Peru: a community biocultural protocol for access and benefit sharing*

The Potato Park was developed by Quechua communities in the Peruvian Andes as an initiative to improve local livelihoods and promote biodiversity conservation, while



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maintaining the integrity of Quechua traditional knowledge systems and collective biocultural heritage. To achieve internal consensus on how to manage external partnerships and share any benefits derived from collectively owned biological diversity and cultural resources in the park, the communities jointly developed a community biocultural protocol for access and benefit sharing. This protocol is an 'internal governance tool to regulate equitable benefit-sharing among communities and reduce conflicts associated with [access and benefit-sharing] agreements.' It aims to protect traditional knowledge and genetic resources by ensuring access by researchers or commercial users observes customary values and laws. It allows communities to establish their own rules for access, equitable benefit sharing and the 'free prior and informed consent' required for research. In so doing, the initiative ensures that traditional authorities rather than individuals make decisions on access, thereby lessening the risks of unfair exploitation.

The protocol agreement is based on customary norms and three main principles of the Andean worldview: reciprocity, equilibrium and duality.

All monetary and non-monetary benefits are distributed by a specially appointed governing body, according to collectively agreed criteria.

Any surplus benefits are directed towards maintaining a social safety net according to ayllu a traditional understanding of quality of life based on harmony between the human, natural and spiritual world. The protocol represents a model for benefit sharing that supports indigenous communities' control of their own resources, path to development and biocultural heritage when engaging with external actors.

The protocol is shared among six Quechua communities of the Potato Park, who cultivate about 1 500 varieties of potatoes (for example with frost or drought resistance). This is also the area that is home to the world's highest number of wild potatoes.

*Source:* Extracted from the Biocultural Heritage. Website: <http://www.biocultural.iied.org/about-biocultural-heritage>

***Costa Rica's local potato species solve global problems: identification of useful potato germplasm adapted to biotic and abiotic stress caused by global climate change***

Although the Andes are known as the home of a large part of the genetic variation of potatoes, Costa Rica also has unique species and varieties, including wild relatives, that have not yet been characterized or exploited for breeding, but are known to be adapted to





adverse cold, heat and drought conditions. This gives them the opportunity to play an important role in efforts to achieve food security, and address looming challenges associated with changing climates.

The International Treaty Benefit-sharing Fund Project recognized that over the past three decades, Costa Rica and other Latin American countries have been subject to climate related impacts and increased El Niño activities. This not only affects today's food harvests, it affects harvests of the future. The weather conditions have brought high rainfall and humidity and led to increased fungal diseases in potato. This has combined to heighten the vulnerability of Costa Rican farmers to natural disasters. Projected climate change scenarios show global potato yields declining by 18 to 32 percent, compared with 9 to 18 percent in the case of adapted varieties.

The Agronomic Research Center (CIA) of the University of Costa Rica is taking advantage of the high variability of Costa Rica's potato wild relatives – which are the most important source of genetic diversity – by crossbreeding them with cultured varieties, creating new varieties with the potential to adapt to extreme conditions. However, the survival of wild relatives is itself under threat from climate change, making the project's efforts to identify and conserve them even more critical.

Germplasm collected by the project already includes 45 accessions of wild relatives and 13 of cultivated varieties. It also includes 29 accessions of native potato and 23 commercial varieties for comparison and testing, which involves evaluations and results of tolerance to drought, cold and heat. The initial work was conducted through high-tech research facilities in Spain. The knowledge gained has been disseminated to farmers in Costa Rica, with the potential to support more than 10 000 Costa Rican beneficiaries, including farmers, industrialists and consumers.

*Source:* Extracted from the Report on the First Round of the Project Cycle of the Benefit-sharing Fund. Link: <http://www.fao.org/3/a-be552e.pdf>

## Technology Transfer

Technology transfer is a key element of the Benefit-sharing Fund's priorities, and it is considered by the International Treaty as a primary form of non-monetary benefit-sharing. Several of the projects of the Benefit-sharing Fund's first portfolio had a pronounced technology transfer component.

Part of the project activities implemented in Peru towards which the Benefit-sharing Fund contributed, for example, comprised the transfer of in vitro germplasm management techniques from the International Potato Centre (CIP) to the local "potato guardians" (Papa Arariwas) of the Potato Park. This transfer of technology significantly strengthened the Papa Arariwas' capacities to produce high quality and virus-free planting material for the six indigenous communities of the Potato Park.

The Benefit-sharing Fund further contributed to research activities of the partner organizations in Costa Rica and Uruguay that aim at transferring technologies in the form of new potato varieties to local farmers. The Costa Rica project, for example, reported to have developed various breeding lines with high resistance potential to potato blight that are extremely suited for food processing, and thus of high value to the potato industry. Similarly, the Uruguay project detected a resistance gene to bacterial wilt in a wild potato species with high potential to be bred into commercial potato varieties for the use of farmers in the near future.

In Kenya, two improved finger millet varieties with particularly high yields under local conditions and that exhibit resistances to blast disease were multiplied and distributed to over 1 000 smallholder farmers.

The transfer of technologies is extremely important as it bears a high multiplier potential with lasting impact in addressing the global challenges of safeguarding biodiversity, strengthening food security and adapting to climate change. In order to further enhance the generation and dissemination of sustainable and appropriate technologies, one of the two



funding windows of the third call for proposals of the Benefit-sharing Fund will notably have an increased focus on 'co-development and transfer of technology'.

*Source:* Extracted from the Report on the First Round of the Project Cycle of the Benefit-sharing Fund. Link: <http://www.fao.org/3/a-be552e.pdf>

### ***The evolutionary participatory plant breeding in Iran and Jordan – helping women farmers***

In Iran and Jordan, the Benefit-sharing Fund helped to empower women farmers in developing locally adapted varieties of *wheat, barley, rice and maize* have started. Through a combination participatory plant breeding (PPB) and evolutionary participatory plant breeding (EPB) methods, women farmers, researchers and local practitioners worked together. PPB is a dynamic and permanent collaboration that exploits the comparative advantages of plant breeding institutions that have the institutional responsibility for plant breeding, and of farmers. EPB represents another dynamic and inexpensive strategy to quickly enhance adaptation of crops to climate change. The method consists of deploying populations with large genetic variability in the hands of farmers and letting them gradually evolve and adapt to both climate and management changes. In this particular multi country programme, proactive participation of women farmers, and use of their local knowledge on crop management are strongly encouraged. It also facilitate their access to other PGRFA on a more equitable basis. Through PPB and EPB, farmers and researchers work together. Activities include the choice of germplasm, participatory trials in 22 villages, evaluation and selection of varieties that are stable in relation to environmental changes, and with the farmers' cultural preferences. Subsequent base broadening activities will allow farmers to produce specifically adapted and improved varieties. The project is also contributing to building capacities and skills of national breeding institutes and local practitioners in participatory and gender sensitive breeding methodologies, and to provide them with a pool of genetic material for further improvement.

Jordan's National Center for Agricultural Research and Extension (NCARE), and the Centre for Sustainable Development (CENESTA) are not only promoting and encouraging participation of farmers but also working together to bring back traditional varieties that are lost, and for breeding new crops suitable to climate change with farmers' preferred cultural characteristics.

*Source:* Extracted from the Second Round of the Benefit-sharing Fund Project Use of genetic resources to establish a multi-country program of evolutionary participatory plant breeding. Link: [www.fao.org/3/a-bb160e.pdf](http://www.fao.org/3/a-bb160e.pdf)

### ***Strengthening community-based on-farm conservation and sustainable use of crop diversity in the semi-arid Zambezi-Gwembe Valley of Zambia***

Improving the livelihoods of the Zambezi-Gwembe valley resource poor farmers and farming communities is the aim of this BSF project. This is being accomplished through the sustainable management and conservation of sorghum, pearl millet, cowpeas, beans, sweet potato and cassava, which are crucial for the dietary needs and livelihoods of local communities. An important component involves the development of new improved and locally adapted crop varieties.

A strategic programme has been developed on priority landraces for on- farm participatory plant breeding, based on farmers' knowledge and needs vis- à-vis PGRFA. Farmers and breeders are evaluating gene bank accessions and local varieties in on-farm plots, selecting the ones that show preferable traits and developing new landraces of crop varieties.

A series of farmers' field days and seed diversity fairs have been organized to facilitate the exchange of information, good practices and seeds for sustainable agricultural practices. More than 1 000 farmers and trainers have formed farmers' seed clubs and committees for conserving and using crop diversity, sharing and disseminating knowledge and participating in training and capacity-building sessions. Training of trainees on germplasm





characterization tools for the target crops has been conducted with more than 600 farmers, including hands-on practical training on recording phenotypic traits of sorghum, bean, cassava and sweet potato. These initiatives will be replicated at other project sites to promote on- farm PGRFA conservation and sustainable use.

*Source:* Extracted from Enabling Farmers to Face Climate Change: Second Cycle of the Benefit Sharing Fund Projects, 2014. Available at International Treaty. Link: <http://www.fao.org/plant-treaty/areas-of-work/benefit-sharing-fund/projects-funded/en/>

### ***On-farm conservation and mining of local faba bean landraces for biotic and abiotic stresses in Morocco***

The faba bean is among the most ancient crops in Morocco. It is strongly embedded in traditional cropping systems and the country is one of the most important centres of diversity for faba beans in the Mediterranean Basin. However, with the onset of climate change, frequent droughts, pests and diseases have severely affected the productivity and availability of this crop. The need for ex situ and on-farm conservation is becoming increasingly imperative in order to combat food security and the effects of climate change.

Local landraces offer an important gene pool for sources of adaptation and tolerance to many biotic and abiotic stresses. In this context, a BSF project has enhanced on-farm conservation and use of faba bean landraces for food security through an integrated to on-farm and ex situ conservation and breeding activities, aimed at achieving better adaptation and management of faba bean.

Project activities have supported the progressive development and implementation of crop adaptation measures for agricultural systems in Morocco, and are helping to establish mechanisms to address the interlinked challenges of food security and climate change.

The involvement of farmers is crucial. Lead farmers representing four major faba bean growing areas were selected in cooperation with the Centre des Travaux, which has been working with farming communities in their respective regions for several years. The selection of lead farmers was made in order to identify the various agro-ecological challenges faced by producers in different areas. Under the guidance of the International Center for Agriculture Research in the Dry Areas (ICARDA), 359 faba bean landraces are conserved in the National Gene Bank of Morocco, and 68 accessions collected during



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project activities, have been cultivated in four different agro- ecological zones.

Men and women farmers and scientists worked together to evaluate varieties and productivity of faba beans resistant to drought and heat stresses. The systematic inclusion of farmers' skills, knowledge and preferences is a key element. The farmers involved in this project will share the knowledge and experience they gain, thereby increasing the potential impact of the project results. Women farmers' associations and organizations are involved in project activities and information dissemination.

The faba bean project is linked to a similar BSF project in Tunisia on on-farm conservation of durum wheat and barley. Therefore, cross-visitation between the two neighbouring countries were organized. The cross-visits provided both country teams (national policy-makers, scientists, extension workers and farmers) a fruitful exchange of knowledge, sharing of information and experiences in fava bean management.

Source: Extracted from Enabling Farmers to Face Climate Change: Second Cycle of the Benefit Sharing Fund Projects, 2014. Available at International Treaty Website. Link: <http://www.fao.org/plant-treaty/areas-of-work/benefit-sharing-fund/projects-funded/en/>

### ***The Douentza project: The Seeds of Survival (SoS) in Mali***

The SoS programme was created by USC Canada in 1989 in Ethiopia. The SoS programme is aimed at promoting long-term food security for marginal farming communities in developing countries. It works to combine the knowledge of scientists regarding how to improve local crops, with the traditional knowledge of farmers. A main objective is to support communities involved in the maintenance of crop diversity by improving their capacities through participatory research and experimentation. Central to the SoS programme is the belief that in order to achieve sustainable poverty reduction, the management of diversity should be decentralised and focused on the revenue

generation for farmers. In this programme, farmers are seen as experts, and knowledge-sharing is therefore a key component.

### ***From Ethiopia to Mali***

The SoS programme in Mali was inspired by the experience of the project in Ethiopia. The starting point in Mali was a result of the training of three USC staff members from Mali during the annual "Seeds of Survival" training sessions in Ethiopia in 1993 and 1995. The SoS approach from Ethiopia was then adapted to the local context in Mali – the Douentza project in Mopti region. It is situated in the central part of the country and the region's northernmost district. The district economy is based mainly on agriculture and animal husbandry. Millet production constitutes 85 per cent of the agricultural land used, with several different varieties grown. The local farmers also cultivate other crops, such as sorghum, rice, beans, peanuts and sesame. The SoS project has partners in 18 villages and the crops are divided in three categories: cereals (Pearl millet, sorghum, maize, rice, fonio, and wheat); leguminous crops (cowpeas, pigeon peas, ground nut, beans, and Bambara nuts) and vegetables and garden crops (okra, hibiscus, watermelon, eggplant, garlic, onion, pepper, etc). Many stakeholders are involved in the SoS project; work is divided among the groups, such as for seed production, protection and promotion. The groups also work on facilitating seed exchange among communities. USC Canada as donor and responsible for financial and technical support, local government administration, technical services at local level, individual farmers and farmers' organizations, schools, local associations and NGOs are all part of the SoS stakeholders.

Some of the key activities implemented by SoS project:

- Development of seed-supply systems focusing on conservation and sustainable use: this was done through community-based infrastructure, such as gene banks, to promote diversity by supplying a broad range of varieties to farmers. The gene banks have also



contributed to preservation of related traditional knowledge systems. It also motivated many families maintain part of their family seed collection. Likewise, it spurred greater interest in the conservation of local genetic resources through in-situ maintenance. Seed banks have also been established and these have provided farmers with increased seed security in a zone where poor rainfall areas which means sowing must be done four to six times. In this situation, the seed banks are very critical in addressing the lack of rainfall and/or desert locust outbreak and farmers have difficulty in obtaining seeds. In Douentza, the seed banks has contributed to greater solidarity among farmers, communities and villages.

- Fields of Diversity: an activity that promotes awareness and raise local agricultural biodiversity by involving school children and the general population together with scientists in the re-generation or planting of varieties and species that have almost disappeared from the area and monitored closely for assessment. Varieties are then chosen to match the needs of the farmers. Through dialogue and exchange, this approach creates synergy between scientists and farmers, develops confidence in collaboration in maintaining and conserving genetic resources. As a forum for knowledge exchange sharing, it has helped farmers to

understand scientific concepts and scientists to understand and recognise farmers' knowledge. It has also given farmers the opportunity to map their knowledge and to reinforce the capacity of farmers' organizations.

- Seed Caravan: focuses on raising awareness to underpin the need to safeguard farm-based varieties and thereby promoting agricultural biodiversity conservation.

- Stock exchange: another activity that focuses on the exchange of seeds and knowledge that is conducted before the rainy season starts. It enables seed-producers of farm-based seed and local seed buyers to meet. It allows farmers looking for specific varieties to access the seeds they need. The activity can be seen as an additional means of propagating plant diversity, as well as serving an opportunity to give credit to seed producers for their work.

- Environmental follow up: another central goal of the SoS is the environmental education with focus on sustainable management of biodiversity that is being promoted in the primary schools, including the creation of school arboretums. These can be very relevant and useful teaching tool because they give the pupils practical training in relation to environmental issues. In addition to scientific knowledge, village elders are also invited to share their knowledge and experience with



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the children, which creates intergenerational dialogue in line with Malian way of safeguarding knowledge orally and contributes to the maintenance of local practices and traditional knowledge.

Through these activities, SoS has brought substantive results since it was initiated in 1994. It focuses on the conservation of local, traditional varieties, the sustainable use of these varieties and the exchange, protection and promotion of associated knowledge. As a result, the farmers involved have increased their production considerably and are now more aware of the advantages and importance of maintaining local crop diversity and the related traditional knowledge. The SoS project experience from Mali has demonstrated that it is possible to build bridge between farmers and scientists and to bring their occasionally differing perspectives closer together through collaboration and knowledge exchange. When as equal partners with expert knowledge of their own, their needs and experience can more easily be taken as the point of departure for activities and that in turn increases the chances of success and sustainability. The SoS activities in Mali illustrates how capacity building can lead to empowerment and successful activities like community gene/seed banks, fairs, environmental education, etc. The farmers have become more confident and valued their own knowledge and traditional practices and their scientific significance. The SoS approach has the potential to contribute greatly towards the realization of Farmers' Rights because it promotes benefit sharing in the form of improved access to seed, increased food security, information dissemination and sharing, and farmer empowerment. In addition, its focus on the role of farmers as custodians of agricultural biodiversity and on activities to promote the maintenance of crop genetic diversity and associated traditional knowledge, contributes to the implementation of Farmers' Rights.

*Source:* Extracted from M. Goïta, M. Goïta, M. Coulibaly and T. Winge. 2013. Capacity building and farmer empowerment in Mali. In: Realising Farmers' Rights to crop genetic resources: Success stories

and best practices, 2013. R. Andersen and T. Winge (Eds). pp. 156-166

### ***Benefiting from diversity – Improved Livelihoods: Maina Thapa's story, a woman farmer from Nepal***

Ms Maina Thapa lives with her family on a farm in Chaur village. She is a member of the Pratigya Cooperative, a local farmers' cooperative established in 1991 through a CARE Nepal project to organize farmers and engage them in income-generating activities, including marketing of farm products. When CARE Nepal support was phased out, the NGO Local Initiatives for Biodiversity, Research and Development (LI-BIRD) had taken over to support the cooperative and pilot some development activities. Maina Thapa was one of the beneficiaries and her story illustrates how the livelihoods of the members have improved as a result of their cooperation and activities. Because of her participation in the cooperative and her cultivation of anadi rice. Ms Thapa's income has improved considerably and she can now be considered a relatively affluent farmer.

Anadi is a sticky and glutinous rice variety, valued for its nutritional and medicinal properties as well as its role in traditional celebrations. The registry made the Cooperative realise that fewer and fewer farmers were growing this variety and the area under cultivation was gradually shrinking. Members feared that it might disappear from the area and decided to take immediate measures to ensure its continued cultivation by focusing on adding value and marketing.

In collaboration with LI-BIRD, the Pratigya Cooperative developed and carried out promotional activities for anadi and other products. They disseminated information on medicinal value, organised workshops and seminars, visited fairs and festivals, advertised on the radio, distributed pamphlets and ensured that their products were readily available. In fact, a majority of the urban population already familiar with the products were unable to find them locally. Establishing links to the urban





market was therefore a key ingredient in the Cooperative's success.

As a result of these efforts, the demand for anadi rice started to grow and its price could increase. Now, many farmers in the area cultivate anadi. The Cooperative's success in this respect shows how local farmer-driven initiatives that focus on market incentives can promote on-farm in-situ conservation of crop genetic resources.

Ms Thapa now produces an average of about 2 tonnes of anadi rice (equivalent to 1.17 tonnes of milled rice) a year because she has been able to access more land. She leases land from the local school, and due to the soil quality of these fields she can grow a large amount of anadi rice. Part of the explanation for her growing income is that the price of anadi rice, although it varies, is quite high – in 2011 it was 125 rupees per kilo, whereas for the best-quality local varieties in the Pokhara area, such as jethbudo, the price was around 80 rupees per kilo and for other rice types around 50 rupees per kilo. This means that even though anadi rice can only be grown under certain soil conditions such as heavy clay soil with high water holding capacity and fertility, and despite the relatively low yields compared to many other varieties, Ms Thapa gets a higher income from growing this variety than she would for most other varieties. In 2011, the 130,000 rupees she earned from the sale of 1.04 tonnes of milled rice made up of the biggest part of her income, and altogether almost two thirds of her income came from activities initiated by the Cooperative. This has increased the total income of her family and with increased income means that she can invest the profits she sees fit.

Her increasing success with anadi rice ever since she started growing this variety in 2003 as part of the Cooperative's initiative and the good income it now gives her, has enabled Ms Thapa to pay for electricity and her children's school fees. She considers herself to be much better off now she was before the establishment of the Cooperative and her own investments in anadi cultivation. Previously, she relied mainly

on subsistence farming and did not earn very much. After she started growing anadi and became involved in the Cooperative's value addition and to take up a loan to buy a tractor, which she has since managed to pay back. Trusting in her experience and confidence, the Cooperative has given Ms Thapa responsibility for coordinating the collection and processing of anadi rice. Ms Thapa appreciates the recognition she receives for her work and enjoys her status as a rather well-known anadi farmer in her area.

*Source:* Extracted from T. Winge, R. Andersen, P. Shrestha, 2013. Benefiting from diversity in Nepal In: Realising Farmers' Rights to crop genetic resources: Success stories and best practices, 2013. R. Andersen and T. Winge (Eds). pp. 117-133.

### ***Community Seed Fairs in Zimbabwe***

Community Technology Development Trust (CTDT), a Zimbabwe-based NGO promoted the idea of Seed Fairs and helped the community to organize Seed Fairs. CTDT believes that Community Seed Fairs can help in diversifying the range of crop varieties available to farmers and can play an important role in the identification of economically viable crops. It can also help in identifying varieties with specific dietary values. Such varieties might still be in use by farmers despite the lack of support from the formal sector, and the seed fairs can help to make them better known.

In addition, seed fairs can bring out important knowledge and information necessary for the sustainable management of different varieties. Keeping this traditional knowledge alive requires the conservation of crop diversity at the farm level. Seed fairs facilitate the right of farmers to exchange and sell farm-saved seed and provide incentive structure for the conservation and sustainable use of plant genetic resources for food and agriculture.

How the Community Seed Fair Begun? A seed fair will traditionally offer a venue for local communities to display the crops they grow. The seed fairs initiated by the CTDT in Zimbabwe allow farmers to display their seeds



and products, and all stakeholders may buy, sell and exchange seeds. The seed fair provides participants and visitors with opportunities for interacting with other farmers as well as with a broader group of stakeholders.

At the seed fair held in January 2009 in UMP district, Dorothy Chiota described how such fairs are organized and gave her views on the benefits they have brought to her community. Ms Chiota is a member of the UMP seed fair committee; a group of selected farmers that also manages the community seed bank. She narrated how CTDT have started the Seed Fair, when they first visited her area in 1998 and the local farmers were asked to participate in community seed fairs, they were told that these fairs would give them the opportunity to show their seeds to the public and enable them to see and obtain new seeds from other farmers and regions. In the beginning the farmers were reluctant, but after the first seed fair had been held in 1999, farming communities in the region were eager to continue with such events, and after few years, these seed fairs became an annual after-harvest events. Seed Fair's participation increased with more government representatives and other NGOs in addition to the CTDT becoming involved. National and

international seed companies display new varieties and sometimes including tools and technologies that have been developed for production and conservation, and the farmers display their seeds. Even though it is called a seed fair, but farmers from the surrounding villages also take advantage of the occasion to bring cattle and other farm animals.

Farmers – the key actors. According to Ms Chiota, in her village, the farmers' groups are key actors to various agricultural activities. These groups were taken as the point of departure when the seed fairs started and now form the basis for village participation. Each participating village has at least one farmers' group and some larger villages have more. Each group member contributes with his or with her crop varieties, so together the group is able to present considerable diversity at the fair. Ms Chiota said that in her village almost everybody attends the fairs:

“We are all farmers, and our children accompany us. The children often help their parents, for example by bringing the seed, mats and other equipment to the site. They participate in the activities like everyone else, both answering questions and asking questions of their own. When we wish to sell or exchange seeds, the



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children are always very instrumental – why not? They are the future of our communities and heritage.”

There are usually more women participating in the seed fairs than men, and Ms Chiota explained that women are keepers and custodians of seed. The women also tend to arrive earlier at the venue to prepare the seed stands, while the men arrive later. Village-level promotion groups have been established for organizing the seed fairs. These groups consist of traditional leaders, elders and CTDT staff. The promotion group first invites the farmers to general meetings, usually asking representatives from all the surrounding villages. Prior to the fair in 2009, for example, the leaders highlighted the objectives and explained the advantages of the initiative. Most of the organizational details are outlined at these meetings – such as the village where the seed fair will be held and how the day is to be organized e.g. which farmers' group should occupy which seed stand and what sections of the display grounds; roles and responsibilities of every one including cultural presentations – songs and dances, and other more details. As such, the Seed Fair is really a festive occasion for everybody, with singing and dancing, attracting many people from surrounding villages. The songs portray the unique characteristics of crops, its important qualities and utilization in terms of social,

agronomic and environmental value. Such songs function as tools to transmit knowledge from one generation to the next and are composed to praise the collective heritage of crop diversity because this diversity offers livelihood opportunities to the population. Ms Chiota notes that the young people are becoming more interested in singing and dancing and the songs have special messages for them.

Ms Chiota explained that quite often the organizers from the CTDT take the back seat in organizing the event. This was important to the farmers, she said, because it increases the understanding that the fair is actually for them: “We own the seeds that we display, we know what we want to cultivate, we know how to cultivate these seeds year after year, and we own the farms. We make the organizers know this, and we are proud of this sort of ownership.”

There is no better way to help farmers than to empower them. Farmers' organizational ability and capacity was tested in January 2009, when several rounds of droughts had crippled Zimbabwe's already struggling food production and the country was desperately trying to cope with the worst cholera crisis in Africa for 15 years – but the farmers of Uzumba Maramba Pfungwe (UMP) district still managed to organize their annual seed





fair, thanks to their enhanced organizational skills.

The annual seed fairs organized by farmers in Zimbabwe in collaboration with CTDT have contributed to increased crop diversity by facilitating exchange and sale of locally grown seeds and by providing incentives for the continued maintenance of local varieties. Initiatives like seed fairs help to build local seed distribution systems in a way that ad hoc aid interventions fail to do. Through this seed fairs, farmers have learned about varieties and traditional knowledge systems previously unknown to them and commercial seed producers have been able to learn about farmers' needs, preferences in taste and concerns. The fairs have also created market linkages that might promote processing and value addition; gave farmers opportunities for interaction between and among themselves as well as with other stakeholders. Not only has improved the access to local varieties been crucial to the maintenance of this diversity, it has also contributed to increased food security for smallholder farmers as these crops are more adapted to local conditions and do not require expensive inputs.

*Source:* Extracted from R. Chakanda, A. Mushita and T. Winge, 2013. Community Seed Fairs in Zimbabwe. In: Realising Farmers' Rights to crop genetic resources: Success stories and best practices, 2013. R. Andersen and T. Winge (Eds). pp. 134-145.

### ***Vitalizing Local Farming by Means of Treasure Vegetables***

In 2009, Hiroshima Prefecture tasked the Agricultural Gene Bank to launch a Project for Vitalizing Local Farming by Means of Treasure Vegetables. The project is a flagship program of the policy that aims to promote utilization of local vegetable as part of its rural development. The project was aimed to select useful vegetable varieties indigenous to Hiroshima Prefecture, with special characteristics such as taste, rare or associated with unique preparation methods and therefore worthy of being classified as "treasure vegetables" and to re-introduce and utilize these valuable plant genetic resources by providing seed to farmers and disseminating

information to various vegetable sellers. The project also examined the basic characters of 1 500 accessions stored in the gene bank, with a view to selecting 150 varieties as prospective 'treasure vegetable' based on their properties. The project would then encourage farmers and other vegetable producers to cultivate these and make them known to distributors and consumers.

When the project was initiated, the number of farmers in the area was decreasing in line with the general ageing population, processing and distribution of produce were believed to be in danger of going bankrupt in the Hiroshima region. It was hoped that through the work of the gene bank, the cultivation of 'treasure vegetables' would catch the interest of younger generations and help to vitalize the region. The project consists of three parts. The project started in 2009 until the end of 2012. The second part of the project is the selection and multiplication of 'treasure vegetables'. In 2010, out of 50 finalists with excellent properties, five varieties were chosen: the Aodai cucumber, Kan-on leek, Yaga chisha lettuce, Kawauchi spinach and Sasaki-Sangatsu Kodaikon radish. All these chosen varieties were among the local varieties that had been collected after the establishment of the gene bank, and they all received very good marks during the evaluation process. Since then, five more varieties have been chosen each year. A central and quite unique element of the selection process was the integration of tasting sessions in connection with the characterization of varieties. Together with farmers and selected consumers, the gene bank staff most familiar with many varieties tasted each variety, usually in cooked and/or pickled form, to examine its characteristics. Historical aspects were also taken into consideration and because part of the objective was to re-invent tradition and find new uses for varieties that had gone out of use, other preparation methods than those traditionally associated with a local variety were also tried.

Sensory analysis was also an important tool in this process. The multiplication process for treasure-vegetable seed takes place without the use of fertilizer, and cultivating conditions



differ from variety to variety. The third part of the project is the promotion of the selected varieties in order to increase their cultivation and seed production is also utilized for this purpose. To create interest in the local varieties and get interested growers involved in the selection process, presentations are held at the gene bank farm twice a year. Between 20 and 30 varieties can now be seen growing there. In connection with these presentations, staff members talk with promotional work, restaurant managers, local store owners and others have now become interested in

introducing the traditional varieties, and some have developed new recipes to promote value addition and consumption.

Based on this experience, the project has shown that it is very important to provide farmers with detailed information on the properties and cultivation methods of the various local vegetable varieties went out of use. It is therefore necessary to distribute detailed knowledge along with the seeds, as the methods for cultivating these local varieties tend to differ from those used in the cultivation



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of modern varieties. For example, many of the local varieties have quite specific needs when it comes to the use of fertilizers and water, and the ideal production conditions must therefore be made known to all potential growers. Importantly, most of the traditional varieties do not respond to excess application of water and fertilizers as most modern varieties do. In addition, when farmers grow local varieties they must be mindful of weather conditions, as the different varieties may require specific conditions when it comes to soil quality and the timing of sowing. Traditional knowledge regarding these aspects, now backed up by the research results of the gene bank, has proved essential to those wishing to grow these vegetables. The curator of the gene bank, Tatsuoki Funakoshi opined that since the local vegetable varieties have been usually grown with very little fertilizer, the seed therefore is better suited to organic farming than seed from modern varieties, and also may have the ability to adapt well to climate change.

As this story from Hiroshima Prefecture in Japan shows, it is possible to promote realization of Farmers' Rights when different stakeholders work together. Farmers play a very important role with regard to maintenance of local varieties and the associated knowledge systems and the exchange of seed and knowledge is crucial. In this project, the search campaign for local varieties and the identification of particularly interesting and valuable vegetable varieties, along with a system of seed loans and dissemination of information, has provided a local vegetable growers with greater incentives and opportunities for cultivating local varieties. The experience of the Hiroshima Agricultural Gene Bank in this project highlights the importance of disseminating traditional knowledge along with seed, to enable successful cultivation of local varieties and to match varieties to the right locations as well as to disseminate information about processing and preparation methods, thus keeping the knowledge protected and alive. The project also shows that it can be central to focus on traditional varieties with traits that will be appreciated by consumers and to create a market for traditional varieties

through promotional activities in order to succeed with the maintenance of agricultural diversity.

*Source:* Extracted from Y. Nishikawa and T. Winge, 2013. The Hiroshima Agricultural Gene Bank, Re-introducing Local Varieties, Maintaining Traditional Knowledge. In: Realising Farmers' Rights to crop genetic resources: Success stories and best practices, 2013. R. Andersen and T. Winge (Eds). pp. 167-178.

## 2.3 Farmers' Rights to participate equitably in decision-making

### *Engagement of farmers' organizations and relevant stakeholders in Norway*

In Norway, farmers and their organizations have a wide range of channels for ensuring participation in and influence on policy processes. Annual negotiations are organized between the Government and farmers' unions to discuss the Agricultural Act. For example, in the field of genetic resources, Felleskjøpet, a farmers' cooperative, is one of the owners of the only breeding company in Norway, Graminor AS, and is also the main distributor of seeds. There are also projects on developing new varieties of forage, involving a high level of farmer participation. Farmers are represented on the advisory board on plant genetic resources at the Norwegian Genetic Resource Centre. The Centre maintains close working relationships with both the major farmers' cooperatives and farmers' unions, as well as with the smaller number of farmers who are more actively involved with issues directly related to seed diversity and cultivation of traditional varieties. During the past few years, farmers cultivating traditional varieties have become more organized through networking and the setting up of cooperatives. This has made them become more visible and easier for the Government to ensure that they are involved in various processes.

The Norwegian Government places a strong emphasis on the conservation and management of genetic resources, which also includes a number of measures to implement





**Farmers' Rights.** In addition, Norway plays a significant role in promoting transparency and participation: at International Treaty meetings, Norway has often provided funding support through Norwegian NGOs, to enable the participation of farmers' organizations. It has also co-organized international consultations and dialogues with governments, different NGOs, international governmental organizations and other relevant stakeholders of the International Treaty.

*Source:* International Treaty website submission from Norway: <http://www.fao.org/3/a-bb921e.pdf>

## 2.4. Farmers' Rights to save, use, exchange and sell farm-saved seed

### Norway's path to ensuring Farmers' Rights in the European context

Norway has maintained a high profile in international efforts to maintain crop genetic diversity – as a driving force in the negotiations leading up to the International Treaty; as a bridge-builder between North and South; as a financial contributor to international processes and tasks; and not least, by realising the Svalbard Global Seed Vault.

Norway has also suffered crop genetic erosion and substantial efforts are being made to save and conserve what is left, through the Nordic Genetic Resource Center (NordGen) established by the Nordic countries and through the Norwegian Genetic Resource Centre. The main challenges to farmers' contribution to the genetic pool in Norway relate to formal regulations on Farmers' Rights to save, use, exchange and sell farm-saved seed. Although compared to other farmers in Europe, they are far better off due to the importance placed on Farmers' Rights by the Norwegian government.

Very few of Norway's older landraces of cereals, potatoes and vegetables have been preserved for future generations. Almost all have now disappeared. For fruit and berries the picture is brighter, but very little breeding and development have been done in this

area, so diversity is threatened all the same. In earlier times there was an abundance of original Norwegian meadow plants, but also here, much has vanished. The modernization of agriculture has undoubtedly resulted in greater efficiency in production, but it has also led to considerable genetic erosion.

Perhaps one of the most remarkable achievements of Norway to protect Farmers' Rights is its decision to reject the stricter plant breeder's rights: Norwegian legislation on plant breeders' rights was adopted in 1993 and led to membership in UPOV. While a few changes have been made to the law since then, they have been insignificant. This has meant that Norway's farmers are entitled to save seed from their own harvest of protected varieties for use the following season. The law does not prevent farmers from exchanging seeds among themselves except that they cannot sell seeds of protected varieties. This seems to be generally accepted among farmers as a legitimate way of ensuring breeder's rights. In 2005, the Norwegian government decided to reject a proposed amendment to the law that would have brought about a significant expansion in the rights of plant breeders. Although Norway was a member of the UPOV under the 1978 Act of the Convention, the new law would have set the stage for the Norwegian membership under the 1991 Act of the Convention, which is far more rigorous. When the government rejected the bill, one main argument was precisely the need to take Farmers' Rights into account.

As a member of EU, Norwegian government went through different processes following the different or series of EU directives concerning conservation varieties, plant variety release, and seed marketing (i.e. Commission Directives 2008/62/EC; 2009/145/EC; 2010/60/EU) where Norway would need to adopt and implement. Nevertheless, Norway has gone further than its counterparts in most countries in Europe in accommodating Farmers' Rights to save, use, exchange and sell seed and propagating material. Farmers are still allowed to save seed of varieties protected by plant breeders' rights, and they may use the seed in the following season and exchange it among



themselves. By contrast, in most other countries in Europe, farmers may not exchange seed materials among themselves, and saving seed of such varieties and using it in the following season is prohibited or requires a licence. To make it happen, the role of government sector, civil society and farmers' organizations, other stakeholders and researchers are highlighted. The continuous dialogues, meetings and maintaining contacts among themselves facilitated and proved constructive and positive, fostering a shared understanding of the needs and challenges that the regulations may pose for biodiversity farming, as well as on how the authorities would manage to combine considerations for the Norwegian opinions with the country's obligations under the European Economic Area Directives.

Norway's experience with regulations on variety release and seed marketing highlights the great challenges that the current trend of seed regulation poses to the further conservation and sustainable use of crop genetic resources in line with the Treaty. The stakeholders' consultation and dialogues are in ensuring regulations that seek to accommodate all concerns and thereby creating legal space for farmers, even under the difficult framework. As regard plant variety protection legislation, it is clear that Norway managed to support breeding industry while at the same time ensuring farmers' and breeders' rights are balanced in a way conducive to the conservation and sustainable use of crop genetic resources.

*Source:* Extracted from R. Andersen, 2013. Norway's path to ensuring Farmers' Rights in the European context. In: Realising Farmers' Rights to crop genetic resources: Success stories and best practices, 2013. R. Andersen and T. Winge (Eds). pp 23-39.

### ***Participatory plant breeding in Honduras: Seeds, knowledge and diversity***

In Honduras, farmers are constantly experimenting with indigenous varieties, adapting them to suit their emerging needs. They select varieties not only for productivity, but also for higher nutrition, better cooking and storage traits, and the plant's ability to adapt to changing growing conditions. Women play

a leading role in selecting for traits, as they are the keepers of seeds, possessing a more intimate knowledge of plant characteristics and how they might perform under different conditions.

To promote this practice, the Foundation for Participatory Research with Honduran Farmers (FIPAH) supports farmer research teams known as CIALs (Comite de Investigacion Agricola Local) for participatory plant breeding, with the aim of establishing and securing seed supply through on-farm conservation, household vegetable gardens and cooperative grain storage systems. These objectives are being met through community run seed and gene banks. The goal is to foster a significant improvement in farmer access to diverse and high quality, locally adapted seeds, and preserve crop genetic resources, so as to further enhance farmer knowledge and experience with those seeds.

In October 2006, farmers of Santa Cruz CIAL, in the mountainous Yoro region, released two varieties of corn that they had developed, based on a local or landrace variety that produces large cobs. However, their height had become a problem in a region that is increasingly vulnerable to hurricanes. Large cobs are genetically linked to tall stalks which, over time, produced taller and taller corn plants. Although beneficial for animal fodder, these run the risk of being knocked over by winds.

Through a participatory breeding process, farmers were able to produce two improved varieties – Santa Cruz and Capulin Mejorado – that are shorter, with a higher yield and still adapted to high altitude conditions. One of the agricultural experts who developed these corn varieties is Simeona Perez, a farmer in the Santa Cruz region. In most cases, small-scale farmers have been largely ignored by government and agricultural scientists, and so Simeona, Amalia, Pedro, Fatima and others took matters into their own hands. With USC (now known as SeedChange) and FIPAH's support, their farmer research team (CIAL) developed corn varieties that could withstand the annual bouts of heavy rain and winds



which – beginning with Hurricane Mitch in 1998 – have become a constant sign of climate change in the region, causing crop failure by flattening the corn in fields. Through continuous selection and breeding, farmers in Santa Cruz and CIAL succeeded in reducing the stature of Capulin and Santa Cruz corn, while increasing average yields. Capulin is an indigenous corn variety that already grows well in high altitudes. The release of this corn coincided with one of the heaviest hurricane seasons on record. As a result of the quality of the seed, combined with conservation practices, the farmers were hardly affected.

During this implementation period, 60 CIALS (farmer research teams) and 11 youth CIALS had operated in 5 districts of Honduras, reaching out to about 12 000 people in various communities through seed exchanges and providing access to grain stocks. These farmers have enhanced biodiversity and increased productivity of local corn varieties by 20 to 30 percent, while making varieties hardier and more adaptable to climate change.

Source: Extracted from the Global Forum on Food Security and Nutrition. Honduras case: [http://www.fao.org/fsnforum/sites/default/files/file/cfs\\_consultation/km.fao.org/fileadmin/user\\_upload/CFS\\_consultation/file\\_comments/Honduras%20-%20Growing%20Resilience.pdf](http://www.fao.org/fsnforum/sites/default/files/file/cfs_consultation/km.fao.org/fileadmin/user_upload/CFS_consultation/file_comments/Honduras%20-%20Growing%20Resilience.pdf). For up to date information, refer to FIPAH Website: <http://fipah-hn.org/> and Facebook <https://www.facebook.com/FIPAHonduras/>

### ***India's Protection of Plant Varieties and Farmers' Rights Act***

India is among the first countries in the world to have passed legislation granting Farmers' Rights, providing inspiration for stakeholders involved in similar legislation processes in several other countries. This legislation is called the Protection of Plant Varieties and Farmers' Rights Act (PPV&FR Act of 2001), which established the necessary legal space for farmers to continue maintaining their traditional varieties and practices in addition to introducing plant breeder's rights. The PPVFR Act stands as the most far-reaching legislation to date with regard to establishing rights of farmers. It was established by India's Central



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Government under the Protection of Plant Varieties and Farmers' Rights Act, 2001. The Authority grants exclusive rights to breeders and farmers who have bred, evolved or developed any variety.

The Act confers three concurrent rights – to breeders, farmers and researchers. Regarding Farmers' Rights, the Act recognizes the farmer as cultivator, conserver and breeder. It establishes nine specific rights for farmers:

- **Rights to Seed:** The PPVFR Act gives farmers the right to save, use, exchange or sell seed in the same manner as they were entitled to before the Act (Article 39). However, the right to sell seed is restricted, as farmers may not sell seed of protected varieties in branded packages. The legal space for farmers in this regard is nevertheless much broader than in other legislations on plant variety protection and can be seen as a very good way to realise the rights of breeders.

- **Right to Register Varieties:** Farmers as well as commercial breeders can apply for intellectual property rights over the varieties they breed (Article 39). The criteria for registration of farmers' varieties are also similar to those of breeders (genetic distinctness, uniformity, stability) but importantly, novelty is not a requirement. This possibility of obtaining intellectual property rights over farmers' varieties is a unique aspect of India's law. A 'farmer' variety is defined as a 'variety which has been traditionally cultivated and evolved by farmers in their fields; or is a wild relative or landrace of a variety about which the farmers possess common knowledge' (Article 2.L).

- **Right to Reward and Recognition:** The Act provides for the establishment of a National Gene Fund through which farmers who have played a role in the conservation of varietal development of plants can be recognised and rewarded (Article 45). The fee collected under the Fund can be used for support and reward farmers engaged in conservation.

- **Right to Benefit Sharing:** The centralised National Gene Fund is intended to facilitate benefit sharing (Article 26). The Protection of Plant Varieties and Farmers' Rights Authority that oversees implementation of the Act is required to publish the registered varieties and

invite claims for benefit sharing. Any person or group of persons or firm or governmental or nongovernmental organization can submit claims to benefit sharing.

- **Right to Information and Compensation for Crop Failure:** The Act provides that the breeder must give information about expected performance of the registered variety (Article 39.2). If the material fails to perform, farmers may claim compensation under the Act. This provision is intended to ensure that seed companies do not make exaggerated claims about the performance (yield, pest resistance). It enables farmers to apply to authority for compensation if they suffer losses due to the failure of the variety to meet the targets claimed by seed companies.

- **Right to Compensation for Undisclosed Use of Traditional Varieties:** If it can be established that the breeder has failed to disclose that the source of a variety belongs to a particular community, compensation can be granted through the Gene Fund (Article 28). Any NGO, individual or government institution may file a claim for the compensation on behalf of the local community if the breeder has not acknowledged use of the traditional knowledge or resources of the community.

- **Right to Adequate Availability of Registered Material:** The breeder is required to provide adequate supply of seeds or material of the variety to the public at reasonable prices. If the breeder fails to do so after three years of registration of a variety, any person can apply for the authority to the Authority for a Compulsory License (Article 47). Such compulsory licenses revoke the exclusive right given to the breeder and enable third parties to produce, distribute or sell the registered variety.

- **Right to Free Services:** The Act exempts farmers from paying fees for the registration of a variety, for conducting tests on varieties, for renewal of registration, for opposition and for fees on all legal proceedings under the Act (Article 44).

- **Protection from legal infringement in case of lack of awareness:** Recognising the low literacy levels in India, the Act provides safeguards against innocent infringement on the part of farmers (Article 42). Farmers who unknowingly violate the rights of a breeder shall not be





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punished if they can prove that they were not aware of the existence of breeder's rights.

India's PPVFR has been highly successful in protecting Farmers' Rights and more so it has tried to uphold the legal space for farmers to save, use, exchange and sell farm-saved seed. The type of awards provided under the PPVFR Act are: Plant Genome Savior Awards: The Authority confers the Plant Genome Savior Awards on farmers who have engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives, particularly in areas identified as agrobiodiversity hotspots. Another award is the Plant Genome Savior Community Award, which is made annually from the Gene Fund. The Authority also confers a Plant Genome Savior Farmer Reward and Farmer Recognition award to farmers engaged in the conservation of genetic resources of landraces and wild relatives of economic plants, and their improvement through selection and preservation. Material selected and preserved in this manner has been used as gene donors in varieties registerable under the PPV&FR Act, 2001.

*Sources:* Protection of Plant Varieties & Farmers' Rights Authority of India, Available at <http://plantaauthority.gov.in/PGSFR.htm> (Accessed on 21 December 2020); Combining Farmers' Rights and

plant variety protection in Indian Law. T. Winge, R. Andersen and A. Ramanna-Pathak In: Realising Farmers' Rights to crop genetic resources: Success stories and best practices, 2013. R. Andersen and T. Winge (Eds). pp 54-61.

### ***Community seed banks: The Paraíba in Brazil***

In Paraíba, community seed banks have been supported by a network of farmers and community associations, small cooperatives, unions, parishes and local NGO Articulação do Semi-Árido Paraibano, whose main objectives are to strengthen local biodiverse farming systems and promote social equity and local sustainable development. Currently, Paraíba has a network of more than 240 seed banks, involving 6 561 farmer families in 63 municipalities. They conserve seeds of more than 300 varieties of maize, common beans, fava beans, cassava, sunflower and peanuts, as well as forage and fruit species. Farmers use the banks for several purposes: food, feed, fibre and medicinal purposes. They function not only as facilities for the safe storage of seeds, but also as places where local farmers' organizations can meet to discuss political issues and exchange seeds and traditional knowledge.



This network has gained political influence and one of its main achievements was the approval of Law 7.298/2002, which established a Community Seed Bank Programme to allow Paraíba's state government to buy seeds of local varieties for distribution among farmers and seed banks. Previously, only certified seeds of improved varieties could be used for this purpose. The law has also allowed farmers to use seeds of local varieties to produce food and sell it (through contracts with state government agencies) to public schools and hospitals. Between 2004 and 2010, more than 180 tons of food was produced in Paraíba, using the seeds of 73 local varieties. Before the approval of this law, seeds of local varieties were not recognized by the Brazilian Legislation. They were considered to be mere 'grains' of low quality, and were excluded from official seed programmes.

Paraíba's successful pioneering experience with community seed banks, followed by the initiatives of other Brazilian states, helped to convince the national congress to allow for the use and production of local, traditional and creole seeds in the Federal Seed Law (10711/2003), approved on 5 August 2003, and to regulate Brazil's formal seed system. Law 10711/2003 states that *"local, traditional and creole cultivars are: varieties developed, adapted or produced by family farmers, agrarian reform settlers of indigenous peoples, with well-established phenotypical characteristics, that are recognized by their respective communities and in which, according to the Ministry of Agriculture, and considering also social, cultural and environmental descriptors, are not characterized as substantially similar to commercial cultivars."*

The Law also states that the registration in the National Registry of Cultivars of local, traditional or creole cultivars by family farmers, agrarian reform settlers or indigenous peoples is not mandatory. This exemption recognizes the issues surrounding local varieties and the difficulty of farmers in meeting the requirements of national registration. It also allows seed distribution, exchange and trading

to take place among family farmers, agrarian reform settlers and indigenous peoples.

*Source:* Extracted from Santilli, J. Community seed banks and Brazilian Law. In R. Vernooy, P. Shrestha & B. Sthapit, eds. *Community Seed banks: origins, evolution and prospects*, pp. 237-240. Rome, Bioversity International.

### **The MASIPAG Experience, an NGO from the Philippines**

The "Magsasaka at Siyentipiko para sa Pag-Unlad ng Agricultura" or Farmer-Scientist Partnership for Development known as MASIPAG, is a farmer-led network of people's organizations, NGOs and scientists working towards the sustainable use and management of biodiversity through farmers' control of genetic and biological resources, agricultural production and associated knowledge. The goal of MASIPAG is to empower resource-poor farmers and improve their quality of life by bringing back the traditional varieties, improving and minimizing the production costs. Since 1985, MASIPAG has worked towards a sustainable use and management of biodiversity through farmers' control of genetic and biological resources, agricultural production and associated knowledge. Farmer empowerment is one of the core principles of MASIPAG. Guided by a 'farmer-led' or 'bottom-up' approach, its work puts farmers' needs, priorities and aspiration at the centre, and implies an underlying respect for farmers' diverse knowledge and capacities. What started as a small breeding programme is now a nationwide movement that promotes traditional knowledge systems; conserving, developing and maintaining plant (and livestock) diversity and empowering farmers.

MASIPAG programs include:

- (i) Collection, Identification, Maintenance, Multiplication and Evaluation (CIMME) of cultivars of rice and corn, indigenous vegetables, poultry and livestock breeds. CIMME ensures that collected species and varieties are maintained in on-field seed banks for farmers' access:
- (ii) Breeding: Farmers select and breed rice,







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corn and livestock, enabling them to develop cultivars/breeds from traditional varieties and stocks that are adapted to local conditions and whose resistance are enhanced against adverse conditions such as drought, soil and water salinity, and pests and diseases.

- (iii) Developing Sustainable Agro-Ecosystems. Encourages farmers to shift from monocropping to diversified and integrated farming systems; from chemical to organic farming; and focusing from the individual farm ecosystem to community/agro-ecosystem wide conversion. Technical support and information is provided on critical aspects such as soil fertility management, alternative pest management, cropping systems, diversification and farm integration.
- (iv) Documentation and Dissemination of Farmer Developed/Adapted Technologies (FDATs). The reaffirmation, systematization and practical application of local knowledge systems in agriculture, giving members additional farm management options.
- (v) Local Processing and Marketing Support to member organizations
- (vi) Education and Training: Enables network members to acquire knowledge, skills and attitudes to make them better equipped in sustaining their program and activities at the farm organization and provincial levels. On-farm trainings are based on needs analysis and responsive to the farmers' actual situation.
- (vii) Program/Project Benefit Monitoring and Evaluation System (PPBMES): An internal database system for monitoring progress and assessing the socio-economic impacts of the projects, serving as basis for improving program efficiency and effectiveness.
- (viii) Network Strengthening and Consolidation: promotes building capacities of the various levels of MASIPAG — the member organizations, Regional Project Management Teams, regional and national secretariats, and the Board of Trustees.
- (ix) Linkage and Advocacy: MASIPAG takes an active stand on national and global issues that affect the food security and sovereignty of resource-poor Filipino farmers. MASIPAG also links with local, national and international groups working on Farmers' rights and sustainable agriculture.re.



They collected and maintained more than 1 313 traditional rice varieties and bred 1 299 new MASIPAG rice varieties that are specifically adapted to local soils and climate conditions. Each year, these rice varieties are grown and are further developed on almost 200 trial farms. The farmers learn how to assess their varieties, how to choose those which are best-adapted to the natural conditions of their plot of land and how to identify which seeds can best be used for breeding new varieties. With support from scientists, the farmers themselves have become breeders and experts. The MASIPAG members exchange their knowledge and seeds which resulted in a knowledge partnership based on an equal footing, taking the needs at the grassroots level into consideration and increasing the self-confidence of the farmers. As of 2017, there are more than 30 000 MASIPAG farmers in 563 member organizations. MASIPAG promotes diversification of crops and rice varieties to prevent a total crop failure. On choosing rice variety, the criteria is not only given to yield potentials but also to adaptation to local conditions. Since the farmers are largely independent from external inputs and as the great variety of products they

cultivate enables them to compensate for crop failures, they are able to increase their income and earn more than the conventional farms. The food security and health of MASIPAG families has also improved. The success of MASIPAG movement shows how Farmers' Rights through local solutions can be achieved.

*Source:* Extracted from MASIPAG is a farmer-led network of people's organizations, NGOs and scientists working towards the sustainable use and management of biodiversity through farmers' control of genetic and biological resources, agricultural production and associated knowledge. (Website Available at [www.masipag.org](http://www.masipag.org)); [http://www.globalagriculture.org/fileadmin/files/weltagrarbericht/EnglishBrochure/BrochureIAASTD\\_en\\_web\\_small.pdf](http://www.globalagriculture.org/fileadmin/files/weltagrarbericht/EnglishBrochure/BrochureIAASTD_en_web_small.pdf) (page 45)

**These are just some examples of the many practical activities currently undertaken in an attempt to promote or realize Farmers' Rights at country level. Learners are encouraged to express their ideas, opinions and thoughts in identifying tools, approaches and strategies to enhance understanding of Farmers' Rights, and to take measures to protect and promote it.**



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### 3. Further reading: Current programmes, initiatives/projects and publications that promote awareness

How to implement Article 9, Farmers' Rights in your country? What are the basic steps required? Where to begin, and what are possible entry points for discussions on Farmers' Rights? A number of Contracting Parties and stakeholders are currently undertaking work directly or indirectly relevant to implementation of Farmers' Rights.

This section provides sources that can offer learners, decision-makers and practitioners better perspectives of the conceptual framework of understanding Farmers' Rights, as well as practical examples of work on the ground.

#### 3.1 National measures, best practices and lessons learned from the realization of Farmers' Rights, as set out in Article 9 of the International Treaty

The International Treaty website dedicates a specific page (<http://www.fao.org/plant-treaty/areas-of-work/farmers-rights/farmers-rights-submissions/en/>) which compiles the submissions of all Contracting Parties and stakeholders with regard to their implementation of Farmers' Rights, according to their capacities and specificities.

Also, the Inventory of national measures, best practices and lessons learned from the realization of Farmers' Rights, as set out in Article 9 of the International Treaty<sup>10</sup> was

produced by the Expert Group.<sup>11</sup> The Inventory is simple, concise and user-friendly, while allowing further information in the future. Further work is on going and readers are encouraged to visit the International Treaty' Farmers' Rights section, for updates and developments.

#### 3.2 Book publication: Realizing Farmers' Rights to Crop Genetic Resources. Success stories and best practices

Published in 2013, edited by Regine Andersen and Tone Winge, this book shows the necessity of realizing Farmers' Rights for poverty alleviation and food security, the practical possibilities of doing so, and the potential gains for development and society at large. It provides decision-makers and practitioners with a conceptual framework for understanding Farmers' Rights through illustrating success stories and best practices that have resulted in substantial achievements to one or more measures to protect Farmers' Rights as set out in the International Treaty. Examples provided covers: the rights of farmers to save, use, exchange and sell farm- saved seed; the protection of traditional knowledge; benefit-sharing; and participation in decision-making. The examples represent different regions and localities, including Europe, Asia, Africa and Latin America, as well as various categories of stakeholders and types of initiatives and policies are presented in detailed manner.

<sup>10</sup> See Information Document, <http://www.fao.org/3/na906en/na906en.pdf>

<sup>11</sup> For further information, refer to the work of the Ad Hoc Technical Expert Group on Farmers' Rights (AHTEG-FR). Available at: <http://www.fao.org/plant-treaty/areas-of-work/farmers-rights/expert-group/en/>





### 3.3 Relevant Programmes and Initiatives

- i. **The Farmers' Rights: Resource pages for decision-makers and practitioners:** <http://www.farmersrights.org>. This website contains a wealth of information specifically related to Farmers' Rights, including advice on how to realize these rights. The portal was launched in 2008 by Fridtjof Nansen Institute (FNI), as part of its Farmers' Rights Project. It contains lessons learned and best practices, as well as literature and publications at global, regional and national level. In 2015, the responsibility for maintaining and updating the website was taken over by Oikos - Organic Norway.
- ii. **Family Farming Knowledge Platform:** <http://www.fao.org/family-farming/en/>. This website presents quality information on family farming from all over the world, including national laws and regulations, public policies, best practices, relevant data and statistics, research, articles and publications about family farming. Although not all information is relevant to Farmers' Rights, many of the resources are directly linked to this issue, for example, agro-ecology, small-scale family farmers, indigenous peoples and mountain family farming.
- iii. **Indigenous peoples' and community conserved territories and areas (ICCAs) and its online Registry and Data:** <http://www.iccaconsortium.org/>. ICCA Consortium Members and partners supports conservation of nature, sustainable livelihoods and the respect of collective rights. The ICCA Registry and data is an online platform where indigenous peoples and/or local communities provide data, case studies, maps, photos and stories relating to their ICCAs.
- iv. **FAO Biodiversity Programmes and Projects.** Many of these projects (global, regional, and national) promote conservation and sustainable use management of agricultural biodiversity, while improving rural livelihoods and capacity- building for small- scale farmers and local communities. It also promotes mainstreaming of conservation and sustainable management of biodiversity into national plans and programmes. Most of these projects are described putting farmers and local communities at the heart of the natural resources management, they use and employ multi-stakeholders participatory processes (for example, e.g.



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Globally Important Agricultural Heritage Systems (GIAHS) have demonstrated lessons learned in empowering rural communities and promoting recognition of farmers and local communities (<http://www.fao.org/giahs/en/>).

v. **FAO's work on Indigenous Peoples:** <http://www.fao.org/indigenous-peoples/en/>. Several FAO projects relate to indigenous peoples, promoting their biological and cultural diversity as the underpinnings of food and livelihood security. Indigenous peoples are also farmers and custodians of biodiversity. The FAO Six Pillars of work on indigenous peoples are relevant to or could support the promotion of Farmers' Rights, i.e. free, prior and informed consent; advocacy and capacity-building; coordination; indicators for food security; indigenous food systems; and voluntary guidelines on the governance of tenure.

vi. **The Adaptation for Smallholder Agriculture Programme (ASAP) of the International Fund for Agricultural Development (IFAD):** [https://www.ifad.org/en/topic/asap/tags/climate\\_change/2782790](https://www.ifad.org/en/topic/asap/tags/climate_change/2782790). This was launched in 2012, channelling climate finance to smallholder farmers, to enable them to

access information tools and technologies that can strengthen their resilience to climate change. ASAP has become the largest global financing source dedicated to supporting the adaptation of poor smallholder farmers to climate change. The programme is working in more than thirty developing countries, using climate finance to make rural development programmes more climate resilient, by supporting crop diversification and other farming practices that can help to increase productivity, while at the same time minimizing climate change risks.

vii. **Indigenous Peoples Assistance Facility (IPAF) of IFAD:** <https://www.ifad.org/topic/ipaf/>. This facility is dedicated to strengthening indigenous peoples' communities and organizations. It does so by financing small projects that foster their self-driven development in the framework of the UN Declaration on the Rights of Indigenous Peoples, and generating lessons learned and approaches for replication and upscaling. The facility invites applications from indigenous peoples' organizations and communities, as well as from organizations that work with them, for grants to fund projects, innovative approaches and partnerships to



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promote the development of indigenous peoples and help them to fulfil their aspirations. Although the facility has wider coverage than Farmers' Rights per se, IPAF presents a number of interesting lessons learned that are relevant to Farmers' Rights. These include promotion of protection of traditional knowledge related to genetic resources, promotion of traditional food crops, conservation of agricultural biodiversity, and enhanced participation in decision-making.

**viii. UNDP-GEF Small Grants Programme (SGP) and the Satoyama Initiative – Community Development and Knowledge Management** (<https://comdeksproject.com/>). This initiative promotes community development promoting the vision of “societies in

harmony with nature”. COMDEKS support activities in the fields that aims for developing sound biodiversity management and sustainable livelihood activities with local communities to main, rebuild and revitalize socio-ecological production landscapes. It leverage existing experiences, resources, and networks to support sustainable landscape level management approaches by using UNDP small grants delivery mechanisms, including the SGP, to provide financing and technical assistance to community organizations. It also support capacity building, documentation of traditional knowledge and governance systems, replication and upscaling of lessons learnt and best practices through the regional workshops.



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## 4. Conclusion

For generations, farmers, indigenous and local communities have been creating and managing crop diversity throughout the world, and this has been acknowledged by the international community since the 1980s. Recognition of Farmers' Rights is clearly manifested in Article 9 of the International Treaty. This gives national governments the responsibility to implement Farmers' Rights through provisions on: (i) protection of traditional knowledge; (ii) the fair and equitable sharing of benefits; (iii) the right to participate in decision-making; and (iv)

rights that farmers have to save, use, exchange and sell farm-saved seed/ propagating material, subject to national law, as appropriate.

A wide range of case studies, some of which are presented here, shows that there are many different ways in which individuals, practitioners, institutions, organizations and other stakeholders can contribute to enhance understanding of Farmers' Rights – and to promote their realization, according to their capacities and specific context.

### Key points to remember:

- Farmers' Rights are the rights of millions of farmers throughout the world, particularly in developing countries whose agriculture is based on the cultivation of traditional varieties or varieties that farmers themselves preserve and improve.
- In order that they may continue to fulfil their role as stewards of crop genetic diversity, farmers, they need to be supported and build their capacities.
- The implementation of Farmers' Rights in accordance to the International Treaty is now in the process, as illustrated in the various examples. In a number of countries, the national (or local authorities) have identified their way to implement some measures that protect the farmers.
- Regarding benefit sharing mechanisms, rewards for farmers will vary. Types of benefits may include facilitated access to plant genetic resources for food and agriculture; the exchange of information; access to and transfer of technology; capacity-building; and the sharing of monetary and other benefits arising from commercialization of PGRFA.
- Farmer-scientist collaboration, capacity building, community-based approaches and participatory approaches are some of the important features of projects that have contributed to the realization of Farmers' Rights.
- There are a number of ways to promote implementation of Farmers' Rights provisions, including but not limited to:
  - programmes for on-farm conservation of PGRFA;
  - setting up of community seed/gene banks and registers of farmers' varieties;
  - technical training to improve farmers' knowledge on breeding and broadening the plant genetic base; and
  - niche marketing of products from diverse crops.









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## Selected online resources

This section provides a selection of online resources related to the International Treaty and the policy area of conservation and sustainable use of crop diversity.

### International instruments and Declarations

- International Treaty on Plant Genetic Resources for Food and Agriculture. 2001. Available at: <http://www.fao.org/plant-treaty/en/>
- Convention on Biological Diversity. 1992. Available at: <https://www.cbd.int/convention/>
- Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. 2010. Available at: <https://www.cbd.int/abs/about/default.shtml/>
- The Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture. 2011. Available at: <http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/gpa/en>
- United Nations Decade of Family Farming 2019-2028. Global Action Plan. Available at: <http://www.fao.org/3/ca4672en/ca4672en.pdf>
- United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, A/HRC/RES/39/12 Available at: [https://ap.ohchr.org/documents/dpage\\_e.aspx?si=A/HRC/RES/39/12](https://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/RES/39/12)

### Educational Modules on the International Treaty

International Treaty on Plant Genetic Resources for Food and Agriculture Available at: <http://www.fao.org/3/a-i2631e.pdf>

Conservation and Sustainable Use under the International Treaty Available at: <http://www.fao.org/3/a-i2579e.pdf>

The Funding Strategy of the International Treaty Available at: <http://www.fao.org/3/a-i3541e.pdf>

The Multilateral System of Access and Benefit-sharing

## Further reading

Inventory of national measures, best practices and lessons learned on the realization of Farmers' Rights as set out in Article 9 of the International Treaty

Toolbox for Sustainable Use of PGRFA Available at: <http://www.fao.org/plant-treaty/tools/toolbox-for-sustainable-use/overview/en/>

Submissions of Views and Experiences on the Implementation of Farmers' Rights Available at: <http://www.fao.org/plant-treaty/areas-of-work/farmers-rights/farmers-rights-submissions/en/>

Farmers' Rights: Resource pages for decision-makers and practitioners Available at: <http://www.farmersrights.org/>

Regine Andersen and Tone Winge (Eds). 2013. Realising Farmers' Rights to Crop Genetic Resources: success stories and best practices. Routledge. 232 pp

Plant genetic resources and food security. Stakeholder perspectives on the International Treaty on Plant Genetic Resources for Food and Agriculture. FAO, Bioversity International and Earthscan, 2011. Available at: <https://www.bioversityinternational.org/e-library/publications/detail/plant-genetic-resources-and-food-security/>

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The roles of community seed banks in climate change adaptation. Bioversity International, 2017. Available at: <https://www.bioversityinternational.org/e-library/publications/detail/theroles-of-community-seed-banks-in-climate-change-adaption/>

## Notes

Learners and readers are invited to share their own experiences, best practices, and lessons learned from the realization of Article 9 of the International Treaty, if any.

The template for submission of measures, best practices and lessons learned from the realization of Farmers' Rights, as set out in Article 9 of the International Treaty is available in the following languages : Arabic, English, French, and Spanish. It is available at: <http://www.fao.org/plant-treaty/areas-of-work/farmers-rights/farmers-rights-submissions/en/>

For any queries, you may contact the Secretariat at: [PGRFA-Treaty@fao.org](mailto:PGRFA-Treaty@fao.org)

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

#### ***Basic information***

- Title of measure/practice
- Date of submission
- Name(s) of country/countries in which the measure/practice is taking place
- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person)
- Type of institution/organization (categories)
- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

#### ***Description of the examples***

##### ***Mandatory information:<sup>1</sup>***

- Short summary to be put in the inventory (max. 200 words) including:
  - Implementing entity and partners
  - Start year
  - Objective(s)
  - Summary of core components
  - Key outcomes
  - Lessons learned (if applicable)
- Brief history (including starting year), as appropriate
- Core components of the measure/practice (max 200 words)
- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)
- To which provision(s) of Article 9 of the International Treaty does this measure relate
  - Art. 9.1 ☐
  - Art. 9.2a ☐
  - Art. 9.2b ☐
  - Art. 9.2c ☐
  - Art. 9.3 ☐

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



### Other information, if applicable

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

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

- Objective(s)
- Target group(s) and numbers of involved and affected farmers<sup>5</sup>
- Location(s) and geographical outreach
- Resources used for implementation of the measure/practice

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

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

<sup>4</sup> Including seed houses.

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

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?
- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)
- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

### **Lessons learned**

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words)
- What challenges encountered along the way (if applicable) (max 200 words)
- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

### **Further information**

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





**“Farmers’ Rights under the International Treaty” is the fifth in a series of educational modules being developed under the coordination of the Secretariat of the International Treaty to strengthen capacities for the effective implementation of the International Treaty among its stakeholder groups. The work on these training materials was officially welcomed by the Governing Body of the International Treaty at its fourth session.**

**The educational modules are aimed at all stakeholder groups of the International Treaty, including policy makers and their staff, civil servants, gene bank staff, plant breeders, farmers’ organizations and other civil society organizations. They are also designed as information and awareness raising materials for the use of media, academia, prospective donors and other interested institutions.**

**[www.fao.org/plant-treaty/en/](http://www.fao.org/plant-treaty/en/)**



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