



GFAR

The Global Forum on Agricultural Research

المنتدى العالمي للبحوث الزراعية

全球农业研究论坛

Forum Mondial de la Recherche Agricole

Foro Global de Investigación Agropecuaria

Глобальный форум по
сельскохозяйственным исследованиям

Achieving Farmers Rights in Practice

Mechanisms by which Centers of the CGIAR Consortium
can Support the Development of Appropriate Policies and
Procedures for the Recognition and Promotion of
Farmer's Rights

GFAR Discussion Document

DISCUSSION DOCUMENT

Achieving Farmers Rights in Practice

MECHANISMS BY WHICH CENTERS OF THE CGIAR CONSORTIUM
CAN SUPPORT THE DEVELOPMENT OF APPROPRIATE POLICIES AND
PROCEDURES FOR THE RECOGNITION AND PROMOTION OF FARMERS'
RIGHTS (ARTICLE 3 CGIAR INTELLECTUAL ASSETS PRINCIPLES)

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Study commissioned by the Global Forum on Agricultural Research (GFAR)

Inputs were received through two discussion sessions with CGIAR and other stakeholders at the GCARD2012. This document is prepared to inform discussions of the CGIAR Consortium and partners and deliberations of the CGIAR Fund Council and the International Treaty on Plant Genetic Resources on Food and Agriculture

FEBRUARY 2013

THE VIEWS EXPRESSED IN THIS DOCUMENT DO NOT NECESSARILY REFLECT THOSE
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EXECUTIVE SUMMARY

Around 75 per cent of the world's poorest 1.2 billion people live in rural areas and depend on farming. These small-holder farmers play an essential role in the development, maintenance and use of agricultural biodiversity. Improvements in agricultural production brought about through the use of modern varieties have been possible because of the rich and varied genetic diversity in farmers' landraces, together with material from wild and weedy species. This contribution and importance for human worldwide food security, has been recognized by FAO since 1989, and more concretely by the International Treaty on Plant Genetic Resources for Food and Agriculture, a legal binding multilateral agreement, adopted in 2001 with 128 Contracting Parties. This recognition constitutes the basic foundation of Farmers' Rights as related to plant genetic resources.

Farmers' Rights are important in enabling farmers to maintain, develop, and utilize plant genetic diversity, and in recognizing and rewarding them for their contribution to the global genetic pool and food security. Implementing Farmers' Rights is central to the fight against poverty and hunger eradication for affected communities. As recognized in the International Treaty on Plant Genetic Resources for Food and Agriculture, the realization of Farmers' Rights rest with national governments.

Although not yet agreed as concrete guidelines on implementation, the International Treaty does enshrine some measures that should be taken to implement Farmers' Rights, subject to national law. These include: the protection of traditional knowledge relevant to plant genetic resources for food and agriculture; the right to equitably participate in sharing benefits arising from the use of these resources; the right to participate in decision making, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture; and the right to save, use, exchange and sell farm-saved seed/propagating material.

Farmers' Rights need to co-exist with intellectual property rights over new varieties and propagating material generated by (formal) breeders. Seeking to assure a market, recognize investments and promote innovation, these grant exclusive rights that limit the free access and use of plant genetic resources in specific circumstances. The mutual interface of Farmers' Rights and Breeders' Rights becomes a daily challenge. The recognition of both forms of rights, and their importance in achieving food security and alleviating poverty, needs to be a priority and a reality for the public and private sectors, including the CGIAR Consortium and implementation of their new Strategy & Results Framework.

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The new outcome-based scenarios of international agricultural research for development requires the effective integration of a number of important elements: the inclusion of farmers as central to the value chain of agriculture research and development; the consideration by CGIAR Centers of the role of plant genetic resources as international public goods, the development purpose and underlying duty of care to the sources of the materials the Centers' work with and the need to recognize plant variety rights and other provisions to enable the private sector and other partners to take up opportunities for the scale out and distribution of improved varieties. Under this new framework, Intellectual Asset Principles for the CGIAR Consortium were adopted and guidelines for their implementation are being developed.

The CGIAR's agreed Intellectual Asset Principles recognized Farmers' Rights, but did not give CGIAR Centers or partners any guidelines on how to recognize them in the daily exercise of agriculture and research activities, and more importantly, ensuring the co-existence of Farmers' Rights and Breeders' Rights. This study was commissioned by GFAR to explore potential ways by which they could be integrated in implementing guidelines for the Intellectual Assets Principles.

The study recognized a range of actions being undertaken by some CGIAR Centres towards implementing Farmers' Rights in practice. These include participatory plant breeding; legal access of traditional knowledge and plant genetic resources; community seed banks; repatriation of seeds to small-holder farmers; protection of traditional knowledge; exchange of seeds, i.e. through seed fairs; and use of new breeders' varieties, including material obtained from genebanks or plant genetic resources centers. However, Farmers' Rights do not, as yet, feature prominently in the CRPs or the IA principles and this study sets out a range of potential measures that can enhance Farmers' Rights in practice and inform coherent policies for the CGIAR.

Recommendations to be considered in developing guidelines for the implementation of the Consortium's Intellectual Asset Principles include the exchange of experiences and good practices supporting Farmers' Rights; awareness raising with smallholder farmers, public and private sector on Farmers' Rights; and strengthening the link between Farmers' Rights and the conservation and sustainable use of plant genetic resources for food and agriculture.

Mutual support and reinforcement of Farmers' Rights and Breeders' Rights can be achieved. Lack of information and misunderstanding of concepts are barriers that need to be demolished sooner, rather than later, to realize food security in the context of global challenges such as climate change. This study is offered to inform dialogue and decisions and create wider awareness of the basis of Farmers' and Breeders' Rights and their practical interaction.

While addressing the specific issues of the CGIAR, it is recognized that national systems themselves generally lack an implementation basis for Farmers' Rights. A number of countries have already requested this review be used as a basis to inform their further national discussions and policy-setting processes.

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MECHANISMS BY WHICH CENTERS OF THE CGIAR CONSORTIUM CAN SUPPORT THE DEVELOPMENT OF APPROPRIATE POLICIES AND PROCEDURES FOR THE RECOGNITION AND PROMOTION OF FARMERS' RIGHTS (ARTICLE 3 CGIAR IA PRINCIPLES)

“Farmers and breeders are a liaison that struggle for food security and livelihood security. Their rights should not be antagonistic, they must be mutually reinforcing - not one against the other, but both together” Prof.M.S Swaminathan

INTRODUCTION

Around 75 per cent of the world's poorest 1.2 billion people live in rural areas and depend on farming. It is estimated that at least 370 million of these are also indigenous peoples. The initial stages of breeding for most crops have been based on locally adapted landraces.

Small scale-farmers around the world play an essential role in the development, maintenance and use of agricultural biodiversity. Improvements in agricultural production brought about through the use of modern varieties have been possible because of the rich and varied genetic diversity in farmers' landraces, together with material from wild and weedy species.

Women farmers are particularly aware of the usefulness of plant genetic diversity as in many parts of the world they are the ones with primary responsibility for the production of subsistence crops that are essential to household food security. They are often a reservoir of traditional knowledge of cultivation, maintenance and use of traditional varieties.

The International Treaty on Plant Genetic Resources for Food and Agriculture, adopted in 2001, recognizes the incalculable past, present and future contributions of farmers around the globe in developing and conserving plant genetic resources for food and agriculture, as the basis of food and agricultural production in the world. This recognition constitutes the basic foundation of Farmers' Rights as related to plant genetic resources.

In the context of the Treaty, Farmers' Rights are basically about enabling farmers to maintain, develop, and utilize plant genetic diversity, and about recognizing and rewarding them for their contribution to the global genetic pool and food security. Implementing Farmers' Rights is also central to the fight against poverty and hunger eradication.

Those implementing Farmers' Rights face different challenges, one being the need to co-exist with intellectual property rights over new varieties and propagating material generated by breeders, which grant exclusive rights, limiting the free access and use of plant genetic resources in specific circumstances.

Rationale for this paper

In its new Intellectual Assets (IA) principles¹, the CGIAR Consortium has recognized the need to recognize plant variety rights and other provisions to enable the private sector and other partners to take up opportunities for the scale out and distribution of improved varieties, but through its history, its international public goods role, development purpose and underlying duty of care to the sources of the materials it works with, also sets out to fulfill the needs of both plant variety rights and Farmers' Rights in its work:

Article 3.1 of the IA Principles recognizes the indispensable role of farmers, indigenous communities, agricultural professionals and scientists in conserving and improving genetic resources.

Article 3.2 seeks to be respectful of national and international efforts to protect and promote Farmers' Rights as envisaged by the International Treaty and supports the development of appropriate policies and procedures for their recognition and promotion.

GFAR stakeholders² recognize that the purposes of Farmers' Rights and plant variety rights are often not considered compatible and as a result of concerns expressed by civil society and international partners GFAR commissioned this study to explore how the two aims can best be reconciled in practice in the work of the CGIAR, fulfilling its international public goods role and meeting the pro-poor needs of Farmers' Rights, while also enabling the private sector and other partners to act as important means of dissemination of research products to poor farmers when implementing these principles.

This draft discussion document is circulated as a work in progress to illustrate the general direction that the work is taking. The study aims to bring together the various issues and perspectives around reconciling Farmers' Rights and breeders' rights in practice, to inform the CGIAR Consortium and its partners as they implement and further review the CGIAR Intellectual Property Assets Principles. It also sets out a range of areas and actions by which Centers and the CGIAR Research Programs can put these into practice, both by implementing existing CGIAR recommendations and guidelines and in good practices that can help ensure the work of the CGIAR continues to bring specific benefit to the poor and recognize the role of farmers as innovators in their own right.

While the document focuses on the role of the CGIAR, it is also very apparent that many of these same issues arise within national systems around the world in reconciling Farmers' Rights and plant variety rights. Working Committees of the International Treaty on Plant Genetic Resources for Food and Agriculture and the UN Committee on Food Security as well as genetic resource policy leaders in a number of countries have expressed strong interest in this report's findings and their implications in national contexts.

This document is divided into four chapters. The first intends to provide a background of the recognition of Farmers' Rights at the international and national levels, especially under the International Treaty on Plant Genetic Resources for Food and Agriculture; its recognition by the CGIAR Intellectual Assets Principles and the implication of such recognition for the implementation of the CGIAR Strategy & Results Framework and CGIAR Research Programmes (CRPs).

¹ CGIAR IA principles define: 'Intellectual Property Rights' means ownership rights (or applications for protection) of Intellectual Assets, whether registered or not, granted in any jurisdiction, including but not limited to, copyright and related rights, database rights, patents, industrial design rights, plant variety rights, trademarks and service marks, geographical indications, and trade secrets.

² Stakeholders in the Global Forum include all those who are active in, or actively influencing, agricultural research for development systems, through the generation, access and use of agricultural knowledge and innovation: farmers, civil society organizations, private sector companies and networks, education institutions advisory services, public national and international research organizations, international organizations and funding agencies.

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The second chapter is dedicated to expose measures/activities presently undertaken by CGIAR Centers supporting the implementation of Farmers' Rights. Identification of possible new measures and mechanisms to be executed by the CGIAR centers supporting the implementation of Farmers' Rights is also addressed in this chapter.

The third chapter recalls the need for farmers' empowerment and farmers' institutions to guarantee local farmer communities' access to genetic resources, the protection of traditional knowledge and conditions conducive to legal access to in situ genetic resources. Within this chapter, the identification of complementary efforts to provide the research support and information necessary for decision-making are identified.

The fourth chapter identifies next steps to further elaborate the proposed measures and processes in the way of implementing and reviewing the Intellectual Property Assets Principles of the CGIAR.



BACKGROUND

The concept of Farmers' Rights originated as a counterbalance to the recognition of intellectual property rights (IPR) over plant genetic resources by the international community in the framework of UPOV (International Union for the Protection of New Varieties of Plants).

According to the international legal setting, plant varieties can be protected through intellectual property rights giving exclusive rights to encourage commercial plant breeders to invest resources, labor and time needed to improve existing plant varieties. IPR provides an incentive for research and development of new breeding techniques by ensuring that breeders receive adequate remuneration when they market the propagating material of the improved varieties.

However, little consideration was given to the fact that in many cases, these innovations are only the most recent step of accumulated knowledge and inventions that have been carried out over hundreds of years by generations of local farmers around the world. Modern plant varieties contain genes that have originated from farmers' traditional varieties (also known as landraces) or wild crop relatives.

The contribution of local communities to the conservation and regeneration of plant genetic resources have been, and remain, substantial and it has been widely agreed that there should be some form of recognition of their tremendous contribution. In consequence, Farmers' Rights arise from the recognition of past, present and future contributions of farmers in conserving, improving and making available plant genetic resources, particularly in centers of origin. Farmers' Rights are not assigned to specific varieties, types of plants or specific local farmers. They are considered to be a collective right as they guarantee the development and preservation of local farmers, their cultural identities and forms of social organization.

Farmers' Rights should not be considered a form of IPR, but instead represents a much wider concept of recognition of the farmers' contributions, protection of farmers' knowledge and seed systems, involvement of farmers in decision-making and their right to benefit-sharing arising out of the use of their resources and knowledge.

Tensions between farmers and formal plant variety rights are caused, among other things, by the non-existent mechanisms for farmers and farming communities to claim rights over cultivated landraces, known as traditional cultivars, while the recognition of intellectual property rights to formal breeders gives them exclusive rights to plant varieties, limiting their access and use by local farmers.

Efforts to balance intellectual property and Farmers' Rights in the multilateral scenario started in the United Nations Organization for Food and Agriculture (FAO) more than twenty years ago.

In 1989, one hundred and thirteen countries discussed ways to achieve a balance between the products of biotechnology (commercial varieties and breeders' lines) on the one hand, and farmers' varieties and wild material on the other, and between the interests of developed and developing countries, by balancing the rights of breeders (formal innovators) and farmers (informal innovators).

Discussions resulted in Resolution 4/89 of FAO, which stated that plant breeders' rights as provided for under UPOV are not incompatible with the International Undertaking on Plant Genetic Resources for Food and Agriculture of FAO. It also noted that 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.

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Resolution 4/89 also established that the best way to implement 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 the International Fund for Plant Genetic Resources established by FAO. According to the Resolution, the Fund should be used to support plant genetic conservation, management and utilization programmes, particularly in developing countries. Special priority should be placed on intensified educational programmes for biotechnology specialists and strengthening the capacities of developing countries in genetic resources conservation and management, as well as the improvement of plant breeding and seed production.

Simultaneously, FAO adopted Resolution 5/89 which defined Farmers' Rights as rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources, particularly those in centers of origin. FAO endorsed the concept of Farmers' Rights with the aim of: i) ensuring a global recognition of the need for conservation and availability of sufficient funds for this purpose; ii) assisting farmers and farming communities through out the world, specially those in areas of original diversity of plant genetic resources, in the protection and conservation of their resources and their natural biosphere; and iii) allowing the full participation of their communities in the benefits derived, at present and in the future, from the improved use of plant genetic resources.

For the Conference of FAO, both Resolutions helped balancing breeders' rights and Farmers' Rights as they preserved the principle of unrestricted availability of germplasm; and recognized the rights of both donors of technologies and donors of germplasm to be compensated for their contributions. The Conference recognized that both resolutions were intended to lay the basis 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.

In 1991 further developments resulted in relation to Farmers' Rights. Resolution 3/91 of FAO agreed that these rights would be implemented through an international fund on plant genetic resources supporting the conservation and utilization plans of these resources, particularly, but not exclusively, in developing countries.

In 1992, the Agenda 21 called for the strengthening of the FAO Global System on Plant Genetic Resources and its adjustments in line with the outcome of negotiations of the Convention on Biological Diversity (CBD). That same year, countries adopted Resolution 3 of the Nairobi Final Act when adopting the CBD recognizing the need to seek solutions for the access of ex situ collections not addressed by the CBD and the realization of Farmers' Rights.

The revisions of the International Undertaking in harmony with the CBD took place in 1994 in the framework of the Commission on Plant Genetic Resources of FAO resulting in the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture on November 2001. The International Treaty, a legally binding instrument with 128 Contracting Parties seeks to recognize the contributions farmers have made in conserving, improving and making available plant genetic resources; recognizing Farmers' Rights and including mechanisms to support farmers in the conservation and sustainable use of their plant genetic resources. How the Treaty deals with this matter will be further explained in Chapter 1.4 of this document.



The Global Forum on Agricultural Research, which brings together all sectors to examine needs in reshaping agricultural research for greater development impact, made a significant contribution to the success of the negotiation of the International Treaty.

GFAR held the Dresden Conference in 2000 where a number of very innovative studies were released. The studies analyzed plant genetic resources in the international scenario; transaction costs of germplasm exchange under bilateral agreements; access and benefit-sharing procedures under the Convention on Biological Diversity; and the exchange of germplasm between developing countries and the CGIAR.

The studies identified the difficulties many countries have at the national level in harmonizing options and policies of different sectors, including between the Ministries of agriculture, environment and trade; and pointed out the need for governments to find ways in which negotiation processes can ensure the special nature and distinctive features of agricultural biodiversity. They also highlighted that crop cultivars are a recombination of cultivars that may themselves be the result of recombination of genetic resources from all over the world, as the result of frequent free exchange of germplasm between farmers, countries and regions.

During the meeting, the stakeholders of GFAR (farmers, NGOs, the private sector and public, private and civil sectors in national and international research, extension and education) reminded the international community of the importance and relevance of the three challenges that have guided the agricultural research over the past decade: i) increasing food production, food access and quality; ii) economic development in rural areas to alleviate poverty and improve life quality, specially of small farmers in margin areas; and iii) development of sustainable agricultural production systems compatible with sustainable management and conservation of natural resources.

GFAR stakeholders noted the decrease of public research funding in the agricultural sector and the emergence of privatized agricultural research, with the associated need to build new partnerships and which raises the issue of private versus public intellectual property rights. While globalization and trade liberalization may improve food security through increased access to food at the global level, people do not necessarily benefit equally.

GFAR stakeholders recognized the role knowledge plays in the development of agriculture and that knowledge generation and use is increasingly based on global research systems and networks and on-farmers-led experiments and innovations; and believed that new developments in areas of natural resources management, information and communication technologies and modern biotechnologies generated new opportunities.

The Dresden Declaration *“Towards a Global System for Agricultural Research for Development”* was adopted from the Conference, which urged Governments to complete the revision of the International Undertaking on Plant Genetic Resources for Food and Agriculture, thereby allowing for the effective implementation of a multilateral system for facilitated access and benefit-sharing of plant genetic resources for food and agriculture, recognizing Farmers’ Rights in plant genetic resources matters and promoting the [Leipzig] Global Plan of Action.

Through the Declaration, GFAR stakeholders envisioned the development of an agriculture characterized to be: i) suitable, equitable, profitable, competitive and fulfilling its functions in the context of community-centered rural development, recognizing the role of women in agriculture; ii) diversified and flexible in its structure with an important role for the farm family; and iii) responsive to different sources of knowledge and innovation, both modern and traditional.



This new agriculture vision recognized a more holistic “Knowledge-Intensive Agriculture” accessible to small and poor farmers, with the following principles:

- Subsidiary and complementary programmes to on-going work providing a clearly identified added value;
- Demand-driven agricultural research implemented through equal partnerships among GFAR stakeholders;
- Priorities for research set with a focus on farmers’ perspectives, taking into account the multi-functionality and regional heterogeneity of farming systems; and
- Dissemination should involve the intended users and beneficiaries, particularly farmers.

Nonetheless, ten years later the first Global Conference on Agricultural Research for development was still emphasizing that effective partnerships between sectors remained one of the most important outstanding needs for agricultural research to impact in development; a principle now firmly established in the resultant GCARD Roadmap.

During the Second Global Conference on Agricultural Research for Development (GCARD2) held in Uruguay in 2012, stakeholders explored practical implications of partnerships with smallholder farmers at their center due to their importance and strategic role, and pathways to better impact agricultural research for development.

Some of the conclusive commitments and recognitions related to smallholder farmers reached during the GCARD2 were the needs to:

- Empower farmers with communication and marketing skills, and support smallholder farmers as local government resource persons on nutrition and food security;
- Establish liaisons connecting female farmers nationally or throughout the region;
- Recognize the need to increase partnerships between the public and private sector;
- Review how public and private agricultural research compliments one another, and how research processes includes and reflects the needs of research users (farmers and agri-business);
- Recognize the considerable existing knowledge of public and private partnerships, but limited collation and collective capitalization of experience;
- Recognize that the opening of free trade and scale efficiencies have enable seed and agrochemical companies, as well as food processors and supermarkets to grow and bring benefits, yet have also raised concerns over control of germplasm at the input side and of access to and returns from markets for small farmers at the other;
- Improve knowledge and understanding about successful partnerships and advocate for greater partnerships;
- Advocate for more inclusive and equitable partnerships;
- Identify knowledge gaps or constraints to establish successful public-private-civil mechanisms;
- Explore the need for principles or guidelines for inclusive and equitable partnerships;
- Advocate for more inclusive and equitable partnerships specially engaging farmer organizations and the private sector including the small-scale entrepreneurs in research planning, implementation and uptake processes;

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- Advocate for more inclusive and equitable partnerships specially engaging farmer organizations and the private sector including the small-scale entrepreneurs in research planning, implementation and uptake processes;
- Understanding the situation of poor rural people, particularly farmers, and their perspectives for the future;
- Need for more agro-biodiversity available in smallholder systems;
- Strengthen gender involvement in the use of biodiversity in agriculture for impact on consumption and livelihoods;
- Development of an innovative operational global programme of in situ conservation on farms and in the wild of agricultural and forest biodiversity including crop wild relatives;
- Partnerships along the impact pathway supported for the realization of impacts in the various domains of sustainable use and conservation of biodiversity for livelihood, food and nutrition security and environmental resilience in production systems and livelihoods;
- Ensure that smallholder farmers have easy access to region and locality-specific technologies with good human resources at ground and suitable policy support for large scale adoption;
- Create an enabling environment that allows smallholder farmers and family farms to engage with dynamic and changing markets. Such engagement is crucial to guarantee local, national, regional and global food supply and security and to ensure rural economic and household wellbeing; and
- Reinforce capacities of national and regional farmers' organizations to participate in key decision-making processes for more balance and effective policies on agriculture, food security and nutrition.

1. CONTEXT OF NATIONAL FARMERS' RIGHTS AND CGIAR PRINCIPLES ON THE MANAGEMENT OF INTELLECTUAL PROPERTY ASSETS

1.1 Recognition of Farmers' Rights in the CGIAR IA Principles

Of the twelve articles of the CGIAR Principles on the Management on Intellectual Assets (CGIAR IA Principles) adopted on March 2012, one is dedicated to Farmers' Rights.

This Article is a recognition of the role of farmers in conserving and improving genetic resources and a statement of respect by the CGIAR of national and international efforts to protect and promote Farmers' Rights. Moreover, as a body entrusted with the use of public funds to produce International Public Goods for the benefit of the poor, the CGIAR has in effect a duty of care to ensure that these needs are met.

However, recognition of Farmers' Rights in the CGIAR IA Principles does not derive in concrete measures to be taken by the CGIAR to support the realization of these rights if and when affected by IPR over plant genetic resources for food and agriculture.

Article 3 states:

"Farmers' Rights

The CGIAR recognizes the indispensable role of farmers, indigenous communities, agricultural professionals and scientists in conserving and improving genetic resources. The CGIAR seeks to be respectful of national and international efforts to protect and promote Farmers' Rights as envisaged by the Treaty [International Treaty on Plant Genetic Resources for Food and Agriculture] and support the development of appropriate policies and procedures for their recognition and promotion."

Article 3 recognizes that not only farmers and indigenous communities have conserved and improved plant genetic resources, but also agricultural professionals and scientists. However, to include agricultural professionals and scientists in an article referring to Farmers' Rights is not accurate. Farmers' Rights have been recognized only to traditional farmers and indigenous communities and not to agricultural professionals and scientists.

Who are recognized as farmers in the context of Farmers' Rights? Both men and women, particularly those in centers of origin, who have domesticated, developed, conserved and made available plant genetic and other natural resources to which they have access in order to obtain a livelihood and ensure the well-being of their families through the provision of basic requirements such as food, fuel and water and income from the land.

In this context, Farmers' Rights include the right of these men and women to continue their practices contributing to the conservation and sustainable use of plant genetic resources for food and agriculture and to sustain the traditional knowledge and livelihood systems needed for this.

Local farmers as well as scientists and agricultural professionals are all breeders. Nevertheless there are important differences between them resulting in the recognition of different rights.

Local farmers undertake traditional agriculture based on local or indigenous knowledge and practices developed through generations. Farmer communities depend on their seeds for their survival, seeds that are a collective creation which reflect the cultural heritage of these communities.

Seeds for local farmers represent more than a productive resource. They are the basis of cultures throughout history. Seeds incorporate values, visions and ways of understanding life. Seeds have a collective heritage character for farmer communities, playing an important role for their cultural identities and traditional culture. Farmers' Rights, unlike breeders' rights, have a collective nature in permanent evolution.



Article 3 of the CGIAR IA Principles also notes CGIAR will be respectful to national and international efforts to protect and promote Farmers' Rights. However, very few countries have adopted national legislations to protect and promote Farmers' Rights. No measures have been identified by the CGIAR IA Principles to support the realization of Farmers' Rights, even in those countries where no national legislation on the matter has been adopted, but where the CGIAR could have a moral obligation to local farmers who have made available to the CGIAR their plant genetic resources for further conservation and improvement.

Apart from Article 3, there are other articles of the CGIAR IA Principles that will have clear implications in the recognition and implementation of Farmers' Rights. These articles are:

Article 1, which states that "the CGIAR regards the results of its research and development activities as international public goods and is committed to their widespread diffusion and use to achieve the maximum possible access, scale, scope of impact and sharing of benefits to advantage the poor, especially farmers in developing countries."

Article 4.1 establishes that "the CGIAR supports the effective conservation and widespread use of all genetic resources for food and agriculture."

These articles recall that the results and activities developed by the CGIAR are considered international public goods. As international public goods, the CGIAR is committed to their widespread diffusion and widespread use to achieve its maximum impact. How to ensure the co-existence between international public goods for their widespread diffusion and use by farmers and the protection of new agricultural innovations through intellectual property rights, which limits access and use of those innovations becomes a challenge.

Article 2 mentions that *"the CGIAR recognizes that i) partnerships are critical to ensuring access to the best knowledge and innovation, harnessing efficiencies in product development, and achieving maximum impact through effective delivery and deployment, and ii) may require incentives that must be innovatively design, carefully managed and diligently monitored."*

This article would have direct implications to local farmers, if they are considered to be crucial partners of the CGIAR Consortium. Not only their traditional knowledge, innovations and practices should be recognized and valued, but the CGIAR Centers should adopt incentives to strength this partnerships, carefully managed and diligently monitored.

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Article 4.2 refers to other international instruments for accessing plant genetic resources pointing out that *"facilitated access to Plant Genetic Resources for Food and Agriculture within the purview of the Treaty shall be provided in accordance with the Treaty and this CGIAR IA Principles. In addition, the acquisition or transfer of any other genetic resources by the Centers shall be conducted in accordance with all applicable laws including those implementing the CBD, as well as these CGIAR IA Principles."*

According to the International Treaty on Plant Genetic Resources for Food and Agriculture, facilitated access will be given only to those plant genetic resources for food and agriculture listed in Annex 1 of the Treaty and through the Standard Material Transfer Agreement.



Article 5 of this agreement says that access to plant genetic resources for food and agriculture protected by intellectual property and other property rights shall be consistent with relevant international agreements and with relevant national laws. Article 6 of the Agreement indicates that the Recipient of plant genetic resources accessed through these Agreement shall not claim any intellectual property or other rights that limit the facilitated access to the material, its genetic parts or components, in the form received from the Multilateral System. In the case the Recipient commercializes a product that is a plant genetic resource for food and agriculture incorporating material listed in Annex 1 of the Treaty and restrict the access of that product to others for further research and breeding, the Recipient shall pay a fixed percentage of the sales of the commercialized product into the Benefit-sharing Fund of the Treaty, for the direct or indirect benefit of local communities in developing countries conserving and using plant genetic resources. In case the Recipient makes available such Product without restriction for further research and breeding, the Recipient is encourage making voluntary payments to the Benefit-sharing Fund of the Treaty.

A Recipient of material from the Multilateral System of the Treaty who obtains intellectual property rights on any product developed from that material or its components, and assigns such intellectual property rights to a third party, shall transfer the benefit-sharing obligations of the Agreement to that third party.

In addition to monetary benefit-sharing arising from restriction rights (IPR or other rights) imposed over Products obtained from material of the Multilateral System of the Treaty, the Treaty also established non-monetary benefits to be shared when accessing plant genetic resources for food and agriculture listed in Annex 1 of the Treaty. These benefits are the exchange of information; capacity building and access to and transfer of technology. If such technology has been protected through intellectual property rights, the Treaty pointed out that it should be provided and/or facilitated, while respecting applicable property rights and access laws, and in accordance with national capabilities. Access to and transfer of technology could also be realized by all types of partnership in research and development, commercial joint ventures, human resource development and effective access to resource facilities.

If genetic resources accessed follow under the rules of the Convention on Biological Diversity, the Recipient is obliged to obtain the prior informed consent of the State providing such resources when such State is also the country of origin of such resources or has acquired them in accordance with the CBD, unless otherwise determined by that State. In addition, the Recipient must obtain the prior informed consent or approval or involvement of indigenous and local communities for access to genetic resources when they have the established right to grant access to those resources, according to national legislation. When accessing to traditional knowledge associated with genetic resources held by indigenous people and local communities, the Recipient shall obtain the prior informed consent and approval or involvement of these communities and establish mutual agreed terms, in accordance with domestic law.

Article 6 of the CGIAR IA Principles indicates that *"Intellectual Assets produced or acquired by the Consortium and/or the Centers shall be managed in ways that maximized their global accessibility and/or ensure that they lead to the broadest possible impact on targeted beneficiaries in furtherance of the CGIAR Vision."*

Article 6.4.2 points out that Centers shall carefully consider whether to register/apply for (or allow third parties to register/apply for) patents and/or plant variety protection over the Centers' respective Intellectual Assets. As a general principle, such IP Applications should not be made unless they are necessary for the further improvement of such Intellectual Assets or to enhance the scale or scope of impact on target beneficiaries, in furtherance of the CGIAR Vision.

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Under this article, the CGIAR Centers are confirming their possible intention to protect under intellectual property rights results or products of research produced or acquired by them. However, this article is interesting on how intellectual property rights are approached: to maximize their global accessibility and ensure their broadest possible impact on targeted beneficiaries; and not necessary as a restriction access instrument. Under this premise, CGIAR Centers are invited to adopt measures to ensure global accessibility, widespread use and diffusion of results or products of research produced or acquired by them, to achieve the maximum possible access and benefit sharing to the poor, specially local farmers in developing countries, even if those results or products have been protected through intellectual property rights.

Article 6.2 of the CGIAR IA Principles incorporates the limited exclusivity agreements. According to this article, *“the Consortium and/or the Centers may grant limited exclusivity for commercialization of the respective Intellectual Assets they produce provided that such exclusivity is: i) necessary for the further improvement of such Intellectual Asset or to enhance the scale or scope of impact on target beneficiaries, in furtherance of the CGIAR Vision; and ii) limited as possible in duration, territory and/or field of use. The Limited Exclusivity Agreements provide that the Intellectual Assets remain available in all countries for i) non-commercial research conducted by public sector organizations in furtherance the CGIAR Vision; and ii) in the event of national or regional Food Security Emergency for the duration of the Emergency.”*

It is clear that also the Limited Exclusivity Agreements should co-exist and respect Farmers’ Rights to the protection of their traditional knowledge relevant to plant genetic resources for food and agriculture (PGRFA); the right to equitable participate in sharing benefits arising from the use of PGRFA; the right to participate in decision-making on matters related to the conservation and sustainable use of PGRFA; and the right to save, use, exchange and sell farm-saved seed/propagating material, subject to national law.

Article 7 of the CGIAR IA Principles refers to the fees the Centers could demand for the use of their intellectual assets. According to this article, *“the Consortium and the Centers may charge reasonable financial fees, beyond actual costs and reasonable processing fees, in return for providing access to their respective Intellectual Assets on the condition that this possibility of charging fees does not divert them from the fulfillment of the CGIAR Vision.”*

What become reasonable financial fees and reasonable processing fees is something that the CGIAR and the Consortium will need to determine in the near future. Additionally, debates if this fee is going to be applied to smallholder farmers and in which circumstances should also take place, bearing in mind not only the CGIAR Vision, but also the recognition of Farmers’ Rights.

Article 7.3 states that *“the Consortium and the Centers shall use any revenue generated from the Intellectual Asset management in line with and to support the CGIAR Vision. The use of such revenue shall be transparently reported in the regular financial reporting by the Consortium and the Centers.”*

The above article means that any revenue generated from the Intellectual Asset management will be used to support the activities of the Consortium and the Centers to reduce poverty and hunger, improve human health and nutrition and enhance ecosystem resilience.

The Consortium and the Centers should also discuss if revenues generated from the Intellectual Assets could also be invested on activities held by smallholder farmers in developing countries supporting the conservation and utilization of plant genetic resources, as a recognition of their past, present and future contribution in the conservation and availability of these strategic resources and supporting the implementation of Farmers’ Rights.

1.2 Possible implications of Article 3 of the CGIAR Intellectual Assets Principles for implementing the CGIAR Strategy & Results Framework and CRPs

With the adoption of the CGIAR Consortium in 2010 and its overall vision to reduce poverty and hunger, improve human health and nutrition, and enhance ecosystem resilience through high-quality international agricultural research, partnership and leadership, the CGIAR faces a challenge and opportunity to continue generating and disseminating knowledge, technologies and policies for agricultural development through its Research Programs under a new world reality characterized by population growth and the pressure for food supplies; the rapidly lost of biological diversity and the climate change imposing new stresses on natural resources, agricultural and human health.

In this context, when implementing the Intellectual Assets Principles, the CGIAR Consortium should consider local farmers and indigenous peoples not only as potential beneficiaries of International Public Goods generated by the research and development agricultural activities of the Centers, but as one of the main actors of the research and development chain of plant genetic resources.

The CGIAR Consortium when implementing the IA Principles, should promote the rights of local farmers over their natural resources and associated traditional knowledge, their right for benefit-sharing arising from the use of their resources, knowledge and practices and the right to participate in decision-making on matters related to the conservation and sustainable use of PGRFA. The Consortium should work to prevent IPR infringing the right of local farmers to keep conserving, using and making available plant genetic resources for further research and improvement.

It is necessary, if development outcomes are to be realized, that the relationship and perceptions between the Centers and local farmers is no longer seen as a top-down relationship, but an equitable one, where both are in a level of mutual cooperation and benefit. Recognizing this need alongside the desire to make use of private sector efficiencies to disseminate research products remains a central quandary for the Consortium.

Possible measures and processes to be undertaken by the Centers supporting the implementation of Farmer’ Rights will be presented in the next chapter of this document.

1.3 The International Treaty on Plant Genetic Resources for Food and Agriculture and the interface between Farmers’ Rights and plant breeders’ rights

The International Treaty on Plant Genetic Resources for Food and Agriculture is the result of seven years of intense discussions in the Commission on Genetic Resources for Food and Agriculture of FAO and the first multilateral legally binding instrument recognizing Farmers’ Rights.

The Treaty also acknowledges that plant genetic resources for food and agriculture (PGRFA) are the raw material indispensable for crop genetic improvement, whether by means of farmers’ selection, classical plant breeding or modern biotechnologies, and are essential in adapting to unpredictable environmental changes and future human needs.

The Treaty’s Preamble affirmed that past, present and future contributions of farmers in all regions of the world, especially those in centers of origin and diversity, in conserving, improving and making available these resources, is the basis of Farmers’ Rights.

It also states that the rights recognized in the Treaty to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making regarding the conservation and sustainable use these resources, and in the fair and equitable sharing of the benefits arising from, the use of PGRFA are fundamental to the realization of Farmers’ Rights, as well as the promotion of Farmers’ Rights at national and international levels.

The Preamble recognizes that the Treaty and other international agreements relevant to this Treaty should be mutually supportive with a view to sustainable agriculture and food security and nothing in the Treaty shall be interpreted as implying in any way a change in the rights and obligations under other international agreements.

Different articles within the text of the Treaty aim to implement the recognized rights and principles of the Preamble. Article 1 of the Treaty states that the objectives of the Treaty are the conservation and sustainable use of PGRFA and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.

To achieve the first objective (conservation of PGRFA), Article 5 lists some activities that Contracting Parties could implement, subject to their national laws. Within such list some activities are directly related to on-farm conservation and conservation activities developed by farmers. These proposed activities include to:

- i) Promote or support, as appropriate, farmers and local communities' efforts to manage and conserve on-farm their PGRFA;
- ii) 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; and
- iii) Adopt measures, subject to the national legislation, to 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 of transfer of appropriate technologies for this purpose with a view to improving the sustainable use of PGRFA.

Article 6 of the Treaty dealing with the second objective recommends measures towards the sustainable use of PGRFA, including:

- i) 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;
- ii) 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;
- iii) Promoting, as appropriate, plant breeding efforts, which, with the participation of farmers, particularly in developing countries, strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;
- iv) Broadening the genetic base of crops and increasing the range of genetic diversity available to farmers;
- v) Promoting, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized species;
- vi) 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 to reduce crop vulnerability, genetic erosion and increase world food production compatible with sustainable development; and
- vii) Reviewing and, as appropriate, adjusting breeding strategies and regulations concerning variety release and seed distribution.

According to Article 7 of the Treaty, Contracting Parties shall, as appropriate, cooperate with other Contracting Parties, directly or through FAO or other international organizations, in the conservation and sustainable use of PGRFA referred in Articles 5 and 6. The international cooperation shall be directed among other things to:

- i) Establishing or strengthening the capacities of developing countries and countries with economies in transition with respect to conservation and sustainable use of PGRFA;
- ii) Enhancing international activities to promote conservation, evaluation, documentation, genetic enhancement, plant breeding, seed multiplication; and sharing, providing access to, and exchanging; and
- iii) Implement the funding strategy of the Treaty.

Article 9 of the International Treaty specifically relates to Farmers' Rights. The Treaty under this Article recognize the enormous contribution that local and indigenous communities and farmers of all regions of the world, especially those in centers 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.

The implementation of Farmers' Rights under the Treaty shall be realized by Contracting Parties and rests with national governments. According to national needs and priorities, each Contracting Party, subject to its national legislation, shall take measures to protect and promote Farmers' Rights, including:

- i) Protection of traditional knowledge relevant to PGRFA;
- ii) The right to equitably participate in sharing benefits arising from the use of PGRFA;
- iii) The right to participate in decision making, at the national level, on matters related to the conservation and sustainable use of PGRFA.

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.



Article 12 of the Treaty refers to the Multilateral System and facilitated access to PGRFA. This Article states that recipients of PGRFA included in the Multilateral System (MLS) shall not claim any intellectual property rights that limit the facilitated access to PGRFA, their genetic parts or components, in the form received from the Multilateral System.

Access to PGRFA protected by intellectual property rights shall be consistent with relevant international agreements, and with relevant national laws. Access to PGRFA under development, including material being developed by farmers, shall be at the discretion of its developer, during the period of its development.

Article 13 of the Treaty regulates benefit-sharing in the Multilateral System. Contracting Parties recognized that facilitated access to PGRFA included in the MLS constitutes itself a major benefit of the MLS and agreed that benefits accruing therefrom shall be fairly and equitably through the following mechanisms:

- i) Exchange of information, inter alia, encompass catalogues and inventories, information on technologies, results of socio-economic and scientific research such as characterization, evaluation and utilization of PGRFA included in the MLS;
- ii) Access to and transfer of technology especially to developing countries and countries with economies in transition. These technologies include technologies for the conservation, characterization, evaluation and use of PGRFA under the MLS. Access to these technologies, improved varieties and genetic material shall be provided and/or facilitated while respecting applicable property rights and access laws, and in accordance with national capabilities. Access to/and transfer of technology shall be carried out through measures, such as the establishment and maintenance of, and participation in, crop-based thematic groups on use of PGRFA, partnerships in research and development and in commercial ventures relating to the material received, human resources development and effective access to research facilities. Access to and transfer of technology shall be provided and/or facilitated under fair and most favorable terms, in particular technologies for use in conservation and those for the benefit of farmers in developing countries, and countries with economies in transition, including on concessional and preferential terms where mutually agreed;
- iii) Capacity-building in PGRFA, especially establishing and/or strengthening programmes for scientific and technical education and training in conservation and sustainable use of PGRFA; developing and strengthening facilities for conservation and sustainable use of PGRFA and carrying out scientific research in cooperation with institutions of developing countries and countries with economies in transition and developing capacity for such research in fields where they are needed;
- iv) Monetary benefits arising from the commercialization of a product that is a PGRFA and that incorporates material accessed from the MLS shall be paid to the Benefit-sharing Fund of the Treaty, except when the product is available without restriction to others for further research and breeding, in which case the recipient who commercializes shall be encouraged to make such payment. Benefits arising from the use of PGRFA that are shared under the MLS 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 use PGRFA.

Article 15 of the Treaty recognized the importance of ex situ collections of PGRFA held in trust by the Future Harvest Centers of the CGIAR and Article 18 of the Treaty on the Funding Strategy states that priority will be given to the implementation of agreed plans and programmes for farmers in developing countries, especially in least developed countries and in countries with economies in transition, who conserve and sustainably use PGRFA.

Not only the text of the Treaty but also Resolutions and declarations made by Contracting Parties and relevant stakeholders in the framework of the Governing Body sessions and other relevant intersessional meetings have dealt with Farmers' Rights, its relation with the conservation and availability of PGRFA, and its implementation according to Article 9 of the Treaty. Many of these provisions have direct relevance to the work and role of the CGIAR, its use of PGR and range of available benefit-sharing measures.

Governing Body Sessions

First Governing Body Session

During the First Session of the Governing Body held in Spain in 2006, Contracting Parties to the Treaty invited the CGIAR to provide, through its activities, support to the implementation of Farmers' Rights. Furthermore, Norway stressed the importance of Farmers' Rights, noting that the responsibility for their implementation lay with national governments.

Further, the Prime Minister of Spain affirmed *that preserving PGRFA wealth and promoting its share use will benefit farmers and their communities whose rights have been recognized. It will benefit researchers and scientists who will be able to pursue their work under better conditions.*

During the meeting, the Alliance of Future Harvest Centers of the CGIAR affirmed that the Centres, both individually and through System-wide Genetic Resources Programme note the important contributions to the implementation of Articles 5, 6, 9, and 13 of the Treaty through their breeding, capacity building and technology transfer activities, as well as various ways of contributing to the implementation of Farmer's Rights and affirmed they will work hard to advance the goals of conservation, sustainable use, Farmers' Rights, transparent access and exchange of information, technology transfer, and capacity building as highlighted in Articles 5, 6, 9, and 13 of the Treaty.

The Governing Body discussed and approved the agreements to be signed between the Governing Body of the International Treaty and the International Agricultural Research Centers and other Relevant International Organizations. As part of the rights and obligations of the Parties of the Agreement, PGRFA not listed in Annex 1 of the Multilateral System of the Treaty and collected before its entry into force (2004) held by the Centers shall be made available according to the Mutual Transfer Agreement (MTA) currently used by the Centers. This MTA shall be review by the Governing Body at its second session, in consultation with the Centers, under the following condition, among others:

The Contracting Parties in whose territory the plant genetic resources for food and agriculture were collected from in situ conditions shall be provided with samples of such plant genetic resources for food and agriculture on demand, without any MTA.

Second Governing Body Session

At the opening ceremony, local farmers noted that several obstacles held back the development of plant varieties by farmers, such as the failure to recognize the potential of traditional varieties, the lack of capacity to characterize plant varieties and the shortage of resources to market and distribute new varieties among farmers. Additionally, they reminded the meeting of the important contribution of farmers to both the innovation of plant varieties and the conservation of traditional varieties. They also reminded participants of the need to ensure that appropriate benefit-sharing mechanisms were put in place.

To promote Farmers' Rights they recommended the need for funding mechanisms to enable farmers to conserve local varieties and to develop, screen and select new varieties; encourage the exchange of information, knowledge and experience among farmers and the need that gene banks take into account farmers' knowledge on nutrition and other crop values. They noted that for traditional farmers, re-planting of harvested seeds and seed exchange among farmers renews and increases crop biodiversity. Farmers should participate in making decisions and have access to plant genetic resources in public collections. These conditions are necessary to ensure the sustainable keeping and renewal of plant genetic resources using both *ex situ* and *in situ* measures.

During the Second Session of the Governing Body held in Rome in 2007 discussions related to the implementation of Article 9 of the Treaty on Farmers' Rights constituted part of the agenda of the meeting and a Resolution was adopted encouraging Contracting Parties and other relevant organizations to submit views and experiences on the implementation of Farmers' Rights.

The Governing Body also adopted priorities for the use of resources under the Funding Strategy, taking the Global Plan of Action as a framework. It decided that the Governing Body will use the funds at its disposal in the Benefit-sharing Fund for supporting:

- i) Information exchange, technology transfer and capacity-building;
- ii) Managing and conserving plant genetic resources on-farm, as the most direct way of reaching farmers in developing countries; and
- iii) Sustainable use of plant genetic resources.

Furthermore, according to Annex 1 of the Funding Strategy, any governmental or non-governmental organization, including genebanks and research institutions, farmers and farmers' organizations, and regional and international organizations, based in countries that are Contracting Parties to the Treaty, may apply for grants under the Benefit-sharing Fund.

Third Governing Body Session

During the opening of the Third Session of the Governing Body held in Tunisia in 2009, a representative of the International Federation of Agricultural Producers (IFAP), a global farmers' organization at the time representing more than 600 million agricultural producers grouped within 120 national organizations in 80 countries, asked for the remuneration of farmers for the ecoservices that they provide and that serve to safeguard resources, while at the same time ensuring food security. Throughout the world, farmers need measures that will encourage them to take ecological initiatives, for example the initiative to produce indigenous species to prevent the loss of genetic resources. IFAP requested that farmers be encouraged to conserve local species and to reintroduce on their land species that have been eradicated. Farmers should benefit from the production and conservation of those species.

Governments should allow farmers to register local varieties to encourage their conservation in their respective territories. Countries need to recognize the universal right of farmers to save and reuse seed produced on their own farms. IFAP also saw a need to examine the issue of intellectual property rights to enable farmers to protect their own innovations and to facilitate farmer access to new agricultural technologies. Incentives need to be put in place, especially in countries whose markets do not reward farmers for their food or other production. Concrete measures need to ensure the right of farmers and their organizations to participate in national decision-making on issues relating to the conservation and sustainable use of plant genetic resources for food and agriculture.



During the Session, a representative of UPOV supported the view that the instruments dealing with genetic resources and relevant international instruments dealing with intellectual property rights, including the UPOV Convention should be mutually supportive. In that respect, and in relation with Article 9 of the Treaty, UPOV's representative remind that the UPOV Convention contains a compulsory exception to the breeder's right whereby the breeder's right does not extend to acts done privately and for non-commercial purposes. Therefore, activities of subsistence farmers, where these constitute acts done privately and for non-commercial purposes, are excluded from the scope of the breeder's right and such farmers freely benefit from the availability of protected new varieties.

The provision in the 1991 Act of the UPOV Convention on "farm-saved seed" is an optional mechanism provided by the UPOV Convention, under which UPOV members may permit farmers, on their own farms, to use part of their harvest of a protected variety for the planting of a further crop. Under this provision, members of UPOV are able to adopt solutions, which are specifically adapted to their agricultural circumstances. However, this provision is subject to reasonable limits and requires that the legitimate interests of the breeder are safeguarded, to ensure there is a continued incentive for the development of new varieties of plants, for the benefit of society. For example, certain members of UPOV apply the provision on farm-saved seed only to certain species and limit its application using criteria such as the size of the farmer's holding or the level of production.

UPOV's representative also noted that the use of traditional varieties is not prevented by the implementation of the UPOV system. Furthermore, under the UPOV system:

- Private and non commercial use of a protected variety is not subject to the breeder's authorization; the saving of seed of a protected variety may be permitted (within limits and while respecting the breeder's interests);
- The breeder's exemption also applies to farmers; and
- The protection is limited in time.

In conclusion, he said, there is no obstacle to implement Article 9 of the International Treaty in a mutually supportive way with the UPOV Convention.

As part of the submissions made as response to the invitation of the Governing Body at its Second Session to present views and experiences in the implementation of Article 9, the Global Community Biodiversity Development and Conservation Network stated that farmers in Africa, Asia and Latin America share the belief that one of their most important entitlements as farmers is the freedom to grow what would best meet their needs. A precondition to ensuring this "freedom of choice" is unhampered access to planting materials, and the right to save, re-use, sell, or exchange seeds with other farmers. Some of the key recommendations presented to support the implementation of Farmers' Rights are inter alia the:

- Right to seed conservation and rehabilitation: recognizing Farmers' Right to seeds and traditional knowledge in seed resources conservation and development; ensuring the continuation to provide improved and local varieties/plant genetic materials (PGRs) to sustain farmers' breeding work; and establishing genebanks in which farmers' seeds could be stored for the long-term;
- Right to varietal selection and breeding: for example by simplifying the seed registration process; and increasing the support for seed selection and breeding, particularly by providing the necessary infrastructure/facilities for training, and by putting up seed storage facilities for the use of farmers; and the
- Right to seed production and marketing: providing marketing support, specifically by helping farmers identify and link up with potential markets, and encouraging local initiatives that promote free and autonomous use of biodiversity, for example, through the purchase and distribution of local seeds produced by farmers.

At the end of the Session, the Governing Body of the Treaty adopted Resolution 6/2009 on Farmers' Rights inviting Contracting Parties to consider reviewing and, if necessary, adjusting its national measures affecting the realization of Farmers' Rights according to Article 9 of the Treaty, to protect and promote Farmers' Rights.

The Governing Body also encouraged Contracting Parties and other relevant organizations to continue submitting views and experiences on the implementation of Farmers' Rights, involving as appropriate farmers' organizations and other stakeholders.

It also requested the Treaty Secretariat to convene regional workshops on Farmers' Rights, subject to the availability of financial resources, to discuss national experiences on the implementation of Farmers' Rights.

Fourth Session of the Governing Body

The Governing Body at its Fourth Session held in Indonesia in 2011 discussed the implementation of Farmers' Rights as part of its agenda. At this opportunity, the Governing Body emphasized the link between Farmers' Rights and the provisions on conservation and sustainable use under Articles 5 and 6 of the Treaty.

A compilation of views and experiences in the implementation of Farmers' Rights submitted by Contracting Parties and relevant organizations was made available to Parties at the Fourth Session of the Governing Body as an information document.

Furthermore, Ethiopia circulated an input paper based on global consultations on Farmers' Rights held in 2010 with the support of the Fridtjof Nansen Institute of Norway. Around 130 people from 36 countries participated in the global consultation on the implementation of Article 9 of the Treaty. Discussions were held around how to balance the need for farmers to continue conserving and sustainably using crop genetic resources with the needs of plant breeders for compensation and incentives to continue crop breeding.

For the African participants, there is a lack of policy support for farmers engaged in conservation, development and sustainable use of farmers' varieties. They also expressed the need to improve farmers' capacities to participate in decision-making regarding their rights to save, use, exchange and sell farm-saved seed and propagating material. As for this Region, there is an urgent need to ensure that farmers have the right to freely maintain and improve plant varieties that are protected under UPOV derived legislation on plant breeders' rights.

For the Asian Region, it was proposed that CGIAR Centers should be encouraged to strengthen the transfer of farmers' varieties currently conserved in international and national genebanks to community genebanks, in order to enable farmers to use those varieties. They should also promote participatory research, including participatory plant breeding at both national and local levels. The GRULAC Region stated that formal and local seed systems should not be seen as in opposition but should be recognized as complementary.

For Europe and the North American Region it is important to bear in mind that the diversity of PGRFA developed by farmers/breeders and exchanged within and among communities, countries and continents require diverse seed systems with different legal situations. They also recognized the notion of farmers as breeders, which is based on the idea that farmers as well as specialized breeders have important knowledge and skills that can complement one another and the need to ensure the system of access to germplasm and propagating material, to be equally available to all.

The Governing Body requested the Secretary of the Treaty to convene regional workshops on Farmers' Rights, subject to the availability of financial resources, to discuss national implementation of Farmers' Rights.

It also invited Parties to consider reviewing and, if necessary adjusting its national measures affecting the realization of Farmers' Rights; submit views, experiences, best practices for the implementation of Farmers' Rights and proposals for ways and means through which the views, experiences and best practices can be exchanged among Contracting Parties and relevant stakeholder groups. The Governing Body also requested the Secretary to compile the submissions and reports of the regional workshops for consideration of the Ad Hoc Advisory Committee on Sustainable Use.

Relevant inter-sessional meetings

Delivering Global Food Security Meeting

Representatives from Governments, the private sector and international foundations met in Cordoba, Spain in September 2010 to discuss the role of the International Treaty's new 'Leading the Field' initiative, an initiative which supports farmers in developing countries to adapt food crops to the effects of climate change and improve food security globally.

Participants recognized that small-scale farmers, rural communities in developing countries and indigenous peoples are the custodians of large amounts of the agricultural biodiversity needed globally to ensure food security.

They noted that in order to respond to climate change, agriculture will need to strengthen its resilience and develop and adopt practices that support mitigation and at the same time enable production to adapt to changing production environments in ways that aim to achieve food security of small scale farmers, the right to food and a sustainable production system.

In consequence, using diversity to achieve resilience, enhance production and ensure adaptability requires experience and knowledge of all the components of production systems and of their inter-relationships. Using diversity to improve food security in sustainable ways and help cope with climate change will require a new body of knowledge resulted from bringing together researchers, producers and users in innovative and participatory ways. No one sector of society or group of actors has all the elements needed. Strengthened collaboration between national and regional decision makers, civil society, private sector, small-scale producers and the user community is part of the necessary framework to achieve food security and face global challenges.

Recommendations made by participants included to:

- Build on the complementarity of *in situ* and *ex situ* approaches;
- Build on existing initiatives and forums (CBD, FAO-CGRFA, Treaty, GCDT, Svalbard, CGIAR);
- Give maximum priority to programmes that increase the capacity of small-scale farmers to manage agricultural biodiversity;
- Recognize the value of the diversity of human knowledge and experience, technologies and practices, and meeting nutritional needs and aspirations;
- Recognize relevant human rights – the right to food, Farmers' Rights and the rights of rural communities and indigenous peoples; and
- Improve access to materials and strengthen international instruments that can facilitate access to PGRFA on terms that meet concerns of communities and farmers.



First High Level Ministerial Conference

During the First High Level Ministerial Conference held in Indonesia in 2011 the need for effective exchange and use of PGRFA was highlighted as without access to the world's key crops and their continual exchange and improvement, the nine billion people who will inhabit the planet at the middle of this century would not be fed.

Ministers recalled that climate change increases the risk of loss of these resources; a new challenge that the Treaty must address. In consequence the Treaty, through its Benefit-sharing Fund, must be clearly linked to the utilization of the extremely valuable plant genetic resources that are contained in the Treaty's Multilateral System of Access and Benefit-sharing, in the context of assisting small-scale farmers to adapt to climate change. The Governing Body also formally established the role of GFAR in helping to foster the sustainable use of plant genetic resources, in association with the Treaty provisions.

Second High Level Round Table

The Second High Level Round Table was held in the Margins of Rio+20 in June 2012. Participants, including Ministers of Agriculture and Environment, the CGIAR, farmers and civil society representatives and other international organizations recalled the:

- Importance of the continued improvement of crop varieties for climate change adaptation;
- Importance of participatory plant breeding;
- Contribution of traditional seed supply systems of indigenous and local communities to food security and the conservation of biodiversity;
- Called for partnerships between farmers, industry and governments in building capacity in developing countries;
- Importance of Farmers' Rights, their Traditional Knowledge, their access to genetic resources and their active participation in benefit-sharing and national decision-making related to plant genetic resources;
- Need to increase participation of farmers, civil society and the private sector in debates of food security;
- Contribution by the CGIAR to the distribution of genetic material and the generation of benefit-sharing.

The Second High Level Round Table was held in the Margins of Rio+20 in June 2012. Participants, including Ministers of Agriculture and Environment, the CGIAR, farmers and civil society representatives and other international organizations recalled the:

- Establishing a platform for the co-development and transfer of technology as part of non-monetary benefit-sharing;
- Promoting public-private partnership for pre-breeding;
- Raising awareness of the actual and potential value of underutilized species of local and regional importance for food security and sustainable development;
- Facilitating a new Keystone-type dialogue, to complete the governance of all plant genetic resources for food and agriculture under the Treaty;
- Sensitizing policy makers and other key stakeholders about the importance of fully implementing the Treaty, not only for food and agriculture, but also for food security, nutrition and the resilience of agriculture systems, particularly in the context of the climate change; and
- Exploring the possible expansion of the list of the crops included in the Annex I to the Treaty.

1.4 A typology of Farmers' Rights provisions in national laws

Few countries around the world have adopted national laws that directly protect and promote Farmers' Rights as a stand-alone issue. Instead, a number of countries have sought to recognize and protect these rights within legislation dealing with i) access and benefit-sharing; and ii) plant variety protection.

i) Access and benefit-sharing (ABS) legislation:

A range of issues of common importance are emerging among countries that have promoted and protected Farmers' Rights through national legislation on access to biological and genetic resources and benefit sharing arising from their utilization³.

Frequent objectives of these ABS laws supporting Farmers' Rights are to:

- i) Recognize, protect and support the inalienable rights of local communities, including farmer communities over their biological resources, knowledge and technologies;
- ii) Promote appropriate mechanisms for the fair and equitable sharing of benefits arising from the use of biological resources, knowledge and technologies;
- iii) Ensure the effective participation of indigenous and local communities in decision-making;
- iv) Promote the supply of good quality seed/planting material to farmers; and
- v) Ensure that biological resources are used to strengthen the food security nationally.

These laws recognize and protect collective rights of indigenous and local communities, such as the:

- i) Protection of associated traditional knowledge to the use of biological and genetic resources. Traditional knowledge is protected against its illegal use and exploitation. Indigenous and local communities have the right to decide on the use of their traditional knowledge; have the origin of the access to traditional knowledge mentioned in all publications, uses, exploitation and disclosures; prevent unauthorized use by third parties; and derive profits from the economic exploitation of their traditional knowledge by third parties.
- ii) Equitable sharing of benefits (monetary and non-monetary) arising from the use of genetic resources and/or traditional knowledge, including participating in scientific research; sharing of royalties arising from the commercialization of process or products; receiving education and training; technology transfer under favorable terms and in particular exchange of knowledge that make use of genetic resources, including biotechnology relevant to the conservation and sustainable use of biological and genetic resources; and benefits related to food security.
- iii) Participation in decision-making related to the use of biological resources and/or traditional knowledge.
- iv) Prior Informed Consent [PIC] to access traditional knowledge and/or biological and genetic resources. PIC includes the right of indigenous and local communities to oppose any access to their resources and associated traditional knowledge, be it for cultural, spiritual, social, economic or other motives.
- v) Save, use, exchange and sell farm-saved seed propagating material of farmers' varieties.

³The reviewed ABS legislation include the African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 2000; Asian Framework Agreement on Access to Biological and Genetic Resources, 2000; Biodiversity and Community Protection Act of Bangladesh, 1998; The National Environment (Access to Genetic Resources and Benefit-sharing) Regulations of Uganda, 2005; Brazil Provision Measure No. 1286-16 of 2001; Biodiversity Law 7788 of Costa Rica and Law introducing a protection regime for the collective knowledge of indigenous peoples derived from biological resources of Peru, Law 27811 of 2002.

vi) Reclaim and regain at any time the germplasm taken from their communities and to withdraw from a genebank.

vii) Use new breeders' varieties, including material obtained from genebanks or plant genetic resources centers.

viii) Collectively use, save, use, multiply and process farm-saved seed of protected varieties for purposes other than commerce. The exchange and dissemination of genetic resource and traditional knowledge practiced within indigenous and local communities for their own benefit and based on customary usage shall be preserved.

ix) If intellectual property rights to protect a product or process arising from the use of genetic resources are granted, the applicant shall disclose the origin of the genetic resource and traditional knowledge, as the case may be. It also shall disclose its legal access.

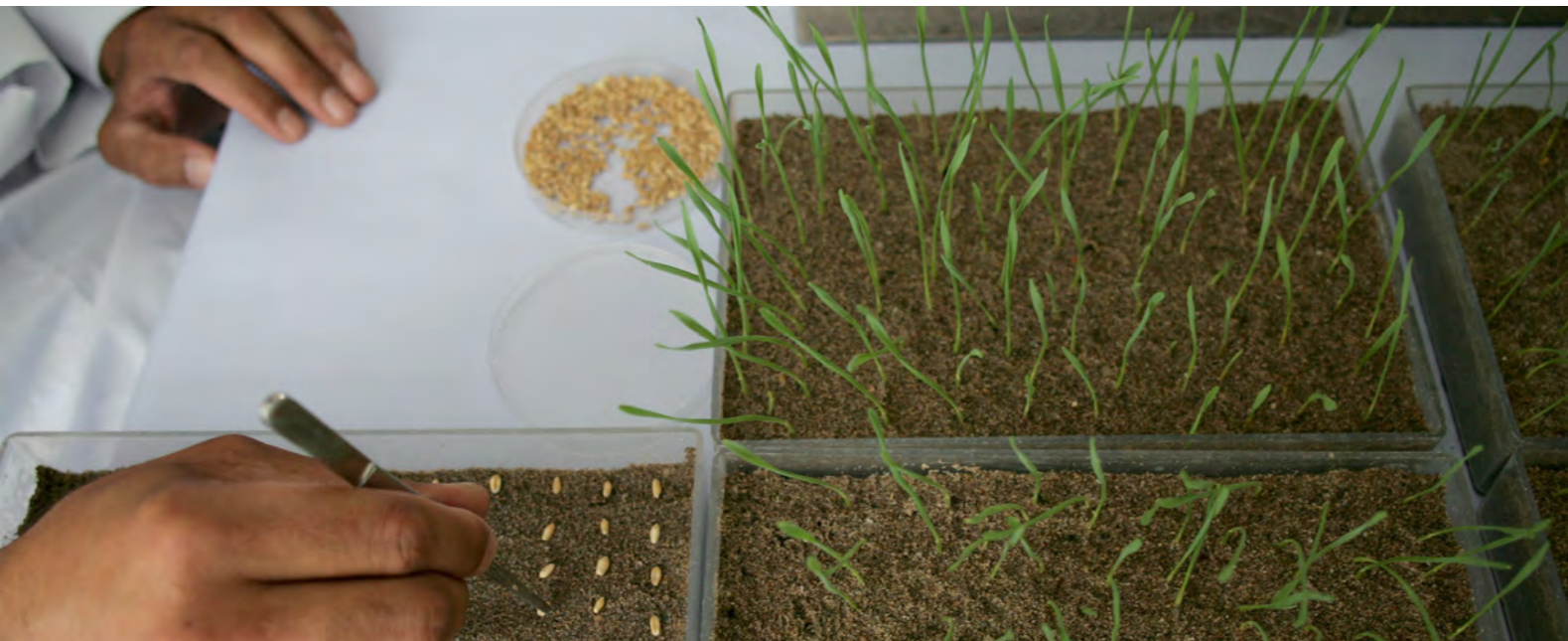
Another way of protecting Farmers' Rights is by granting variety certificates entitling the farmer community to have exclusive rights to multiply, cultivate, use or sell the variety or to license its use.

Additionally, some ABS laws include the establishment of funds to promote Farmers' Rights. Here, voluntary contributions from national and international bodies and royalties based on the gross value of protected seeds sold, are used to fund projects developed by farming communities, including the development, conservation and sustainable use of agricultural genetic resources.

The kinds of non-monetary benefits included in ABS laws that could promote Farmers' Rights are:

- i) Participation of local communities in research activities;
- ii) Supply raw material of genetic resources required for producing products there from;
- iii) Access to products and technologies developed from the use of genetic resources and traditional knowledge; and
- iv) Training to enhance local skills in genetic resources conservation, evaluation, development, propagation and use.

Additionally, some ABS laws include the establishment of funds to promote Farmers' Rights. Here, voluntary contributions from national and international bodies and royalties based on the gross value of protected seeds sold, are used to fund projects developed by farming communities, including the development, conservation and sustainable use of agricultural genetic resources.



ii. Plant variety protection laws

The Protection of Plant Varieties and Farmers' Rights Act of 2001 of India aims to protect Farmers' Rights, breeders' rights and encourage the development of new varieties of plants. It recognizes farmers as cultivators, conservers and breeders.

Means to promote and protect Farmers' Rights include:

- Documentation, indexing and cataloguing farmers' varieties;
- Ensuring that seeds of the varieties registered under the Act are available to farmers and providing for compulsory licensing of those varieties if the breeder or any other person entitled to produce such variety does not arrange for production and sale of the seed;
- Save, use, sow, resow, exchange, share or sell his/her farm produce including seed of a variety protected under this Act in the same manner as he/she was entitled before the coming into force of this Act. Farmers are not allowed to sell seeds of protected varieties as branded packages. However, farmers are allowed all the customary rights they previously enjoyed;
- Breeders are obliged to disclose to farmers the performance of the variety under given conditions. If the material fails to perform according to this information, farmers may claim compensation from the breeding company; and
- Farmers who unknowingly violate the rights of a breeder are not to be punished if they can prove that they were not aware of the existence of such a breeder's right.

Countries⁴ that have ratified UPOV Convention have translated their international obligations into national legislation regarding the protection of plant varieties. These national laws state that the breeder's right in the plant variety is not infringed by a person who:

- Stores and plants seeds for his own use on his premises or on the premises of third parties of which he has possession;
- Uses or sells as food or raw material the product of his planting, except for the purposes of reproduction;
- Uses the plant variety as a source of variation in genetic improvement or in scientific research;
- Activities of breeding, cross-breeding and selection for the purpose of breeding new varieties;
- Non-commercial activities and use of the result of propagation material, by farmers on their own holdings for private propagating purposes;
- Being a small rural producer, multiplies seed, for donation or exchange in dealings exclusively with other small rural producers, under programs of financing or support for small rural producers conducted by public bodies or non-governmental agencies, authorized by the Government;
- Activities of use, commercial exploitation and consumption of the crop material, prime and intermediate material and finished products, which are made or derived directly or indirectly from the crop material, whether the crop material is an entire plant or part thereof.

⁴Signatory countries of UPOV 1978 include Andean Community Countries (Peru, Colombia, Bolivia and Ecuador) (Decision 345 1996 'Common Provision on the Protection of the Rights of Breeders of New Plant Varieties'); Brazil (Law 9,456 of 1997); Egypt (Law on the Protection of Intellectual Property Rights, 2002)

Some legislation regulating the protection of rights over plant varieties contemplate that the breeder shall disclose the genetic source relied on to develop the new plant variety. The protection of the new plant variety requires that the breeder has acquired that source by legitimate means under national law. Such a requirement extends to traditional knowledge and experience accumulated among local communities that the breeder could have relied on in his efforts to develop the new plant variety.

The balance between Farmers' Rights and breeders' rights remains a highly contentious issue in the UPOV legislation. On December 5, 2012, Colombia's Constitutional Court declared unconstitutional a 2012 law by which the National Congress approved the country's accession to the 1991 Act of the International Convention for the Protection of New Varieties of Plants (UPOV Convention). Sentencia C-1051/12 (Corte Constitucional de Colombia Dec. 5, 2012). According to a communiqué issued by the Constitutional Court, a majority of the court found that Law No. 1052 of April 13, 2012, which approved the 1991 treaty dealing with plant variety rights (also known as plant breeders' rights), violated the rights of indigenous groups and Afro-Colombians, because the Congress did not consult with those ethnic groups prior to enacting the law⁵. The Court previously declared that it is a fundamental right of ethnic minorities that indigenous and tribal peoples should be consulted regarding legislative or administrative measures that directly affect those groups. The Court bases this right in part on the Indigenous and Tribal Peoples Convention of the International Labor Organization (ILO), Convention No. 169.

This is not the first time that Colombia's Constitutional Court has expressed its views regarding the effects of plant variety protection laws on farming and cultural traditions of indigenous peoples. In Sentencia C-262/96 (Corte Constitucional de Colombia 1996), the Court considered the effect of Colombia's accession to the 1978 UPOV Act. The Court found that it was necessary to protect traditional farming and production practices of minority groups, such as indigenous peoples and Afro-Colombian communities. The Court quoted with approval the testimony of an anthropologist witness, who stated that "The knowledge and use of plant varieties [by indigenous and minority ethnic communities] is not only essential in all of their socio-economic, cultural, and religious activities, but part of a cultural strategy for the use and preservation of biodiversity." According to the Court, the disruption of such practices can harm minority communities by causing cultural disintegration, malnutrition, and diminished health and well-being, and can threaten the very survival of those minority populations.

⁴http://sullivanlaw.net/colombian-court-strikes-law-approving-1991-plant-variety-protection-convention/?goback=%2Egde_4202052_member_194620360

2. MECHANISMS SUPPORTING THE DEVELOPMENT OF APPROPRIATE POLICIES AND PROCEDURES FOR THE RECOGNITION AND PROMOTION OF FARMERS' RIGHTS

Some legislation regulating the protection of rights over plant varieties contemplate that the breeder shall disclose the genetic source relied on to develop the new plant variety. The protection of the new plant variety requires that the breeder has acquired that source by legitimate means under national law. Such a requirement extends to traditional knowledge and experience accumulated among local communities that the breeder could have relied on in his efforts to develop the new plant variety.

2.1 Identification of measures/activities supporting the implementation of Farmers' Rights

As it was mentioned before, the International Treaty on Plant Genetic Resources for Food and Agriculture leaves the realization of Farmers' Rights to national governments. However, only few countries have adopted specific regulations and there are no guidelines so far on how to regulate Farmers' Rights at the national level.

Some Contracting Parties to the International Treaty and relevant stakeholders recognized this existing gap and, after consultations, recommended the Governing Body should give:

- a) Guidance and support to develop or adjust national legislation, policies, strategies and programmes for the realization of Farmers' Rights;
- b) Guidance on how to ensure or re-establish sufficient legal space within seed laws and intellectual property legislation to enable farmers to continue conserving, developing and sustainably using the diversity of plant genetic resources;
- c) Technical and financial support to:
 - building farmers' capacity to participate in decision-making regarding their rights to save, use, exchange and sell farm-saved seed and propagating material;
 - facilitating access to relevant information regarding the laws and policies pertaining to Farmers' Rights to save, use, exchange and sell farm-saved seed;
 - ensuring effective participation of farmers in such decision-making;
 - raising awareness among farmers, policy-makers and other relevant groups at all levels;
 - establishing legal support for informal seed systems;
 - mainstreaming Farmers' Rights to save, use, exchange and sell farm-saved seed in legal and policy frameworks;
 - up-scaling and institutionalizing successful local activities aimed at strengthening informal seed systems, including NGO-led activities, to the national level;
- d) Support in:
 - establishing measures to recognize traditional knowledge and facilitate its use;
 - establishing measures to ensure that traditional knowledge, as well as the systems that generate such knowledge, are respected and promoted;
 - facilitating documentation of traditional knowledge;
 - building capacity for documenting and using traditional knowledge;
 - establishing measures for scaling up documentation and use of traditional knowledge;
 - developing and implementing legal provisions on traditional knowledge; and
 - supporting on-farm conservation activities by farmers;
 - establishing measures to ensure effective participation of farmers in decision-making processes;
- e) Encourage the establishment of effective mechanisms for communication in the process of decision-making;
- f) Study ways and means of an effective system to enable farmers' voices to be heard;



g) Establish a Clearing House Mechanism for sharing experiences among Contracting Parties on the realization of the right of farmers to participate in decision-making; and

h) Encourage synergies with other treaties in relation to farmers' participation in decision-making regarding plant genetic diversity for food and agriculture.

Despite the existing gaps for the realization of Farmers' Rights through national legislation, there is also common recognition that a range of practical processes can help support Farmers' Rights. Some of these measures are:

2.1.a Repatriation of genetic resources to local farmer communities

Repatriation of genetic resources is one of the activities supporting the realization of Farmers' Rights.

Repatriation of genetic resources is the right of local farmers to recover, free of charge, genetic resources once found in their local lands and extracted from their territories, where possible and when requested.

This important right arises from the recognition that genetic resources are not patrimony of mankind, but contrary subject to property rights, in this case collective property rights. Collective property rights over resources, and the past, present and future contributions of local farmer communities on the conservation, sustainable use and availability of plant genetic resources are the basis for the recognition of the right of repatriation. Repatriation of genetic resources can also be considered a way of benefit-sharing.

One example of repatriation of plant genetic resources for food and agriculture is being undertaken by the International Potato Center –CIP to local communities of the Potato Park in Pisac, Cusco-Peru. Six indigenous communities have received more than 400 accessions of potato and tuber varieties to recover and maintain their genetic diversity on-farm. In this case, repatriation of duplicates of genetic resources included a value added component, as genetic resources repatriated to local communities are also clean and free of diseases.

Around ten years ago, indigenous farmers living in the Potato Park started noticing that the genetic diversity of their potato varieties was decreasing, resulting in low supply of quality potato seed and genetic erosion. Some native potato varieties were not found *in situ* anymore due to the incorporation of industrial and commercial varieties. In order to recover native potato and increase *in situ* genetic diversity of potato, a group of indigenous farmers appealed to CIP for repatriation of native potato varieties, some of which had been lost on-farm.

CIP initiated its collection of potato and other tuber crops around 40 years ago. The collection now serves as backup to the biodiversity lost in the fields and provides material for the use of local farmers, breeders and researchers worldwide.

The repatriation of genetic material was made effective under the framework of an agreement signed between the International Potato Center (CIP) and the Potato Park Indigenous Communities to promote the conservation of genetic resources of the Potato Park, also building bridges between scientific and local knowledge.



2.1.b Protection of traditional knowledge

According to the International Treaty, the protection of traditional knowledge relevant to plant genetic resources for food and agriculture is another way of realizing Farmers' Rights.

The United Nations Declaration on the Rights of Indigenous Peoples also recognized this right when recognizing the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions. Indigenous peoples have the right to maintain, control, protect and develop their intellectual property over their cultural heritage, traditional knowledge and traditional cultural expressions. However, traditional knowledge related to plants and animals is getting lost.

There are several ways of protecting traditional knowledge. As traditional knowledge is dynamic, it must be used in order to exist. The promotion and use of local languages, rituals to transmit traditional knowledge from one generation to another and local agricultural practices applying traditional knowledge relevant to plant genetic resources for food and agriculture are some examples of measures supporting the protection of traditional knowledge.

Indigenous names for crop varieties involve traditional knowledge associated with that specific crop, its characteristics, where they can be harvested, traditional uses, etc. These names should be respected and promoted jointly with scientific names and commercial names and not be replaced by them.

Traditional knowledge is also been lost due to the immersion of traditional communities into modern society and modern life. Everyday local farmers depend more on products from the outside than those harvested and produced on-farm. New commercial varieties have replaced traditional varieties, contributing to the lost of genetic diversity and the traditional knowledge associated with those genetic resources and the local agricultural practices used for harvesting and consuming them. Traditional crops should be re-introduced, conserved and not be replaced by new modern or commercial crops.

Local agricultural practices are very important spaces to maintain and re-create traditional knowledge related to plant genetic resources. Indigenous communities, for example, have complex systems of soil classification and cultivated and wild plants, based on principles and parameters different from the ones used for classification systems under the Western sciences.

The Chagra in the Amazon jungle, for example, constitutes an agricultural system based in the complementarity and synchronization of different crops. Crop development in the Chagra presents a similar process to that in the natural forest, although indigenous manipulations towards increasing the productivity of the crop plants have been done. Amazonian indigenous agricultural systems are the result of a long process of adaptation, collective experimentation and innovation.

The role of women is very important; women are the ones managing all the crops harvested in the Chagra and holders of most of the knowledge related to those crops. According to the traditional culture, women are in charge of innovating and breeding new plant varieties within the Chagra, as well as the exchange of crops with other indigenous women.

This and other local agricultural practices should be promoted, and not replaced, but complemented by modern agricultural practices.

Another way of helping to protect traditional knowledge is through its documentation and inclusion in databases or registries. Databases or registries could have two different purposes. One is to maintain traditional knowledge, which is traditionally kept orally by local communities to avoid its loss. Additionally, databases and registries can also be used as a defensive way to prevent intellectual property rights' claims involving traditional knowledge being accessed without the prior informed consent and/or mutually agreed terms of the legal holders of such knowledge. By including traditional knowledge in databases or registries, knowledge becomes of public domain and the novelty requirement for intellectual property rights is invalidated.

Prior informed consent of the legal holder of traditional knowledge is needed to document it as a protective or defensive measure.

A third way of protecting traditional knowledge is by ensuring that access to traditional knowledge by a third person is acquired subject to the prior informed consent and/or mutually agreed terms of the legal holder of such knowledge.

Many scientists of CGIAR Centers work directly with indigenous and local communities and access their traditional knowledge relevant for plant genetic resources. Scientists have a big responsibility with regard to the way in which traditional knowledge is acquired and used during their research activities.

Scientists of different CGIAR Centers expressed the need for guidelines to ensure that their practices would be consistent, fair and ethical.

At its 23th session, the Genetic Resources Policy Committee of the CGIAR approved the Draft Guidelines for the Acquisition and Use of Traditional Knowledge by CGIAR Scientists. These guidelines include sections on prior informed consent, publishing traditional knowledge, sharing research results, access and benefit-sharing, the risks and opportunities regarding intellectual property rights and traditional knowledge protection.

These guidelines recommend Centers to keep track of the financial cost of executing prior informed consent for the acquisition and use of traditional knowledge, with the aim of determining budgetary implications and to include financial planning for future projects involving traditional knowledge.

At its next session, the Genetic Resources Policy Committee of the CGIAR reiterated that CGIAR scientists should respect the rights of traditional knowledge holders by seeking their prior informed consent for the documentation, use and publication of information associated with traditional knowledge.

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2.1.c Legal access to in situ plant genetic resources for food and agriculture

i) Fulfilling ABS legislation when accessing genetic resources and traditional knowledge

Since 1992, the paradigm that biological diversity must be considered “patrimony of humankind” was rejected, as most of biodiversity components are under national jurisdiction. The Convention on Biological Diversity in its Article 15 recognized sovereign rights of States over their natural resources and noted that the authority to determine access to genetic resources rests with national governments and is subject to national legislation. It also recognized that conservation on biological diversity is of common interest to all nations, implying shared responsibilities.

Each country shall endeavor to create conditions to facilitate access to genetic resources for environmentally sound uses. According to the Convention, access to genetic resources when granted, shall be based on prior informed consent and mutually agreed terms, unless determined by the country holding sovereign rights over those resources. As to the last information provided by Contracting Parties to the Convention, only 60 countries in the whole world have developed national legislation regulating access to their genetic resources.

Due to the global need to face climate change to ensure food security, CGIAR Centers have increased their interest in collecting and characterizing wild relatives of some crops hoping to find useful traits of particular interest such as tolerance to extreme temperatures. Most of these plant genetic resources in situ are out of the scope of the International Treaty on Plant Genetic Resources and therefore CGIAR scientists shall comply with national legislations regulating access to genetic resources.

In cases where there is no national legislation regulating access to genetic resources, including plant genetic resources for food and agriculture, scientists of CGIAR Centers should at least ensure the prior informed consent/mutually agreed terms with the legal holder of the resource they wish to access.

In cases where the CGIAR aims to protect their innovations through intellectual property rights, such as patents, the application should identify the country of legal provenance of the genetic resource used, inform that country and prove its agreement that the intellectual property rights requested by the CGIAR will not deny its rights over such plant genetic resources given in trust to the CGIAR Centers.

ii) Supporting and monitoring the compliance of ABS national legislation by third parties

CGIAR Centers could also play an important role in supporting the compliance of legal access to genetic resources by third parties. This could be done by:

I) Participating as members of interdisciplinary groups of discussion and analysis of cases of non-compliance with ABS national legislations or misappropriation use:

It has been the case of the International Potato Center (CIP) in Peru. Since 1996, Peru has been very active in developing its own policy and legal framework related to genetic resources and the protection of traditional knowledge. Two important regulations adopted in Peru are Law 27811 of 2002, the *Law for the Protection of the Collective Knowledge of Indigenous Peoples* and the Supreme Decree 003 of 2009, which regulates Decision 391 of 1996 *Andean Community or Common Regime on Access to Genetic Resources*.

In addition, Peruvian NGOs and national institutions have been very active in the protection and legal access of their genetic resources and associated traditional knowledge. INDECOPI, the National Institution for the Defense of Competition and Intellectual Property convened in 2002 a working group to look into a patent granted to an overseas company for an invention based on a Peruvian plant (Maca). The working group reviewed the patent documents to determine whether the Peruvian plant had been accessed legally, whether traditional knowledge was involved in the invention and whether the company had complied with the legal framework to access genetic resources and traditional knowledge in Peru.

In 2002, the working group realized that there were other cases where genetic resources and traditional knowledge had been accessed without complying with the legal framework in Peru. Therefore, in 2004, the Peruvian Congress enacted Law 28416, which created the National Commission for the Prevention of Biopiracy to follow-up cases where Peruvian genetic resources and traditional knowledge have been accessed without the fulfillment of the corresponding national legislation.

After 10 years of existence, the Commission has reviewed 2500 patents or request for a patent and identified 797 that are based on genetic resources, which Peru is country of origin. In 10 years, the Commission has achieved that 10 possible patents are denied due to the lack of legal access of genetic resources of Peru and/or associated traditional knowledge.

CIP, the Peruvian Ministry of Foreign Affairs, INDECOPI, the National Commission of the Andean, Amazon Indigenous Peoples and Peruvian Afroamerican communities and other national institutions and civil society integrate the National Commission for the Prevention of Biopiracy. Joint efforts of the private and public sectors in ensuring legal access of genetic resources and traditional knowledge are expressed and materialized with the Commission for the Prevention of Biopiracy, constituting a useful and innovative way to support and monitor the implementation of national legislation on access to genetic resources and traditional knowledge.

II) As a possible “check-point” when receiving from third parties genetic resources under the scope of the CBD to be conserved in their ex-situ collections:

The recently approved *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* recognized the need of Contracting Parties to take appropriate, effective and proportionate legislative, administrative or policy measures to provide that genetic resources and traditional knowledge have been accessed in accordance with prior informed consent and mutually agreed terms.

To support compliance, each Contracting Party shall take measures, as appropriate to monitor and enhance transparency about the use of genetic resources. Such measures include the designation of one or more check-points to collect or receive, as appropriate, relevant information related to the prior informed consent, the source of the genetic resource and the establishment of mutually agreed terms.

According to the Nagoya Protocol, checkpoints should be relevant to the use of genetic resources, or to the collection of relevant information, at, *inter alia*, any stage of research, development, innovation, pre-commercialization or commercialization.

CGIAR Centers must ensure that genetic resources provided by other stakeholders (private sector, academy, or others) to be conserved in their genebanks or used by their scientists have been acquired under national legislation, or in case of inexistent legislation, under the prior informed consent/mutually agreed terms of its legal holder.

Additionally, CGIAR Centres must ensure their publications referring to traditional knowledge related to plant genetic resources clearly give all the credits to the legal holder of such knowledge, disclosing the source of such knowledge and guarantee that the traditional knowledge was accessed with the prior informed consent of its legal holder.

III) Taking to court those cases of misappropriation of genetic resources and/or associated traditional knowledge that Centers are able to know:

As custodians of genetic resources, CGIAR Centers have a moral obligation to also be custodians of the legal rights of local communities and stakeholders by preventing intellectual property rights not duly granted threaten the public access to genetic material that comprises the inherited qualities of genetic resources maintained in the CGIAR *ex situ* collections.

This has been understood by some CGIAR Centers who have taken to court cases of misappropriation of genetic resources.

In 1999, the US Government granted patent 5,894,079 over a common yellow bean that has been a familiar staple in Latin American, particularly among local farming communities.

The International Center for Tropical Agriculture – CIAT led the legal challenge to request the US Intellectual Property Authority for the re-examination of the patent, claiming that the yellow color of the bean was not an innovation or discovery, and contrary, its yellow color has been known for centuries by local farmers of the developing world. With this patent, farmers in Mexico and elsewhere had unnecessary legal threats and intimidation for simply planting, selling or exporting a bean that they have been growing for generations.

CIAT was able to dispute the inventors' claim to a unique color (yellow) by providing published evidence of 260 yellow beans among almost 28,000 samples located in its genebank. Many of the CIAT varieties were identical to the "patented yellow bean" on the bases of color and genetic markers. CIAT also used several publications to show the US Authority that the claims in the patent application took credit for research already widely available in scientific literature and therefore, claims regarding the breeding of the bean also failed to meet the patent requirements of non-obviousness and novelty.

As Dr. Geoffrey Hawtin, Director General of CIAT said while appealing the patent granted over the yellow bean *"we [CIAT] understand that individuals and companies have a right to patent what are clearly novel agriculture innovations. But when food crops are involved, particularly crops that have been used for years, governments have a duty to ensure that they have been presented with a clearly distinct and novel discovery and that the plant material used in the research and development was lawfully obtained. Agricultural researchers have a responsibility to make sure that publications are easily available to patent examiners."*

CIAT's patent challenge is part of the CGIAR's on going efforts to ensure that intellectual property claims regarding plant genetic resources do not wrongly seek to privatize materials already in widespread use.

As this task implies financial costs to the Centers, it is suggested that funds arising from the fees charged to third parties for their use and access to CGIAR Intellectual Assets could be used to cover these costs.

2.1.d Disclosure and open access to information

Data produced by the CGIAR should remain publicly accessible and the Centers should ensure that exploitation of research products brings returns to communities who generated the material and associated traditional knowledge used as the bases of such research products.

The cumbersome and expensive nature of many of the technologies available and the legal and policy umbrellas in which they act, mean that those best able to make use of such data are clearly those with advanced equipment. These costs mean that transnational companies are increasingly centralizing control and production of life sciences products, and thus coming to dominate the agricultural technology landscape. The nature of the technology and scale of investments involved make finding a Farmers' Rights based benefit-sharing formula a challenging issue.

One example of helping to ensure a more equitable basis for use of advanced science information is that promoted by the NGO Cambia⁶, which among other roles, promotes licenses that couple rights with responsibilities to foster efficient development, improvement, sharing and use of technology and aims to make the worlds patent systems more transparent, inclusive and navigable, with the aim of creating a free, open, global web-based facility. This example could be relevant for the CGIAR in determining how open access data systems can help make their data available to the benefit of resource-poor farmers and, in combination with capacity development roles, empower the disadvantaged towards achieving the development outcomes desired.

The increasingly open access to information is of great value in development terms, but also raises specific challenges in regard to existing legislation and the role of the CGIAR. If farmers' knowledge of varieties is to be shared through a global information network, this has implications for the Treaty's provisions related to the protection of traditional knowledge and the implementation of Farmers' Rights.

In such circumstances, the prior informed consent of the concerned farmers is required before giving access to traditional knowledge through a global information system, along with an agreed mechanism for sharing benefits from using such knowledge.

Therefore, the CGIAR must ensure legal access to traditional knowledge used in the process of research and development of new crop varieties and innovations. In cases where the CGIAR aims to protect innovations through intellectual property rights, such as patents, the application should: 1) identify the country of legal provenance of the genetic resource used, 2) informed that country, and 3) prove its agreement that the intellectual property rights requested by the CGIAR will not deny the country's its rights over such plant genetic resources given in trust to the CGIAR Centers.

⁶<http://www.cambia.org/daisy/cambia/about/590.html>



2.1.e Participatory Plant Breeding

In contrast with conventional plant breeding, new varieties resulted from participatory plant breeding are the result of joint efforts of farmers, researchers and other actors.

Participatory Plant Breeding is a method of breeding new varieties, bringing together the knowledge, labor, equipment, seeds and other resources of local farmers, modern plant breeders and other stakeholders. It is a highly dynamic and complex collaborative learning process of selection and exchange of seeds and knowledge, interactions between farmers and researchers, market analysts and sometimes involving phytosanitary authorities and government officials.

In recent years, there has been an increase interest in Participatory Plant Breeding as formal breeders have become more aware of how participation of different actors, especially local farmers, increases the probability of success of breeding new crop varieties. Crop varieties resulting from Participatory Plant Breeding will target the right farmers; and be relevant to their real needs, concerns and preferences.

Participatory Plant Breeding's aim is to enable farmers participate in the breeding process. Since the beginning of agriculture local farmers have planted, harvested, saved and exchanged seeds, modified their crops, moved crops around, adapted their crops to new environmental conditions, feeding themselves and the rest of the society. During this process, local farmers have accumulated a valuable knowledge.

Through the last century, plant breeding was rapidly consolidated internationally among a few modern companies, which multiply and sell varieties of seeds over large geographic areas. To a considerable, the traditional knowledge of local farmers related to agriculture was largely not taken into consideration in the breeding process. In consequence, new crop varieties may often not directly reflect the local needs and priorities of farmers unless specifically adapted.

By contrast, Participatory Plant Breeding recognizes and incorporates farmers' knowledge and expertise, and is concerned with building on it and strengthening it. It conceives farmers the main beneficiaries in terms of new crop varieties, also gaining additional income to improve their livelihoods. It is one of the most common types of benefit-sharing related to Farmers' Rights, as they exercise their right to participate in the process, but also have access to technologies and improved varieties resulting from the Participatory Plant Breeding.

The CGIAR Centers have now applied Participatory Plant Breeding methods into a wide range of systems and countries. ICARDA, for example, has been involved in Participatory Plant Breeding in Syria since 1995. The main goal has been to develop a bottom-up participatory breeding program. This implies consultations with farmers regarding i.e., number of varieties, plot size, seeding rate, understanding farmers' preferences and enhancing their agricultural skills. The trend for greater consultation seen in the CRPs should also reinforce this participatory and small-farmer-inclusive approach. When new varieties resulted from Participatory Plant Breeding are commercialized, CGIAR Centers must ensure benefit-sharing with local farmers participating in the breeding process.

2.1.f Community local seed banks

Not only what farmers harvest, but most important, what they store over seasons, could make the difference in their livelihoods and food security. Farmers in the developing world depend on the harvest season to collect seeds. Therefore, they are very vulnerable to crop failure and climate change. Availability and reliability of seeds at the right time, as well as easy access, are very important to ensure food security of smallholder farmer communities. There are many ways in which farmers save their seeds, one being community seed banks.

Community seed banks are collection of seeds maintained and administered by farmer communities themselves. The establishment and management of community seed banks include strengthening farmers' organization systems. When the community decides to establish a seed bank, clear organization among the community members will be essential and may itself require external facilitation and support.

Community seed banks should be part of community-managed genetic resource conservation and utilization practices. They require a collective approach to the maintenance of genetic diversity. They comprise a repository of locally adopted crop diversity, including enhanced farmers' varieties and those resulting from participatory plant breeding activities.

Through the implementation and support for the establishment of communal local seed banks, farmers may exercise their collective right to save seeds. Furthermore, community seed banks contribute with the realization of Farmers' Rights in several ways.

First, community seed banks ensure diversified seed supply and availability according to the needs and preferences of the community. They also provide an important basis for farmers to develop new crop varieties or adapt landraces.

Second, they also support the protection of traditional knowledge and allow the maintenance of local varieties, making farmers less dependent on seed supply from sources outside the communities.

Third, community seed banks contribute to the sharing of seeds among farmers and therefore ensure their right to save, use and exchange farm-saved seeds.

2.2 CGIAR Research Programmes and their implementation of Farmers' Rights

The CGIAR's implementation of the ITPGRFA is crucial in supporting the operative implementation of the Treaty and helping to develop wider best practices in regard to the co-existence of Farmers' Rights and breeders' rights, and so progressively improving the Treaty provisions, through practical experience.

However, experience shows that these roles have to be carefully undertaken as financial, intellectual and technical resources are often very unequally distributed between the private breeding companies, the CGIAR and an under-resourced national system and even more so farmers organizations. The actual or perceived risk of 'elite capture' is therefore hard to avoid: collective action processes tend to be captured by the more informed and capable stakeholders, who are in a better position to impose their views and strategies. Reconciling Farmers' Rights and breeders' rights therefore calls for particular vigilance within the reformed CGIAR system and its outcome-focused programmes to ensure that both needs are met in delivering its development-based mission and for greater attention also to in situ conservation and breeding measures that often fall beyond the focus of breeding programmes.

CGIAR Research Programmes (CRPs) aim to align the research activities of the 15 research centers and their partners into efficient, coherent, multidisciplinary programs. They are based on a collaboration spirit, recognizing that no single research institution working alone can address properly the current global challenges of climate change, sustainable agriculture, food security and rural poverty.

This new approach of realizing research reflects a new outcome-based thinking about agricultural research for development, including innovative ways to achieve scientific work and the funding it requires. It is also framed in the development goals of reducing rural poverty; increasing food security; improving human health and nutrition and ensuring more sustainable management of natural resources.

CRPs in their new approach of achieving scientific work through partnerships now have the perfect opportunity to include smallholder farmer communities as one of their crucial partners and implement measures that positively support the realization of Farmers' Rights.

However, although the inclusion of smallholder farmers as key partners and measures supporting Farmers' Rights are cross-cutting issues that by the IA principles should be incorporated in all CRPs, only a few of them presently refer to activities that support the implementation of Farmers' Rights and there are few references in CRP documentation that explicitly recognize farmers rights as such. Nonetheless, there are some useful measures proposed that can give a good basis for practical integration of farmers rights considerations in CRP research, for example:

Under the Agriculture for Nutrition and Health Programme, for example, lost crops of nutritional importance could be recovered, re-sowed and used with the full participation of local communities who identify crops they used to have in their daily diets but which are no longer harvested for various reasons. Different crops have been recovered by such efforts in recent years such as quinoa, which is now considered to be an important crop for present and future generations due to its high nutritional value and its characteristics suited to extreme climate conditions. Many other crops important for food security to local communities are waiting to be recovered and re-sown.

Other CRPs like the Aquatic Agricultural Systems and the Grain Legumes Programme include a focus on gender, trying to understand the role of gender in different agricultural systems, providing a strategic window for focusing research benefits towards women. As farmers, women are holders of traditional and indigenous knowledge related to agriculture and responsible for managing some agricultural systems. Support to their activities is crucial for realizing Farmers' Rights by protecting traditional knowledge, ensuring benefit-sharing and improving their participation in decision-making.

Moreover, participation of local farmers, i.e. through Participatory Plant Breeding, will be very important for the success of CRPs as these initiatives can only be realized with improved interactions among scientists, policy makers, private sector and local farmers.

The Climate Change, Agriculture and Food Security Programme, for example, seeks to overcome the threats to agriculture and food security in a changing climate, exploring new ways of helping vulnerable rural communities adjust to global climate challenges. Repatriation of crop varieties and Participatory Plant Breeding could be measures realizing Farmers' Rights and helping to support the fulfillment of the Programme's objective.

The Dryland Cereals Programme aims to develop techniques to reduce post-harvest losses and add value for farm families through processing innovations. Participatory Plant Breeding, access to seeds, benefit-sharing arising from improved innovations of dryland cereals are measures that could be developed within the framework of this Programme and which would clearly support Farmers' Rights. Other CRPs such as those on Maize, Rice and Wheat, base much of their potential returns on increasing production and enabling the poor to access improved technologies, including through the role of the private sector and the need for breeders' rights issues to create a market-enabling opportunity for private sector scale-out. However, these proposals include surprisingly little on activities or measures supporting Farmers' Rights, such as working with farmer organizations as innovation partners. The CRPs need to involve and value the role and innovation of local farmer communities if they wish new crop varieties and technologies to really help local farmers in their food security and food sovereignty.

The Policies, Institutions and Markets Programme aims to support country-led, country-driven and country-owned development process through collaborative research, partnership and capacity-building. As said before, work on capacity-building and public awareness is needed regarding Farmers' Rights to the public sector, research institutions, private sector and the local farmer communities who usually do not know their own rights. This CRP could support activities towards achieving capacity-building and public awareness on Farmers' Rights.

A particular area of focus here revolves around the issues of collective action and property rights. While the issue of Farmers' Rights is not explicit in the CRP scheme, these themes were previously explored in 2003⁷, where property rights for local-level genetic resource conservation were addressed. These included a range of practical examples of how collective actions and property rights can assist in maintaining in situ genetic diversity of the focus crops of the CGIAR and how innovative measures such as farmers creating registries of their own materials, or seed flows mediated by social rules and obligations can help create more resilient systems and empower farmers against external exploitation.

Stakeholder consultations to identify the best research opportunities to give the highest return in terms of poverty reduction and improved food security are considered by the Roots, Tubers and Bananas Programme. This consultation must include local farmers as stakeholders who usually depend on agriculture for their livelihoods.

The document has underlined the importance of considering farmer communities as partners, and not just technology recipients, within the new approach of research for development undertaken by the CGIAR. However, it was very disturbing to note when reviewing the CRPs that only one CRP (Wheat Programme) expressly included farmer cooperatives as partners for the achievement of its objectives.

2.3 Further Recommendations for improving the Farmers' Rights: breeders' rights balance

In addition to those recommendations already included in different chapters of this document, the CGIAR Centers could usefully take proactive measures such as to:

- Exchange experiences and good practices supporting the realization of Farmers' Rights;
- Agree on ways and means through which experiences and good practices undertaken by the CGIAR Centers supporting the realization of Farmers' Rights can be exchanged between them; other research institutions, the private sector, etc;
- Identify challenges faced to support Farmers' Rights when developing their objectives and activities;
- Create awareness on Farmers' Rights with local farmers, CGIAR researchers, private and public sectors;
- Strengthening the link between Farmers' Rights, the conservation and use of plant genetic resources for food and agriculture;
- Develop guidelines to support the realization of Farmers' Rights;
- Evaluate the implementation of the Draft Guidelines for the Acquisition and Use of Traditional Knowledge by CGIAR Scientists;
- Discuss and monitor in practice how the balance and recognition of intellectual property rights over plant genetic resources and Farmers' Rights are achieved when implementing the recent adopted Intellectual Assets Principles.

In this regard, the role of the FC IP Group, currently being established, will be particularly important in providing expert opinion on the practical application of both Farmers' Rights and breeders rights, and their reconciliation in the work of the CGIAR, and the extent to which these satisfy the requirements set out in the Intellectual Assets principles: « The FC-IP Group is to facilitate coordination between the Fund Council and the Consortium by working in cooperation with the Consortium with regard to the implementation of the CGIAR IA Principles and advising the Fund Council in order to enable the Fund Council to provide adequate oversight of Intellectual Asset management in the CGIAR, while safeguarding sensitive and confidential information ».



⁷Workshop on Property Rights, Collective Action and Conservation of Genetic Resources (2003) CGIAR System wide programme on Collective Action and Property rights, Rome.

3. FARMER EMPOWERMENT AND FARMERS' INSTITUTIONS

The measures and activities cited above include issues farmers have themselves identified as critically important: frameworks to guarantee local farmer communities access to genetic resources, recognition of farmers as innovators, protection of traditional knowledge and conditions conducive to legal access to in situ genetic resources. These rely on effective engagement with farmer organizations and farmers having the knowledge and capacities to benefit, building on their own organization, for example through participatory plant breeding and community seed banks. Clearly this calls for both practical means of farmer empowerment and recognition of the role of their institutions as basic to the success of in situ conservation, improvement and sharing of genetic resources.

These processes depend on explicit recognition of farmers' individual and collective rights to resources. A range of initiatives have aimed at increasing farmer capacity to express and promote their interests, better define their technical needs, and increase their capacities to select, improve and multiply seeds through local level enterprises based on family and other social networks.

Many initiatives can be cited in this regard, with examples including capacity building through the Farmers' Field and Life Schools approach, the emergence of Farmer Universities and farmer-driven research negotiated through regional producer platforms, as supported by the International Institute for Environment and Development (IIED) or in cash crop systems where research is directly commissioned through farmer levy, with associated (but variable) direct accountability to farmers. There are complementary efforts to provide the research support and information necessary for decision-making and action initiatives such as the Empowering Smallholder Farmers in Markets (ESFIM).

The foundation of farmer empowerment is developing and strengthening the institutions they forge themselves to voice their concerns, represent their collective interests, assemble resources and mobilize collective action. These membership organizations have historically been built up from local level as producer and social groups, community associations and cooperatives that aggregate for scale and increased impact. In countries with established traditions such as Japan, the Netherlands and Sweden, these organizations have developed extensive rural memberships, considerable capital and expertise, political influence and national reach. Such processes of growth, acquisition of skills and resources, and aggregation at national level are proceeding apace in many countries, both those transitioning to greater urbanization with greater economic weight in non-agricultural activities and those remaining predominantly rural and farm based.

These farmer institutions have also associated as networks and in some regions as federations at regional level, as well as developing representational mechanisms at global level. These have become increasingly sophisticated in presenting their voices and formulating arguments (as well as negotiating positions) in multilateral and intergovernmental bodies in, for example, ASEAN, ECOWAS, Mercosur and the African Union, as well as at global level.

These organizations – their secretariats, representatives and designated resource persons in fields including intellectual property rights and genetic resources – as membership organizations are directly mandated (and legitimate) in the eyes of their farmer membership. They are thus an effective entry point for working with farmers on sharing knowledge and building capacity. Indeed, working with regional and national farmer organizations is the basis for FAO and IFAD programmes, amongst others, to build expertise, management skills, effective representation to governments and regulating bodies, and the kinds of knowledge necessary for entrepreneurial and institutional development. Similarly, these are the evident partners for mechanisms and activities to enhance farmer understanding and processes of negotiation of their rights and instruments available regarding genetic resources as well as the operational ways of taking advantage of these rights and of jointly monitoring and evaluating impact.



Traditional knowledge developed in farming communities around plant species and varieties is a linked form of farmer innovation product. Such information has immense value in linking phenotypic to genetic traits and individual gene sequences and is widely used by breeders in the CGIAR and beyond. New information and communication technologies enable such data to be readily captured and made widely available. Provisions related to the protection of traditional knowledge are enshrined in Article 8j of the Convention on Biological Diversity (CBD), Article 5bis of the Nagoya Protocol on Access and Benefit Sharing and the Fair and Equitable Sharing of Benefits Arising from their Utilization, the farmers rights dispositions of the ITPGRFA and applicable national implementation of these international norms. Information-sharing implications of these issues are discussed in the recent publication edited by Halewood et al. (2013).

Ensuring prior informed consent and benefit sharing for the use of publicly available traditional knowledge in the work of international organizations is a controversial area as much of this is practical and orally communicated knowledge, not documented in writing at farm level. The CGIAR makes great use of, and is entrusted with, such information in delivering its global public goods role, which implies a duty of care given the development mandate of the CGIAR. Farmer organizations have an essential role to play in advocacy for recognition of the source farmers and their communities involved and ensuring use of traditional knowledge is respected and appropriately rewarded, whether directly or indirectly.

These dimensions are now becoming apparent in the work of the CGIAR, in particular in the new agricultural systems-based CGIAR Research Programs (e.g. Aquatic Agricultural Systems, Dryland Systems, Humidtropics), which are now seeking to put the perspectives of the resource-poor farmer, rather than the particular technology, at the centre of research consideration. Identification of practical ways and means by which the CGIAR best supports farmer empowerment and farmers' institutions is being actively debated within and beyond the CGIAR Consortium at present. An overview of CGIAR and CGIAR Research Programme strategies, programmes and activities in support of farmer empowerment and farmers' institutions will be included in future iterations of this study.

4. NEXT STEPS

This draft document has been drafted based on secondary bibliography and a short visit to the International Potato Center to learn from their experience on working with farmer communities in the Andes and supporting the realization of Farmers' Rights.

The first chapter of this draft was circulated in July 2012 to the CGIAR Consortium, the International Treaty on Plant Genetic Resources for Food and Agriculture and other units of FAO to receive comments and feedback.

A short presentation of this study was socialized during the Second Global Conference on Agricultural Research for Development, held in Uruguay October- November 2012. Its main elements were also presented at a pre-session of this meeting, where a discussion resulted in suggestions and inputs from CGIAR staff and partners, now considered and incorporated into this actual draft.

The CGIAR undertakes many different projects and there will no doubt be further examples of good practices across a number of these. A broad consultation and improvement of this study is intended as a next step, through visiting other CGIAR Centers and farmer communities to determine and showcase their experiences in the implementation of Farmers' Rights and how these have been reconciled in practice with plant variety rights. Additional funds would be required to undertake these activities that should be in partnership with the CGIAR Consortium.

Workshops on Farmers' Rights and the specific challenges faced by national legislation implementation when realizing these rights are also recommended, with the participation of NGOs, farmers, farmers' organizations, national authorities and seed companies. A number of national public authorities, seed company networks and non-governmental organizations have already expressed strong interest in further discussion of the issues raised here in national and international contexts, as has the November 2012 First Meeting of the Ad Hoc Technical Advisory Committee on Sustainable Use of Plant Genetic Resources for Food and Agriculture of the International Treaty on Plant Genetic Resources in Food and Agriculture and the 2012 meeting of civil society representatives to the Committee on Food Security (CFS).

Separate, but related studies are underway, catalysed through the Global Forum on Agricultural Research, on how CGIAR research can be subsequently taken up in the complex innovation pathways involved, to ensure access to seeds among farmer communities and how to strengthen farmer organizations and small-scale entrepreneurs (particularly women) capable of receiving and multiplying improved germplasm for the benefit of the whole community.

The CRPs could usefully also commit resources to such discussions, to strengthen understanding among partners of the CGIAR's work and role in these regards, explore the implications of the new IA principles as they relate to both farmers rights and plant variety rights and pilot these in practice with civil society and private sector partners as a learning process in their own right.

While this study focuses on the CGIAR, it has also now attracted considerable interest among national and international systems grappling with similar issues, including through the mechanisms of the ITPGRFA, the CFS and the World Intellectual Property Rights Organization. It is intended to take these discussions on into national and regional considerations, beginning with a regional meeting in Ecuador in 2013.



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