



Background Study 1

**The History of Farmers'
Rights**

**A Guide to
Central Documents and Literature**

By Regine Andersen

The Farmers' Rights Project



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The History of Farmers' Rights:

A Guide to Central Documents and Literature

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Abstract

The Farmers' Rights Project has been set up to facilitate a common understanding and develop an empirical basis for proposals to the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture on concrete measures to be taken to implement its provisions on farmers' rights. This background study presents the findings of a comprehensive survey of documentation and literature on these rights. It is designed as a guide for negotiators, practitioners and researchers wishing to understand the concept and the potentials of farmers' rights. The documents represent the fruits of long and complex negotiations, and provide an important context for the realization of farmers' rights. How to reward farmers for their past, present and future contributions to conserving, improving and making available crop genetic resources for food and agriculture has been a central topic in the negotiations. An international fund for supporting and assisting farmers in this has long been on the agenda. Discussions have also focused on how farmers' rights can balance breeders' rights, so as to ensure an equitable system that can facilitate farmers' continued access to – and free use of – crop genetic resources. The substantial and increasing body of literature on farmers' rights provides a valuable source of insights in the potentials for, and possible difficulties in, realizing farmers' rights. Although authors differ in their points of departure, emphases and perspectives, their contributions are largely compatible. The literature provides important points of departure for understanding the subject matter of farmers' rights, types of rights, rights holders, and appropriate measures for protecting and promoting these rights. It also draws lessons from initial efforts at realizing these rights, and warns against certain tendencies which might prove counter-productive. The findings from this study will be further deepened in other studies from the Farmers' Rights Project, and conclusions from the project will be presented in the final report.

Key Words: farmers' rights, plant genetic resources for food and agriculture, FAO, ITPGRFA, agrobiodiversity, biodiversity, access to genetic resources, traditional knowledge, benefit sharing, intellectual property rights

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During the discussion (...), the Working Group agreed that the breeding of modern commercial plant varieties had been made possible first of all by the constant and joint efforts of the people/farmers (...) who had first domesticated wild plants and conserved and genetically improved the cultivated varieties over the millennia.

FAO, 1987: CL 91/14, Appendix F

In Kenya, as it is the case all over Africa, the majority of farmers are small-scale and marginal. If their rights are not protected, agricultural productivity is going to decline and food security will be undermined. Therefore, one of the most important priorities should be to protect their rights in the seeds and plant variety legislation.

Wakhungu, Ogolla & Wafula, (2004: 10)

Preface

This background study is part of *The Farmers' Rights Project*, which addresses farmers' rights related to plant genetic resources, as they are recognized in the International Treaty on Plant Genetic Resources for Food and Agriculture. The Farmers' Rights Project aims to provide an empirical basis for proposals to the Governing Body of the International Treaty on the realization of farmers' rights. Starting in March 2005, the project is being carried out by the Fridtjof Nansen Institute, supported by the Norwegian Ministry of Foreign Affairs. Other components of the project are an international stakeholder survey; case studies in Peru, Ethiopia, India and Norway; a study of the legal aspects of the concept of farmers' rights; an analysis of the potentials for the Governing Body to promote farmers' rights; and a final synthesis report. The GTZ Sector Project *People and Biodiversity in Rural Areas*, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), is contributing to the Farmers' Rights Project with two of the four country case studies, and is an important discussion partner in all phases of the project.

I would like to extend my warmest thanks to all those who have contributed to this study with references and by sending their publications. In my efforts to trace the roots of the farmers' rights concept, FAO staff have provided valuable information. I am most grateful to Paola Franceschelli of the Secretariat of the Commission on Genetic Resources for Food and Agriculture, and to Patricia Merrikin and Julia Matthews of the FAO Library for providing me with relevant documents. In the process of mapping the available literature, I received helpful assistance from Bell Batta Torheim and Ida Bjørkum, for which I am most grateful. Warm thanks also to our librarian Kari Lorentzen for all her help, to Maryanne Rygg for her technical assistance, to Susan Høivik for her valuable comments and language editing, and to Kristin Rosendal for her support throughout the project.

Lysaker, December 2005

Regine Andersen

Executive Summary

In 2001, the International Treaty on Plant Genetic Resources for Food and Agriculture was adopted. It entered into force on 29 June 2004. The Treaty includes provisions on farmers' rights, and explicitly states that the responsibility for implementing these provisions rests with the national governments. The latter are free to choose the measures they deem appropriate, according to their needs and priorities, but certain measures to protect and promote farmers' rights are suggested. The preamble to the International Treaty highlights the necessity of promoting farmers' rights at the national as well as international level. As yet, however, there is no common understanding of how this can be done. Such an understanding is of great importance for making progress in the realization of farmers' rights.

The Farmers' Rights Project has been set up to facilitate such a common understanding and develop a basis for proposals to the Governing Body of the Treaty on specific measures to be taken. The intention is to move ahead from earlier controversies, and – based on the consensus formulations in the Treaty – build bridges to a joint perception of the actions required, in respect of the countries' freedom to choose measures according to their needs and priorities.

This background study presents the findings of a survey of documentation and literature on farmers' rights. Such a survey was considered necessary for the project in order to establish a clearer understanding of the origin of the concept of farmers' rights and its history. The intention has been to present and summarize the material and not to analyse it any further, as that would exceed the scope of this part of the project. It is hoped that this guide to the central documents and literature can be helpful to negotiators, practitioners and researchers who seek to understand the concept and the potentials of farmers' rights.

Central documents from international negotiations

The idea of farmers' rights came up in the early 1980s as a countermove to the increased demand for plant breeders' rights, as voiced in international negotiations. The purpose was to draw attention to the unremunerated innovations of farmers that were seen as the foundation of all modern plant breeding. Thorough analysis of the documentation shows that the concept was first brought up in international negotiations in FAO in 1986. Already in 1987, considerations and practical solutions were suggested that formed a foundation for all further negotiations on farmers' rights, and provided substantial input to the framing of our current understanding of the concept.

In 1989, farmers' rights were for the first time formally recognized by the FAO Conference, and in 1991 the Conference decided to set up a fund for the realization of these rights. Such a fund, however, never materialized. Then the Convention on Biological Diversity was adopted in May 1992, and with it a resolution on the interrelationship between the CBD and the promotion of sustainable agriculture. In this resolution, FAO was urged

to commence negotiations for a legally binding international regime on the management of plant genetic resources for food and agriculture, and in this context to include the question of farmers' rights. Also Agenda 21 voiced this demand. This marked the start of lengthy negotiations which finally led to the International Treaty. In 1996 the Global Plan for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture was adopted by the International Technical Conference on Plant Genetic Resources in Leipzig. It, too, addressed the issue of farmers' rights.

When the International Treaty was adopted in 2001, it addressed the issue of farmers' rights in the preamble, in a separate chapter and in two other articles. Governments were to protect and promote farmers' rights, but could choose the measures to do so according to their own needs and priorities. Concerning implementation of the provisions on farmers' rights nationally and internationally, history provides important lessons and points of departure. Main elements in the discussion of farmers' rights have been:

- *Balancing breeders' rights*: The concept emerged from the debate on intellectual property rights to plant genetic resources. Initially, the major concern was how to ensure that such rights would not be detrimental to the customary practices of farmers to save, reuse, share and develop plant varieties. These practices were seen as the basis for their continued contribution to conservation and innovation in genetic resources, and should therefore be protected. Farmers' rights were viewed as a means towards this end.
- *Reward to farmers*: The enormous collective contribution of past, present and future farmers to the global genetic pool would have to be recognized in practical terms. The rights holders would not be individuals or communities but entire peoples. Measures such as freer exchange of plant genetic resources, sharing of information and research results, and training were suggested. Benefit sharing was an important aspect of the discussion, but interpretations varied. Some suggested benefit sharing on a bilateral basis, whereas others argued that such a system would not be feasible due to the nature of exchange of agricultural resources over the ages: It would not be possible to trace the countries of origin, and the transaction costs would be too high. Therefore, a multilateral system was proposed. This was to form the rationale behind the International Treaty.
- *Conservation of plant genetic resources and related knowledge*: Balancing breeders' rights was one way to ensure that farmers were not hindered in maintaining their customary practices. However, more direct measures would be required to enable farmers to continue to act as custodians of the plant genetic heritage and as innovators in agriculture. Measures to conserve plant genetic resources and the related knowledge, and to stimulate innovations, were therefore seen as essential. These measures were sometimes addressed in the context of rewards and benefit sharing, as indicated above. However, they were also deemed important as an independent component of farmers' rights, crucial to present and future food security.

- *International fund*: All parties agreed to establish an international fund for farmers' rights which would provide the necessary muscle to reward and support farmers for their continued contributions to the conservation and development of plant genetic resources for food and agriculture.

These points represent the fruits of long and complex negotiations. They need to be taken into consideration when implementing the International Treaty at the national as well as multilateral level.

Acts of legislation and policies on farmers' rights

Several countries have drafted or adopted legislation or policies regarding farmers' rights. These represent the first examples of legislative efforts in this regard, and as such they are highly relevant to other states seeking to implement the International Treaty. The lessons from these experiences may also help the implementing states to improve their policies on farmers' rights. Some of these lessons and the new questions arising from the experiences with farmers' rights legislation are indicated in the presentation of literature below.

In Background Study 2 from the *Farmers' Rights Project*, which presents the results from an international stakeholder survey, we have compiled a range of acts of legislation which respondents deemed relevant with regard to farmers' rights. Some of these have already been adopted, other are still in draft form at various stages in the negotiation process.

Literature on farmers' rights

The substantial and increasing body of literature on farmers' rights provides a valuable source of insights in the potentials for, and possible pitfalls in, the realization of farmers' rights. Although the authors differ in their points of departure, emphases and perspectives, their contributions are largely compatible. We will seek to draw a synthesis here.

Realizing farmers' rights is seen as a vital means to halt genetic erosion and ensure food security. It is also viewed as central in attempts to counterbalance current inequities in the world. As such, it represents a crucial concept in fight against poverty.

The subject matter of farmers' rights are first and foremost traditional crop varieties, their wild and weedy relatives and the related knowledge and innovations of their custodians. However, that does not mean that individual farmers should become title holders in the legal sense of the word. Several authors have warned against an individualist approach, particularly if linked with exclusive property rights. The institutional argument is that the determination of legitimate individual rights holders would be so burdensome and expensive that the transaction costs would by far outweigh the possible benefits. Politically, there are also strong arguments against such an approach, as it could lead to a 'tragedy of the anti-commons', i.e. that individual farmers would exclude each other from the use of genetic resources, which would be detrimental to their fundamental and customary rights to seeds. Furthermore, it is argued that

traditional farmers often have their own concepts of intellectual property rights, and these differ considerably from such an individualist market approach.

Most authors seem to agree that farmers' rights should be viewed as collective rights in a broad sense rather than rights of individual farmers or communities, and that farmers' rights should not be exclusive and should not restrict access to genetic resources. They cannot be dealt with as classical intellectual property rights, as they represent a different type of rights. In a later study of the *Farmers' Rights Project*, the legal aspects of this question will be addressed in greater depth.

Various measures to protect and promote farmers' rights are proposed in the literature. Assisting farmers in *in situ* conservation and farmer breeding, and providing incentives for such activities are among the central components in this regard. The availability of a rich diversity of seeds and propagating material is the basis of farmers' rights, as well as for agriculture and food security. As yet, extremely little has been invested in the *in situ* management of crop genetic resources. Indeed, these resources can be viewed as subject to a 'tragedy of the commons' whereby professional breeders use material originally derived from traditional varieties, but without participating in the maintenance of these vital resources. It is suggested that development cooperation can provide the most realistic possibilities for greater financial support to conservation and sustainable use of crop genetic resources.

In the context of conservation, access to technologies and training is of central importance. The establishment of community gene banks is suggested a further means towards realizing farmers' rights, to complement and support *in situ* management of crop genetic resources. It is furthermore recommended that farmers should have the possibility of influencing future breeding efforts more generally, as a component of farmers' rights. Surprisingly, farmers' participation in decision making on crop genetic resources, which is comprised by the International Treaty, has been addressed by only a few authors.

Another central component of farmers' rights, according to many of the authors referred to here, is farmers' free choice of, and access to, genetic resources for food and agriculture, together with the freedom to share and sell harvested produce, and to improve cultivars. These are basic customary rights, and important preconditions for continued conservation and innovation with regard to plant genetic resources among farmers, and thus also for food security. Recent research has shown that such diversity includes not only farmers' varieties but often also improved ones from professional breeders. It is important to be aware of this when designing intellectual property laws and seed legislation. Several authors highlight the necessity of balancing the inadequacies and deficiencies in existing forms of intellectual property rights regarding plant genetic resources, and hold that the concept of farmers' rights offers an opportunity to do so. On the other hand, it is important to recognize that it has so far proven difficult to enact farmers' rights. Linking farmers' and breeders' rights may be risky, since breeders' rights are so much easier to enact. Linking

the two may therefore result in further legitimizing the inequities of the intellectual property rights system.

Recognition of the contribution of farmers to the global genetic pool is a further issue dealt with in the literature. It is often referred to as compensation for the use of traditional plant genetic resources for food and agriculture and related traditional knowledge, and in some contexts as benefit sharing. Also here it is important to identify who is to be compensated and through what mechanisms, as there are many possible pitfalls. For example, it is not evident that developing countries would emerge as the winners if such a system were established at the international level, since most developing countries (and also developed countries) are net receivers of germplasm. Also, transaction costs and bureaucracy should be taken into account. Most authors seem to agree that farmers' rights are collective rights in the widest sense of the term, and that compensation should be channelled through some kind of financial mechanism to those farmers who act as custodians and innovators of present agricultural biodiversity. Local gene funds are suggested as one way to ensure that the financial and other resources actually reach the farmers.

The authors referred to in our survey discuss various means for implementing farmers' rights. One is the development of national legislation; another is to establish resource centres for farmers' rights. Several writers emphasize the need to implement farmers' rights at the international level, due to the globalized nature of these resources. The most promising approach would be to establish an international fund – stressed by several authors as necessary for the realization of farmers' rights. Such a fund could channel resources for farmer conservation and innovation in plant genetic resources. To provide financial resources for such a fund in addition to aid, some writers have recommended that plant breeders be required to disclose the sources of origin of their breeding material, and that a levy be placed on the royalties from the sales of their seeds, although this suggestion remains controversial.

As we can see, there has been a notable movement from the realm of ideas towards the design of feasible measures and systems for the realization of farmers' rights.

Conclusions

There is already a rich body of documentation and literature on farmers' rights, providing insights into the potentials and possibilities as well as the pitfalls for the realization of farmers' rights. This source of experience, insights and reflections offers a valuable point of departure for operationalizing farmers' rights into feasible policies, strategies and programmes. However, further work is required to systematize experience into building blocks for this purpose, and to help to transform and develop the insights into practical steps.

The findings from this study will be further deepened in the case studies of the *Farmers' Rights Project*. On this basis, and with the findings from the other background studies from the *Farmers' Rights Project*, we will derive final conclusions in the synthesis report.

1 Introduction

The issue of farmers' rights, as they pertain to plant genetic resources for food and agriculture, has been a hot topic in the UN Food and Agriculture Organization (FAO) for years. In 2001, the International Treaty on Plant Genetic Resources for Food and Agriculture was adopted, and it entered into force on 29 June 2004. The Treaty includes provisions on farmers' rights,¹ and explicitly states that the responsibility for implementing these provisions rests with the national governments. Governments are free to choose the measures they deem appropriate, according to their needs and priorities, but certain measures to protect and promote farmers' rights are suggested. These encompass the protection of relevant traditional knowledge, equitable benefit sharing, participation in decision making, and the rights to save, use, exchange, and sell farm-saved seeds and propagating material. The preamble of the International Treaty highlights the necessity of promoting farmers' rights at the national as well as international levels. As yet, however, there is no common understanding of how this can be done. Such an understanding is of great importance if progress is to be made in the realization of farmers' rights.

This set the stage for *The Farmers' Rights Project*, a project set up to facilitate such a common understanding, and to develop a basis for proposals to the Governing Body of the Treaty on concrete measures to be taken. The intention is to move ahead from earlier controversies, and – based on the consensus formulations in the Treaty – build bridges to a joint perception of the actions required, in respect of the countries' freedom to choose measures according to their needs and priorities.

This background study presents the findings of a document and literature survey on farmers' rights. Such a survey was considered necessary for the project in order to establish a clear understanding of the origin of the concept and its history. Originally, we wanted to focus on the literature on farmers' rights, seeking to provide an overview over central contributions as background for the project and as a guide to negotiators, practitioners and researchers. However, it emerged that several central documents from the negotiations pertaining to farmers' rights seemed to have been overlooked in the literature, and that an overview over central documents would be necessary in addition to the literature survey. Thus, this overview is also a history of the use and development of the concept from its origin in the 1980s, through international negotiations and to the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture. The intention is to present and summarize the material and not to analyse it any further, as that would exceed the limits of this part of the project. It is hoped that this guide to the central documents and literature can be helpful to negotiators, practitioners and researchers who seek to understand the concept and the potentials of farmers' rights.

¹ See attachment 1 to this background study for an overview over the provisions on farmers' rights in the International Treaty. For further information, see the home page of *The Farmers' Rights Project* at www.fni.no/farmers/main.html.

To ensure the broadest possible coverage of central documents and literature pertaining to farmers' rights, we have carried out extensive searches on the Internet and in various databases, traced reference lists in available literature and asked stakeholders for recommendations² and received valuable help from several librarians. If we should, despite all these efforts, have missed a central contribution of relevance for farmers' rights, we would be most grateful for such information. Address: farmers.rights.project@fni.no.

2 Central documents from international negotiations

The first use of *farmers' rights* as a political concept dates back to the early 1980s, when Pat Roy Mooney and Cary Fowler³ coined the term to highlight the valuable but unrewarded contributions of farmers to plant genetic resources for food and agriculture.⁴ The idea came up as a countermove to the increased demand for plant breeders' rights, as voiced in international negotiations, to draw attention to the unremunerated innovations of farmers that were seen as the foundation of all modern plant breeding. According to Fowler,⁵ the concept can be traced back to the work of *inter alia* the renowned plant explorer, geneticist and plant breeder Jack R. Harlan (1917–1988), who spoke of farmers as the 'amateurs' who had in fact created the genetic diversity that had become subject to controversies.

² We received long lists from several of the participants in the stakeholder survey (Background Study 2). From these lists we have selected those contributions, which we consider of direct relevance for farmers' rights and which have been published and/or are accessible, for this presentation.

³ Pat Roy Mooney and Cary Fowler founded the Rural Advancement Foundation International (RAFI) together with Hope Shand in 1977. RAFI was probably the most influential NGO during FAO negotiations on crop genetic resources in the 1980s and the early 1990s. Mooney and Shand are still fronting the organization, which has since changed its name to Action Group on Erosion, Technology and Concentration (ETC-Group).

⁴ See Cary Fowler (1994): *Unnatural Selection. Technology, Politics and Plant Evolution* (Yverdon, Switzerland: Gordon and Breach), p. 192; and Svanhild-Isabelle Batta Bjørnstad (2004): *Breakthrough for 'the South'? An Analysis of the Recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture*, FNI Report 13/2004 (Lysaker, Norway: The Fridtjof Nansen Institute) p. 35. In 1983, Pat Roy Mooney wrote 'The Law of the Seed: Another Development and Plant Genetic Resources' (*Development Dialogue*, Vol. 1–2, published by the Dag Hammarskjöld Foundation), which is a comprehensive analysis of the international management of plant genetic resources for food and agriculture. Here Mooney argues for benefits to farmers for their contribution to the global genetic pool, as well as the need for conservation support. He proposes that a fund be established for the purpose, and argues against any legal arrangements which may hinder farmers in their practice of saving, reusing, improving and developing seeds – in other words, here we find most of the elements which were later to be ascribed to farmers' rights. See also G. Kristin Rosendal, 1989: *A Sustainable Development for Plant Genetic Resources: The Output of the Debate in FAO: a Sisyphean Victory for an Environmental Organisation?* R:010-1989 (Lysaker, Norway: The Fridtjof Nansen Institute).

⁵ Fowler, 1994, p. 192.

Thorough analysis of the documentation shows that the concept was first brought up in international negotiations in FAO in 1986. We will, however, have a brief look at earlier FAO discussions and decisions relevant for understanding the context, starting with 1983.

2.1 Origin of the concept of farmers' rights in FAO

In 1983 the International Undertaking on Plant Genetic Resources was adopted at the FAO Conference⁶ (Resolution 8/83, Twenty-second Session of the FAO Conference, Rome, 1983). The objectives were to ensure that plant genetic resources for food and agriculture would be explored, preserved, evaluated and made available for plant breeding and scientific purposes. The Undertaking was based on 'the universally accepted principle that plant genetic resources are a heritage of mankind and consequently should be available without restriction' (Article 1). This formulation, and other articles with it, were to form the basis for new controversies with regard to intellectual property and plant breeders' rights.⁷ In turn, these controversies came to provide the background for the introduction of 'farmers' rights' as a political concept. In 1983, there was, however, as yet no documented mention of farmers' rights.

At the same Conference Session, the Commission on Plant Genetic Resources was established (Resolution 9/83, Twenty-second Session of the FAO Conference, Rome, 1983), to deal with issues related to plant genetic resources, including monitoring the operation of the international arrangements provided for in the International Undertaking.⁸ The Commission was later to become an important arena for discussions on farmers' rights.

First Session of the Commission on Plant Genetic Resources, 1985

FAO, 1985: *Report of the Commission on Plant Genetic Resources, First Session, Rome, 11–15 March 1985*, CPGR/85/REP.

The First Session of the Commission on Plant Genetic Resources was held in Rome, 11–15 March 1985. At this session there was still no documented mention of farmers' rights.

⁶ The Conference is the supreme governing body of the FAO. It meets in regular session every two years (odd numbers), and is attended by all FAO members and associate members, as well as observers from non-member organizations and intergovernmental and non-governmental organizations. Its main functions are to determine the policies of the organization, approve the FAO programme of work and budget, and make recommendations to members and international organizations.

⁷ Such controversies had emerged during the negotiations leading to the International Undertaking.

⁸ In 1995, the mandate of the Commission was broadened to cover all components of agrobiodiversity of relevance to food and agriculture (Resolution 3/95, Twenty-eighth Session of the FAO Conference, Rome, 1995). It was renamed the Commission on Genetic Resources for Food and Agriculture (CGRFA).

However, the Commission noted that 74 of the 156 FAO member nations had expressed support for the Undertaking; further, that several countries had indicated that they were not in a position to adhere to the agreement, or that they lacked the means to give effect to the commitments contained therein (paragraphs 7, 10 and 11). Urging these countries to respond positively, even though they might not manage to comply with all provisions of this non-binding agreement, the Commission considered the suggestion from some members that the text of the Undertaking should be modified (paragraphs 12 and 13). It recommended that the Secretariat prepare a paper, for consideration by the Commission at its next session, analysing countries' reservations to the Undertaking and delineating possible courses of action, including suggestions for possible interpretations of the text to increase acceptance of the Undertaking (paragraph 13).

The Commission also established a Working Group, chaired by its Chairman and consisting of 23 members from different country groups, to consider the progress made in implementing the Commission's programme of work and any other matters referred to it by the Commission (paragraphs 78–80). It was in this Working Group that farmers' rights were first addressed in the FAO system, but that did not come until 1986.

FAO Conference Session, 1985

FAO, 1985: *Report of the Conference of FAO, Twenty-second Session, Rome, 9–28 November 1985*, C 1985/REP.

At the following sessions of the FAO Council⁹ and Conference in 1985, implementation of the International Undertaking was a subject, but no mention of farmers' rights as such was documented. The rights of plant breeders were, however, explicitly addressed at the Conference Session (paragraph 291). Due to the low number of countries adhering to the International Undertaking, countries were urged to spell out their reservations to this non-binding international agreement. Various members indicated that their national legislation, including plant breeders' rights, determined the degree to which they could adhere to the Undertaking. Several members were of the view that if the Undertaking was modified in this respect, more countries could adhere to it.

First Meetings of the Working Group of the Commission on Plant Genetic Resources, 1986

FAO, 1986: *Report of the Working Group of the FAO Commission on Plant Genetic Resources, 2–3 June 1986*, CPGR/87/3, October 1986.

The first time that farmers' rights were reported as being addressed in an FAO forum was at the First Meeting of the Working Group in Rome, 2–3

⁹ The 49-member Council is the executive organ of the Conference. Its powers are delegated to it by the Conference. The Council meets at least four times between regular Conference sessions.

June 1986. The meeting focused on legal and technical matters in addition to discussing the feasibility of establishing an international fund for plant genetic resources. In their analysis of country reservations to the International Undertaking, the Working Group identified various categories of reservations, one of which involved plant breeders' rights (paragraph 9); and considered ways and means to reach negotiated solutions to the problem so as to achieve widest possible adherence to the International Undertaking. One solution could be to recognize the rights of plant breeders. It was in this context that farmers' rights were addressed for the first time (paragraph 14):

The working Group emphasized that, in addition to the recognition of plant breeders' rights, specific mention should be made of the rights of the farmers of the countries where the materials used by the breeders originated. These materials were the result of the work of many generations and were a basic part of the national wealth. FAO should study this subject with a view to formulating a constructive solution.

On the basis of the discussion in the Working Group on how to deal with country reservations to the Undertaking and attract greater adherence, a report was produced for the Second Session of the Commission on Plant Genetic Resources, to be held in Rome in March 1987:

FAO, 1986: *Progress Report on the International Undertaking on Plant Genetic Resources*, CPGR/87/4, December 1986.

Chapter III of the Report is devoted to farmers' rights. It links the issue to the question of access to genetic resources, but reveals substantial uncertainties as to the understanding of the concept:

10. Any rights which might be recognized for farmers in connection with genetic material originating in a particular country would have to be linked to the question of the collection and transfer of genetic material in that country. No such concept is to be found at this juncture in national legislation which is available to the Organization.

11. It is understood to be the practice that the collection and expedition of such genetic material is arranged in agreement with the country where such material is found in situ and that specimens of all such material collected are furnished to the government concerned and often form the basis of national collections of plant genetic resources in certain developed countries

12. If the Commission considered that the question of 'Farmers' rights' required further elucidation or emphasis, it could do either or both of the following:

- (a) Endorse the procedure described in paragraph 11 above, in particular that specimens of plant genetic resources collected be furnished to the 'in situ government';
- (b) Request that members of the Commission supply to the Secretariat all relevant information concerning the legal concept of farmers' rights in their country (if such concept exists) with a view to the preparation of a study on the subject if the information received provides a sufficient basis therefore.

Whereas this report indirectly questions the relevance of farmers' rights, the situation was to change considerably in 1987.

The Second Meeting of the Working Group of the Commission, 1987

FAO, 1987: 'Report by the Chairman of the Working Group on its Second Meeting', *Report of the Second Session of the Commission on Plant Genetic Resources*, CL 91/14, Appendix F.¹⁰

The Second Meeting of the Working Group of the Commission on Plant Genetic Resources took place in Rome, 12–13 March 1987, and prepared the ground for discussions in the upcoming Second Session of the Commission with regard to several agenda items. At this meeting, farmers' rights were addressed in greater detail, so these parts of the report from the meeting constitute an important basis for understanding the history of this concept. The relevant portions of the text (paragraphs 8–9 and 11–12) are not easily accessible, and are quoted in full here:

8. During the discussion of document CPGR/87/4, the Working Group agreed that the breeding of modern commercial plant varieties had been made possible first of all by the constant and joint efforts of the people/farmers (in the broad sense of the word) who had first domesticated wild plants and conserved and genetically improved the cultivated varieties over the millennia. Thanks were due in the second place to the scientists and professional people who, utilizing these varieties as their raw material, had applied modern techniques to achieve the giant strides made over the last 50 years in genetic improvements. In recent years some countries had incorporated the rights of the latter group into laws as 'Breeders' Rights', i.e. the right of professional plant breeders or the commercial companies which employ them to participate in the financial benefits derived from the commercial exploitation of the new varieties. However, as document CPGR/87/4 pointed out, there was presently no explicit acknowledgement of the rights of the first group, in other words, no 'Farmers' Rights'. The Working Group considered such rights to be fair recognition for the spade-work done by thousands of previous generations of farmers. And which had provided the basis for the material available today and to which the new technologies were in large measure applied. The Group agreed, that what was the issue here was not individual farmers or communities of farmers but the rights of entire peoples who, though having bred, maintained and improved cultivated plants, had still not achieved the benefits of development nor had they the capacity to produce their own varieties. Alternative names such as 'right of the countries of origin' or 'gene donors', were proposed, but the conclusion was that the name 'farmers' rights' was the most expressive.

9. The Working Group explicitly refused to give a definition of the 'Right of Farmers' but was unanimous in recommending its recognition by the Commission. Many delegations asked the Secretariat

¹⁰ See also FAO/CPGR (1987): *Second Meeting of the Working Group of the Commission on Plant Genetic Resources, 12–13 March 1987, Chairmans Report*, CPGR/87/3/Add.1, 17 March 1987.

to examine possible mechanisms for giving concrete expression to this right (to the extent possible), in specific activities designed to promote and develop national germplasm conservation programmes, plant genetic improvement, and seed production in the developing countries, and through the International Fund (...).

11. The Working Group recommended that the foundations for arriving at this single interpretation be established by a small, informal contact group, made up of delegates standing for the various options. Participation in the contact group would be voluntary, and would be open to observers as well. This contact group would meet during the second session of the Commission, i.e. now. The Working Group agreed that the three major items which should be negotiated by the Contact Group were:

- Breeders' Rights
- Farmers' Rights, and
- The free exchange of genetic material.

12. The Working Group concurred that Breeders' Rights and Farmers' Rights were parallel and complementary rather than opposed, and that the simultaneous recognition and international legitimization of both these rights could help to boost and speed up the development of the people of the world.

As these quotes show, the main element of the farmers' rights concept concerned the need to reward farmers for their contribution to plant genetic resources for food and agriculture. The rights holders were not to be single farmers or communities, but entire peoples, i.e. a form of collective right. The idea of developing farmers' and plant breeders' rights simultaneously in order to seek a balance between the two also emerged at this meeting. The Contact Group had a challenging task in seeking a single interpretation, a point to which we return below.

Second Session of the Commission on Plant Genetic Resources, 1987

FAO, 1987: *Report of the Second Session of the Commission on Plant Genetic Resources, 16–20 March 1987*, CL 91/14.

At its Second Session, the Commission on Plant Genetic Resources agreed to adopt practical measures to ensure wider adherence to the Undertaking (paragraph 12), and established the Contact Group (paragraph 34). In this context, a broader discussion on farmers' rights unfolded. Since this is the first documented discussion of farmers' rights in the Commission, and also this report is not easily accessible, its paragraphs on farmers' rights are quoted in their entirety (paragraphs 37–42):

37. On the question of farmer' rights, delegations expressed a wide range of opinion. Most delegations which intervened on the subject stressed the importance of the concept of farmers' rights, holding that these rights derived from centuries of work by farmers which had resulted in the development of the variety of plant types which constituted the major source of plant genetic diversity; many of these resources were now being exploited in other countries as well and had become, in fact, part of the common heritage of mankind. They considered that farmers' rights were up to a point comparable with breeders' rights, which even existed in the

national legislation of many countries, and it was therefore fitting that farmers' rights should also be recognized.

38. One delegation, whilst supporting very strongly the concept of farmers' rights, was of the opinion that the term did not present an adequate characterization of the concept, since it was too broad; that delegation would have preferred the term, 'rights of centre of origin countries', it suggested that the above two expressions could be combined, and that the Commission might agree to the term, 'rights of farmers in centres of origin countries'.

39. Many of the delegations that were in favour of recognizing the concept of farmers' rights felt that this could be done immediately, while continuing to seek a more detailed definition. On the other hand, some delegations were of the opinion that such a complex and important subject required yet further reflection before formal recognition is given to it.

40. Some delegations suggested that the procedure described in paragraph 11 of the document would be an adequate solution to the problem, that is, that the collection and exporting of genetic material originating in a particular country be arranged in agreement with that country, and specimens of material collected be furnished to the government concerned. Some also felt that the suggestion in paragraph 12 (b) of the document (that a study on the subject be prepared by the Secretariat on the basis of information provided by members of the Commission) would serve a useful purpose in developing a definition of the concept of farmers' rights.

41. A number of delegates considered that the concept of farmers' rights should be linked to the establishment of an international fund for plant genetic resources, pursuant to Article 8 of the Undertaking (see also CPGR/87/10). The establishment of such a fund would provide a means of implementing a programme of action for plant genetic resources, mainly in developing countries, thus benefiting the farmers whose work had given rise to the many plant genetic resources that now exist.

42. A few delegations considered that it would not be feasible to attribute farmers' rights to any particular country of origin, since there had been a constant exchange of plant genetic resources over time among the various regions of the world, and since such exchanges had been mutually beneficial.

Finally the Working Group was asked to proceed with negotiations aimed at achieving an agreed interpretation of the Undertaking, in order to attract further countries to adhere to the agreement. The Chairman was requested to invite interested parties to participate in the negotiations. Many delegates considered that these talks should also cover the question of the formal recognition of the concept of farmers' rights (paragraph 46), and it was proposed that the Working Group should consider farmers' rights in relation to plant breeders' rights, and then report to the next session of the Commission on possible mechanisms to give practical expression to these rights (paragraph 78).

The Commission also discussed the establishment of an International Fund for Plant Genetic Resources, and the topic of farmers' rights was brought up (paragraph 30):

(...), it was pointed out that such a fund should serve mainly to increase support for the improved conservation and utilization of plant genetic resources in developing countries. In this way, the fund would provide a mechanism which would help to realize the farmers' rights to benefit directly from increased agricultural production through varietal improvement.

Meeting of the Contact Group, 1987

FAO, 1987: 'Summary Report on the Deliberations of the Contact Group by its Chairman', *Report of the Second Session of the Commission on Plant Genetic Resources, 16–20 March 1987*, CL 91/14, Appendix G.

The Contact Group proposed by the Working Group and created by the Commission was composed of 17 members, and met during the meeting of the Commission, on 17 March, 1987. The Summary Report gives the following account of the discussion on farmers' rights (paragraph 3):

The Contact Group agreed that this was a difficult task: breeders' rights are already recognized by national legislation in many countries. The so-called 'farmers' rights', however, which stem from the work that farmers have performed over the centuries, which resulted in the formation of the land-races, have not found any recognition in the laws and institutions of nations. It was agreed that these rights, too, must be given some formal recognition. It was acknowledged that, while the so-called 'farmers' rights' could not yet be given a precise definition, some sort of compensation for their most valuable contribution to the enrichment of the plant genetic resources of the world was well-founded and legitimate. It was pointed out that one way of giving practical recognition to this right could be in a form of multifaceted international cooperation including a freer exchange of plant genetic resources, information and research findings, and training. Another way could be through monetary contribution for financing a programme for the furtherance of the objectives of the International Undertaking on Plant Genetic Resources.

Thus, the Contact Group did not arrive at a definition of 'farmers' rights', but outlined some ways and means of according practical recognition. The Contact Group concluded that the views expressed in the Contact Group, as well as in the Commission and in the Working Group, should be taken into account by the negotiating group in the search for a negotiated interpretation of the controversial provisions in the Undertaking (paragraph 8).

Sessions of the FAO Council and Conference, 1987

FAO, 1987: *Report of the Council of FAO, Ninety-first Session, Rome, 17–26 June 1987*, CL 91/REP.

At the Session of the FAO Council in June 1987, farmers' rights were addressed for the first time in a Council session (paragraph 104):

The Council noted with satisfaction the Commission's decision to initiate negotiations through its Working Group to achieve an agreed interpretation of the controversial parts of the international Undertaking on Plant Genetic Resources, and to include in this interpretation clarification and recognition of plant breeders' rights and farmers' rights.

However, in the ensuing Twenty-fourth Session of the Conference in Rome in November 1987, there was no reported mention of farmers' rights (C 1987/REP: Report of the Conference of FAO Twenty-fourth Session, Rome, 7–27 November 1987).

As we can see from these reports from the four relevant meetings in 1986 and 1987, opinion differed as to the concept of farmers' rights and whether and how to give it recognition. However, various considerations and practical solutions were suggested already at this point (particularly in 1987), and these were more or less reflected in later discussions, in the literature and in the final recognition of farmers' rights in the International Treaty. The negotiations in 1987 can be said to form the foundation for all further negotiations on farmers' rights, and provided substantial input to the framing of our current understanding of the concept.

2.2 A note on the Keystone Dialogues

Keystone Center (1991): *Oslo Plenary Session. Final Consensus Report: Global Initiative for the Security and Sustainable Use of Plant Genetic Resources*. Third Plenary Session, 31 May–4 June 1991, Oslo, Norway (Keystone, Colorado: Keystone Center).

In the controversies on control over genetic resources in the 1980s, there were deep conflict lines between the parties. That is why William Brown, then chair of the US National Board for Plant Genetic Resources, initiated a contact with the Keystone Center in Colorado, with the request of holding a dialogue on plant genetic resources among international stakeholders.¹¹ The Keystone Approach was to invite stakeholders as individuals, to reduce conflict level and seek dialogue, to keep the discussions off the record, and to produce a report on the basis of consensus only. The Keystone Dialogues took place in 1988, 1990 and 1991, in Keystone, in Madras (now Chennai) and in Oslo respectively, and were chaired by Prof. M.S. Swaminathan, who also led an Interim Steering Committee that gave direction to the dialogues. Facilitators were the staff of the Keystone Center.

The Center gathered altogether 92 stakeholders from 30 countries at its three sessions and was important in framing the international discussions on such issues as farmers' rights, common heritage of mankind, international funding and to some extent intellectual property rights. The 1990

¹¹ Cary Fowler (1994): *Unnatural Selection. Technology, Politics and Plant Evolution* (Yverdon, Switzerland: Gordon and Breach), p. 197.

Session in Madras provided the most expressive account of the participants' recommendations regarding farmers' rights, and was based on the 1988 dialogue in Keystone:¹²

We propose that the best way of recognizing Farmers' Rights would be a mandatory fund, such as the fund currently existing at FAO, which supports genetic conservation and utilization programs particularly, but not exclusively, in the Third World. The logic is that such a fund would benefit farmers and farm communities in general, and would compensate them for their past and present contributions. We are not talking about designing a system to reward or compensate individual farmers, farm communities, Third World countries or governments. We do not propose to design a system which compensates anyone or anything based strictly on their contributions of germplasm.

We speak of 'compensation' because it implies a relationship with obligation. We agree on the concept of Farmers' Rights and we agree that contributions to a fund in recognition of these rights should not be voluntary. Practically speaking, a voluntary fund is a fund without resources. Thus, there should be a compulsory funding mechanism. This would insure that Farmers' Rights are recognized in a real way and should insure the fund has substantial resources. All of us agree that current conservation and utilization efforts are underfunded.

The concept of 'Farmers' Rights' includes recognition of the fact that farmers have developed and continue to help develop genetic diversity. In many cases, farmers engage in conscious and creative practices as they 'select' and 'breed' their crops.

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

2.3 Conference Resolutions on farmers' rights in 1989 and 1991

The debates on farmers' rights continued. In April 1989, the Commission on Genetic Resources held its Third Regular Session, which prepared the ground for the adoption of two resolutions on agreed interpretations of the International Undertaking at the Twenty-fifth Session of the Conference of FAO in November 1989.

FAO, 1989: *Report of the Conference of FAO, Twenty-fifth Session, Rome, 11–29 November 1989*, C 1989/REP.

Two draft resolutions were presented to and welcomed by the Conference. According to the Conference Report (paragraph 105), the first draft resolution, presented by the Delegation of Spain, was based on the text prepared by the Commission for an agreed interpretation of the International Undertaking. The second one was prepared by the Commission and

¹² Keystone Center (1990): *Madras Plenary Session. Final Consensus Report of the Keystone International Dialogue Series on Plant Genetic Resources*, Second Plenary Session, 29 January – 2 February, 1990, Madras, India, pp. 25–26.

concerned farmers' rights. The draft resolutions, preserving the principle of unrestricted availability of germplasm, recognized the rights of both donors of technologies and donors of germplasm to be compensated for their contributions through the simultaneous recognition of plant breeders' and farmers' rights. The Conference recognized that both resolutions were intended to lay the foundations for an equitable and lasting global system for sharing the costs and benefits of the world's plant genetic resources for present and future generations (ibid).

During the ensuing debate on the two resolutions, a few countries made specific proposals for amendments, but it was recognized that such changes needed further detailed review before they could be considered. Several countries expressed their intention to join the Undertaking or to withdraw their reservations should the resolutions be adopted (paragraph 106). Finally, the Conference recognized that these resolutions were the end-result of wide-ranging and intensive discussions and negotiations among many countries, including a non-member of FAO, some non-members of the Commission and some that did not adhere to the Undertaking, and expressed its satisfaction with the draft resolutions (paragraph 107). The two resolutions were adopted by consensus at 29 November 1989 as *Resolution 4/89 'Agreed Interpretation of the International Undertaking'* and *Resolution 5/89 'Farmers' rights'* (paragraph 108), and the Conference decided that they were to be annexed to the International Undertaking (paragraph 109).

Resolution 4/89 endorses that the agreed interpretation is intended to provide the basis for an equitable and therefore solid and lasting global system, and thereby to facilitate the withdrawal of reservations which countries have made with regard to the International Undertaking, and to secure the adherence of others. The Resolution presents the rationale behind the agreed interpretation, before listing its components (paragraph 108):

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

adhering governments, on a basis to be agreed upon, in order to ensure for the Fund a sound and recurring basis. The International Fund should be used to support plant genetic conservation, management and utilization programmes, particularly within developing countries, and those which are important sources of plant genetic material. Special priority should be placed on intensified educational programmes for biotechnology specialists, and strengthening the capabilities of developing countries in genetic resource conservation and management, as well as the improvement of plant breeding and seed production.

The recognition of farmers' rights was clearly motivated by the need to create acceptance for the formulations on plant breeders' rights, particularly among developing countries. Nevertheless, opponents of plant breeders' rights gained recognition of farmers' rights in exchange for something that already existed, i.e. plant breeders' rights. As such, this can be seen as a breakthrough for the proponents of farmers' rights.

The resolution on farmers' rights (paragraph 108, Resolution 5/89) represents a milestone in international negotiations on this topic, as it seeks to outline the contents and implications of this concept. It is therefore quoted in full:

THE CONFERENCE,

Recognizing that:

- a) plant genetic resources are a common heritage of mankind to be preserved, and to be freely available for use, for the benefit of present and future generations,
- b) full advantage can be derived from plant genetic resources through an effective programme of plant breeding, and that, while most such resources, in the form of wild plants and old landraces, are to be found in developing countries, training and facilities for plant survey and identification, and plant breeding, are insufficient, or even not available in many of those countries,
- c) plant genetic resources are indispensable for the genetic improvement of cultivated plants, but have been insufficiently explored, and are in danger of erosion and loss,

Considering that:

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

Endorses the concept of Farmers' Rights (Farmers' Rights mean rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity. These rights are vested in the International Community, as trustee

for present and future generations of farmers, for the purpose of ensuring full benefits to farmers, and supporting the continuation of their contributions, as well as the attainment of the overall purposes of the International Undertaking) in order to:

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

Though this resolution was a milestone, it was not legally binding, nor were the ways in which it was to be implemented delineated. Furthermore, the 'definition' did not actually define the concept. It stated where the concept had arisen and the purpose of farmers' rights. What they were rights to, who the rights holders were, and how the rights were to be maintained – these issues were not clarified. Thus we may say that the resolution marked an important beginning, but the actual realization of farmers' rights would require a lot of further conceptualization and operationalization.

FAO, 1991: *Report of the Conference of FAO, Twenty-sixth Session, Rome, 9–27 November 1991*, C 1991/REP.

In 1991 a new annex to the International Undertaking was adopted (C 1991/REP, Conference Resolution 3/91). This time, the FAO Conference stated that the concept of genetic resources being the heritage of mankind, as applied in the Undertaking, was subject to the sovereignty of the States (ibid, paragraph a).¹³ Against this background it also stated that the conditions for access to plant genetic resources required further clarification (ibid, paragraph d). This was a highly controversial issue, which caused heated debate. To balance between proponents and opponents and reach to a consensus decision, the Conference again adopted provisions on farmers' rights. Building on the negotiations in 1987 and the 1989 resolutions, the Conference decided (ibid, paragraph 3):

¹³ This principle of international law was confirmed at the UN Conference on the Human Environment, 1972. In the Declaration of the United Nations Conference on the Human Environment (available at www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503) reference is made to the UN Charter, and it is stated that states have the sovereign rights to exploit their own resources pursuant to their own environmental policies (Principle 21). The Commission on Genetic Resources reaffirmed these rights already at its first meeting in 1985, in an effort to attract further countries to adhere to the International Undertaking: 'With regard to Article 1 and 5 of the Undertaking, the commission agreed that the sovereignty of governments over their plant genetic resources should be respected and that reciprocity in the exchange process was included in the substance of the Undertaking' (CPGR/85/REP, Paragraph 9).

Farmers' Rights will be implemented through an international fund on plant genetic resources which will support plant genetic conservation and utilization programmes, particularly, but not exclusively, in the developing countries.

This fund was to be operated by the donors of genetic resources, funds and technology through the Commission on Plant Genetic Resources. The fund, however, never materialized.

2.4 Convention on Biological Diversity and Agenda 21, 1992

The Convention on Biological Diversity (CBD) was the first legally binding international treaty to address the conservation, sustainable use and equitable sharing of benefits derived from the utilization of biological diversity in general. It covers domesticated as well as undomesticated biodiversity. Until the International Treaty on Plant Genetic Resources for Food and Agriculture was adopted in 2001, it was the only legally binding international agreement pertaining to the management of crop genetic resources.¹⁴

Convention on Biological Diversity: Official version available online at www.biodiv.org/doc/legal/cbd-un-en.pdf

The CBD entails provisions which have similarities and parallels to the FAO resolutions from 1989 and the later International Treaty on Plant Genetic Resources for Food and Agriculture. With Article 8(j), the Parties to the CBD agree to respect, preserve and maintain traditional knowledge, innovation and practices, as far as possible, as appropriate and subject to their national legislation. Reference is made to indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity. The Parties also agree to promote the wider application of such knowledge, innovation and practices. There is no precise definition of the indigenous and local communities referred to. The Parties were encouraged at the Third Meeting of the Conference of the Parties III in 1996 to build capacity among indigenous and local communities for the *in situ* management of agricultural biological diversity (COP Decision III/11, Paragraph 15f). It seems that the provisions on traditional knowledge and indigenous and local communities under the CBD and the provisions on Farmers' Rights, as spelled out in the agreed interpretations of the International Undertaking and in the International Treaty, have the potential to be mutually reinforcing. Nevertheless, the first initiative to assess potential synergies between the two regimes in this regard was not taken until 2002 (see section 2.8 below).

UNEP: *Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity*. Available online at: <http://biodiv.org/doc/handbook/cbd-hb-09-en.pdf>

¹⁴ The International Undertaking was not legally binding.

The CBD was opened for signing at the UN Conference on Environment and Development in Rio in 1992, and entered into force 29 December 1993. However, the text of the CBD had been adopted in Nairobi in May 1992 in the Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity. In this context, a resolution on the interrelationship between the CBD and the promotion of sustainable agriculture was adopted on 22 May (Resolution 3). This resolution deals particularly with the importance of plant genetic resources for food and agriculture, and urges that ways and means be explored to develop complementarity and cooperation between the CBD and the Global System for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Sustainable Agriculture (*ibid*, paragraph 2), which was established under FAO and of which the International Undertaking was a central component. Finally, the resolution recognizes the need to seek solutions to two outstanding matters concerning plant genetic resources, one of which is ‘the question of farmers’ rights’ (*ibid*, paragraph 4).

United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3–14 June 1992: *Agenda 21*. Available online at: www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm

Agenda 21 was adopted at UN Conference on Environment and Development in Rio de Janeiro, Brazil, in June 1992, as a dynamic programme, to be carried out by various actors according to the differing situations, capacities and priorities of countries and regions (Preamble, paragraph 1.6). Chapter 14 of Agenda 21 addresses the promotion of sustainable agriculture and rural development. In this context, it deals with the conservation and sustainable utilization of crop genetic resources (section G). These resources are essential to meet future needs for food, it states; and the primary objective for action is to safeguard the world’s genetic resources while preserving them for sustainable use. Several necessary measures towards this end are listed, and actions to be taken by governments are indicated. Furthermore, the appropriate UN agencies and regional organizations are requested to take action in this regard (*ibid*, paragraph 14.60.a):

Strengthen the Global System on the Conservation and Sustainable Use of plant genetic resources for food and agriculture by, *inter alia*, accelerating the development of the Global Information and Early Warning System to facilitate the exchange of information; developing ways to promote the transfer of environmentally sound technologies, in particular to developing countries; and taking further steps to realize farmers’ rights.

In other words, the CBD and the Agenda 21 call on FAO to strengthen its work for the sustainable management of crop genetic resources, including the realization of farmers’ rights. No indication is given with regard to the content of farmers’ rights, however.

FAO, 1993: *Report of the Conference of FAO, Twenty-seventh Session, Rome, 4–24 November 1993*, C 1993/REP.

At its next session, in November 1993, the FAO Conference accordingly requested the FAO Director-General to provide a forum for negotiations for the adaptation of the International Undertaking in harmony with the Convention (Resolution 7/93). The negotiations should include the issue of realization of farmers' rights. The Commission on Plant Genetic Resources followed up with a mandate and a proposed process.¹⁵ This marked the point of departure for the long-lasting negotiations that were to lead up to the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture in 2001.¹⁶ Farmers' rights was one of several hot topics during the negotiations. We will not delve into all the different meetings and discussions that are relevant in this context, since that would exceed the limits of this report, and they have been analysed elsewhere.¹⁷ Rather, we focus on the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture and the related State of World's Plant Genetic Resources report, which provides a good mid-term overview over the state of the discussion.

2.5 Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture

It was evident already in 1996, when representatives from 150 countries met for the *Fourth International Technical Conference on Plant Genetic Resources* in Leipzig, Germany (the so-called Leipzig Conference), that national implementation of the International Undertaking was behind schedule. In a declaration from the meeting, the representatives stated that major gaps existed in national and international capacities to conserve, characterize, evaluate, and sustainably use plant genetic resources.¹⁸ They also stated that access to and the sharing of both genetic resources and technologies were essential for meeting world food security

¹⁵ CPGR-Ex1/94/3 (1994): *Revisions of the International Undertaking: Mandate, context, background and proposed process* (FAO: Rome)

¹⁶ There were various challenges in harmonizing the FAO regime on crop genetic resources with the CBD, and which provide a part of the explanation for the long duration of the negotiations. For an analysis of these challenges, see Regine Andersen (2003): 'FAO and the Management of Plant Genetic Resources', in *Yearbook of International Co-operation on Environment and Development 2003/2004* (London: Earthscan), pp. 43–53. See also Regine Andersen (2002): 'The Time Dimension in International Regime Interplay', *Global Environmental Politics*, Vol. 2, No. 3, pp. 98–117.

¹⁷ For a detailed account of the history of the negotiations pertaining to farmers' rights, see Svanhild-Isabelle Batta Bjørnstad (2004): *Breakthrough for 'the South'? An Analysis of the Recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture*, FNI Report 13/2004 (Lysaker, Norway: The Fridtjof Nansen Institute).

¹⁸ FAO (1996), *The Leipzig Declaration* adopted by the International Technical Conference on Plant Genetic Resources in Leipzig, Germany, 17–23 June 1996.

and the needs of the growing world population. On this basis, the representatives adopted the *Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture*. In November 1996, the Global Plan of Action was endorsed by the FAO Council,¹⁹ by the Conference of the Parties to the CBD,²⁰ and by the World Food Summit at FAO, where the heads of state and government committed their countries to implementing the Global Plan of Action.²¹

FAO, 1996: *Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture, adopted by the International Technical Conference on Plant Genetic Resources, Leipzig, Germany 17–23 June 1996*, available at: www.fao.org/ag/AGP/AGPS/GpaEN/gpatoc.htm

The Global Plan of Action is a set of recommendations and activities intended as a framework, guide and catalyst for action at community, national regional and international levels. It is comprehensive, covering most issues of relevance for the management of crop genetic resources – including farmers’ rights. One of the long-term objectives under the title ‘Supporting on-farm management and improvement of plant genetic resources for food and agriculture’ is to realize Farmers’ Rights as defined in FAO Resolution 5/89 at the international, regional, and national levels (paragraph 32). It identifies several activities which would benefit farmers with regard to on-farm management and improvement of crop genetic resources. However, just how farmers’ rights, as defined in the FAO Resolution, are to be operationalized and realized is not explicitly delineated.

The Global Plan of Action was prepared with the participation of 154 countries. Each country prepared comprehensive reports on the state of plant genetic resources for food and agriculture in its territories. These reports were compiled and analysed in a comprehensive and detailed report, covering biological, technical and institutional concerns, including farmers’ rights, and formed the basis for the Global Plan of Action:

FAO (1998): *State of the World’s Plant Genetic Resources for Food and Agriculture* (Rome: FAO).²²

The report addresses the implementation of farmers’ rights (pp. 299–301), focusing on the agreed international fund and on efforts to define the concept and components of farmers’ rights. As for the international

¹⁹ Resolution CL 111/1, in CL 111/REP: Report of the Council of FAO, Hundred-and-eleventh Session, Rome

²⁰ Decision CBD/COP III/11 in UNEP/CBD/COP/3/38: Report of the Third Meeting of the Conference of the Parties to the CBD, Buenos Aires

²¹ WFS Commitment 3, Objective 3.2(I), in FAO WFS 96/REP, Appendix to the Report of the World Food Summit, 13–17 November 1996

²² The report was compiled and produced by a FAO team coordinated by Cary Fowler and David Cooper prior to the Leipzig Conference, but was first published by FAO in final form in 1998.

fund, suggestions are made for linking it with the Global Plan of Action, in an effort make it a reality. Concerning definition efforts, the report gives an account of the state of discussions under renegotiations of the International Undertaking as well as in the country reports provided for the FAO State of the World's (...) report. As such, it can be seen as a mid-term report of the negotiations pertaining to farmers' rights, and will be our last summary of discussions before we present the negotiation result. The section on farmers' rights is quoted in full here (pp. 300–301):

The concept of Farmers' Rights may include several dimensions: compensation for innovation in the development of farmers' varieties; compensation to farmers for making plant genetic resources available; provision of incentives for continued conservation of these resources; and support for particular conservation and utilization activities.²³

During the discussions and on-going negotiations for a revised International Undertaking,²⁴ and during the preparatory process for the International Technical Conference,²⁵ it has been suggested that Farmers' Rights may have other operational dimensions including:²⁶

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

Some non-governmental organizations (NGOs) have also proposed that Farmers' Rights be developed as a 'bundle of rights', including rights to conserve, develop and protect plant genetic resources, the rights to receive financial support for conservation and utilization activities, the right to benefit from the commercial exploitation of resources under their stewardship and the right to determine the extent to which such resources and related practices, information and knowledge are made available.²⁷

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

²⁴ *Ibid.*

²⁵ Including: *Subregional preparatory meeting: Southern Africa Report*, para 12 (xi); *Subregional preparatory meeting: East Africa and the Indian Ocean Islands Report*, paras 13(b), 14(xii); *Subregional preparatory meeting: West and Central Africa Report*, para 39; *Subregional preparatory meeting: South and Southeast Asia and the Pacific Report*, recommendation 31.

²⁶ Note, however, that FAO Conference Resolution 5/89 states that Farmers' Rights are 'vested in the international community'.

²⁷ Genetic Resources Action International proposes a biological diversity community rights regime based on the principles of local heritage, tenurial rights and communal ownership over resources. GRAIN (1995): 'Towards a biodiversity community rights regime', *Seedling*, Vol. 12, No. 3, October 1995, p. 2.

Many countries argue that there is a need for a legal framework for the implementation of Farmers' Rights. Some have proposed that such a framework first be developed at the international level. Some countries have also suggested that certain aspects of Farmers' Rights be protected through the development of intellectual property rights, or similar systems, to protect indigenous knowledge.²⁸ Some countries consider that the implementation of certain aspects of Farmers' Rights could be facilitated through an appropriate sui generis system, in line with the TRIPS Agreement. Such an approach could incorporate the 'farmers' privilege' (as is already the case with the UPOV 1978 Convention), and could also include benefit-sharing mechanisms, such as those under consideration in India. Benefits might be awarded to particular farming communities or accrue to a fund. All of these matters are under discussion in various forums, including FAO in the context of the renegotiation of the International Undertaking.

Finally, the report states that the Global Plan of Action can be viewed as a contribution to the realization of farmers' rights.

The heated debates on farmers' rights continued during and after the Leipzig Conference and until the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture in 2001. The story is long and complex, and cannot be further elaborated here. For a detailed account and analysis of the negotiation process, see Batta Bjørnstad (2004).²⁹

2.6 The International Treaty on Plant Genetic Resources for Food and Agriculture

FAO (2001): 'Resolution 3/2001: Adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture and Interim Arrangements for its Implementation', *Report of the Conference of FAO, Thirty-first Session, Rome, 2–13 November 2001*, C 2001/REP.

FAO (2001): *The International Treaty on Plant Genetic Resources for Food and Agriculture, Report of the Conference of FAO, Thirty-first Session, Rome, 2–13 November 2001*, C 2001/REP, Appendix D.

The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) was adopted at the Thirty-first session of the Conference of the Food and Agriculture Organization of the United Nations (FAO) in Rome 3 November 2001. It entered into force 29 June 2004, and is the first legally binding agreement exclusively pertaining to the management of plant genetic resources for food and agriculture. Its objectives are the conservation and sustainable use of these resources,

²⁸ The difficulties of such a system are explored in Annexes 1–4 of the *State of the World's Plant Genetic Resources for Food and Agriculture*.

²⁹ Svanhild-Isabelle Batta Bjørnstad (2004): *Breakthrough for 'the South'? An Analysis of the Recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture*, FNI Report 13/2004 (Lysaker, Norway: The Fridtjof Nansen Institute).

and the fair and equitable sharing of the benefits arising from their use – in harmony with the CBD – for sustainable agriculture and food security. The most important benefit is that of access to these vital resources for food and agriculture. The core of the International Treaty is a Multilateral System of Access and Benefit Sharing concerning 35 food crops and 29 forage plants that are under the management and control of the Contracting Parties and in the public domain (Part IV). The International Treaty also provides for implementation of the Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture, which, as we have seen above, can be regarded as an important instrument for the realization of farmers' rights, and thus reinforces this call for action.

In the Preamble to the International Treaty, the Contracting Parties affirm that the past, present and future contributions of farmers in all regions of the world – particularly those in centres of origin and diversity – in conserving, improving and making available these resources, constitute the basis of farmers' rights.³⁰

Article 9 of the International Treaty explicitly states that responsibility for the implementation of farmers' rights, as they relate to the management of plant genetic resources for food and agriculture, rests with the governments. Certain measures to protect and promote farmers' rights are suggested. These encompass the protection of relevant traditional knowledge, equitable benefit sharing, participation in decision making, and the rights to save, use, exchange, and sell farm-saved seeds and propagating material. The suggestions are not legally binding, and governments are free to choose the measures they deem appropriate, according to their needs and priorities.

Two other articles of the International Treaty contain provisions related to the realization of farmers' rights – and both of these are legally binding. The first (Section 13.3) provides for farmers who contribute to maintaining plant genetic resources for food and agriculture to receive benefits arising from the Multilateral System of Access and Benefit Sharing established under the Treaty. The latter (Section 18.5) ensures that funding priority will be given to the implementation of agreed plans and programmes for farmers in developing countries who conserve and sustainably utilize plant genetic resources for food and agriculture. As these two provisions are legally binding, they will be dealt with by the Governing Body of the International Treaty.

Implementation of Article 9 of the International Treaty on farmers' rights pertaining to plant genetic resources for food and agriculture will be of a different nature, however, since its provisions are optional. This means that compliance with Article 9 is impossible to assess, as any policy can be defended as 'appropriate', according to the needs and priorities in a country. Therefore, a traditional approach to the monitoring of compli-

³⁰ See Attachment 1 to this Background Study for the full text of the provisions pertaining to farmers' rights in the International Treaty on Plant Genetic Resources for Food and Agriculture.

ance is not applicable, and this situation has created substantial uncertainty as to how the Governing Body of the International Treaty can follow up on implementation of this Article.

A starting point for follow-up of the Farmers' Rights Article (Article 9) can be found in the Preamble to the Treaty, which highlights the necessity of promoting farmers' rights at the national and international levels. From these formulations, it is reasonable to conclude that the role of the Governing Body of the International Treaty is to promote the realization of farmers' rights at the national as well as international levels, and that Article 9 provides some guidelines for this work. A crucial question is therefore how the Governing Body can approach this task – and that is the topic of the Farmers' Rights Project of the Fridtjof Nansen Institute.

2.7 Links between the CBD and the International Treaty

UNEP/CBD (2004): *The Implications of the International Treaty on Plant Genetic Resources for Food and Agriculture on the Issues under Article 8(j) and Related Provisions*. Note by the Executive Secretary to the Conference of the Parties to the Convention on Biological Diversity, Seventh Meeting, Kuala Lumpur, 9–20 and 27 February 2004, Item 19.8 of the provisional agenda, UNEP/CBD/COP/7/INF/18.

In 2002, the Conference of the Parties to the CBD requested the Executive Secretary to examine, together with FAO, the implications of the ITPGRFA on the issues under Article 8 (j) (COP 6 WG II/CRP.9/Rev.1). The results were presented in a note to the Conference of the Parties of the CBD in 2004 (UNEP/CBD/COP/VII /Inf. 18). It states that the Treaty's recognition of farmers' rights is of particular relevance in the examination of its implication on the issues under Article 8(j), and that several similarities and parallels can be identified between the norms on farmers' rights under the ITPGRFA (Article 9) and those of indigenous and local communities under the CBD (Article 8j). The following assessment of Article 9 of the Treaty (paragraph 13) is provided:

Regarded as an important landmark in contemporary treaty law, the recognition of Farmers' Rights within the framework of this Treaty represents a major step towards the wider acknowledgement and genuine implementation of the rights conferred on informal innovators ('traditional farmers'), who, in the sixth pre-ambular paragraph, are placed on a parallel and equal footing with the 'modern breeders', the formal innovators who use classical plant breeding methods and modern biotechnologies and whose innovations are frequently protected by intellectual property rights. While Farmers' Rights do not constitute intellectual property rights in the formal sense, they do however provide a basis for the recognition of the collective innovation of farmers and indigenous and local communities on which agriculture is based.

As stated by the Executive Secretary, Article 8(j) of the CBD and Article 9 of the Treaty can to some extent be seen as mutually reinforcing, although 'not necessarily covering the same ground or at least not from the same precise perspective' (paragraph 20). The Executive Secretary refers particularly to Article 9.2(a) of the Treaty, which provides for the

protection of traditional knowledge relevant to plant genetic resources for food and agriculture, as one of several possible measures for Contracting Parties to take to protect and promote farmers' rights. Extensive examination of the best ways and means of providing protection for traditional knowledge, innovations and practices have been carried out by the Conference of the Parties, he notes, and likewise also in the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore within the World Intellectual Property Organization (WIPO); and a range of options would currently be under consideration (paragraph 23).

This shows there is a considerable scope for synergies in implementing the two norms at the international as well as domestic levels. So far, these potentials do not appear to have been utilized, but the initiative by the Conference of the Parties to the CBD indicates that an awareness of these potentials is unfolding.

2.8 Where we stand

With the International Treaty, a legally binding international agreement has been established for the management of plant genetic resources for food and agriculture. States are obliged to protect and promote farmers' rights, but are free to choose the measures they deem appropriate. The history of the negotiations leading to these provisions in the International Treaty provides an important background for the selection of such measures.

- *Balancing breeders' rights*: The concept emerged from the debate on intellectual property rights to plant genetic resources. Initially, the major concern was how to ensure that such rights would not be detrimental to the customary practices of farmers to save, reuse, share and develop plant varieties. These practices were seen as the basis for their continued contribution to conservation and innovation in genetic resources, and should therefore be protected. Farmers' rights were viewed as a means towards this end.
- *Reward to farmers*: The enormous collective contribution of past, present and future farmers to the global genetic pool would have to be recognized in practical terms. The rights holders would not be individuals or communities but entire peoples. Measures such as freer exchange of plant genetic resources, sharing of information and research results, and training were suggested. Benefit sharing was an important aspect of the discussion, but interpretations varied. Some suggested benefit sharing on a bilateral basis, whereas others argued that such a system would not be feasible due to the nature of exchange of agricultural resources over the ages: It would not be possible to detect the countries of origin, and the transaction costs would be too high. Therefore, a multilateral system was suggested. This was to form the rationale behind the International Treaty.
- *Conservation of plant genetic resources and related knowledge*: Balancing breeders' rights was one way to ensure that farmers were not hindered in maintaining their customary practices. However, more direct measures would be required to enable farmers to continue to act as

custodians of the plant genetic heritage and as innovators in agriculture. Measures to conserve plant genetic resources and the related knowledge, and to stimulate innovations were therefore seen as essential. These measures were sometimes addressed in the context of rewards and benefit sharing, as indicated above. However, they were also deemed important as an independent component of farmers' rights, vital to present and future food security.

- *International fund*: All parties agreed to establish an international fund for farmers' rights which would provide the necessary muscle to reward and support farmers for their continued contributions to the conservation and development of plant genetic resources for food and agriculture.

These stand as the foundations of farmers' rights. They represent the fruit of long and complex negotiations, and need to be taken into consideration when implementing the International Treaty at the national as well as the multilateral level.

3 Acts of legislation and policies on farmers' rights

Several countries have drafted or adopted acts of legislation regarding farmers' rights. These are the first examples of legislative efforts in this regard, and as such they are highly pertinent for other states seeking to implement the International Treaty. The lessons from these experiences may also help the implementing states to improve their policies on farmers' rights. Some of these lessons and the new questions arising from the experiences with farmers' rights legislation are indicated in the presentation of literature below. There are in particular two acts of legislation that have been debated in the literature:

- *India*: Protection of Plant Varieties and Farmers' Rights Act (2001, in force) with the Protection of Plant Varieties and Farmers' Rights Rules (2003, in force)
- *Africa*: The African Union Model Law on Rights of Local Communities, Farmers, Breeders and Access (Formally endorsed by the heads of state of the African Union in 2000, to be used as a model for the design of national legislation in AU member countries)

In Background Study 2 from the *Farmers' Rights Project*, which presents the results from an international stakeholder survey, we have compiled a range of further legislation which our respondents deemed relevant to farmers' rights (pp. 18–35).³¹ Some of these have been adopted, other are still in draft form at various stages in the negotiation process. They differ greatly in their approach to farmers' rights, but it is beyond the scope of this report to flesh out their contents and differences further. We also found that farmers' rights are being realized through programmes and policies not covered by specific legislation. Already there are examples of realization of all components of farmers' rights addressed in the Interna-

³¹ Some of these can be downloaded from GRAIN's website: www.grain.org/brl/?typeid=45

tional Treaty. The aim of this brief chapter is simply to draw attention to these quite comprehensive sources of experience, and to refer the reader to the results from the stakeholder survey:

Andersen, Regine (2005): *The Farmers Rights' Project – Background Study 2: Results from an International Stakeholder Survey on Farmers' Rights*. FNI Report 9/2005 (Lysaker, Norway: The Fridtjof Nansen Institute). Available at: www.fni.no/farmers/stakeholders.htm

Later reports from the project will return to these experiences for more detailed analyses.

4 Literature on farmers' rights

This chapter is devoted to central literature on farmers' rights. We start with major works on farmers' rights in general, and then proceed to articles and book chapters, also on farmers' rights in general. Finally, we turn to the literature on regional and national contexts for the realization of farmers' rights, before summarizing the broad lines of the literature.

4.1 Major works on farmers' rights – global level

Brush, Stephen B. (1994): *Providing Farmers' Rights through In Situ Conservation of Crop Genetic Resources*, CPGR Background Study Paper No.3 (Rome: FAO).

This background study was prepared at the request of the Secretariat of the FAO Commission on Plant Genetic Resources as an input to the negotiations for the revision of the International Undertaking. It was presented at the First Extraordinary Session of the Commission in November 1994. The study starts out examining the importance of *in situ* conservation as a complementary strategy to *ex situ* conservation, and highlights the relationship between conservation and equity. On this basis it outlines a programme for *in situ* conservation, emphasizing institutional strengthening, community programmes and incentives to farmers.

As such a programme would necessitate financial resources, the last part of Brush's paper is devoted to two funding approaches: Either a market approach could be chosen, which would involve intellectual property mechanisms and/or contracts; or a non-market approach could be selected, which would involve a multilateral trust fund. The study endorses the latter, because the market approach would negatively affect the customary practices of farmers with regard to seeds and propagating material, and because of the anticipated transaction costs. It concludes with a discussion of the funding scope appropriate for *in situ* conservation through a multilateral trust fund as one means to recognize farmers' rights. Farmers' rights are defined as 'the right to recognition for contributing to the common welfare by providing genetic resources' (p. 2).

Swaminathan, M. S. (ed.) (1996): *Agrobiodiversity and Farmers' Rights*; Proceedings of a Technical Consultation on an Implementation Framework for Farmers' Rights, (Delhi: Konark Publishers Pvt Ltd).

The technical consultation on which this book is based addressed the issue of how the equity provisions of the CBD and the concept of farmers' rights could be developed in FAO. Facts and viewpoints were contributed by experts and stakeholders from many countries, involving representatives from the plant breeding industry, public sector breeding institutions, farmers, various international organizations (e.g. FAO, WTO and UPOV), research institutions and NGOs.

The book starts out with a comprehensive background paper prepared by José Esquinas-Alcázar titled 'The Realization of Farmers' Rights', outlining the rationale for farmers' rights, a list of suggested components and the state of negotiations. One of the conclusions is that present inequities will increase and current forces driving genetic erosion most likely be magnified if farmers' rights are not implemented at the international level (p.15).

The volume proceeds with a section on the national and international context of farmers' rights as seen from highly different perspectives, before it focuses on the relationship between plant variety protection and the CBD. In the latter context the current status of plant variety protection in several countries in the South and the North is highlighted. On this basis, viewpoints from private and public plant breeding institutions are presented, and then the views of tribal and rural farmer-conservers are highlighted. A need for resource centres on farmers' rights is identified.

In conclusion, detailed recommendations are presented. It is recommended that farmers' rights should involve the free choice of, and access to, germplasm; the freedom to sell harvested produce and to improve cultivars; the ability to influence future breeding efforts; access to technologies and training; the ability of farming communities to control access to agrobiodiversity under their custodianship; economic incentives to continue to conserve agrobiodiversity; and recognition of past and present achievements (pp. 193–195). Concrete steps are suggested, *inter alia* in terms of the development of national legislation and with regard to negotiations at the international level.

Cleveland, David A. & Stephen C. Murray (1997): The World's Crop Genetic Resources and the Rights of Indigenous Farmers', *Current Anthropology*, Vol. 38, No. 4.

This article explores some theoretical and empirical aspects of the debate on intellectual property rights for traditional farmers. The authors conclude that traditional farmers have their own concepts of intellectual property rights in folk varieties of plants, and that these differ considerably from the intellectual property rights applied in commercial agriculture. They moot the possibility of taking advantage of the discourse on

human rights and indigenous peoples' rights in discussing solutions to the question of intellectual property rights for traditional farmers to folk varieties. Finally, the authors argue that the conflict between industrial agriculture and indigenous farmers over rights to crop genetic resources may be easier to resolve if placed in the context of a common goal of sustainable agriculture. The article is commented by various experts – Janis B. Alcorn, Stephen B. Brush, Michael R. Dove, David R. Downes, Donald N. Duvik, Cary Fowler, Anil K. Gupta, Ashish Kothari and Paul Richard – to which the authors reply, and conclude the discussion.

Girsberger, Martin A. (1999): 'Biodiversity and the Concept of Farmers' Rights in International Law. Factual Background and Legal Analysis.' *Studies in Global Economic Law*, Volume 1 (Bern etc.: Peter Lang).

This doctoral thesis analyses the concept of farmers' rights from a legal perspective. The first part presents an extensive description of the factual background to the topic, including agriculture, plant genetic resources for food and agriculture, indigenous knowledge and the effects of modern biotechnology. The second part examines the applicability of existing forms of intellectual property rights to traditional crop genetic resources and related know-how. Here Girsberger concludes that existing intellectual property rights are not adequate for this purpose, and that farmers' rights should rather be non-exclusive rights.

The third part contains a legal analysis of farmers' rights as a concept and of the prospects for their realization. The author suggests that farmers' rights should have three complementary and closely related purposes: (1) compensation for the use of traditional plant genetic resources for food and agriculture and related traditional knowledge; (2) incentives for the conservation and sustainable use of crop genetic resources; and (3) balancing inadequacies and deficiencies of existing forms of intellectual property rights with regard to these resources (p. 205). Farmers' rights should, however, not compete with – or replace – existing intellectual property rights, he argues.

On this basis, the subject matter of farmers' rights would be (1) traditional crop varieties and their wild and weedy relatives, and (2) the related knowledge of informal plant breeders (p. 213). Girsberger further concludes that individual farmers or farming communities cannot be considered rights holders, since the determination of such rights holders would be very complicated, if not impossible, and would consume substantial financial, technical, and legal resources (p. 228). Instead, he proposes that all entities involved in the conservation and sustainable use of plant genetic resources for food and agriculture be defined as rights holders, and that the international community should act as steward for the holders of farmers' rights (ibid.).

A central question is what the rights and obligations should be. On the basis of the foregoing analysis, Girsberger proposes that the fundamental

right is compensation, and the fundamental obligation is the conservation of crop genetic diversity. For this purpose an international fund should be established to distribute compensation among the holders of farmers' rights, i.e. entities involved in the conservation and sustainable use of traditional crop genetic diversity (pp. 259–261). Due to the nature of the utilization of crop genetic resources, the financial capabilities of countries in the South, and the development of intellectual property rights to genetic resources from the global genetic pool, compensation would basically have to be an international task (p. 282). Therefore, realization of farmers' rights would have to take place at the international level and be enforced by states (p. 296). The international fund should distribute financial resources according to proposals submitted by rights holders, to be approved by a committee of internationally acclaimed experts (p. 308). The book concludes with a proposed agenda for farmers' rights.

Correa, Carlos (2000): 'Options for the Implementation of Farmers' Rights at the National Level', South Centre: *Working Paper 8*, December 2000.

This report is among the first to be written after the adoption of the text on farmers' rights in 1999, which was to become the final formulation of Article 9 in the International Treaty. After considering the origin of the concept of farmers' rights, and how it has been incorporated in international regimes and national regulations, Correa explores in greater detail the rationale behind the concept. On this background, the relationship between farmers' rights and intellectual property rights is explored, before various proposals for the contents and implementation of farmers' rights are discussed.

Correa concludes that farmers' rights may be seen as a 'moral recognition to farmers' past and present contributions to making agriculture sustainable', as well as 'concrete instruments to protect and promote traditional farming activities and communities' culture and lifestyles' (p. 41). The possible scope and characteristics of the suggestions provided in the International Treaty on how governments can protect and promote farmers' rights need to be further developed, in order to provide more concrete guidelines to governments on how best to comply with their responsibilities in this field, he suggests. Work on realizing farmers' rights will also require capacity building, training, transfer of technology and a fair reward for farmers' contributions, among other things. Nevertheless, 'there seem to be a gradual movement from the realm of ideas towards the design of such measures that can be realized in practice and which supports and promotes farmers' activities in the conservation and improvement of plant genetic resources for food and agriculture' (pp. 41–42).

Correa's report contains an overview over national legislation and proposed legislation from several countries, with provisions pertaining to farmers' rights. It further lists and discusses the possible content of and measures for farmers' rights, and provides a detailed account of possible measures to establish national legislation on farmers' rights according to the

International Treaty. It is therefore a valuable source book regarding implementation of the provisions on farmers' rights in the International Treaty.

Bjørnstad, Svanhild-Isabelle Batta (2004): *Breakthrough for 'the South'? An Analysis of the Recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources on Food and Agriculture*. (Lysaker, Norway: The Fridtjof Nansen Institute, FNI Report 13/2004)

This report analyses the influence of developing countries on the recognition of farmers' rights in the International Treaty. By comparing the developing countries' original proposals on the formulation of farmers' rights with the final text of the International Treaty, Batta Bjørnstad concludes that developing countries have had a medium breakthrough for their interests. To explain this result, regime theories are applied, and it is found that how the negotiations were organized, as well as the entrepreneurial leadership of different actors, affected the possibilities for developing countries to get their interests attended to. At the same time, the issue-specific power of these countries was reduced, for two reasons: (1) Their control over crop genetic resources had decreased because much of the commercial interesting genetic resources had already been collected in international and private gene banks, and (2) various groups of developing countries developed differing interests and strategies. These constellations reduced their joint influence on the negotiations. On the other hand, the role of experts and NGOs as supporters of farmers' rights is found to have had an important impact on the negotiations.

Batta Bjørnstad's report represents a special contribution to the understanding of the development of farmers' rights in the 1990s and the context in which the provisions on farmers' rights of the International Treaty were negotiated. It contains a detailed analysis of the negotiation process leading to the International Treaty (pp. 49–72) as well as an overview over different positions (pp. 40–42). In explaining the negotiation result, it provides a comprehensive overview over the various actors in the negotiations and how they influenced the process (pp. 73–98). Additionally, it offers humorous and interesting anecdotes from the negotiation table.

Brush, Stephen B. (2005 A): *Farmers' Rights and Protection of Traditional Agricultural Knowledge*. CGIAR Systemwide Program on Collective Action and Property Rights Working Paper No. 36 (Washington, DC: International Food Policy Research Institute), and Brush, Stephen B. (2005 B): 'Protecting Traditional Agricultural Knowledge', *Washington University Journal of Law and Policy*, Vol. 17, pp. 59–109.

In these two contributions, Stephen B. Brush questions the value of bioprospecting contracts that involve direct payment and royalties for the purpose of protecting traditional agricultural knowledge. He argues instead for a common pool approach to the management of crop genetic

resources and as a basis for farmers' rights. Brush starts out with an analysis of the nature of the 'common heritage' regime that was a prevalent feature of the management of crop genetic resources until the adoption of the CBD. In this context he explains key characteristics of traditional agricultural knowledge and the background to the closing of the genetic commons by the upcoming intellectual property rights regimes under the World Trade Organization and by the access and benefit sharing regime under the CBD. He offers examples of domestic implementation of these regimes from Colombia, Mexico and Costa Rica, all showing the negative effects of such regimes for the management of crop genetic resources.

An important reason for these problems is that the access and benefit sharing regimes derived from the CBD failed to distinguish between wild and domesticated plant genetic resources. According to Brush, there are three important differences (pp. 21[A]/80[B]): '(1) involvement of numerous farmers and farming communities in creating and maintaining genetic resources, (2) genetic complexity of crop traits, and (3) a long history of exchange and publicly supported conservation of crop genes within and outside of their places of origin.' Crop genetic resources should be approached in a fundamentally different way, reviving the 'common heritage' approach.

On this background, Brush analyses the International Treaty. He concludes that the 'common heritage' principle has re-emerged in the Treaty, with its Multilateral System of Access and Benefit Sharing. This is the context in which the provisions of the International Treaty on farmers' rights are explored. Bioprospecting contracts between farming communities and seed companies would not only be legally difficult, but could also lead to market failure because a multitude of farmers would face an extremely limited set of potential 'buyers' of their genetic resources. For this and other reasons, alternative approaches to the realization of farmers' rights need to be found. Brush suggests four guidelines for the crafting of national policies (pp. 29[A]/93[B]): (1) the goals of farmers' rights should balance breeders' rights and encourage farmers to continue as stewards and providers of crop genetic resources; (2) farmers' rights should be viewed as collective rights rather than rights of individual farmers or communities; (3) farmers' rights should not be exclusive and are not meant to limit access to genetic resources; and (4) mechanisms are needed for sharing the benefits received by the international community from the genetic material from farmers' fields or international collections.

According to Brush, the weakness of the International Treaty is that it does not give proper emphasis to the obligations of industrial and developing countries to support the conservation of crop genetic resources. Therefore, it does not solve Hardin's classic 'tragedy of the commons'³² that has beset the management of crop genetic resources, allowing breeders to benefit from the access to genetic resources without bearing the

³² Hardin, Garrett (1968): 'The Tragedy of the Commons', *Science*, 162, pp. 1243–1248

costs of maintaining them. Instead, development assistance is the most likely source of funds for realizing farmers' rights under the current regime. The irony of this conclusion is that 'it reverts to tools and principles that were established before the assault on common heritage', Brush concludes (pp. 34[A]/109[B]).

4.2 Articles and book chapters on farmers' rights – global level

Brush, Stephen (1992): 'Farmers' Rights and Genetic Conservation in Traditional Farming Systems', *World Development*, Vol. 20, No. 11, pp. 1617–1630.

This article argues that intellectual property rights such as plant breeders' rights or patents should not be used to protect crop genetic resources. Rather, farmers' rights should be used as an alternate form of intellectual property rights, to compensate farmers indirectly by supporting genetic conservation. These conclusions are based on an analysis of the role of genetic resources in traditional farming, intellectual property rights over plant varieties and potentials of the concept of farmers' rights. Brush highlights four reasons why intellectual property protection is not adaptable to the situation of traditional farming and crop varieties (p. 1628): (a) the usual criteria for recognizing plant breeders' rights (novelty, distinctness, uniformity and stability) do not apply to traditional knowledge systems as they are normally part of public knowledge, (b) severe accounting problems would accrue, since crop improvement is based on numerous genetic sources, and it would be unreasonable to assign proportional values to the resources from each relevant country, (c) the primary beneficiary would most likely be the nation state rather than farmer conservers, and (d) the focus on equity and compensation does not explicitly address the pressing problem of improving crop genetic conservation. Therefore, concludes Brush, farmers' rights should be embraced without the cumbersome baggage of intellectual property rights'. He warns, however, that extending farmers' rights is not without pitfalls. One of these pitfalls would be that farmers could be bypassed by the elite in their countries when compensation is to be organized. Another would be that the transaction costs would be too high and that the systems would prove inefficient.

Butler, Bees & Robin Pistorius, Robin (1996): 'How Farmers' Rights Can Be Used to Adapt Plant Breeders' Rights', *Biotechnology and Development Monitor*, No. 28, September 1996, pp. 7–11

In this article, the question of farmers' rights is discussed in light of the lack of political will in developed countries to generate additional funds to support the role of farmers in maintaining agrobiodiversity. The authors suggest using farmers' rights to curb the negative effects of the 1991 Act of the Union for the Protection of New Varieties of Plants (UPOV). A remuneration system could be established to compensate breeders without recognizing property rights, i.e. a system with contracts between breeders and the society. Such a system would be closer to the

original idea behind the plant breeders' rights system, Butler and Pistorius maintain. The main benefit of the system would be that farmers would have the right to freely use the seed they buy.

Esquinas-Alcázar, Jose (1998): 'Farmers' Rights', pp. 207–217 in R. Evenson, D. Gollin & V. Santaniello (eds) (1998): *Agricultural Values of Plant Genetic Resources* (Wallingford: FAO/CEIS/CABI Publishing).

Esquinas-Alcázar provides an overview over the FAO negotiations on farmers' rights, with references to the CBD and the WTO Agreement on Trade Related Aspects of Intellectual Property Rights. He maintains that implementation of farmers' rights at the international level is vital to global equity and to halting genetic erosion in agriculture. Implementation should ensure that farmers, farming communities and their countries receive a just share of the benefits derived from the use of crop genetic resources, and provide incentives and means for the conservation and further development of these resources.

Wright, B. D. (1998): 'Intellectual and Farmers' Rights', pp. 219–232 in R. Evenson, D. Gollin & V. Santaniello (eds) (1998): *Agricultural Values of Plant Genetic Resources* (Wallingford: FAO/CEIS/CABI Publishing).

In this book chapter, B. D. Wright highlights the paradox of the high total value of agricultural germplasm and the current low demand of plant breeders for such material due to their own well-stocked gene banks and the narrow genetic bases of their crop varieties. Therefore any attempt to seek to earn rents on access to germplasm seems likely to fail. Against this backdrop, the author concludes that care must be taken that the exchange of seeds is not too severely hampered by taxes, fees or individualized prior approval requirements.

Gollin, D. (1998): 'Valuing Farmers' Rights', pp. 233–245 in R. Evenson, D. Gollin & V. Santaniello (eds) (1998): *Agricultural Values of Plant Genetic Resources* (Wallingford: FAO/CEIS/CABI Publishing).

This book chapter argues that there are significant potential hazards to the South in seeking to establish a system of farmers' rights based on intellectual property rights or other forms of property rights. The point of departure for the analysis are the international flows of genetic resources, which have been multi-directional between the South and the North, the South and the South, and the North and the North. Gollin proceeds to a detailed analysis of the international flows of genetic resources in rice and its implications for the question of compensation. The great majority

of the rice varieties covered by the study (1709 varieties) were developed using breeding lines from outside the country of release. Most countries in the study were found to be net borrowers of landraces. Large importers of germplasm with regard to the varieties dealt with here are Bangladesh, Pakistan, Nepal, Nigeria and Vietnam. Under a compensation system, they would be the losers, whereas for example the United States would be a winner, since it is a large exporter of rice germplasm. However, the author warns against drawing general conclusions on the basis of the data, due to some methodological problems. Rather, the results should be seen as illustrating some important empirical questions relating to gainers and losers under farmers' rights – if these are understood as property rights. The basic conclusion is that there is no guarantee that the South would gain from such a system.

Swaminathan, M. S. (1998): 'Farmers' Rights and Plant Genetic Resources', *Biotechnology and Development Monitor*, No. 36, September/December 1998, pp. 6–9.

The point of departure for this article is the fact that tribal and rural families conserve genetic diversity for the public good at their own personal cost. It is this 'inequity inherent in the current recognition and reward systems that the concept of farmers' rights seeks to end', M. S. Swaminathan states, before proceeding to discuss the practical implications. He compares relevant provisions from the International Undertaking, the CBD and the WTO Agreement on Trade Related Aspects of Intellectual Property Rights and draws the attention the need for states to reconcile their obligations to these different agreements in terms of equity and ethics in intellectual property rights claims. He also highlights effects of new technological inventions, like the so-called 'terminator technology' which enables seed companies to produce seeds which cannot be used for a second generation of crops. Such a technology would further reduce farmers' rights. The author suggests that legislation which addresses breeders' and farmers' rights simultaneously should be introduced in all countries, ensuring plant-back rights for farmers. Such legislation should provide for a community gene fund, which would draw its resources from a one percent levy on the sales of agricultural commodities. Plant breeders should have to disclose the sources of origin of their breeding material; and, on this basis, funds could be channelled back to these communities. A similar approach should be sought for the distribution of benefits between and among countries, based on a bilateral approach where applicable, and a multilateral approach when more than one country is the source of origin. A multilateral system should be established under FAO. Finally, Swaminathan draws the attention to the many revisions of the UPOV Act since 1961, and states that we should have the will to wait and learn also with regard to farmers' rights.

Rani, M. Geetha (2000): 'Community Gene Banks Sustain Food Security and Farmers' Rights', *Biotechnology and Development Monitor*, No. 41, pp. 19–22.

M. Geetha Rani explores how community gene banks can be developed as a means to sustain food security and to put farmers' rights into practice. The author points to experiences with community gene banks in India and Ethiopia, but stresses that the success of community gene banks is heavily dependent on national legal frameworks.

Srinivasan, C.S. (2003) 'Exploring the Feasibility of Farmers' Rights', *Development Policy Review*, Vol. 21, No. 4, pp. 419–447

This article examines the feasibility of farmers' rights provisions based on intellectual property rights. It argues that the farmers' rights legislation already adopted in some developing countries will involve enormous operational difficulties, while intellectual property rights based farmers' rights are unlikely to provide any significant economic returns to farmers or farming communities. Indeed, they may dilute the incentives for innovation provided to institutional plant breeders, the author argues, noting that this may not be a desirable outcome for developing countries. Conservation projects supported by community gene funds may be a better way to address concerns regarding the conservation of agrobiodiversity, but it would be unrealistic to expect that such funds could be financed through levies on the royalties of plant breeders, the author concludes.

Borowiak, C. (2004): 'Farmers' Rights: Intellectual Property Regimes and the Struggle over Seeds', *Politics & Society*, Vol. 32, No. 4, pp. 511–543.

This article analyses farmers' rights as a strategy of resistance against the perceived inequities of intellectual property rights regimes for plant genetic resources. Borowiak finds that farmers' rights are a unique form of rights that may help to transform intellectual property rights systems in ways better suited for registering and encouraging alternative forms of innovations, particularly farmers' innovations. However, thus far it has been difficult to enact farmers' rights. The author concludes that by situating farmers' rights alongside easily enacted commercial breeders' rights, the endeavour risks further legitimizing the inequities it is responding to.

Brush, Stephen B. (2004): 'Rights over Genetic Resources and the Demise of the Biological Commons', pp. 219–255 in Stephen B. Brush: *Farmers' Bounty. Locating Crop Diversity in the Contemporary World* (New Haven, CT and London: Yale University Press).

Stephen B. Brush contrasts the common heritage principle with intellectual property rights over plants and shows how the genetic commons are being closed. He highlights how the emerging situation cannot be described solely as a 'tragedy of the commons' (see Brush, 2005 above) but also as a 'tragedy of the anti-commons', where multiple owners have the

right to exclude others from utilizing scarce resources and no one gets the effective privilege of use.³³ After discussing bioprospecting in this context, Brush addresses the prospects for realization of farmers' rights (likewise see Brush, 2005 above). He highlights the dangers of an access system based on market negotiations between purported 'owners' and 'users' of genetic resources, as this is likely to 'abuse the rights of people who have long been involved in the common pool of genetic resources but find themselves arbitrarily excluded in contracting' (p. 255). He concludes that farmers' rights as provided for in the International Treaty 'remains a moral but largely rhetorical recognition of the contribution of farmers to the world's stock of genetic resources, and they provide only a limited mechanism to share benefits from using crop genetic resources or to promote their conservation' (p. 255).

Louwaars, Niels P. (2005): Farmers' Rights and Seed Programmes. *Seed Info – Official Newsletter of the WANA Seed Network*, 28, pp. 2–3. Available at: www.icarda.org/News/Seed%20Info/SeedInfo_28/NewsViews_28.htm

This article provides a brief introduction to the concept of farmers' rights and the related provisions of the International Treaty and discusses its interrelations with breeding and seed production. At the core of this discussion is the right to save, exchange and sell seeds from protected plant varieties. A broad interpretation of this right would imply that the public sector would have to continue investing in the development of new varieties and seed production in order to maintain incentive structures for these tasks. The alternative is to provide stricter boundaries for this right, e.g. concerning certain crops, for certain groups of farmers or for export products. It is also important not to overload the government systems with bureaucratic procedures in this regard. The author concludes that the entry into force of the International Treaty will not end the debate on farmers' rights, and that wide range of interests and issues will need to be taken into account in implementing the Treaty's provisions on farmers' rights.

Moore, Gerald & Witold Tymowski (2005): *Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture* IUCN Environmental Policy and Law Paper No. 57 (Gland, Switzerland and Cambridge, UK: IUCN). Available at: www.iucn.org/themes/law/pdfdocuments/EPLP57EN.pdf

This sizeable guide offers a comprehensive introduction to the background and content of the International Treaty on Plant Genetic Resources for Food and Agriculture, and will be a valuable tool in its implemen-

³³ According to Brush, the concept of the 'tragedy of the anti-commons' was first coined by Heller and Eisenberg (1998) referring to the situation of biomedical research. Anitha Ramanna used the concept to describe the situation of agrobiodiversity management in 2003, see footnote 34 below for references.

tation at the national as well as international level. It covers all provisions pertaining to farmers' rights in the Treaty. A thorough presentation of Article 9 on farmers' rights is provided on pages 67–78. The history of the negotiations on farmers' rights is sketched, and interrelations with other international agreements are highlighted, with special emphasis on the Union for the Protection of New Varieties of Plants (UPOV). On this basis, the authors proceed to explain the content of the various provisions of Article 9 and discuss possible ways in which Contracting Parties may implement them.

Salazaar, Rene; Bert Visser & Niels Louwaars (forthcoming 2006): 'Protecting Farmers' New Varieties: New Approaches to Rights on Collective Innovations in Plant Genetic Resources', *World Development*, accepted for publication.

This forthcoming article documents how modern varieties developed in the formal sector have gradually replaced landraces as a source of diversity for many small-scale traditional farmers. However, this development has not done away with farmer-breeding, which is vital in traditional agriculture. This knowledge is of great importance when designing plant breeders and farmers' rights, in order to ensure food security and genetic diversity. The major challenges are to warrant the recognition of the collective innovation and breeding efforts of farmers, to allow access to relevant genetic resources, and to keep these materials freely available for use and further breeding – while at the same time ensuring effective benefit sharing, the authors conclude.

4.3 Major works and articles on farmers' rights – regional and national levels

In this section, we have collected major works and articles on farmers' rights in several regions and countries. We have sought to cover major contributions as well as particularly interesting inputs to the debate in these regions/countries.

India

The Indian Protection of Plant Varieties and Farmers' Rights Act of 2001 is a landmark in the realization of farmers' rights, as the first act of legislation in the world to provide extensive rights to farmers. It is therefore particularly interesting to follow the discussion on this act and to follow its implementation. Various challenges arose along the way, and the following contributions cover a wide range of viewpoints. We start with a manual designed to assist practitioners in implementing the new act, and then offer short introductions to the many contributions to the discussion of this legislation, in chronological order.

Ravi, S. Bala (2004): *Manual on Farmers' Rights* (Chennai: M.S. Swaminathan Research Foundation).

This manual has been developed as a tool for the implementation of the Indian Protection of Plant Varieties and Farmers' Rights Act of 2001, with regard to farmers' rights. It is the first manual for practitioners with regard to the realization of farmers' rights in a country. After an introduction explaining the background of intellectual property rights and Indian relations with the WTO, the Protection of Plant Varieties and Farmers' Rights Act is presented. On this background, the concept of farmers' rights is presented and defined in terms of nine components: (1) farmers' rights to seed, (2) farmers' rights to register traditional varieties, (3) farmers' rights to reward and recognition, (4) farmers' rights to benefit sharing, (5) farmers' rights to compensation for the loss of registered varieties, (6) farmers' rights to compensation for undisclosed use of traditional varieties; (7) farmers' rights to the seeds of registered varieties; (8) farmers' rights for receiving services; and (9) farmers' rights to protection against innocent infringement. Finally, the manual explains how to proceed in registering farmers' varieties and how local political bodies can contribute in these efforts in line with the new Indian legislation.

Shiva, Vandana (1996): 'Agricultural Biodiversity, Intellectual Property Rights and Farmers' Rights', *Economic and Political Weekly*, 22 June 1996

This article provides insights into the process prior to the adoption of the Indian Protection of Plant Varieties and Farmers' Rights Act of 2001. Vandana Shiva describes two lines of development: (1) legislative efforts to meet the requirements of the TRIPS Agreement with regard to plant genetic resources and (2) the prospects for farmers' rights in India. She presents evidence of influence from the USA and from transnational corporations on the introduction of intellectual property rights to plant varieties in India. After showing how international agreements may affect national efforts to realize farmers' rights, she goes on to discuss various approaches to imposing legislation on farmers' rights in India. Farmers' rights are not a privilege or a concession, nor are they merely a fund. Farmers' rights are based on the past, present and future contributions of farmers to the global genetic pool, as breeders as well as conservers, and they are collective rights. Farmers' traditional knowledge should be recognized, not only the genetic material they produce. Their role as custodians of genetic resources should likewise be respected. Farmers' rights should also include ecological security and food security, Shiva concludes.

Sahai, Suman (2000): 'Farmers' Rights and Food Security', *Economic and Political Weekly*, 11 March 2000; Sahai, Suman (2001): 'Plant Variety Protection and Farmers' Rights Law', *Economic and Political Weekly*, 1 September 2001; Sahai, Suman (2003): 'India's Plant Variety Protection and Farmers' Rights Act, 2001', *Current Science*, Vol. 84, No. 3, 10 February 2003.

In a number of articles, Suman Sahai examines and comments on the Indian Protection of Plant Varieties and Farmers' Rights Act of 2001. In one of the final drafts before the bill was adopted, she found that provisions on the sale of seeds by farmers would threaten India's food security and thereby its national security (2000). Her 2001 article, written after the adoption of the Act, analyses the Act, and finds that it recognizes farmers as conservers of the agricultural gene pool and as breeders, and provides for rights for rural communities. Improvements were needed, but the major challenge would be to identify an international platform on which it would be possible to interact with other countries regarding the protection and promotion of farmers' rights in India and elsewhere. India should work along with other developing countries to evolve an alternative to Union for the Protection of New Varieties of Plants, which she deems inappropriate to the needs of developing countries. In her 2003 contribution, she deepens her analysis of the inappropriateness of the Union as a platform for international recognition of plant breeders' as well as farmers' rights in developing countries.

Cullet, Philippe & Radhika Kolluru (2003): 'Plant Variety Protection and Farmers' Rights – Towards a Broader Understanding', *Delhi Law Review*, Vol. 24, p. 41–59.

This article analyses India's various legislation relevant for plant breeders' and farmers' rights. Among the conclusions is that these acts are not homogeneous. As for farmers' rights, the signals point in different directions, and much more needs to be done to coordinate policies. According to the authors, a broader conception of farmers' rights needs to be established. Such rights should be conceived as a positive mechanism that give to traditional knowledge holders property rights and therefore full control over their knowledge. Other actors involved in agrobiodiversity management, including beneficiaries at large, should also have duties towards the promotion of food security. While giving control to individuals and local communities over genetic resources, farmers' rights should not exclude anyone with similar rights from the use of these resources. Finally, they should provide a solid basis for equitable benefit sharing. The authors conclude that farmers' rights contribute to making the legal system more fair, and promoting the recognition of farmers' rights can make an enormous contribution to food security.

Brahmi, P.; S. Saxena & B.S. Dhillon (2004): 'The Protection of Plant Varieties and Farmers' Rights Act of India', *Current Science*, Vol. 86, No. 3.

This article provides an overview over the new legislation on the protection of plant varieties and farmers' rights in India with a view to its effective implementation. It finds that the Act appears to be an effective *sui generis* system for intellectual property rights, and that it provides a bal-

ance between plant breeders' and farmers' rights. It will affect the national food and nutrition security, the authors conclude.

Ramanna, Anitha & Melinda Smale (2004):³⁴ 'Rights and Access to Plant Genetic Resources under India's New Law', *Development Policy Review*, Vol. 22, No. 4, July 2004.

This article offers a detailed analysis of farmers' rights, as provided for in India's 2001 Protection of Plant Varieties and Farmers' Rights Act. The authors find that the multiple rights system provided in this legislation aims to distribute rights equitably, but may pose the threat of an 'anti-commons tragedy' – with too many parties independently possessing the right to exclude others from utilizing a resource. As a result of the ownership approach in the new legislation, farmers and farming communities may seek to exclude each other from access to traditional crop genetic resources. If under-utilization of plant genetic resources is the result, the Act will have negative consequences for sustaining crop productivity and thus for the welfare of the very farming communities it seeks to compensate, the authors emphasize. Developing countries in the process of formulating farmers' rights must not overlook the need to promote the exchange of agricultural resources, and all countries must make concerted efforts to ensure that emerging intellectual property rights regimes do not restrict stakeholder access to plant genetic resources, the article concludes.

GREEN Foundation (2004): *Revisiting Farmers' Rights and Intellectual Property Rights – Premises and Promises*. Proceedings from a conference organized by the GREEN Foundation in Bangalore, India, 7 May 2004.

In May 2004, the GREEN Foundation organized a one-day conference with farmers from various parts of Karnataka in southwestern India. The Indian Protection of Plant Varieties and Farmers' Rights Act of 2001 was a central topic. Distinguished experts and NGO representatives gave introductions to the discussions, presented as papers in this report. Among the conclusions is the demand for strengthening farmers' rights in Indian legislation.

³⁴ See also Ramanna, Anitha (2003): *India's Plant Variety and Farmers' Rights Legislation: Potential Impact on Stakeholder Access to Genetic Resources*, Environment and Production Technology Division Discussion Paper No. 96 (Washington DC: International Food Policy Research Institute). Here, Ramanna highlights how the legislation may pose problems in terms of overlapping claims of ownership to genetic resources and result in an 'anti-commons tragedy' which may affect agricultural development negatively. The term 'anti-commons tragedy' was first coined by Michael A. Heller & Rebecca S. Eisenberg (1998) in 'Can Patents Deter Innovation? Anticommons in Biomedical Research', *Science*, Vol. 280, Issue 5364, pp. 698–701.

Himalaya Hindu-Kush Region

Adhikari, Ratnakar & Kamalesh Adhikari (eds) (2003): *Farmers' Rights to Livelihood in the Hindu-Kush Himalayas* (Kathmandu: South Asia Watch on Trade, Economics and Development)

South Asia Watch on Trade, Economics and Development (SAWTEE) has been carrying out a project on farmers' rights in the Hindu-Kush region.³⁵ Various publications have been produced, of which this book is central. With contributions from distinguished experts in South Asia, it explains the political and economic context for farmers' rights in the region, and discusses farmers' rights in the context of human rights – as a right to food. It highlights legal and institutional mechanisms for the realization of farmers' rights, the importance of farmers' rights for sustainable agriculture, and reports from roundtable discussions with experts and consultations with farmers on the realization of farmers' rights.

SAWTEE has recently begun publishing a newsletter on farmers' rights in South Asia. The newsletter covers topics of relevance to farmers' rights in India, Pakistan, Bangladesh, Nepal and Sri Lanka. The first issue is available at: www.sawtee.org/pdf/farmers.pdf, and covers such topics as disclosure of the sources of genetic resources as a requirement for intellectual property rights, the protection of farmers' rights in plant variety protection laws, and the situation in the various countries of South East Asia.

Africa

We have not found many titles on farmers' rights pertaining to the African context. The following contributions address the situation in Africa at large, in Western Africa, and in Kenya.

Kameri-Mbote, Patricia (2003): 'Community, Farmers' and Breeders' Rights in Africa: Towards a Legal Framework for *Sui Generis* Legislation', *University of Nairobi Law Journal*, 2003.

This article begins with an introduction to the concepts of community, farmers' and breeders rights, and goes on to present the main features of the international context for recognition of these rights, i.e. international agreements. On this basis, Kameri-Mbote discusses the African context and draws conclusions as to how a *sui generis* system could be designed. She recommends that farmers' rights should be explicitly included in such a system. An important point is that such rights should not require prior declaration or registration. They should comprise the right to use, exchange and market farm-saved seeds; the right to protection of traditional knowledge; to benefit-sharing and participation in decision making at the national levels. They should also involve the right to information, which is a pre-condition for active participation in decision making. Finally, customary laws and practices of concerned communities

³⁵ See: www.sawtee.org/uploads/programmes/farmer.php

should be applied in the protection of farmers' rights. The author concludes that the OAU Model Law provides a good basis for beginning for rethinking legal systems pertaining to the management of plant genetic resources for food and agriculture.

Assembe Mvondo, Samuel (2004): *Intellectual Property Rights, Protection of the Genetic Resources and Indigenous Knowledge in Africa: Contrast Between Legal Provisions and Farmers' Interests in OAPI Region*, paper presented at the IAO International Conference on Measures to Protect and Promote Farmers' Rights: From Local to International Experiences, 25–27 October 2004, Florence, Italy.

The African Intellectual Property Organization (which has the French acronym OAPI) is based on the so-called 'Bangui Agreements', which have been ratified by 16 West African countries. This paper analyses the provisions of these agreements on plant variety protection, traditional knowledge and related farmers' rights. Farmers' rights are not sufficiently provided for in the Agreements, the author concludes, and recommends therefore that each Party to the Agreements should take its own measures to protect and promote farmers' rights.

Wakhungu, Judi W.; Bernard Ogolla & David Wafula (2004): 'Whither Farmers' Rights? Reflections on Kenya's Seed and Plant Act, Ecopolicy 13 (Nairobi: African Centre for Technology Studies).

The authors begin by presenting the main features of the international regimes pertaining to seeds and farmers' rights, followed by a discussion of Kenyan legislation on plant variety protection and on seed certification. They find that this legislation acts to limit the prospects for farmers to maintain and develop their agricultural systems, and amendments to include farmers' rights are proposed. In Kenya, as is the case all over Africa, the majority of farmers are small-scale and marginal. If their rights are not protected, agricultural productivity will decline and food security will be undermined. Therefore, a major priority must be to protect farmers' rights in legislation on seeds and plant varieties legislation, they conclude.

Latin America

From Latin America little seems to be available in English on farmers' rights as such: in fact, we could detect only one such title. However, some titles of relevance for farmers' rights are listed in Chapter 4. The English-language contribution comes from Mexico – which is particularly interesting because Mexico was among the most active countries in the international negotiations for farmers' rights in the 1980s, and the article in question seeks to shed light on the transformation that has taken place since then.

Gómez, Francisco Martínez, & Robert Torres (2001): 'Hegemony, Commodification, and the State: Mexico's Shifting Discourse on Agricultural Germplasm', *Agriculture and Human Values* 18, pp. 285–294.

This article employs a neo-Marxist theoretical framework to examine the debate on the commodification of crop genetic resources in Mexico. The focus is on Mexico's movement away from a 'farmers' rights' framework and towards the passage of the Mexican federal law on plant varieties. Under the farmers' rights framework, crop genetic resources were seen as a 'common good', whereas under the new law they are seen as a commodity. To understand this transformation, the recent history of the discourse in Mexico is analysed, with emphasis on the ideological elements of the debate. The authors conclude that there has arisen an international hegemonic bloc which works through the international bodies of free trade, transcending the boundaries of any single state entity. This hegemonic bloc has influenced the change in Mexico. Farmers' rights are viewed as contradictory to the commodity rational that underlies classical intellectual property rights to plant genetic resources; thus the authors are not overly optimistic regarding the potential for the realization of these rights. They question what will happen if the commodity rational wins through in Mexico, as the country has a tremendously rich agricultural biodiversity, currently preserved in the hands of farmers. Mexico's varieties, so vital to global biodiversity, may be lost to the dominance of the commercially improved breeds, the authors warn.

4.4 Lessons from the literature on farmers' rights

As noted, there already exists a substantial and increasing body of literature on farmers' rights, and this can provide a valuable source of insights in the potentials for, and possible difficulties in, the realization of these rights. The authors have different points of departure, emphases and perspectives, and yet their contributions are largely compatible.³⁶ We seek to draw a synthesis here.

Realizing farmers' rights is now recognized as a vital means to halt genetic erosion and ensure food security. As such it is a crucial concept. It is also viewed as central to attempts at counterbalancing existing inequities in the world. These factors explain why the authors referred to here consider farmers' rights to be so important.

The primary subject matter of farmers' rights are traditional crop varieties, their wild and weedy relatives and the related knowledge and innovations of their custodians. However, that is not to imply that individual farmers or farming communities should be title holders in the legal sense of the word. Several authors have warned against an individualist approach, particularly if it is linked with exclusive property rights. The institutional argument is that the process of determining legitimate indi-

³⁶ Except for the discussion on the Indian legislation, where viewpoints seem to differ substantially.

vidual rights holders would be so burdensome and expensive that the transaction costs would by far outweigh the potential benefits. Politically, there are also strong arguments against such an approach, since it could lead to a tragedy of the anti-commons, whereby individual farmers might exclude one another from the use of genetic resources, which would be detrimental to their customary rights to seeds. Furthermore, it is argued, traditional farmers have their own concepts of intellectual property rights, concepts that differ considerably from this individualist market approach.

Most authors seem to agree that farmers' rights should be viewed as collective rights in a broad sense, comprising farming populations, rather than rights of individual farmers or communities, and that farmers' rights should not be exclusive and not restrict access to genetic resources. They should not be dealt with as classical intellectual property rights, as they represent a different type of rights. We return to the legal aspects of this question in a later study from the *Farmers' Rights Project*.

Various measures to protect and promote farmers' rights are proposed in the literature. Assisting farmers in *in situ* conservation and farmer breeding and providing incentives for such activities is a central component in this regard. The availability of a rich diversity of seeds and propagating material forms the basis of farmers' rights, as well as for agriculture and food security. As yet, extremely little has been invested in the *in situ* management of crop genetic resources. These resources may experience a 'tragedy of the commons' – that professional breeders use material originally derived from traditional varieties, but without helping to maintain these vital resources. Development cooperation may provide the most realistic possibilities for greater financial support to conservation and sustainable use of crop genetic resources.

In the context of conservation, access to technologies and training is crucial. Also the establishment of community gene banks is proposed as a means toward realizing farmers' rights, to complement and support *in situ* management of crop genetic resources. Furthermore, farmers should have the possibility of influencing future breeding efforts more generally, as a component of farmers' rights. Surprisingly enough, only a few authors have addressed the issue of farmers' participation in decision making on crop genetic resources, which is one of the measures suggested in the International Treaty for the protection and promotion of farmers' rights.

Another central component of farmers' rights is farmers' free choice of, and access to, genetic resources for food and agriculture, as well as the freedom to sell harvested produce and to improve cultivars. These are basic customary rights, and important preconditions for continued conservation and innovation regarding plant genetic resources among farmers, and thus also for food security. Recent research has shown that such diversity includes not only farmers' varieties but often also improved ones – a point to be borne in mind when intellectual property laws and seed legislation are designed. It is important to balance the inadequacies and deficiencies of existing forms of intellectual property rights with regard to plant genetic resources, and the concept of farmers' rights offers just such an opportunity. On the other hand, thus far it has proven difficult to enact farmers' rights. Linking farmers' and breeders' rights may

be risky, since breeders' rights are so much easier to enact. Linking the two may even result in further legitimizing the very inequities of the intellectual property rights system to which farmers' rights were meant to respond.

According recognition to the contribution of farmers to the global genetic pool is a further issue dealt with in the literature. This is often referred to as compensation for the use of traditional plant genetic resources for food and agriculture and related traditional knowledge, and in some contexts as benefit sharing. Also here it is important to identify who is to be compensated and through what mechanisms, as the pitfalls are many. For example, it is not evident that developing countries would emerge as the winners if such a system were established at the international level. Transaction costs and bureaucracy should also be taken into account. Most authors seem to agree that farmers' rights are collective rights in the widest sense of the term, and that compensation should be directed through some kind of financial mechanism to those who act as the custodians and innovators of agricultural biodiversity. Local gene funds are suggested as one way of ensuring that the compensation actually reaches the farmers themselves.

The authors referred to in this study discuss various means of implementation of farmers' rights, such as the development of national legislation, or establishing resource centres for farmers' rights. Several writers stress the need to implement farmers' rights at the international level, due to the essentially globalized nature of these resources. A promising approach could be to establish an international fund – stressed by several authors as necessary for the realization of farmers' rights. Such a fund could channel resources for farmer conservation and innovation in plant genetic resources. To provide financial resources for such a fund in addition to aid, some authors recommend that plant breeders be required to disclose the sources of origin of their breeding material, and that a levy be placed on the royalties from the sales of their seeds, but this remains a controversial issue.

Thus we can note a definite movement from the realm of ideas towards the design of feasible measures and systems aimed at the realization of farmers' rights.

5 Other literature of relevance for farmers' rights

There is a large body of literature on topics relevant to farmers' rights. In this background study, we have sought to select those items that have greatest relevance on our context. However, also the intellectual property rights literature, the literature on the International Treaty and other literature on the management of plant genetic resources offer a range of contributions pertinent to the issue of farmers' rights. Nevertheless it would be far beyond the scope of this project to compile and present all these contributions. Instead, lists of titles, grouped by subject, are offered below. For each category, the titles are listed alphabetically.

5.1 Background literature on intellectual property rights

There is a sizeable literature on intellectual property rights to plant genetic resources. The following titles have been selected because they address farmers' rights explicitly in this context, or because their findings appear particularly relevant in the context of farmers' rights.

- Commission on Intellectual Property Rights (2002): *Integrating Intellectual Property Rights and Development Policy* (London: Commission on Intellectual Property Rights), available at: www.iprcommission.org/graphic/documents/final_report.htm
- Crucible Group (1994): *People, Plants and Patents. The Impact of Intellectual Property on Biodiversity, Conservation, Trade and Rural Society* (Ottawa: International Development Research Centre).
- deBeer, Jeremy (2005): 'Reconciling Property Rights in Plants', *Journal of World Intellectual Property*, Vol. 8. No. 1, pp. 5–31.
- Evenson, R.E. (1999): 'Intellectual Property Rights, Access to Plant Germplasm, and Crop Production Scenarios in 2020', *Crop Science*, Vol. 39, pp. 1630–1635.
- Helfer, Laurence R. (2004): *Intellectual Property Rights in Plant Varieties. International Legal Regimes and Policy Options for National Governments*. FAO Legislative Study 85 (Rome: FAO).
- Leskien, Dan & Michael Flitner (1997): 'Intellectual Property Rights and Plant Genetic Resources: Options for a *Sui Generis* System', *IPGRI: Issues in Genetic Resource* No.6.
- Louwaars, N. P.; R. Tripp, D. Eaton, V. Henson-Apollonio, R. Hu, M. Mendoza, F. Muhhuku, S. Pal & J. Wekundah (2005): *Impacts of Strengthened Intellectual Property Rights Regimes on the Plant Breeding Industry in Developing Countries – A Synthesis of Five Case Studies*, study commissioned by the World Bank (Wageningen, the Netherlands: Center for Genetic Resources).
- Rosendal, G. Kristin (1995): 'The Politics of Patent Legislation in Biotechnology: In International View', pp. 453–476 in Rafaat El-Gewely (ed.) *Biotechnology Annual Review*, (Amsterdam: Elsevier).

5.2 Background literature on the International Treaty

Since the International Treaty on Plant Genetic Resources for Food and Agriculture was adopted, a number of articles and reports have been produced. The titles selected here address farmers' rights within this broader context:

- Andersen, Regine (2003): 'FAO and the Management of Genetic Resources', pp. 43–53 in *Yearbook of International Co-operation on Environment and Development 2003/2004* (London: Earthscan).
- Andersen, Regine (forthcoming 2006): *Governing Agrobiodiversity: Plant Genetics and Developing Countries* (Aldershot, UK: Ashgate).
- Bragdon, S.; C. Fowler & Z. Franca (eds) (2003): *Law and Policy of Relevance to the Management of Plant Genetic Resources: Learning*

Module. (The Hague: International Service for National Agriculture Research, ISNAR). (CD-rom)

- Choudhary, Bhagirath (2002): 'The New International Seed Treaty: Promises and Prospects for Food Security', *Current Science*, Vol. 83, No. 4, pp. 366–369.
- Fowler, Cary (2004): 'Accessing Genetic Resources: International Law Establishes Multilateral System', *Genetic Resources and Crop Evolution*, Vol. 51, No. 6, pp. 609–620.
- Mekoaur, Ali (2002): 'A Global Instrument on Agrobiodiversity: The International Treaty on Plant Genetic Resources for Food and Agriculture', *FAO Legal Papers Online 24*, January 2002 (Rome: FAO).
- Sauv , Rapha l & Jamie Watts (2003): 'An Analysis of IPGRI's Influence on the International Treaty on Plant Genetic Resources for Food and Agriculture', *Agricultural Systems*, Vol. 78, pp. 307–327.

5.3 Other background literature on the management of plant genetic resources

There is a wealth of literature on the management of plant genetic resources. The following list provides some titles of relevance for farmers' rights, but is not intended to be exhaustive. It seeks to cover different aspects of the management of plant genetic resources from various perspectives and to provide some points of departure for further reading.

- Almekinders, Conny (2001): *Management of Crop Genetic Diversity at Community Level* (Eschborn: Deutsche Gesellschaft f r Technische Zusammenarbeit, GTZ).
- Brush, Stephen B. (1998): 'Bio-cooperation and the Benefits of Crop Genetic Resources: The Case of Mexican Maize', *World Development*, Vol. 26, No.5, pp. 755–766.
- Brush, Stephen B. (1999): 'Bioprospecting the Public Domain', *Cultural Anthropology*, Vol. 14, No. 4, pp. 535–555.
- Brush, Stephen B. (ed.) (2000): *Genes in the Field: On-Farm Conservation of Crop Diversity* (Rome: International Plant Genetic Resources Institute; Ottawa: International Development Research Centre; Boca Raton, FL: Lewis Publishers).
- CBD (2003): *Report of the Ad Hoc Technical Expert Group Meeting on the Potential Impacts of Genetic Use Restriction Technologies on Smallholder Farmers, Indigenous and Local Communities and Farmers' Rights*, UNEP/CBD/SBSTTA/9/INF/6-UNEP/CBD/WG8J/3/INF/2, 29 September 2003.
- CIP-UPWARD (2003): *Conservation and Sustainable Use of Agricultural Biodiversity: A Sourcebook*. 3 vols: (1) Understanding Agricultural Biodiversity; (2) Strengthening Local Management of Agricultural Biodiversity; (3) Ensuring an Enabling Environment for Agricultural Biodiversity. (Los Banos, Philippines: International Potato Center – UPWARD).

- Crucible II Group (2000): *Seedling Solutions*. Vol.1: 'Policy Options for Genetic Resources: *People, Plants, and Patents Revisited*' (Rome: IPGRI).
- Egziabher, Tewolde Berhan Gebre (2003): 'The Use of Genetically Modified Crops in Agriculture and Food Production', *Acta Agriculturae Scandinavica*, Section B, Vol. 53, pp. 9–13.
- Egziabher, Tewolde Berhan Gebre (2005): 'Benefit-sharing', pp. 201–241 in B. Borrow (ed.): *The Catch: Perspectives in Benefit Sharing* (Edmonds, WA: The Edmonds Institute).
- Fernandez, P.G.; A.L. Aquino, L.E.P. de Guzman & M.F.O. Mercado (eds) (2002): *Local Seed Systems for Genetic Conservation and Sustainable Agriculture Sourcebook* (Los Baños, Laguna, Philippines: University of the Philippines Los Baños, College of Agriculture).
- Fowler, Cary (1994): *Unnatural Selection. Technology, Politics, and Plant Evolution* (Yverdon, Switzerland: Gordon and Breach).
- Fowler, Cary (2001): 'Protecting Farmer Innovation: The Convention on Biological Diversity and the Question of Origin', *Jurimetrics* 4, pp. 477–488.
- Fowler, Cary & Pat R. Mooney (1990): *Shattering. Food, Politics and the Loss of Genetic Diversity* (Tucson, AZ: University of Arizona Press).
- Howard, Patricia (ed.) (2003): *Women & Plants: Gender Relations in Biodiversity Management and Conservation* (London & New York: ZED).
- Kate, Kerry ten, & Sarah A. Laird (1999): *The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit-Sharing* (London: Earthscan).
- Kloppenburg, Jack Ralph (1988): *First the Seed: The Political Economy of Plant Biotechnology 1492–2000* (Cambridge: Cambridge University Press).
- Mooney, Pat Roy (1997): 'The Parts of Life: Agricultural Biodiversity, Indigenous Knowledge, and the Role of the Third System', *Development Dialogue*, Special Issue. Uppsala: Dag Hammarskjöld Foundation.
- Palacios, Ximena Flores (1999): *Contribution to the Estimation of Countries' Interdependence in the Area of Plant Genetic Resources*, CPGR Background Study Paper, No.7 (Rome: FAO).
- Raymond, Ruth & Cary Fowler (2001): 'Sharing the Non-monetary Benefits of Agricultural Biodiversity', *Issues in Genetic Resources* No. 5, September 2001 (Rome: IPGRI).
- Rosendal, G. Kristin (2000): *The Convention on Biological Diversity and Developing Countries* (Dordrecht: Kluwer Academic).
- Rosendal, G. Kristin (forthcoming, 2006): 'The Convention on Biological Diversity: tensions with the WTO TRIPS Agreement over Access to Genetic Resources and the Sharing of Benefits', in Sebastian Ober-

thuer and Thomas Gehring: *Institutional Interaction: Enhancing Cooperation and Preventing Conflicts Between International And European Environmental Institutions* (Cambridge, MA: MIT Press).

- Ruiz, Manuel (1999): *Protecting Indigenous Peoples Knowledge: A Policy and Legal Perspective from Peru*, Policy and Law Series, No. 3 (Lima: SPDA).
- Smale, Melinda (ed.) (1998): *Farmers, Gene Banks and Crop Breeding. Economic Analyses of Diversity in Wheat, Maize and Rice* (Boston/ Dordrecht/ London: Kluwer Academic).
- Toledo, Alvaro (2002): 'Saving the Seed: Europe's Challenge', *Seedling*, April 2002 (Barcelona: GRAIN).

6 Conclusions

As outlined in the summaries above, the wide range of documentation and literature on farmers' rights can provide insights into the potentials and possibilities for the realization of farmers' rights, as well as the difficulties that may be encountered. This source of experience, insights and reflections offers a valuable point of departure for translating the concept of farmers' rights into feasible policies, strategies and programmes. More work is, however, required to systematise the experience into building blocks for this purpose and to help to transform and develop the insights into practical steps.

The findings from this study will be further deepened in the case studies of the *Farmers' Rights Project*. On this basis, together with the findings from the other background studies of the project, we will derive final conclusions in the synthesis report.

ATTACHMENT 1:**PROVISIONS PERTAINING TO FARMERS' RIGHTS IN THE
INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE**

From the Preamble

The Contracting Parties,

(...) *Affirming* that the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources, is the basis of Farmers' Rights.

Affirming also that the rights recognised in this Treaty to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making regarding, and in the fair and equitable sharing of the benefits arising from, the use of plant genetic resources for food and agriculture, are fundamental to the realisation of Farmers' Rights, as well as the promotion of Farmers' Rights at national and international levels.

Article 9 – Farmers' Rights

9.1 The Contracting Parties recognise the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.

9.2 The Contracting Parties agree that the responsibility for realising Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments. In accordance with their needs and priorities, each Contracting Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including:

- (a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
- (b) the right to equitably participate in the sharing of benefits arising from the utilisation of plant genetic resources for food and agriculture; and
- (c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seeds/propagating material, subject to national law as appropriate.

From Article 13 – Benefit Sharing in the Multilateral System

13.3 The Contracting Parties agree that benefits arising from the use of plant genetic resources for food and agriculture that are shared under the Multilateral System should flow primarily, directly and indirectly, to farmers in all countries, especially in developing countries, and countries with economies in transition, who conserve and sustainably utilise plant genetic resources for food and agriculture.

From Article 18 – Financial Resources

18.5 The Contracting Parties agree that priority will be given to the implementation of agreed plans and programmes for farmers in developing countries, especially in the least developed countries, and in countries with economies in transition, who conserve and sustainably utilise plant genetic resources for food and agriculture.

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