



THE FRIDTJOF NANSEN INSTITUTE

**The
Farmers'
Rights Project**



**The 2010 Global Consultations
on Farmers' Rights:
Results from an Email-based Survey**

Regine Andersen and Tone Winge

FNI Report 2/2011



The 2010 Global Consultations on Farmers' Rights: Results from an Email-based Survey

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Abstract

This report presents the results of the e-mail based survey on Farmers' Rights carried out in 2010 as part of the Global Consultations on Farmers' Rights. The consultations were organized in response to Resolution 6/2009 of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture, which called for regional workshops on Farmers' Rights. A total of 131 respondents from 36 countries participated. These were sorted into the groups 'farmers', 'the public sector', 'seed industry', 'NGOs' and 'others', as well as regional groups. Through the questionnaire the respondents shared their views and experiences on the realization of Farmers' Rights, including achievements, obstacles and options. The prime concern among most participants was the need for guidance, support and capacity building to develop or adjust national legislation, policies, strategies and programs for the realization of Farmers' Rights.

Key Words

Farmers' Rights, International Treaty on Plant Genetic Resources for Food and Agriculture, plant genetic resources, traditional knowledge, participation, benefit sharing, seed regulations, consultations, survey

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Preface

This report presents the results from the first phase of the Global Consultations on Farmers' Rights that were carried out in 2010; an international e-mail based survey.

The background for the Global Consultations on Farmers' Rights in 2010 was a decision made by the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (the Plant Treaty) at its third session (Resolution 6/2009). Here the Governing Body recalls the importance of fully implementing Farmers' Rights, and requests the Secretariat to convene regional workshops on Farmers' Rights to discuss relevant national experiences, subject to agreed priorities and to the availability of financial resources.

Due to the lack of financial and human resources available to the Secretariat, the Fridtjof Nansen Institute (FNI)¹ in Norway offered to seek funding and organize the consultations, and the Bureau of the Governing Body encouraged countries that are Contracting Parties to the Plant Treaty to consider providing funding to the consultations. The regional workshops were merged into one global consultation process with regional components, to minimize funding requirements and workload.

The consultation process consisted of two phases: an e-mail based questionnaire survey from July to September 2010, and a consultation conference held in Addis Ababa in November 2010 and hosted by the Institute of Biodiversity Conservation (IBC), Ethiopia. During the two phases, altogether 171 experts and stakeholders participated² and 46 countries in Africa, Asia, the Near East, Latin America and the Caribbean, North America and Europe were represented. The participants came from farmer organizations, government institutions, the seed industry, NGOs, IGOs, research and other relevant groups. The FNI would like to thank all involved for their contributions to the 2010 Global Consultations on Farmers' Rights.

This report presents the findings from the e-mail based survey which was carried out July – September 2010. The consultation process started out with the distribution of questionnaires (see attachment 3), in order to involve as many stakeholders as possible, in all parts of the world. The questionnaire was designed to obtain information in the context of Resolution 6/2009 of the Governing Body (see attachment 2) and to facilitate discussions at the Global Consultation Conference. All in all, 61 questionnaires were completed by a total of 124 participants. In addition, seven contributors chose to submit their views and experiences in the form of six position papers. This means that altogether 131 people

¹ Information about the FNI can be found at the institute's website: www.fni.no

² When the input paper from the Consultations (IT/GB-4/11/Circ.1) was prepared, we operated with a different number of participants (177). However, a final count shows that the total number should be 171. The difference is a result of previous uncertainties regarding how to count different respondent categories.

participated in this part of the consultation process. These participants came from 36 different countries.

A summary of these results was presented at the Global Consultation Conference and in the report from the Global Consultations (FNI Report 1/2011)³. Furthermore, an input paper submitted by Ethiopia to the Secretariat of the Plant Treaty (IT/GB-4/11/Circ.1)⁴ presents the results from both phases of the Consultation process. This input paper was circulated among the Contracting Parties prior to the Fourth Session of the Treaty's Governing Body – in preparation for its Agenda Item 13 on Farmers' Rights. The results from the Global Consultations were in addition presented at a side event during the Fourth Session of the Governing Body, and key findings were presented by Ethiopia in the plenary as a basis for the considerations of the Governing Body on this agenda item.⁵

The Global Consultations on Farmers' Rights were made possible with the financial support of the Swedish International Biodiversity Programme (SwedBio), the Norwegian Agency for Development Cooperation (NORAD), the Norwegian Ministry of Agriculture and Food, the Development Fund, Norway, and the Spanish Agency for International Development Cooperation (AECID). The FNI wishes to thank all of the above for their support and collaboration.

Lysaker, Norway, 8 April 2011

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³ The report can be downloaded here: www.fni.no/doc&pdf/FNI-R0111.pdf

⁴ The input paper is available in English, Spanish and French and can be found through the Plant Treaty website.

English version: www.itpgrfa.net/International/sites/default/files/gb4c01e.pdf

Spanish version: www.itpgrfa.net/International/sites/default/files/gb4c01s.pdf

French version: www.itpgrfa.net/International/sites/default/files/gb4c01f.pdf

⁵ See www.farmersrights.org for more information about Farmers' Rights at GB4.

List of Acronyms and Abbreviations

ADAPEL:	Action pour le Developpement de l'Agriculture et de la Peche avec Protection Environnementale de Likende
AECID:	Spanish Agency for International Development Cooperation
AFSTA:	African Seed Trade Association
AIAB:	Italian Association for Organic Agriculture
APSA:	Asia Pacific Seed Association
AREA:	Agricultural Research and Extension Authority of Yemen
CBD:	Convention on Biological Diversity
CCNDP:	National Collective Agreement of Farmers' Rights, Cameroon
CEPA:	Centre for Environmental Policy and Advocacy, Malawi
CGN:	Centre for Genetic Resources, the Netherlands
COAG:	Coordinadora de Organizaciones de Agricultores y Ganaderos
CORDAP:	Rural Council for the Development of Agriculture and Fisheries, Cameroon
CSOs:	civil society organizations
CTDT:	Community Technology Development Trust, Zimbabwe
DRC:	Democratic Republic of Congo
DUS:	distinctness, uniformity and stability
ECVC:	European Coordination Via Campesina
EPO:	European Patent Office
ESA:	European Seed Association
FAO:	Food and Agriculture Organization of the United Nations
FIELD:	Farmers' Initiative for Ecological Livelihoods and Democracy, Indonesia
FNI:	Fridtjof Nansen Institute, Norway
FPMA:	Programa Colaborativo de Fitomejoramiento Participativo en Mesoamérica
FRB:	Foundation for Research on Biodiversity, France
GM:	genetically modified
GMOs:	genetically modified organisms

GNIS:	French Association for Seeds and Seedlings
IAASTD:	International Assessment of Agricultural Science and Technology for Development
IBC:	Institute of Biodiversity Conservation, Ethiopia
IGOs:	intergovernmental organizations
INERA:	Institute of Environment and Agriculture Research of Burkina Faso
IPR:	intellectual property rights
ISF:	International Seed Federation
ITPGRFA:	International Treaty on Plant Genetic Resources for Food and Agriculture (Plant Treaty)
LI-BIRD:	Local Initiatives for Biodiversity, Research and Development, Nepal
MSSRF:	M.S. Swaminathan Research Foundation
NGOs:	non-governmental organizations
NORAD:	Norwegian Agency for Development Cooperation
PGRFA:	plant genetic resources for food and agriculture
Plant Treaty:	International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
RSP:	Réseau Semences Paysannes/the Farm-Saved Seed Network, France
SEARICE:	Southeast Asia Regional Initiatives on Community Empowerment
SWAGEN:	Support for Women in Agriculture and Environment, Uganda
SwedBio:	Swedish International Biodiversity Programme
TRIPS:	trade-related aspects of intellectual property rights
UPOV:	International Union for the Protection of New Varieties of Plants
WTO:	World Trade Organization

1 Executive Summary

This report presents the findings from the first phase of the Global Consultations on Farmers' Rights; an e-mail based questionnaire survey which was carried out July – September 2010. This part of the consultation process was conducted with a view to invite as many stakeholders as possible in all parts of the world to participate in the Global Consultations on Farmers' Rights. The consultations were aimed at the sharing of national experiences and achievements regarding the implementation of Farmers' Rights, and the identification of gaps and needs at the national level with regard to the further realization of Farmers' Rights.

A questionnaire was designed to obtain information in the context of Resolution 6/2009 of the Governing Body of the Plant Treaty and addressed main achievements and obstacles with regard to the realization of Farmers' Rights; national measures affecting the realization of Farmers' Rights; an evaluation of these measures; identification of gaps and needs for the realization of Farmers' Rights; and recommendations to the Governing Body as to how it can support the implementation of Farmers' Rights.

All in all, 61 questionnaires were completed by a total of 124 participants. In addition, seven contributors chose to submit their views and experiences in the form of six position papers. These altogether 131 participants came from 36 different countries, and were sorted into five groups based on their own statements regarding affiliation ('farmers', 'seed industry', 'the public sector', 'NGOs', and 'others'). In addition, the questionnaires were sorted into regional groups, and to yield larger groups for the analysis the following categories were used: Africa, Asia and the Near East, Europe and North America, and Latin America.

1.1 General views and experiences

Certain general tendencies can be observed as to the views and experiences of the respondents, despite regional differences. All four elements of Farmers' Rights are considered 'very important' or 'important' by a substantial majority of the respondents, and achievements are also reported for all four elements. Traditional knowledge stands out as the aspect of Farmers' Rights mentioned by most respondents in connection with achievements. As to achievements in general, NGO and IGO projects seem to dominate, but there are also examples of government-run projects, in addition to achievements with regard to improved legislation. Although some progress has been made, most respondents rate their own countries' performance in realizing Farmers' Rights as insufficient.

There is a strong connection between the obstacles and the measures noted by respondents:

- a. The prime concern among most respondents is the need for guidance and support from the Governing Body to develop or adjust national legislation, policies, strategies and programmes for

the realization of Farmers' Rights. In particular, respondents were concerned about how to ensure or re-establish sufficient legal space within seed laws and intellectual property legislation to enable farmers to continue conserving, developing and sustainably using the diversity of plant genetic resources (Art. 9.3.).

- b. Most respondents agreed that saving what remains of traditional knowledge from becoming lost is the most central concern with regard to the protection of traditional knowledge (Art. 9.2.a), and projects in this regard were reported. Further measures to document and encourage the sharing of traditional knowledge are urgently needed. Furthermore, to avoid misappropriation of traditional knowledge, it is important to ensure adequate legislation.
- c. There are many examples of benefit-sharing, mostly at the local level (Art. 9.2.b). Local seed banks, seed exchange networks, participatory plant-breeding projects, registries of crop genetic resources and value-adding projects are all examples of benefit-sharing measures aimed at strengthening informal seed systems and thereby improving farmers' livelihoods. Scaling up such experiences to the national level is among the central challenges. Several respondents voiced the need for national measures to strengthen informal seed systems.
- d. Several respondents mentioned that awareness regarding Farmers' Rights had increased in their countries, and that farmers are involved in hearing processes (Art. 9.2.c). Nevertheless, respondents also noted that much remains to be done to facilitate greater awareness among farmers and decision-makers and to ensure farmers' participation in decision-making. The need for awareness-raising and capacity-building measures in this regard is an important concern among the majority of the respondents.
- e. Technical and financial support is required for the realization of Farmers' Rights, according to most respondents.

Some differences of opinion can be seen among the various stakeholder groups represented in the survey, especially in Europe between the representatives of the seed industry and the other respondents. In general, those from the seed industry rate rights related to farm-saved seed as less important than do the other respondent categories; furthermore, they tend to be more satisfied with the situation with regard to the realization of Farmers' Rights in their country, seeing fewer obstacles and suggesting somewhat different measures. On the other hand, the group of respondents from the European region is more divided along stakeholder lines than the other regional groups.

1.2 Farmers' Rights related to the protection of traditional knowledge

The protection of traditional knowledge (Art. 9.2.a) is a less controversial subject than the other elements of Farmers' Rights, and there is substantial agreement among the respondents about the importance of such knowledge. While some respondents think that the most important aspect

is to save this knowledge from misappropriation, the majority of respondents in all regions feel that saving what remains of traditional knowledge from becoming lost is most important in their countries.

Respondents generally agree about the problematic and increasing loss of traditional knowledge, and also about some of the reasons. Changing agricultural practices – including increased use of hybrid varieties – new dietary preferences, lack of interest among the young and the danger of losing even more traditional knowledge when the older generation dies out are mentioned as factors by many.

As to national measures in the various countries, measures like intellectual property laws tend to be more common than laws and policies on the protection of traditional knowledge. Measures to document traditional knowledge seem more widespread than legal measures to protect it. Many respondents opined that the effects of their country's seed laws and laws on intellectual property rights were negative. On the other hand, the effects of policies/programmes on traditional knowledge, measures to document traditional knowledge and projects encouraging the sharing of such knowledge were generally considered to be positive.

Law and policy are mentioned by the highest number of respondents in connection with gaps and the protection of traditional knowledge. In some cases it is a question of such measures not being in place, while other respondents stress implementation, enforcement or reform of existing legislation and policies. The need to document remaining traditional knowledge, and to spread awareness about its importance, is also seen by many respondents as crucial.

1.3 Farmers' Rights to participate in equitable sharing of benefits

According to the respondents in this survey the most common measures affecting equitable benefit-sharing (Art. 9.2.b) nationally are patent laws, agricultural policies and incentives in general, plant breeders' rights legislation, participatory plant-breeding projects and community seed banks. Among these, the last two were generally regarded in a more favourable light as to their effects than the first three, although some stakeholder differences could be seen in Europe.

The least common measures affecting benefit-sharing in the countries represented in this survey, according to the participating respondents, are national funds for benefit-sharing, benefit-sharing legislation, awards, capacity-building for Farmers' Rights and financial support to diversity farming. On the other hand, most of these measures were generally seen as having positive effects by respondents from countries that had such measures.

Also with regard to benefit-sharing, the lack of relevant legislation and policies and the lack of awareness and knowledge were mentioned as important shortcomings by the highest number of respondents across the various regions.

1.4 Farmers' Rights to participate in decision-making

As for measures that affect farmers' participation in decision-making (Art. 9.2.c), the most common measures across regions were participation in relevant committees and hearing procedures involving farmers' organizations. More than half of the respondents said their countries have such measures. The measure fewest respondents said their countries had was 'decision-makers are trained in farmers' rights'. Only 10 respondents said their countries had this measure. Of the remaining three measures, legislation that covered the legal right to participation was cited by one third of the respondents as something their country had, while only 15 and 16 respondents, respectively, said their countries have capacity-building measures for farmer participation and facilitation of farmer participation in media.

The facilitation of participation in the media, capacity-building for farmer participation, and training of decision-makers in Farmers' Rights were regarded as having positive effects by a clear majority of respondents who indicated an opinion. Most respondents that gave their opinion also regarded participation in relevant committees as having positive effects, but for this measure the majority was smaller. It is worth noting, however, that more respondents considered the effects to be mixed or non-existent than negative. On the other hand, a majority of those indicating an opinion saw legislation covering the right to participate in decision-making and hearing procedures involving farmers' organizations as having negative or mixed/no effects.

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

A basic question when it comes to "any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material" (Art. 9.3) is how to strike the best balance between the rights of farmers and of breeders in this regard. This is decisive for ensuring both that farmers can continue their crucial contribution to the conservation and sustainable use of crop genetic diversity to the greatest possible extent, and that the seed industry has the income required to continuing its pivotal work in providing agriculture with the best possible plant varieties. Both are crucial to future food security – neither can be sacrificed for the benefit of the other.

The survey shows that national legislation in most countries in the North limits Farmers' Rights to a substantially greater extent than in most countries in the South. All over the world, legislation on intellectual property rights (patents and plant breeders' rights) tends to develop in a more breeder-friendly way, by restricting farmers' practices of saving, using, exchanging and selling farm-saved seed of protected varieties. The extent to what these practices are restricted varies from country to country, depending on the coverage of intellectual property protection. This development is seen as positive by the seed industry and some state representatives, as it creates better incentives for innovations in plant breeding, for the benefit of farmers and for society as a whole. These respondents argue that small-scale farmers in developing countries may

save and use farm-saved seed of protected varieties on their own land holdings, whereas farmers in the North may do so in certain cases, in return for remuneration to the breeder. They argue against the exchange and sale of seed from protected varieties among farmers.

However, this development is considered negative by most farmers and NGOs who responded to this survey, who mentioned that it impinges on their customary rights to freely save, use, exchange and sell any farm-saved seed, and in some countries even prohibits all these practices with regard to protected varieties. Some countries (Norway among them) seek to balance farmers' and breeders' rights by allowing farmers to save, use and exchange farm-saved seed from protected varieties, but not to sell it. Other countries (e.g. India) follow the same lines but allow farmers also to sell seed from protected varieties, as long as this is not done under the original brand name.

Regulations on variety release and seed distribution have been introduced in most countries covered by this survey. These regulations cover not only varieties that are protected by intellectual property rights, but all varieties and seed on the market, including land races and farmers' varieties. Again the rules are strictest in the North, where the exchange and sale of seed among farmers is prohibited in many countries, and where only approved conservation varieties can be sold from authorized seed shops – within certain limits. The European seed industry is largely positive to such regulations, arguing that they support plant health and seed quality, whereas the issue was not mentioned by the seed industry in other regions. However, farmers, NGOs and state representatives are critical, on grounds that such regulations seriously limit the legal possibilities of farmers in the North to engage in the conservation and sustainable use of crop genetic diversity. Encouragement and incentives are what is needed.

Some European countries, like Norway, are searching for more liberal solutions to enable the on-farm conservation and sustainable use of crop genetic diversity, and allow farmers to exchange and sell seed of any variety on a non-commercial basis. In the South, the issue is not seen as that pressing, even though farmers and NGOs from some countries mentioned it as an increasing problem. It seems, however, that to the extent that such regulations are in place, they are hardly enforced, due to the informal character of the seed market in many developing countries. Also in Northern countries there are examples of farmers exchanging and selling seed, even when it is legally prohibited. The practice seems still to be tolerated in other countries, like Italy and Austria.

Seed fairs and informal seed exchange networks are found in many of the countries covered by this survey, in the South as well as in the North. They have often only local outreach, although some seed exchange networks have somewhat broader coverage. These activities seem to be carried out mainly by NGOs. Respondents generally saw them as positive to farmers' rights to save, use, exchange and sell farm-saved seed, even though a very few respondents from all categories felt that such effects could have negative, mixed or no effects at all. Other measures mentioned by respondents were mainly NGO activities to support and

promote seed-saving and exchange practices as well as adding value to farmers' varieties.

The major gaps and needs mentioned from the various regions are more or less the same, although their order differs:

- The majority of respondents perceived the lack of adequate laws and regulations to provide for farmers' rights to save, use, exchange and sell farm-saved seed as a pressing shortcoming. The current development towards restricting farmers' rights with regard to protected varieties as well as land races and farmer varieties is seen as threatening the ability of farmers to contribute further to the on-farm conservation and sustainable use of crop genetic diversity. This stand was shared by farmers' organizations and NGOs, as well as some respondents from state authorities. A few representatives from the seed industry argued that breeders' rights should be strengthened instead, for the benefit of farmers and society as a whole, and one position paper from the seed industry argued that restrictive variety release and seed distribution regulations were required to ensure the quality of distributed seed.
- A major gap is the lack of awareness among farmers and decision-makers with regard to the consequences of legislation affecting farmers' rights to save, use, exchange and sell farm-saved seed, according to a majority of respondents: the more restrictive such legislation is, the more it limits the ability of farmers to further contribute to the on-farm conservation and sustainable use of crop genetic diversity. Awareness-raising and capacity-building measures were suggested here.
- Several respondents stressed the need to support and promote informal seed systems, such as seed fairs, seed networks, and local seed banks, in order to encourage the work to conserve and sustainably use crop genetic diversity.
- Farmers from Latin America highlighted the need for adequate recognition of the contributions of local organizations and NGOs in promoting farmers' practices in terms of saving, using, exchanging and selling farm-saved seed.

1.6 Additional issues and concerns

The most important additional issue to those taken up in the survey, and which was raised by many respondents, was the need to avoid the use of GMOs in order to avoid the contamination of the world's plant genetic heritage and ensure farmers' rights to choose what to grow.

Another issue addressed was the problem of de-registration of seed, i.e. that varieties were removed from the official catalogues once their plant variety protection period ended. This was described as a widespread practice that removes varieties from the market and reduces the diversity available to farmers.

Some respondents stressed that seed regulations were developed and adapted to the needs of the formal seed industry and therefore not suited

to accommodate the requirements related to conservation and sustainable use of crop genetic diversity. One conclusion drawn was therefore that the legislation would need to be divided, and new regulations would need to be developed to promote rather than to limit the conservation and sustainable use of crop genetic diversity.

Other stakeholders addressed the need to create space for dialogues between the different stakeholders in Farmers' Rights issues in order to develop a joint understanding of needed measures.

1.7 Summary of recommendations to the Governing Body

The responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments, according to Article 9 of the International Treaty. Nevertheless, the Governing Body of the Treaty, which consists of all contracting parties, is to promote the full implementation of the Treaty, including the provision of policy direction and guidance, and monitoring of implementation (Article 19). According to Article 21, the Governing Body is to ensure compliance with all provisions of the International Treaty. The Preamble highlights the necessity of promoting Farmers' Rights at the national as well as the international levels. A crucial question is thus how the Governing Body can promote compliance with the provisions of the Treaty that relate to Farmers' Rights.

The primary concern among most respondents who answered this question (27) is the need for support from the Governing Body to develop national legislation, policies, strategies and programmes for the realization of Farmers' Rights. In this context, also the establishment of adequate bodies and implementation practices was raised as an issue in need of support.

Technical and financial support is required. Respondents from Africa and Asia explicitly highlighted the need for financial support. However, some of these respondents also suggested that countries should establish financial mechanisms on their own, to ensure the realization of Farmers' Rights.

In Europe, the majority of the respondents were particularly concerned about the need to amend regulations on variety release and seed marketing, as well as plant breeders' rights and patent laws, in order to allow farmers to continue maintaining their practices of conservation and sustainable use of plant genetic resources for food and agriculture. Also, several respondents from Europe and North America wanted the marketing of seeds of genetically modified plants to be prohibited, due to the danger of GM contamination of local varieties.

The need to support awareness-raising and capacity-building was a particularly important concern among the African respondents, and was also raised by some respondents from Asia and Europe/North America (altogether 16 respondents). Other respondents saw it as implicit in other recommendations. Awareness-raising and capacity-building measures are required for farmers, government officials, researchers and the seed

sector as such. The Governing Body has key role to play in this regard, to facilitate and ensure support for such activities. Print and electronic media should be utilized and national capacity-building programmes launched. Mass education and awareness programmes were also suggested.

From all regions, recommendations were provided on how to enable farmers' participation in decision-making at all levels. Awareness-raising and capacity-building were seen as important means to enable the development of such participation. The consulted farmers in Meso-America paid particular attention to this issue. Their recommendations: to acknowledge the contribution of farmers to the conservation and sustainable use of crop genetic diversity through disseminating information about this contribution; to create space for the active participation of farmers under the International Treaty; to take into account the opinions and situation of farmers in the decision-making process of the Governing Body; to open space through various channels/media in which farmers can express themselves and ensure recognition of their rights; and to put pressure on governments for greater openness in decision-making processes for farmers.

Several respondents from Africa, Asia, Europe and North America voiced the need to improve informal seed systems, whereas this concern was implicit in several other recommendations (about legislation, policies and capacity-building). Research, participatory plant breeding and seed banks/networks were mentioned as important measures. It was also suggested to develop a mechanism under the Treaty to allow for farmer-to-farmer exchange of plant genetic resources without necessarily going through the current Multilateral System requirements. A conducive legal framework is a precondition for such activities (see above).

Two respondents from Europe highlighted the need to understand Farmers' Rights in the larger context of the International Treaty. It is important to focus on the main purpose of the Treaty and recognize the linkages between the provisions on Farmers' Rights and other sections of the Treaty, such as the parts on conservation, sustainable use, access and benefit-sharing. This is important for realizing the objectives of the Treaty and ensuring that it will not fail.

One respondent each from Africa, Asia and Europe voiced the need to develop minimum standards for Farmers' Rights on the basis of national and regional experiences, and bringing these to a level of international harmonization. Here the Governing Body would have a key role.

2 Background and objectives of the consultations

This part offers a brief introduction to Farmers' Rights and the consultation processes since the First Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (the Plant Treaty) on the topic, which provides an important basis for the 2010 Global Consultations on Farmers' Rights. It further explains the background for this new consultation round, its objectives and structure.⁶

2.1 Brief introduction to Farmers' Rights

Plant genetic diversity is probably more important for farming than any other environmental factor, simply because it is the factor that enables adaptation to changing environmental conditions, such as climate change. As farmers are custodians and developers of crop genetic resources in the field, their rights in this regard are vital for enabling them to maintain this role for local and global food security; thus these rights are also central means in the fight against poverty.

Basically, realizing Farmers' Rights means enabling farmers to maintain and develop crop genetic resources as they have done since the dawn of agriculture, and recognizing and rewarding them for this indispensable contribution to the global pool of genetic resources. The realization of Farmers' Rights is a precondition for the maintenance of crop genetic diversity, which is the basis of all food and agricultural production in the world. For this reason, Farmers' Rights constitute a cornerstone in the Plant Treaty, as their realization is a precondition for achieving the Treaty objectives of conservation and sustainable use of crop genetic resources with the ultimate goal of sustainable agriculture and food security (Art. 1).

Farmers' Rights are addressed in Article 9 of the Plant Treaty. In addition, several other provisions (e.g. on the conservation and sustainable use of crop genetic resources, as well as on access and benefit-sharing, international co-operation, the role of the Governing Body and compliance) contribute to the realization of these rights. Article 9 and a selection of relevant provisions of the Plant Treaty can be found in Attachment 1.

2.2 Previous consultation processes on Farmers' Rights

At the first session of the Governing Body of the Plant Treaty in Madrid in June 2006, Norway with the support of several other countries proposed that Farmers' Rights be put on the Working Agenda of the Governing Body. Thus, the Governing Body discussed Farmers' Rights at its Second Session, which was held from 29 October to 2 November 2007 in Rome. Towards this end an informal international consultation was

⁶ This chapter is based on a similar chapter in FNI Report 1/2011 about the Global Consultations in 2010.

organized in Lusaka, Zambia, in September 2007. The consultation was co-hosted by Zambia Agricultural Research Institute, Ministry of Agriculture and Food, Norway, and the FNI, Norway, and resulted in a report.⁷ On the basis of the findings, Zambia and Norway submitted an input paper on Farmers' Rights⁸ to the Governing Body of the Plant Treaty for consideration at its second session.⁹

On the basis of the Lusaka consultation, the Governing Body was recommended to consider the following proposals on how to assist countries in the realization of Farmers' Rights:

- The Governing Body may wish to ask the Secretary to collect information on national action plans, programmes and legislation related to Farmers' Rights as well as information on how international bodies and institutions could assist Contracting Parties in implementing Article 9 and the other provisions of the Treaty through which Farmers' Rights can be realized.
- The Governing Body may wish to consider how to guide and assist Contracting Parties in their implementation of Article 9 and related provisions. In this regard, the Governing Body may wish to consider developing guidelines for national implementation of Article 9 on Farmers' Rights. The guidelines should also take into account how the related provisions of the Treaty will assist in the implementation of Article 9 and how Farmers' Rights can be beneficial for implementation of these related articles. The guidelines could include practical and technical advice on steps and measures that Contracting Parties could take, in accordance with their needs and priorities.
- The Governing Body may wish to consider establishing an *ad hoc* working group mandated to develop the above draft guidelines through a transparent, participatory and inclusive process.

The input paper was presented at the Second Session of the Governing Body,¹⁰ which, following a lengthy discussion, adopted a resolution on Farmers' Rights¹¹ in which:

- Contracting Parties and other relevant organizations were encouraged to submit views and experiences on the implementation of Farmers' Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers' organizations and other stakeholders.

⁷ The report is available at:

www.fni.no/doc&pdf/farmers_rights_lusaka_consultation_final_report.pdf

⁸ The input paper is available at:

<ftp://ftp.fao.org/ag/agp/planttreaty/gb2/gb2c1e.pdf>

⁹ The information document from the Secretary is available at:

<ftp://ftp.fao.org/ag/agp/planttreaty/gb2/gb2i6e.pdf>

¹⁰ More information can be found at: www.planttreaty.org/meetings/gb2_en.htm

¹¹ This resolution can be found at:

www.farmersrights.org/pdf/Farmers_rights_resolution.pdf

- the Secretariat of the Governing Body was requested to collect these views and experiences as a basis for an agenda item for consideration by the Governing Body at its Third Session to promote the realization of Farmers' Rights at the national level.
- the commitment to continue to involve farmers' organizations in the work of the Governing Body – as appropriate and according to the Rules of Procedures – was affirmed.

Some countries and relevant organizations submitted reports to the Secretariat of the Treaty on their views and experiences with the implementation of Farmers' Rights, which the Secretariat published as information documents for the Third Session of the Governing Body. The countries were Australia, Canada, Italy, Pakistan, France and Norway. The organizations were La Via Campesina, the Global Community Biodiversity Development and Conservation Network, Centre for Genetic Resources (The Netherlands) together with the Community Technology Development Trust (Zimbabwe) (more about this document below), and the FNI (Norway).¹²

In order to facilitate the exchange of views and experiences, the Centre for Genetic Resources, The Netherlands (CGN) and the Community Technology Development Trust (CTDT, Zimbabwe) took the initiative to open an on-line conference platform to discuss legal options to facilitate the contribution of farmers to on-farm maintenance and development of plant genetic resources (titled *Options for Farmers' Rights*). The initiative was taken in a search for agreed principles shared widely between major stakeholder groups, and with the ambition of presenting to the Governing Body alternative options for the implementation of Farmers' Rights with their advantages and disadvantages. The outputs of the on-line consultation process, as well as the results of several farmers' workshops held in parallel to the internet-based discussion in Malawi, Zambia and Zimbabwe, were summarized in the above-mentioned information document to the Governing Body. It contained the following recommendations:

- A request to the Secretary to study, in collaboration with FAO, the options for provisions in the national seed legislation of Contracting Parties, with a view to providing recommendations and/or guidelines for the introduction of legislation that would allow for the unrestricted or less restricted sales of farmers' varieties.
- A request to the Secretary of the Treaty to study, in collaboration with UPOV, possible means and mechanisms for streamlining Article 9.3 into UPOV 78 and UPOV 91 regarding protected varieties, in particular regarding the options for provisions in national legislation based on UPOV 78 or 91 that would allow

¹² All information papers are provided at www.planttreaty.org/meetings/gb3_en.htm under the headings of 'Information Documents' and 'IT/GB-3/09/Inf. 6'.

small-scale farmers in developing countries to save, use, sell and exchange protected varieties within their communities.

- A request to the Secretary of the Treaty to study, in collaboration with UPOV, possible means and mechanisms for developing ways to further define ‘small-scale farmers’ in the legal context of UPOV 78, UPOV 91 and the Treaty, for the benefit of implementing legislation as suggested above in paragraphs 1) and 2).
- An encouragement to donors to provide financial assistance to continue with the on-line conference group as a forum for further discussion and exchange of experiences on the implementation of Farmers’ Rights at the national level, or to continue helping discussions on the implementation of Farmers’ Rights through any other means and approaches.
- An encouragement to donors to provide financial assistance to help developing countries to organize farmers’ workshops to gather inputs for policy decisions on the implementation of Farmers’ Rights, seed legislation, and intellectual property rights legislation.

At its Third Session in Tunis, 2009, the Governing Body adopted a new resolution¹³ on Farmers’ Rights which marks a substantial step forward for the implementation of Article 9 of the Plant Treaty. This is not only due to the contents of the resolution, but also because of the broad consensus that was reached among the Contracting Parties at an early stage in discussions on the proposed text. The 2009 resolution was proposed by Brazil on behalf of Africa, Latin America and the Caribbean. In the following operational paragraphs, the Governing Body:

- (xi) **Invites** each Contracting Party to consider reviewing and, if necessary, adjusting its national measures affecting the realization of Farmers’ Rights as set out in Article 9 of the International Treaty, to protect and promote Farmers’ Rights.
- (xii) **Encourages** Contracting Parties and other relevant organizations to continue to submit views and experiences on the implementation of Farmers’ Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers’ organizations and other stakeholders;
- (xiii) **Requests** the Secretariat to convene regional workshops on Farmers’ Rights, subject to the agreed priorities of the Programme of Work and Budget and to the availability of financial resources, aiming at discussing national experiences on the implementation of Farmers’ Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers’ organizations and other stakeholders;
- (xiv) **Requests** the Secretariat to collect the views and experiences submitted by Contracting Parties and other relevant organizations, and the reports of the regional workshops as a basis for an agenda

¹³ Available at: www.farmersrights.org/pdf/ResolutionFR-GB3.pdf

item for consideration by the Governing Body at its Fourth Session, and to disseminate relevant information through the website of the International Treaty, where appropriate; and

- (xv) *Appreciates* the involvement of farmers' organizations in its further work, as appropriate, according to the Rules of Procedure established by the Governing Body.

2.3 Background of the present consultation process

The 2010 Global Consultations on Farmers' Rights are based on Governing Body Resolution 6/2009 (above), and in particular on the formulation requesting the Secretariat to convene regional workshops on Farmers' Rights, subject to agreed priorities of the work programme and budget, and to the availability of financial resources.

Due to the lack of financial and human resources available to the Secretariat, it was unable to convene the regional consultations as requested by the Governing Body. Consequently, the FNI, Norway, offered to organize the consultations, and the Bureau observed that the Secretariat was constrained in terms of financial and human resources. It consequently encouraged Contracting Parties to consider providing funding for the consultations and emphasized the need to reflect the contribution of any host government in the proposed budget. The regional consultations were merged into one global consultation process with regional components, to minimize funding requirements and workload. It was decided that the consultation process should include an e-mail-based questionnaire survey to ensure the broadest participation possible, and a global consultation conference.

A draft concept note was developed and circulated in the Bureau of the Treaty, and among key stakeholders and potential donors. Comments were provided, and the concept further developed. The IBC, Ethiopia, kindly offered to host the consultation conference in Addis Ababa, which greatly helped bring the process forward. As a highly diverse country in terms of plant genetic resources for food and agriculture and a central actor in terms of Farmers' Rights, Ethiopia provided an excellent venue.

From June 2010 and onwards, commitments to support the consultation process were made by the Swedish International Biodiversity Programme (SwedBio), the Norwegian Agency for Development Cooperation (NORAD), the Norwegian Ministry of Agriculture and Food, the Development Fund, Norway, and the Spanish Agency for International Development Cooperation (AECID). This allowed the initiation of the e-mail based questionnaire survey. In August, enough funds had been secured to start the preparations for the consultation conference, and in November 51 participants gathered in Ethiopia to discuss national experiences and the way forward with regard to the realization of Farmers' Rights.

2.4 Objectives of the 2010 Global Consultations on Farmers' Rights

The overall goal of the 2010 Global Consultations on Farmers' Rights was to support the implementation of Farmers' Rights at the national level, as set out in Article 9 of the Plant Treaty. Its project objective was to fulfil the provision of Resolution 6/2009 on regional consultations on Farmers' Rights.

In particular, the consultations were aimed at the sharing of national experiences on the implementation of Farmers' Rights among Contracting Parties of each region, and the identification of gaps and needs at the national level with regard to the further implementation of Farmers' Rights.

3 About the survey

In this chapter the questionnaire and its structure is presented and an overview of respondents is provided.¹⁴

3.1 The questionnaire and its structure

The e-mail-based consultation survey was based on a questionnaire that was distributed widely (see 2.2 below). The contents of the questionnaire build on Resolution 6/2009, which invites contracting parties to submit their views and experiences regarding the implementation of Farmers' Rights, and 'to consider reviewing and, if necessary adjusting, its national measures affecting the implementation of Farmers' Rights as set out in Article 9 of the Plant Treaty, to protect and promote Farmers' Rights'. The latter means not only national measures for the implementation of Farmers' Rights, but also other national measures that may affect the implementation of Farmers' Rights. On this background the questionnaire addressed main achievements and obstacles with regard to the realization of Farmers' Rights; national measures affecting the realization of Farmers' Rights; an evaluation of these measures; identification of gaps and needs for the realization of Farmers' Rights; recommendations to the Governing Body as to how it can support the implementation of Farmers' Rights; and any other views the respondents may wish to share.

The four elements of the Plant Treaty for the realization of Farmers' Rights at the national level provided the basic structure of the questionnaire:

- The protection of traditional knowledge relevant to plant genetic resources for food and agriculture (Art. 9.2.a)
- The right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture (Art. 9.2.b)
- 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 (Art. 9.2.c)
- Any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material (Art. 9.3)

The questionnaire included a mix of questions with answer categories, and open questions. The questions with answer categories were developed on the basis of previous research, and enabled us to quantify the response. The open questions were meant to invite the free sharing of views and experiences, and enable a more qualitative analysis of the response. The text of the questionnaire is attached to this report (see attachment 3).

¹⁴ This chapter is based on a chapter in FNI Report 1/2011 which provided information about the survey.

The questionnaire was translated into French and Spanish (from English), and answers in French and Spanish were translated back into English for this report. Whereas this report is only available in English (due to financial constraints), the input paper from the consultation process, submitted to the Secretariat by Ethiopia and made available to the Governing Body as IT/GB-4/11/Circ. 1, is available also in French and Spanish.¹⁵

3.2 Overview of respondents

The e-mail-based consultation was open to all interested in participating. Invitations were sent to delegates from Contracting Parties, farmers' organizations, NGOs and seed industry organizations that have participated in the three sessions of the Governing Body, as well as to a mailing list of such stakeholders around the world who have not had the chance to attend Governing Body sessions. We asked recipients to forward the questionnaire in their networks. We also encouraged NGOs and farmers' organizations to visit farming communities without e-mail access, in order to bring their views and experiences into the consultations. In addition, the questionnaire was distributed via the websites of the Plant Treaty¹⁶ and the Farmers' Rights Project¹⁷.

By the time the FNI began the analysis of the responses, altogether 61 questionnaires had been received from relevant stakeholder groups¹⁸, along with 6 position papers from 7 other respondents¹⁹. As some of the questionnaires had been filled out by groups and some of the respondents had consulted with others and provided a list of their names, a total number of 131 participants (including those who sent in position papers) took part in this first phase of the consultations. Since the questionnaires from the Latin American region all were filled out by groups of people, we speak of 'respondent groups' when referring to these questionnaires.

The respondents came from 36 different countries.²⁰ Some were the sole representative of their countries, while others were one of many respondents from the same country. From the African region 11 countries were represented, while for Europe the number was 10. Five Latin American countries were represented, as were seven Asian, two North American and one country from the Near East.

¹⁵ English version: www.itpgrfa.net/International/sites/default/files/gb4c01e.pdf, Spanish version: www.itpgrfa.net/International/sites/default/files/gb4c01s.pdf, French version: www.itpgrfa.net/International/sites/default/files/gb4c01f.pdf

¹⁶ www.planttreaty.org

¹⁷ www.farmersrights.org

¹⁸ One of these questionnaires arrived too late for the answers to closed-ended questions to be counted, but the answers to open-ended questions were analyzed together with the other responses.

¹⁹ Some position papers were provided by more than one respondent.

²⁰ Some of the participants who sent in position papers have not been included in this figure since they represented regional organizations, but the total number of countries would not have been any higher if they had, as the countries in question were already represented.

Although only 11 African countries were represented among the participants, altogether 21 questionnaires were received from this region. From Latin America, altogether five questionnaires were received from respondent groups in five countries. The five questionnaires from North America were generally counted together with the 13 questionnaires from Europe²¹, while the six questionnaires from the Near East were counted with the 11 from Asia, to yield larger groups of respondents for the analysis.

A wide range of stakeholder groups were represented among the respondents. To make it possible to identify differences of opinion that might exist among stakeholders, respondents were sorted into five groups based on their own statements regarding affiliation. These five groups were as follows: 'farmers' (both farmers and representatives of farmer organizations), 'seed industry' (representatives from the seed industry), 'the public sector' (government officials, researchers from state universities and extension workers as well as other state representatives), 'NGOs' (representatives of various non-governmental and civil society organizations), and 'others' (students and other respondents with unclear affiliations).

The biggest stakeholder group in the survey was the NGO group: altogether 24 questionnaires came from representatives of various NGOs and CSOs²². The stakeholder group with the second highest number of respondents was the public sector, with 15 questionnaires. Thirteen questionnaires were filled in by farmers, while three seed industry representatives sent in questionnaires (questionnaires only, not including the four position papers received from the seed industry). Six respondents were categorized as belonging to the 'others' category.

Some regional groups were more diverse with regard to stakeholder representation than others. The respondent groups from Latin America all represented various farmer groups, whereas the respondents from the Near East all came from the public sector. The group of respondents from Africa consisted mainly of NGO representatives, while five came from the public sector, two were farmer representatives and two were categorized as 'others'. NGO representatives also dominated the Asian respondent group, with seven respondents from this category, one farmer representative, two representatives from the public sector and one student (categorized as 'other'). The respondent group from North America and Europe was made up of five farmer representatives, three seed industry representatives, two representatives from the public sector, four NGO representatives and three 'other' respondents. This group had the most even distribution of respondents across stakeholder categories.

²¹ These 13 questionnaires from Europe include the one that arrived late and whose answers to closed-ended questions were therefore not counted in the analysis.

²² These 24 questionnaires include the one that arrived late and whose answers to closed-ended questions were therefore not counted in the analysis.

The contents of the four positions papers received from the seed industry (seed federations in Europe, Africa and Asia, as well as the International Seed Federation) related mainly to the question of Farmers' Rights to save, use, exchange and sell farm-saved seed and were therefore analysed in that context.

4 General views and experiences pertaining to Farmers' Rights

This chapter presents views and experiences regarding Farmers' Rights in general for all regions, while the succeeding chapters will deal separately with the four elements of Farmers' Rights as these are presented in the Plant Treaty. We begin by examining the respondents' views on the importance of the various aspects of Farmers' Rights, before shifting the focus to what they regard as the major achievements of their countries. Next, the major obstacles to the realization of Farmers' Rights, as seen by the respondents, will be analysed. As part of the questionnaire, respondents were asked to rate their country's general performance as regards the realization of Farmers' Rights. These opinions, as well as the measures deemed necessary to realize Farmers' Rights, will be presented. In all sections the findings are presented by region, and any differences with regard to stakeholder groups are noted. Some preliminary conclusions are offered at the end of the chapter.

4.1 Most important aspects of Farmers' Rights

Respondents were asked the following question (question 2.1 in the questionnaire): *'In your view, how important are the following aspects of Farmers' Rights in your country'*, and were asked to rate the four elements (protection of traditional knowledge; the right to participate equitably in benefit-sharing; the right to participate in decision-making; and the right to save, use, exchange and sell farm-saved propagating material) as 'very important', 'important', 'less important' or 'not important'. The purpose of this question was to identify any significant differences between how the elements are viewed as to stakeholder groups and regions. Across all regions we can note that all four elements are seen by a substantial majority as either 'very important' or 'important'.

4.1.1 Africa

Of the 21 African respondents, twelve were NGO representatives, two were farmers and/or from farmers' organizations, five were from government institutions or state research institutions and two were categorized as 'other'. Most of these respondents rated all aspects as very important, with a slight tendency to see the fourth aspect (the right to save, use, exchange and sell farm-saved seed) as less important than the other aspects. While respectively 17, 16 and 17 out of 21 respondents saw the first three aspects as very important, the figure was 13 for the last aspect. However, if the categories 'very important' and 'important' are seen together, the difference is less pronounced, with the figures being 18, 18, 18 and 17. None of the respondents regarded the right to participate in benefit-sharing as *not* important, while for the other aspect either one or two chose the 'not-important' category. On this question the answers from the different stakeholder groups were rather similar, and no particular tendencies or differences can be discerned. (Compared to the results from the other regions, the respondents from the African region

showed a slightly greater spread on the various rating categories. However, as this group was also the biggest, and somewhat more diverse than some of the other regional respondent groups, no definite conclusions can be drawn from this.)

As part of this question, respondents were also given the opportunity to explain why they had chosen as they did and to mention other elements they considered to be part of Farmers' Rights. The importance of maintaining traditional seed systems and the role of Farmers' Rights in this regard was among the themes evident in the answers here. Some also mentioned the high level of illiteracy among small-scale African farmers, the low level of farmers' organization and the consequences of this for participation in decision-making and vulnerability to changes. The pronounced loss of varieties and traditional knowledge was also mentioned, and the need to reverse this trend. Among the aspects brought up as important in addition to the four mentioned in the Plant Treaty was access to land and water, as well as marketing support. Although not generally seen as part of the concept of Farmers' Rights as it relates to the Plant Treaty, the right to land and its importance for the maintenance of plant genetic resources is regularly mentioned, especially by stakeholders in the South.

4.1.2 Asia and the Near East

The Asian respondent group was composed of eleven people, seven of them affiliated with an NGO. Also this group was basically in agreement about the importance of all the four listed aspects of Farmers' Rights. However, while most rated all aspects as either 'very important' or 'important', it is only with regard to the right to participate in decision-making that all saw this as 'very important'. As to the fourth aspect – the right to save, use, exchange and sell farm-saved seed – one respondent from the public sector rated this as 'less important'. The right to compensation for crop loss resulting from bad seed or wrong information was mentioned by respondents from Nepal and India – perhaps not surprisingly, as this element is included in the Indian law on plant variety protection and Farmers' Rights. Asian respondents also mentioned the importance of market access and land ownership, as well as the wish to be GMO-free, showing that these issues are seen as relevant in many different regions. One respondent suggested introducing the concept of payment for ecosystem services in agriculture, as traditional farming practices, to the extent they help maintain ecosystems, are beneficial to society at large.

Although the respondents from the Near East all come from the public sector and from the same country, they held slightly differing views on the importance of the various listed aspects of Farmers' Rights. In general, there was more agreement regarding the importance of the first two aspects – protection of traditional knowledge, and the right to participate equitable in benefit-sharing – than the last two aspects – the right to participate in decision-making, and the right to use and exchange farm-saved seed. While four respondents rated both of the first two aspects as 'very important' and two rated them as 'important', only one respondent rated the last two as 'very important'; of the remaining, three

rated them as 'important' and two as 'less important'. One aspect mentioned as important in addition to the four listed was the right to pure seeds from seed multiplication projects.

4.1.3 *Latin America*

To the same question (question 2.1 in the questionnaire), respondents from Latin America answered more uniformly. All respondents from this region were farmers or from farmers' organizations and they all rated all aspects as 'very important'. The importance of sharing was underlined by the respondent group from Nicaragua, who said that 'plant genetic resources should be shared because they guarantee food security and should be the property of the country' (FPMA Nicaragua).

4.1.4 *North America and Europe*

The respondents from North America, although not as homogeneous a group as that from Latin America, were also quite unanimous in their rating of all aspects as 'very important'. The only exception is one respondent, who rated the right to participate as 'important' rather than 'very important'. This respondent group consists of only five individuals – two from farmers' organizations, plus one small-scale seed industry representative, one NGO representative and one student of environmental affairs (here placed in the 'other' category). Farmers' autonomy was among the subjects mentioned by some of these respondents. Both protecting the rights related to farm-saved seed and the issue of GMO spread were linked to the development of the agricultural sector in the region and the necessity for farmers to retain their independence and freedoms. One respondent from Canada underlined the connection between traditional knowledge and seed-saving practices, and one respondent saw the issue of preventing de-registration of varieties protected by plant breeders' rights as something that should be an important part of Farmers' Rights. De-registration is sometimes done by companies before the plant breeders' right expires and the variety falls into the public domain. This removes the variety from the market, as sales of seed from un-registered varieties are not allowed.

The group of respondents from the European region was slightly more divided along stakeholder lines than the other regional respondent groups. All the stakeholder groups are represented in this group, and no group of stakeholders really dominates. Representatives of the seed industry tended to regard all four elements as less important than the other respondents. However, it was only in the case of the rights related to farm-saved seed that these respondents rated the element as 'less important'. The other elements were all rated as 'important'; and, in the case of the right to participate in decision-making, one seed industry respondent even rated it as 'very important'. It should also be noted that some seed industry representatives who received the questionnaire chose to send in their position papers on Farmers' Rights as their response to

the survey because they felt the questions were biased.²³ As these position papers mostly deal with the issue of rights related to farm-saved seed they are presented in chapter 5. The European respondent group also deviated slightly from the other regional groups in the importance placed on the right to participate equitably in sharing the benefits arising from the utilization of plant genetic resources. While nine and ten out of the eleven respondents rated the other elements as ‘very important’, the same number for benefit-sharing was only five.

Differences of opinion among the stakeholder groups were also evident in the aspects that respondents highlighted in their comments. Representatives from the seed industry underlined the importance of compliance with existing legislation and breeders’ rights as regards the use of farm-saved seed and the importance of access to improved varieties. This feeling was also shared by a government representative from Germany, who emphasized the need to respect property rights. Most other respondents, however, were more concerned about the importance of maintaining seed-saving and exchange practices. Resistance to patenting was also mentioned, as was the wish to be free of GMOs, and the importance of exchanging traditional knowledge.

4.2 Major achievements from the realization of Farmers’ Rights

When respondents were asked what they regarded as the major achievements of their country with regard to the four aspects of Farmers’ Rights, they were given the following alternatives, and could choose one or more, as appropriate: adoption of conducive law, adoption of conducive policy, implementation of policy/law, government programme running, project(s) implemented by an NGO/IGO, and markedly increased awareness. With its focus on achievements, this question aims to improve our understanding of what type of progress can be seen with regard to the various aspects of Farmers’ Rights and where there is greatest room for improvement.

One tendency evident across regions was the relative dominance of NGO/IGO projects, especially with regard to traditional knowledge and benefit-sharing, with respectively 26 and 20 respondents saying they regarded NGO/IGO-implemented projects as a major achievement in their countries. For the other categories the figures were below 10, the exception being ‘markedly increased awareness’, where 16 respondents

²³ In e-mail correspondence with these respondents the authors of this report sought to clarify exactly which questions they regarded as biased and in what way, but this was not made clear. The questionnaire consisted of closed questions (to enable quantification of the response) where the answer categories were based on previous research, and open questions inviting the free sharing of views and experiences (to enable a more qualitative analysis of the response), and the authors have not been able to detect the said bias. However, the authors are grateful for the helpful comments from representatives of the seed industry to the draft report, and appreciate the dialogue with them in connection with the consultations. The entire questionnaire is attached to this report as Annex 3.

cited this as an achievement in their country as regards traditional knowledge, and 13 respondents said the same for benefit-sharing. Also as to participation in decision-making and seed-saving practices, more NGO/IGO-implemented projects were listed as an achievement than the other categories, but the difference was not so great. Only 14 and 17 respondents, respectively, regarded such projects as a major achievement of their country as regards farmers' participation in decision-making and rights related to seed practices. As to participation and seed-rights, the second most-mentioned achievement was government-run programmes. Implementation of conducive laws and policies seems to be more common with regard to participation and seed-rights than traditional knowledge and benefit-sharing. In general, protection of traditional knowledge was the aspect of Farmers' Rights where most respondents noted national achievements.

4.2.1 Africa

The tendency with regard to achievements in various categories in the African Region mirrors that of the worldwide tendency quite closely. For all aspects of Farmers' Rights, the highest number of respondents mentioned projects implemented by NGOs/IGOs as a major achievement in their country. The second most-mentioned category was either 'markedly increased awareness' – as in the case of traditional knowledge and benefit-sharing, or 'government programme running', as in the case of farmer participation and rights related to seed practices. One aspect of Farmers' Rights was especially widely mentioned in terms of achievements: the protection of traditional knowledge. Rights related to seed-saving practices received the fewest mentions. Perhaps not surprisingly, one area where achievements seem to be missing in the African region is the adoption and implementation of relevant legislation. No respondents listed the implementation of conducive law or policy as an important achievement in their country, and the adoption of conducive law was noted as a major achievement by only one respondent for each of the various aspects – except farmers' participation, where no respondents marked this category. Respondents were given the opportunity to specify the achievements of their country, and also here some respondents from the African region underlined the role played by NGOs. Some mentioned policies, bills and regulations being developed, while a respondent from Cameroon wrote that the country has good laws but 'their application remains irrelevant' (Pascal Nkwe Makongo, National President of the farmer organization CORDAP [Rural Council for the Development of Agriculture and Fisheries], Cameroon). Some respondents also told about the work being done in seed multiplication efforts, gene banks and seed fairs.

4.2.2 Asia and the Near East

Answers from the Asian group showed that also in this region it was with regard to NGO/IGO-implemented projects that most respondents saw achievements. Four out of eleven respondents said that they considered such projects as a major achievement for all aspects of Farmers' Rights in their country. This is more than any of the other categories of achievements, although in the Asian region all were represented.

Implementation of law and policy was the category where least progress was noted across all aspects. Also the Asian respondents saw slightly more achievements with regard to the protection of traditional knowledge than the other three aspects of Farmers' Rights. Despite the general lack of achievements with regard to law and policy in the region, both India and Bhutan have granted their farmers some rights through relatively new Acts, and Nepal is in the process of drafting legislation. The Indian Plant Variety Protection and Farmers' Rights Act of 2001 seeks to balance Farmers' Rights and Plant Breeders' Rights, and Bhutan's 2003 Biodiversity Act gives farmers the right to save, use, exchange and sell farm-saved seed. The respondent from Bhutan was also one of few respondents to note 'strong political and policy support from the government' (Singay Dorji, Senior Biodiversity Officer of the National Biodiversity Centre of Bhutan). Increased awareness was mentioned by some respondents, and one respondent from Indonesia noted that, despite the prejudice against the idea of farmers as breeders and managers of plant genetic resources, awareness is growing.

In the Near East region, markedly increased awareness, especially with regard to benefit-sharing, was the category where most respondents saw major achievements. NGO/IGO projects seem to have had an impact here as well, while 'government programme running' was the third-most mentioned category. More respondents saw various types of achievements with regard to the protection of traditional knowledge and benefit-sharing, than farmers' participation and seed-saving practices. Not many respondents saw the adoption and implementation of laws and policy as categories of major achievements with regard to any of the aspects of Farmers' Rights. The only notable exception was the adoption of conducive law and implementation of conducive law/policy relevant to the protection of traditional knowledge, where two and three of six respondents saw major achievements. Collection of local varieties, documentation of traditional knowledge, establishment of gene banks and awareness campaign were among the achievements listed by the respondents.

4.2.3 *Latin America*

The respondent groups from Latin America saw even fewer major achievements for the categories related to law and policy than the African respondents. None of the respondent groups from this region chose adoption or implementation of conducive law or policy as areas of major achievements in their countries. Projects implemented by NGOs or IGOs dominate in this region also, with three out of five respondent groups choosing this category as a major achievement for all aspects of Farmers' Rights in their country. Markedly increased awareness is mentioned as an achievement for all aspects except farmers' participation. However, it is actually with regard to rights related to seed-saving practices that the most achievements seem to have taken place in this region, and two respondent groups noted 'government programme running' as a major achievement in their country in this regard.

4.2.4 *North America and Europe*

In the North American region, few respondents marked the listed categories as achievements in their own country. The only categories noted by one or more respondents were 'projects implemented by NGOs or IGOs' and 'markedly increased awareness'. For the various aspects of Farmers' Rights, only one respondent noted NGO/IGO-implemented projects as a major achievement – the exception being farmers' participation, where respondents saw no major achievements as having taken place. With regard to 'markedly increased awareness', benefit-sharing was not marked by anyone as an aspect where achievements had taken place. On the other hand, a slight positive tendency could be seen with regard to the protection of traditional knowledge, where two out of five respondents, both from the USA, saw 'markedly increased awareness' as a major achievement in their own country. Only two North American respondents, one from the USA and one from Canada, chose to respond to the open part of this question. Both underlined what they saw as the lack of achievements.

The views of the respondents from the European region as to achievements in Farmers' Rights in their own countries differed somewhat from those of the other respondents. While markedly increased awareness was seen as a major achievement by some respondents in all of the other groups, none of the European respondents marked this as a category as of major achievements in their country, for any of the four aspects of Farmers' Rights. The same was the case for 'adoption of conducive policy'. Nonetheless, some respondents saw major achievements in relation to 'adoption of conducive law' and implementation of conducive law/policy' for all four aspects. And implementation was in fact the category chosen by most respondents as where major achievements had taken place. This, and the apparent absence of progress with regard to awareness, differs from the tendencies in most other regions. What is similar is the slight edge the protection of traditional knowledge has over the other aspects of Farmer' Rights also in this region. And also here a handful of respondents saw projects implemented by NGOs and IGOs as major achievements in their own country. It is also worth noting that the notably lower emphasis placed on benefit-sharing by European respondents when asked how important they found the four elements of Farmers' Rights is reflected in the fact that fewer respondents saw achievements within the various categories in relation to benefit-sharing than the other elements of Farmers' Rights.

When asked to specify the achievements of their country, two respondents from France underlined the importance of the initiation of the Foundation for Research on Biodiversity (FRB) and the Farm-Saved Seed Network (RSP) and their projects, which receive some public funding. In Italy guidelines for on-farm conservation and management of agrobiodiversity are being prepared under the National Plan on Agrobiodiversity, and in Spain the law on seeds and plant genetic resources recognizes Farmers' Rights and another law guarantees agricultural organizations the right to participate in decision-making regarding agriculture and the rural environment through the agricultural advisory committee. However, the article on Farmers' Rights in the first

law has not yet been implemented through regulations, and the second law does not specify the rights of farmers, especially those involved in the maintenance of crop genetic resources, to participate in relevant decision-making processes. In Austria, work is being done by NGOs and universities to collect and distribute traditional knowledge, and a government programme supports on-farm conservation. According to the Austrian respondent, the authorities facilitate the sale of conservation varieties through adopting and implementing the new European Guidelines ‘in a timely manner and sensible way and through permanent dialogue with the stakeholders’. One seed industry representative saw the French Plant Variety Protection Act and patent law as important because they ensure the ‘breeders’ exemption’.

4.2.5 *In summary*

The findings from this part of the questionnaire show that, despite some progress in the realization of Farmers’ Rights in all regions, considerable work remains to be done. NGOs and IGOs seem to be leading the way with a range of projects. Some countries have laws and policies in place, but in terms of implementation there is still work to be done in most of them.

4.3 Major obstacles to the realization of Farmers’ Rights

Respondents were asked an open-ended question on what they saw as the major obstacles to the realization of Farmers’ Rights in their own country.

4.3.1 *Africa*

A majority of the African respondents mentioned lack of awareness or related issues such as illiteracy and poverty as major obstacles to the realization of Farmers’ Rights. Both the lack of awareness among farmers about their rights and how to realize them, and a lack of awareness among policy-makers and government officials, were seen as barriers. Another issue mentioned by a considerable number of respondents (about half) was law and policy – either lack of relevant laws and policies, or legislation and policy that are counterproductive to the realization of Farmers’ Rights. In this connection, implementation problems and gaps in institutional arrangements were also noted as obstacles. Aspects related to farmers’ participation in decision-making were also mentioned by quite a few respondents. Some cited the lack of strong farmers’ organizations, while others underlined the barriers to realizing Farmers’ Rights because the government ignored the views of farmers and did not involve them in the development of policies and programmes. One respondent said that the interests of large-scale farmers dominated in his country. Land rights, disagreement between plant breeders and farmers, corruption and intra-government conflict between ministries were also noted as obstacles to the realization of Farmers’ Rights. One respondent summed up the general obstacles in the region by answering that the major obstacles were ‘lack of awareness and appropriate policies and law’ (Edwin E. Ekaiko, Programme Director of the NGO RuralLinks in Nigeria).

4.3.2 Asia and the Near East

In Asia, including the Near East, many of the same obstacles were mentioned as in the other regions. Some respondents, more from the Near East than the rest of the region, noted lack of awareness and knowledge among farmers and decision-makers, illiteracy and low educational levels as important factors. The limited role and weakness of farmers' organizations and other relevant organizations working on such issues was mentioned by the majority of respondents from the Near East. Some respondents from the rest of Asia also referred to the absence of pressure groups, inadequate coordination among NGOs and lack of strong farmers' organizations as barriers to the realization of Farmers' Rights. Quite a few respondents noted the lack of laws, regulations, strategies and action plans, and especially legislation covering the legal use of plant genetic resources, as well as institutional capacity and weak implementation. Also mentioned were the role of inequality and poverty, and how the lack of a suitable research approach affects Farmers' Rights.

4.3.3 Latin America

FPMA Nicaragua mentioned that their country has no laws or regulations in favour of Farmers' Rights, and saw this as an obstacle to the realization of such rights. The lack of government support and acknowledgement was seen as the most important obstacle by the respondent group from Honduras, whereas the respondent groups from Costa Rica and Guatemala were concerned about farmer participation in decision-making related to plant genetic resources. They felt that they were not taken into account and wanted farmers to be included in official bodies and groups working on relevant issues. Big seed companies were seen as the major obstacle to the realization of Farmers' Rights in El Salvador by the respondent group from this country.

4.3.4 Europe and North America

Legislation and policies were mentioned by a majority of the European respondents as obstacles to the realization of Farmers' Rights. The lack of recognition of farm-saved seed systems and farmers' contribution to the maintenance of genetic diversity, along with UPOV-compliant legislation, was seen as hindering the implementation of Farmers' Rights. The standards imposed for commercial distribution of seed and the costs of certification were also seen as barriers in this context. Some respondents mentioned lack of awareness, both public awareness and awareness among farmers, as the main obstacle to realizing Farmers' Rights. Promotion of industrialized agriculture and the structural transformation of the agricultural sector were also seen by some respondents as an important barrier. Both the promotion of modern varieties, often called 'improved varieties', and the possible contamination of crops by GMOs were mentioned by some respondents in this context. Differences of opinion among stakeholder groups were evident also with regard to the issue of obstacles, as both of the seed industry representatives said that they did not see any major obstacles to the realization of Farmers' Rights in their country, whereas other

respondents from the same country (France) saw the situation in another light and listed many obstacles.

The situation in North America seems somewhat similar to that in Europe. UPOV-compliant legislation and GMO crops were mentioned as obstacles here as well, but the issue mentioned by most respondents (all of them from the USA) was what they saw as the strength of the agro-industries and collusion between government and corporate interests. One respondent also noted the isolation of farmers, both socially and culturally, from the rest of the population, and its consequences for general appreciation of farming.

4.4 Perceived performance of countries in realizing Farmers' Rights

A very clear tendency is evident as regards how respondents rate their own country's performance in the realization of Farmers' Rights. On a scale of one to six, where one is 'insufficient' and six is 'excellent', most respondents rated their country's performance as 'insufficient'. The number of respondents who chose this category was actually twice as high as those choosing all other categories taken together. Only three respondents rated the performance of their country as 'very good', while two rated it as 'good', six rated it as 'fairly good' and seven rated it as 'tolerable'. All three who rated their own country's performance as 'very good' come from Europe, specifically France and Germany, and are either representatives of the seed industry or government.

4.4.1 Africa

Examining the regional respondent groups separately, we find the same tendency for the majority to rate their country's performance as 'insufficient'. This applies to all groups, although the extent to which other categories are represented varies somewhat. Although a clear majority of the African respondents rated their country's performance as insufficient, the categories 'tolerable', 'fairly good' and 'good' were also indicated, by respectively two, three and one respondent(s) out of 21. One respondent from Ethiopia, one from Burkina Faso and one from Zimbabwe all rated the performance of their countries as fairly good, and one respondent from Malawi rated the country's performance as 'good'. The other respondents from Malawi, however (except one who did not answer the question), all rated their country's performance as 'insufficient', indicating the differing views that might exist within a country. No significant difference could be discerned as regards stakeholder groups, as all groups are represented among those who chose 'insufficient' and NGO representatives and a public sector respondent make up those who chose other categories. However, it could be noted that both of the farmers' representatives deemed their countries' performance to be 'insufficient'.

4.4.2 Asia and the Near East

The Asian respondent group was somewhat smaller than the one from Africa. Its members were slightly more divided in their views on their

countries' performance with regard to the realization of Farmers' Rights in general than what was the case in some of the other regions. Six respondents, one of them representing a group of 14 people, said that the performance of their country was 'insufficient', while respectively two, two and one respondent(s) chose 'tolerable', 'fairly good' and 'good'. The respondent who rated his country's performance as 'good' comes from Bhutan, while Nepal and Indonesia were both given the grade 'tolerable' by one respondent each; Nepal was also awarded the grade 'fairly good' by one respondent, along with India.

The Near East regional group is made up of respondents from the same sector and country. Thus it is perhaps not surprising these respondents are almost in complete agreement with regard to their country's performance in realizing Farmers' Rights in general. They all chose 'insufficient' or 'tolerable', with the latter category being indicated by only one respondent.

4.4.3 *Latin America*

The respondents from Latin America were somewhat more unanimous in their rating of the performance of their various countries. Only one respondent group, from Honduras, rated its country's performance as 'fairly good', whereas all the other groups chose 'insufficient'. Since all the respondent groups from this region represent farmers' groups, stakeholder differences were not an issue.

4.4.4 *Europe and North America*

The European respondent group – again, probably due to its composition – showed slightly greater diversity in its responses than the other regional groups. The majority chose 'insufficient' (and two 'tolerable') as the category that best described their country's performance, but there were three respondents who rated the performance of their country as 'very good'. Again it was in this regional respondent group that stakeholder differences were most pronounced. Respondents from NGOs or farmers' organizations all chose the ratings 'insufficient' or 'tolerable', while both seed industry representatives rated the performance of their country as 'very good', as did one government representative.

As for the North Americans, even though they represented different stakeholder categories, these respondents were even more unanimous: all rated their country's performance as 'insufficient'.

4.5 Most important measures to be taken at the national level

Respondents were asked what they saw as the most important measures still remaining to be taken in their own country to promote the realization of Farmers' Rights. Two elements here stand out across the regions. The first of these is the development and implementation of a legal framework for Farmers' Rights. Some respondents merely noted that their country needs to develop and implement a law on Farmers' Rights, while others specifically related this issue to regulations on variety release and seed, and the need to ensure legal space for seed-saving and exchange

practices. Raising awareness among farmers and other stakeholders, partly to promote farmers' participation, is the other element mentioned by many respondents across the regions. This finding is in line with the obstacles listed in question 2.3.

4.5.1 Africa

The tendency to focus on the above-mentioned two issues is perhaps strongest among the African respondents. Development and implementation of laws and policies on Farmers' Rights were mentioned by a majority of the African respondents as among the most important measures to be taken at the national level. Government representatives, NGO representatives and farmers were all among those who cited the development and implementation of appropriate legislation and policy as an important measure. One respondent underlined the need to have a fully developed and independent legal framework on Farmers' Rights, rather than merely including a paragraph about it in the law on Plant Breeders' Rights. Reviewing variety release and marketing regulations was also mentioned by a respondent as an important measure. Further, many respondents from Africa mentioned awareness-raising and capacity-building among farmers and decision-makers as necessary to achieve realization of Farmers' Rights. For some this was related to farmers' participation and the right of farmers to be heard, and increased awareness and organization of farmers was seen by some respondents as crucial to enable farmers to demand their rights. Monitoring of Farmers' Rights violations and the need to research the domestic situation and design a programme based on perceived needs were also listed as important for the national-level realization of Farmers' Rights.

4.5.2 Asia and the Near East

To a certain extent the same measures as those listed by respondents from Africa were also mentioned by respondents from Asia and the Near East. Legislative measures were referred to by many respondents. Changing the seed laws to include Farmers' Rights was mentioned, but most spoke of developing new laws and policies to address the protection of Farmers' Rights. Arief Lukman Hakim, Programme Manager of Farmers' Initiative for Ecological Livelihoods and Democracy (FIELD) from Indonesia, held that there should be two systems working in parallel: a formal and an informal seed system. The formal seed system would regulate the rights of the private sector and transnational companies and protect the rights of farmers as buyers of seed. The informal seed system, on the other hand, should ensure that farmers have the right to save, use and exchange seed locally. He added: 'the formal seed system regulation should not be applied to the informal seed system and vice versa' (Arief Lukman Hakim, Indonesia). One Asian respondent noted that, as part of the implementation process, a monitoring mechanism would be needed. Improving awareness was also mentioned by these respondents, with regard to scientists and extension workers as well as farmers. Research and conservation efforts – including surveys of existing resources, variety studies, community seed banks and community surveys – were also listed as measures important for the realization of Farmers' Rights.

4.5.3 *Latin America*

Modification of laws and regulations to make them more supportive of Farmers' Rights and monitoring the implementation of laws was seen as important by some respondent groups from Latin America. Creating a space for dialogue between different stakeholders and ensuring participation was mentioned by the group from Guatemala, while the group from Honduras underlined the importance of spreading information on the development and implementation of laws.

4.5.4 *Europe and North America*

European respondents mentioned other issues as much as awareness and legislation. While two farmer respondents stressed the need for a legal framework to allow for the distribution of seed by farmers who maintain plant genetic resources, and one NGO respondent mentioned the need for farmer awareness, the other respondents were more concerned with different possible measures. The seed industry representatives mentioned increased public spending on the conservation and characterization of genetic resources, not merely focusing on the major crops. Reference was also made to the promotion of small-scale farming, the sale of farm-saved seed, national networks, increased collaboration between stakeholders, and banning of GMOs in agriculture.

According to European Coordination Via Campesina (ECVC), a regional network of 24 farmers' organizations throughout Europe, the measure that is most urgently needed to promote the implementation of Farmers' Rights in Europe is legal recognition of the right of farmers to exchange and sell their seeds. This would be relevant primarily for farmers engaging in the maintenance of plant genetic resources, and less so for farmers who prefer to buy commercial seed. As ECVC sees it, such a measure would give the work of the former type of farmers a specific legal status, and their work would be promoted through public support and legislation, rather than continuing as an 'underground' system, as they feel the case often is for farmers who operate outside the official seed catalogues today.

Respondents from North America did not seem concerned about the same measures as the other groups. One respondent did mention the need to reintroduce the right of farmers to save, use, sell and exchange their own seed regardless of intellectual property rights, a suggestion which can be linked to the need for new legislation mentioned by many other respondents, but the other North American suggestions were more specific to the agricultural system in that part of the world. Increased concern about the quality of food was stressed by one respondent, who felt that this is not high on the agenda in a context where policies favour 'factory farms' and are more concerned about prices than nutritional value. Making seed companies responsible for genetic contamination by genetically engineered crops was also mentioned. The issue of GMOs in general seems especially important to the respondents from North America – perhaps not surprisingly, as the USA and Canada are among the countries where such crops have become most widespread.

4.6 Preliminary conclusions

Certain general tendencies can be observed despite regional differences. All four elements of Farmers' Rights are seen as 'very important' or 'important' by a substantial majority of the respondents, and achievements are also reported for all elements. Traditional knowledge stands out as the aspect of Farmers' Rights mentioned by most respondents in connection with achievements, closely followed by benefit sharing. As regards achievements in general, NGO and IGO projects seem to dominate. Although progress has been made, most respondents rate their own countries' performance in realizing Farmers' Rights as insufficient. There is a strong connection between the obstacles and measures noted by the respondents. The need for legislation and policies specifically targeting Farmers' Rights, heightened awareness among farmers and other stakeholder groups, and greater empowerment and participation of farmers are issues mentioned by many.

Some differences of opinion can be seen among the various stakeholder groups represented in this survey – especially in Europe between the representatives of the seed industry and the other respondents. In general, those from the seed industry rate rights related to seed-saving as less important than do the other respondent categories; furthermore, they tend to be more satisfied with the situation with regard to the realization of Farmers' Rights in their country, see fewer obstacles and suggest somewhat different measures.

On the other hand, the group of respondents from the European region is more divided along stakeholder lines than the other regional groups. This region also differs from the others in terms of what respondents see as the major achievements in their countries.

5. Rights of farmers to save, use, exchange and sell farm-saved seed and propagating material

Rights that farmers have to save, use, exchange and sell farm-saved seed are probably the most contested item in the Treaty. Therefore the wording is particularly cautious on this point. Article 9.3 specifies that nothing in the relevant article (Article 9 on Farmers' Rights) 'shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed, subject to national law and as appropriate' – which does not give much direction, except to label these practices as 'rights'. The Preamble notes that 'the rights recognized in this Treaty to save, use, exchange and sell farm-saved seed and other propagating material (...) are fundamental to the realization of farmers' rights'. This indicates the importance of these rights, but does not give much guidance, as the rights referred to are addressed only vaguely. Despite the lack of precision, the general line of thought is clear. It is important that farmers be granted rights in this direction, although the individual countries remain free to define the legal space they deem sufficient for farmers regarding their rights to save, use, exchange and sell farm-saved seed.

Whether farmers are to continue to conserve and sustainably use crop genetic resources on-farm also in future will depend on the extent of their rights to save, use, exchange and sell farm-saved seed. Without such rights, they will not be in a position to carry on this work, and on-farm conservation will come to a halt. With all these rights in place, they will be free to carry on this work, but that will reduce the seed industry's possibilities to cover the costs and generate turnover from plant-breeding and seed sales – as their market consists of farmers. The basic question is thus how to strike a balance so that farmers can continue their crucial contribution to the conservation and sustainable use of crop genetic diversity to the greatest possible extent, while also ensuring that the seed industry is secured sufficient income to continue its pivotal work in providing agriculture with the best possible plant varieties, thereby also contributing to the maintenance of crop genetic diversity. Both are crucial to future food security – neither can be sacrificed for the benefit of the other.

In order to help countries come closer to solutions to this challenge, we posed some closed questions with answer categories, as well as open questions, to allow for all possible inputs in this regard. We first wanted to know what measures are actually in place in the various countries regarding farmers' rights to save, use, exchange and sell farm-saved seed (question 6.1). We operated with the following categories based on experience from previous surveys: patents, plant-breeders' rights, variety release and seed marketing regulations, seed markets, informal seed-sharing networks, and 'other measures'. We then asked respondents to evaluate whether these measures affected farmers' rights to save, use, exchange and sell farm-saved seed – positively, negatively, mixed or not at all. There was also a 'not sure' option. Following up on this, respondents were asked to specify the most important measures in their country, as well as their effects. In the next question (6.2), we asked them

what they saw as the major gaps and needs concerning Farmers' Rights related to the saving, use, exchange and sales of farm-saved seed and propagating material; and finally – in the last question (6.3) – whether they had any other views and experiences on the rights of farmers to save, use, sell and exchange farm-saved seed in your country. The last three questions were open-ended, so respondents were free to formulate their answers as they wished.

Some respondents, mostly from the seed industry, found our questions difficult to answer. They felt that the questions and categories did not adequately cover the information they deemed relevant to submit. Therefore, instead of filling out the questionnaire, they submitted position papers on Farmers' Rights. In this chapter, we first present the responses to the questionnaire from those who answered our questions (sub-chapters 5.1–5.3), and then devote one sub-chapter to the position papers from the seed industry (sub-chapter 5.4), before drawing some conclusions.

5.1 National measures affecting the rights of farmers to save, use, exchange and sell farm-saved seed and propagating material

Most countries covered by this study have established national measures affecting farmers' rights to save, use, exchange and sell farm-saved seed. Patent law, plant-breeders' rights, variety release and seed marketing regulations have been established in most of Europe and North America as well as in many countries in Asia, the Near East and Latin America. Such measures are also underway in more countries in Africa. Farmers' organizations and NGOs from all these regions are largely critical to such measures, although there are some nuances among them. Respondents from the seed industry are positive to such measures (see also sub-chapter 5.4), but also here there are some nuances. In particular, a respondent from a US small-scale seed enterprise was rather sceptical to such national measures.

As regards seed markets and informal seed-sharing networks, these are also widespread – but often at the local level and not with national coverage. These activities seem to be carried out mainly by NGOs. These were generally seen as positive to farmers' rights to save, use, exchange and sell farm-saved seed, even though some very few respondents from all categories felt that the effects were negative or mixed/non-existent. Other measures mentioned by respondents were mainly NGO activities to support and promote seed-saving and exchange practices as well as adding value to farmers' varieties.

5.1.1 Africa

Around two third of the respondents from Africa answered the question. Of these, slightly over half reported that their countries did have patent laws and plant-breeders' rights. Very few respondents offered responses on the perceived effects of these measures: Of these, three respondents considered the effects to be negative, two said that they were mixed and one that they were positive. However, the exact effects were not further

specified. From some countries we received contradictory information, with one respondent reporting that the country had such measures, whereas another respondent from the same country reported the converse. This, together with the high uncertainty among respondents as to whether their countries do have such measures and what their effects are, may reflect the existence of a widespread informal seed market in most African countries. As Gertrude Kenyangi Kabusimbi, Executive Director of SWAGEN (Support for Women in Agriculture and Environment) in Uganda puts it: 'Farmers sell, save, use, and exchange farm-saved seeds and propagating materials because it is informal.'

Two thirds of the respondents who answered our question reported that their countries have legislation on variety release and seed distribution, while one third reported that this was not so. Four respondents considered the variety-release legislation in their country to have negative effects on Farmers' Rights, whereas two wrote that the effects were mixed and one found them positive. Six respondents reported that seed distribution legislation had negative effects, whereas one said the effects were negative; none said that they were positive. It is worth noting that none of the respondents considered the current seed distribution policies of their countries to be positive.

Ten respondents reported that seed fairs were held in their country. Of these, four opined that these had positive effects, whereas one wrote that the effects were negative. No reasons were given. Four respondents reported about seed exchange networks, which were considered to have positive effects on Farmers' Rights. Five respondents mentioned other measures, of all which were considered to have positive effects. These measures generally involved the development of higher-yielding crop varieties and the multiplication and distribution of seeds.

5.1.2 Asia and Near East

All the Asian and most of the Near East respondents reported on measures regarding farmers' rights to save, use, exchange and sell farm-saved seed. Nine respondents mentioned patent legislation; 13 said that plant-breeders' rights were in place, and a further 14 respondents said that their countries had variety-release regulations and seed-marketing regulations. Seed-marketing regulations were found to pose the greatest hurdle to farmers' rights to save, use, exchange and save farm-saved seed (noted by six respondents), whereas four to six respondents found patent law, plant-breeders' rights and variety release regulations to be negative to these rights. All these respondents were either NGO representatives or farmers, except for one representative from a state institution. One of the respondents represented 14 consulted farmers. No respondents considered patent law to be positive to Farmers' Rights, whereas three found plant-breeders' rights positive, and five saw variety-release and seed-marketing regulations as being positive to Farmers' Rights. These respondents came from state institutions.

According to Pankaj Bhushan, Secretary of the Indian Tara Foundation, Indian legislation, even as it recognizes breeders' rights, tries to protect the public interest on some aspects of plant-breeding, to protect Farmers'

Rights and to protect researchers' rights. The apparent conceptual framework for India's legislation includes that there should be a balance between the monopoly enjoyed by the intellectual property-right holder and the public interest (benefits to farmers and consumers); that healthy competition and vitality should be fostered in the plant-breeding sector; that breeders' innovations should be rewarded too; and that Farmers' Rights should include their rights as breeders and not only as users of the seed to be protected. Dr C. Ravindran, Assistant Professor from the Tamilnadu Agricultural University, India, added that the legislation not only upholds farmers' rights to save, use and exchange seeds and propagating material but also attempts to enable farmers to claim special forms of intellectual property rights over their varieties. Dr N. Anil Kumar, Director (Biodiversity) of the M.S. Swaminathan Research Foundation (MSSRF), India, further specified the details of the legislation and discussed its applicability: 'The Indian Protection of Plant Variety and Farmers' Rights Act stipulates registration of farmers' varieties as an important measure to save, study and use such varieties. (...) There is no mention, however about the conditions to be followed for registering a farmers' variety and the period of its protection. A strong argument is made on the need of different set of norms for registration of farmers' varieties as the intention behind extending protection to farmers' varieties is to protect those varieties used by farmers that are in the public domain. It is felt by the critics that the ability of farmers to actually register their varieties in practice depends on (...) (whether) the authority adopts same criteria (as) applied to breeder's rights, then only very few farmers would be able to register their varieties. This is a serious impediment in registering the known farmers' varieties.'

Paul Borja, Policy Advocacy Officer of the Philippine based Southeast Asia Regional Initiatives on Community Empowerment (SEARICE) reports that their plant variety protection law restricts farmers' rights to save, sell and exchange seeds with regard to protected varieties – which in this case are only those varieties developed by formal and commercial breeders. There is, he explains, no specific protection in terms of legislation of farmers' rights to seeds. From Indonesia, Arief Lukman Hakim, reports that regulations on variety release and seed marketing are increasingly impacting on Farmers' Rights: even though farmers can still, technically, produce seed for themselves and for their community, in the near future the regulations will become a very important tool to control and reduce Farmers' Rights. Diana Lakmini, Project Manager of The Green Movement of Sri Lanka, tells that regulations affecting Farmers' Rights to save, use, exchange and sell farm-saved seed and propagating material exist in the country; she goes on to note that some points which have negative impacts should be revised. According to Bikash Paudel from the Nepalese Local Initiatives for Biodiversity, Research and Development (LI-BIRD), the traditional seed system of Nepal is highly favourable to farmers' rights to save, exchange and sell farm-saved seed. Any measure to strengthen this system would contribute to further ensuring these rights of farmers, and there have been some recent amendments in variety-release and registration mechanisms and seed-marketing regulations (with reference to the Seed Act of 1985 and the Seed Regulation of 1997) with terms and conditions favourable for saving, exchanging and selling farm-saved seed.

Seed fairs were reported by seven respondent, and seed-exchange networks by six (plus 14 consulted farmers) in Asia and the Near East. These measures were generally considered positive to farmers' rights to save, use, exchange and sell farm-saved seed, but one NGO representative was critical to the effects of seed-exchange networks. Singay Dorji, Bhutan, explains that agro-biodiversity and seed fairs have promoted seed exchange amongst farmers/communities as well as on-farm conservation and farm-level diversity. Community seed banks support farmers' access to diversity of seeds and provide choices. Krishna Roka, PhD student from Nepal, reports that there are local networks of farmers to exchange seeds and share knowledge. However, this network is weakening due to the availability of hybrid seeds, he says.

Eleven respondents and 14 consulted farmers noted other programmes/projects supporting seed-saving and exchange practices which were considered positive. One example was provided: According to Bikash Paudel (LI-BIRD), a crucial mechanism identified in Nepal to avoid farmer dependency on external sources of seed is the Community-Based Seed Production Mechanism. This mechanism may provide a solution to the problems of ensuring the right to save, exchange and sell farm-saved seed.

5.1.3 *Latin America*

Three of the five countries covered by our Latin America respondents (consisting of farmers and researchers) were reported to have patent law, whereas two did not. Eight farmers and researchers (jointly answering one questionnaire) found the patent law to have negative effects on Farmers' Rights, whereas seven farmers and researchers (likewise answering one questionnaire) found the effects to be positive. One of the countries was said to have plant-breeders' rights, whereas four countries did not, according to the respondents. Respondents from the country that did have plant-breeders' rights felt that this legislation had negative effects on the rights of farmers to save, use, exchange and sell farm-saved seed. All the five countries were reported to have variety release regulations. Fourteen respondents from two countries deemed these regulations positive for Farmers' Rights, whereas eight respondents from another country found them negative. Four countries were said to have seed-marketing regulations, and one not. Again, fourteen respondents from two countries deemed these regulations positive, whereas eight respondents from another country found them negative for Farmers' Rights.

Three countries were reported as having seed fairs and two countries as having seed exchange networks. Generally such measures are considered positive for farmers' rights to save, use, exchange, and sell their farm-saved seed. All respondents answered that their countries had other measures as well concerning farmers' rights to save, use, exchange and sell farm-saved seed, all of which were considered to have positive effects. The group from Guatemala mentioned financial support to further develop the present legislation in an inclusive and participative manner, which they see as the most important measure in the country. The group from Honduras told about how the relationship between organizations is

being improved, and that the exchange of seed and knowledge represent the most important measures in the country. The group from Costa Rica consider the lack of infrastructure to conserve crop genetic diversity as one of the greatest barriers; also the lack of governmental support for capacity-building and regeneration of seeds is seen as a huge problem.

5.1.4 *Europe and North America*

All respondents from Europe and North America, except for two to four who were uncertain with regard to various measures, reported that their countries had patent law as well as legislation on plant-breeders' rights, variety release and seed distribution. Around half of the respondents from Europe – mainly farmers and NGOs – considered these forms of legislation to have negative effects on Farmers' Rights. The other European respondents who answered this question, mainly state representatives or from the seed industry, found the effects either to be positive (one to three respondents) or mixed/non-existent (likewise). Three of the North American respondents (farmers and NGOs) found patent law and plant-breeders' rights to be negative; and none found them positive. Two farmers were critical to variety-release regulations, whereas one was negative to the national seed marketing regulations. One respondent from the seed industry described the effects of these measures as being mixed or non-existent.

Frank Begemann, Head of Division of the Information and Coordination Centre for Biological Diversity, Federal Office for Agriculture and Food in Germany, found the question too general with regard to patent law, as there could be effects which might need clarification and/or amendment of the legal framework. He mentioned the then on-going process at the European Patent Office (EPO) to clarify some procedural and legal interpretations, like the qualification of "essentially biological processes". EPO's Enlarged Board was at that time examining whether marker-assisted selection is a biological breeding process, or is a technical method and therefore patentable. Its decision on the interpretation of the relevant passage in the European Patent Convention and the definition of criteria to be applied in the patent grant procedure was published in December 2010, and the Board concluded that although technical devices such as genetic markers might be patentable inventions themselves, the use of such devices does not make an essentially biological process, such as the crossing of whole plant genomes and subsequent selection, patentable.²⁴ Mr. Begemann also mentioned a pending dispute between breeders' representatives and some farmers' representatives concerning the current implementation procedures on farm-saved seed.

French farmers Guy Kastler and Caroline Collin explain their view by stating that farmers' rights to re-use, exchange and sell their seeds are

²⁴ Please see the EPO Press Release (www.epo.org/news-issues/press/releases/archive/2010/20101209.html) and the Decision of the Enlarged Board of Appeal of 9 December 2010 ([http://documents.epo.org/projects/babylon/eponet.nsf/0/E72204692CFE1DC3C12577F4004BEA42/\\$File/G1_08_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/E72204692CFE1DC3C12577F4004BEA42/$File/G1_08_en.pdf)) for more information about this ruling.

limited or prohibited through legislation on plant-breeders' rights and patent law, as well as through the cataloguing procedures (variety release legislation). According to Hakan Ozan Erzincanli (Turkey), the government tries to control traditional seed conservation and sharing activities but with little success, as nobody seem to care about following the rules. Beate Koller from Arche Noah, Austria, feels that Austrian implementation of the EU directives on conservation varieties is carried out in a sensible manner and through an on-going dialogue with the stakeholders. Nevertheless, being allowed to sell farm-saved seeds would be a great incentive for farmers to grow, conserve and breed rare varieties. Even if such actions are still largely tolerated in Austria today, they cannot be promoted due to EU legislation, she adds.

From Spain, an umbrella organization for farmers' organizations, Coordinadora de Organizaciones de Agricultores y Ganaderos (COAG), writes that the country's EU-compatible national legislation on plant-breeders' rights, patents and biotechnology allows intellectual property rights on seeds of protected varieties, on genes and of essential biological processes, which limit or prohibit farmers' right to save and use farm-saved seed of the protected material. In addition, the exchange and sale of seeds and plant-breeding material are prohibited if these items are not registered in the catalogue, they write. There are some biodiversity fairs and networks for the exchange of seeds that work at the margins of the legal framework.

As a representative of the seed industry, Martine Marchand (France) writes that the most important measures as regards farmers' rights to save, use, exchange and sell farm-saved seed are regulations on plant-breeders' rights and seed marketing regulations. She explains that France is discussing accession to the 1991 Act of the UPOV Convention (France is currently member of UPOV based on the 1978 Act), which will strengthen the rights of plant-breeders while at the same time allowing farmers to save and use seed from protected varieties, on condition of fair remuneration to the breeders. She adds that the current situation is not satisfactory: on one hand it seems to protect the breeders, since farm-saved seeds are not allowed under the French legislation on plant-breeders' rights; but it is quite impossible for breeders to enforce their rights: farmers use farm-saved seeds illegally and without contributing to finance research needed to continue to provide improved varieties. This is a problem for plant-breeders. Marchand notes that growing a variety covered by a plant-breeders' right is basically a choice of the farmer, as not all varieties are covered by plant-breeders' rights.

Bell Batta Torheim, Advisor to the Development Fund in Norway, explains that the effects of patent law in Norway are mixed/non-existent. Norway has lost much control of patent approval procedures to the European Patent Office (through its membership in the European Economic Area Agreement, Norway follows certain regulations and directives of the EU, among them the EU patent directive), and European patent law allows patents on plants, and their parts and components. As yet, however, hardly any patents on plants have been granted and no GMO seeds have been approved for cultivation in Norway. Torheim also argues that the effects of plant-breeders' rights in Norway have been

mixed: Norway is a member of the UPOV 1978 Convention, which allows farmers to freely save and use farm-saved seed of protected varieties, and to exchange such seed among themselves. The Norwegian government has deliberately chosen to stay with the UPOV 1978 Convention and not to accede to the UPOV 1991 Convention, in order to maintain an equitable balance between farmers' and breeders' rights in Norway. Torheim considers this to be positive, even though farmers are not free to sell farm-saved seed of protected varieties.

Six respondents reported from seed fairs and ten from seed exchange networks. These measures were considered positive by all these respondents, except for one (category of 'others') who felt that seed fairs had negative effects and three (two from the seed industry and one farmer), who felt that the effects were mixed. Beate Koller from Arche Noah in Austria reports about an informal seed exchange network active for more than 20 years. It is seen as a good platform to exchange seeds and know-how, and it reaches thousands of people – farmers and private gardeners. French farmers Guy Kastler and Caroline Collin tell of seed fairs and seed exchange networks that develop outside the national legal framework in France. One respondent from North America emphasized that seed exchanges are run not by the government but by NGOs.

Six respondents reported on other measures considered positive (four respondents) or mixed (two respondents) in terms of effects for Farmers' Rights, but only two such measures were specified: (1) a 12-month seminar on seed-saving and the production and marketing of rare crops is run successfully by Arche Noah in cooperation with the Rural Training Institute LFI in Austria, with many farmers and gardeners participating every year, forming a network of contacts and experts; (2) Martine Marchand from the seed industry in France reports of a particularly interesting case of a breeding fund, to which farmers contribute when they deliver grain to the mills, and which is governed by a committee in which farmers participate. This farmer–breeder collaboration focuses on bread wheat.

5.2 Major gaps and needs with regard to Farmers' Rights to save, use, exchange and sell farm-saved seed and propagating material

The major gaps and needs addressed in the various regions are more or less the same, but their order differs. In Africa the *lack of awareness* with regard to the issue is mentioned most frequently. The *lack of adequate laws and regulations* to provide for Farmers' Rights in this regard follows in second position. Finally, respondents are concerned about *how informal seed systems can be better supported and promoted*. In Asia and the Near East the same issues were mentioned, but in the opposite order. Respondents from Latin America followed along the same lines, but added the need to *adequately recognize the contributions* of local organizations and NGOs in promoting farmers' practices in terms of saving, using, exchanging and selling farm-saved seed. Most respondents from Europe and North America were concerned about legal frameworks for farmers' rights to save, use, exchange and sell farm-saved seed, but

from somewhat different angles. Respondents from North America focused on how the legislation favours the development of genetically modified plants, to the detriment of plant genetic diversity. One respondent from Europe stressed the need for active support to informal seed systems and networks.

5.2.1 Africa

The lack of awareness regarding Farmers' Rights related to seed saving, use, exchange and sale was the shortcoming most frequently mentioned by African respondents (nine altogether). Awareness-raising and capacity-building are required for farmers and relevant government officials alike, they claim. Sue Taylor, Research Associate at the University of the Free State, Centre for Development Support, South Africa, feels that farm-saved seed is a neglected topic in South Africa, where there are no formal programmes or attempts to develop this potential. Gertrude Kenyangi Kabusimbi (SWAGEN, Uganda) stresses that the inadequate policies with regard to this element of Farmers' Rights are the result of poor government attitude, the same attitude that also finds expression when governments in the South prefer to spend on defence rather than on food, even when their citizens are starving. One of the other respondents recommends to organize sensitization meetings for farmers and to improve government commitment by involving the extension branch in these issues. Babagana Abubakar, Vice-President of the Kanuri Development Association, Nigeria, emphasizes the need to educate farmers on the topic in general, as lack of education is the greatest shortcoming. Amédé Daki Bopolo, Coordinator of the NGO ADAPEL, the Democratic Republic of Congo (DRC), supports this view, noting that the problems are the low-level information and the lack of education among most farmers. He suggests setting up a national structure with local outposts in all the provinces, with responsibility to train, communicate and inform its members and to provide the opportunity to share ideas. Lawrent L.M Pungulani, Curator of the Malawi Plant Genetic Resources Centre, indicates that the greatest need is to build community capacity in participatory management of plant genetic resources for food and agriculture. And Didier Balma, Director of Research and Co-ordinator of activities related to crop genetic resources at the Institute of Environment and Agriculture Research (INERA) of Burkina Faso, holds that farmers should organize themselves.

The lack of adequate laws, regulations, policies and programmes was noted as a major shortcoming by five African respondents. One of the NGO representatives from Malawi states that there is a need for legislation to govern the work. Pascal Nkwe Makongo, CORDAP, Cameroon, emphasizes that the implementation of legislation or even of a national law that guarantees the farmers' rights to save, use, exchange and sell farm-saved seed and propagating material is the greatest need. Along the same lines, George Phiri, Biodiversity Specialist from Centre for Environmental Policy and Advocacy (CEPA), and Mahara Nyirenda, Agriculture Coordinator from the NGO FAIR, both in Malawi, refer to the lack of guiding policy and legislation for implementing Farmers' Rights and promoting the saving, use, exchange and sale of farm-saved

seed and propagating materials. Edwin E. Ekaiko, Nigeria, holds that programmes and policies need to be formulated in this regard.

Four respondents were concerned about the need to promote the development of informal seed systems. According to one respondent the most pressing needs are the promotion of informal seed systems, extension of land husbandry, processing and marketing. Andrew Phiri, Agriculture Research Officer of Zambia Agriculture Research Institute, cites the lack of information exchange and technology transfer as the greatest problems, whereas the major need is information-sharing and exchange, combined with the strengthening germplasm exchange across communities. According to Pascal Nkwe Makongo (CORDAP, Cameroon), the greatest needs are the creation of farmers' seed banks in order to promote exchange and sales and the setting-up of small manufacturing firms of propagating material, and facilitating its availability to farmers. Also Lawrent L.M. Pungulani (Malawi Plant Genetic Resources Centre) agrees that strengthening of community seed banks is vital.

Two respondents spoke of the power constellations that determine the seed policies. Pascal Nkwe Makongo (CORDAP, Cameroon) writes: 'the gaps are the result of many multinational seed companies and institutions of agronomic research on improved seeds that have a significant and unfair grip on exchange and sale of seeds as well as that of propagating material. Such players involved in the field mentioned above do hinder the Farmers' Rights regarding the saving, exchange and sales of farm-saved seed.' George O. Banja, Chief Executive Officer of the NGO Consumers in Kenya, argues along the same lines, writing that the seed sub-sector is dominated by a cartel of firms that determine the prices at which the seeds are sold to farmers.

According to Andrew Mushita, Executive Director of the Community Technology Development Trust (CTDT) in Zimbabwe, the greatest shortcoming is that farmers are not allowed to sell their farm-saved seed commercially: they are allowed to exchange only among themselves. Regassa Feyissa, Director of Ethio-Organic Seed Action in Ethiopia, however, makes it clear that farmers in his country are not actually prevented from saving, use, exchange and sale of farm-saved seed and propagating materials, and this is probably the case for most of Africa. These two statements highlight the ambiguity of the situation in many African countries: there may be legal restrictions on commercial sale of farm-saved seed by farmers, but such regulations are seldom enforced.

5.2.2 *Asia and Near East*

The thirteen respondents from Asia and the Near East who answered this question had three major concerns: (1) how informal seed systems and exchange can be more actively promoted; (2) how detrimental legislation can be improved to support this aim; and (3) the importance of awareness-raising and capacity-development work. Each of these issues was highlighted by four of the respondents. In addition, one respondent referred to the structural power of multinational corporations. We will have a closer look at the responses.

Arief Lukman Hakim (FIELD, Indonesia) stressed that technically saving seed for a long period is still the main constraint in the farmer-based seed system. Ahmed Abdul-Kader Al-Ahnumi, Agricultural Extension Specialist from the Agricultural Extension Organization of the Republic of Yemen, opined that farmers should be trained and introduced to modern technologies and methods of saving and using as well as exchanging and selling farm-saved seed and propagating material. Ali A. Alshurai, National Focal Point for Genetic Resources for Food and Agriculture of the Ministry of Agriculture, Yemen, reported that there are no storehouses with the appropriate equipment to save the seeds of the agricultural cooperatives. He noted that decision-makers need to identify methods and technologies for the conservation, seed multiplication and use of plant varieties among farmers, as well mechanisms, equipment and modes of transfer of agricultural products from farm to consumer. Training would be an important and integral part of such a programme. Mohammed Saleh Al-Nusairi, Director General of Research, Agricultural Research and Extension Authority of Yemen (AREA), supported this stance, saying that the most urgent need is to establish low-cost small storage facilities for the farmers of local cooperatives.

According to Mahmood Ahmad from the farmer organization Pakistan Kissan Trust, lack of awareness is the greatest problem. Dr C. Ravindran (India) seconded this by stating that farmers' knowledge related to their rights is a major shortcoming, and one that can be solved only by awareness-training. Krishna Roka (Nepal) points out that farmers do not know how to protect their knowledge. Paul Borja (SEARICE, Philippines) writes: 'on the side of government, there is no recognition of and support to the work of farmers as breeders and conservers of genetic resources. Unless such perspective is changed we cannot expect support from government for farmer-breeding. However, the Organic Agriculture law may provide for support for locally adapted seeds. The same is also possible for the Climate Change law which promotes local adaptation mechanisms including seeds.'

This leads us to the question of legislation. Singay Dorji (National Biodiversity Centre of Bhutan) emphasized the need to develop sound policy supporting farmers' right to save, exchange and sell seeds/propagating material, to develop appropriate national legal frameworks and institutionalization into national programmes. According to Bikash Paudel (LI-BIRD, Nepal), the provisions for selling seed of local varieties are still difficult to grasp, and this is perceived as a problem by farmers. Moreover, because of the growing encroachment of hybrid varieties, farmers are compelled to purchase the seed every year. From Sri Lanka, Diana Lakmini (Green Movement of Sri Lanka) writes that the current legal rights for saving, use and exchange of seeds are sufficient. However there should be improved rules regarding commercial sale of seed, because current legislation is too restrictive. Pankaj Bhushan (TARA Foundation, India) has provided a comprehensive evaluation of the Indian legislation on plant-breeders' and Farmers' Rights and all its many and comprehensive measures to secure and promote the realization of Farmers' Rights. He goes on to pinpoint a possible weakness in the legislation, in that the clause requiring authorization from breeders for any further research on any protected variety is still too restrictive.

Finally, problems of market-oriented agriculture are mentioned. Mahmood Ahmad (Pakistan Kissan Trust) describes the power relations in the seed sector, where the multinationals run media campaigns for their solutions to agriculture, while also sponsoring government research institutions. Other solutions to agriculture have comparatively small chances of attracting support among decision-makers or the general public.

5.2.3 *Latin America*

The group from Guatemala felt that the greatest shortcomings were weak organization among farmers, lacking dissemination of traditional knowledge, the lack of and socialization with regard to traditional knowledge, and as a result: the loss of traditional knowledge.

The group from Nicaragua reported that most important need is the creation of laws to protect farmer rights in keeping, exchanging and selling seeds from their farms and genetic materials for its multiplication.

For the group from Honduras, the most important need is to recognize the achievements of local organizations engaged in the conservation and sustainable use of crop genetic resources, and that the work these organizations is protected and remunerated through the national legislation.

The respondent group from El Salvador claimed that the greatest shortcoming is the lack of knowledge and information with regard to farmers' rights to save, use, exchange and save farm saved seed and the legal framework surrounding these rights.

5.2.4 *Europe and North America*

Seven of the eight respondents from Europe who answered this question were concerned about the legal framework for farmers' rights to save, use, exchange and sell farm-saved seed and how to strike the balance between farmers and breeders. Most of these respondents saw the legal framework as being too strict, without sufficient legal space for farmers to perform conservation work and sustainably use crop genetic diversity. The two respondents from the French seed industry found the legal framework sufficient, although one suggested stronger breeders' rights. Two respondents from North America were concerned about how the legislation favours the development of genetically modified plants, to the detriment of plant genetic diversity. One respondent from Europe stressed the need for active support to informal seed systems and networks. We will have a closer look at this.

Four of these respondents are from France: two farmer representatives and two seed industry representatives. Caroline Collin, Moderator of the Seed Commission of the Farmers' Confederation, and Guy Kastler from the RSP (Réseau Semences Paysannes) of France, write that the French government claims to recognize the rights of farmers by allowing them to register their varieties in the catalogue or by protecting them through plant-breeders' rights. These are, however, unaffordable options for farm-

saved seeds and all seeds not produced in an industrial manner, these two farmers state, and go on to note that the French government claims to acknowledge farmers' right to benefit-sharing by allowing them to buy 'improved' seed from the industry or to pay license fees to be able to replant them, while even the industry has never paid to farmers from whom it has borrowed the vast majority of resources it uses for its breeding programmes. No scientific research in France is concerned with Farmers' Rights or with the varieties and agronomical, health, environmental or social benefits resulting from their implementation, they continue, and conclude: 'The primary need is the participation of a majority of farmers in governing bodies taking decisions about their rights.'

François Burgaud, International and Public Affair Manager of the French Association for Seeds and Seedlings (GNIS), takes a different stance, claiming that Farmers' Rights are well taken care of in France: From a global point of view, the French farmers' rights to save, use, exchange and sell farm-saved seeds are not a challenge, he says. The freedom to save exists and farmers may even save new protected varieties. Farmers are also free to use varieties that are not protected with intellectual property rights. Finally, for protected varieties, farmers are free to use farm-saved seeds from 21 species at the EU level, subject to paying some fees to the breeders, whereas for varieties protected only in France farmers are free to use farm-saved seeds from wheat. If farm-saved seeds are legally produced (see above) and breeders' rights are respected, the exchange or sale of the farm-saved seeds is free, Burgaud maintains, but subject to the public European legislation on registration of varieties and control and certification of seeds. The European rules are more flexible for so-called 'conservation varieties', i.e. varieties threatened by genetic erosion and with a limited market, as reflected in the European regulations on the registration of varieties and certification of seeds. In France, he adds, there is also a more flexible regulation for old vegetable varieties.

However, Martine Marchand, Intellectual Property Manager of the French Seed Union (Union Française des Semenciers), feels that the balance is not yet optimal between farmers' and breeders' rights. She writes that an important step in France will be to adopt the plant-breeders' rights act, implementing the 1991 Act of the UPOV Convention. To be a real success it must ensure that also breeders' rights are taken care of and that a fair remuneration is in place to breeders for farmers' use of farm-saved seeds. The benefits of plant-breeding are real for farmers. It is vital that breeding efforts can continue and that new varieties for improved yield, disease tolerance, water efficiency, nitrogen uptake will still be available for farmers, she concludes.

From Spain, the farmer organization COAG writes that unfortunately the EU and Spain are not developing the appropriate framework to ensure that farmers can continue making a substantial contribution to the conservation and development of plant genetic resources. Even though the EU Directive on conservation varieties represents a major step, it reduces and limits the adaptation of this measure to the agriculture reality: the Directive purports to integrate the conservation varieties in the

normative framework of commercial seed market, but introduces so many exceptions that in reality it seriously limits the realization of these rights. 'With the existing regulations, we have huge difficulties in reaching the Treaty objectives of the conservation and sustainable use of local varieties', COAG writes. Farmers who still are interested in contributing to these activities have to go underground to exchange and sell farm-saved seed of local and farmers' varieties among themselves, even though these activities represent a basic precondition for the success of *in situ* conservation of plant genetic resources. The EU and Spanish legislation on conservation varieties must be made more flexible, in order to adapt to measures that can maintain and promote systems for the exchange and trade of local varieties produced on-farm, according to COAG.

Frank Begemann (Federal Office for Agriculture and Food, Germany) notes that some clarification and/or amendment of the legal framework related to patenting is needed to avoid too broad a scope of patents (products such as seed or propagating material) resulting from the mere detection of naturally occurring genetic traits, instead of being of the result of substantial technical inventions. He also thinks that some clarification and/or amendment of the implementation procedures on farm-saved seed is needed involving a consensus between the breeders' and farmers' representatives to settle the current dispute.

From Italy, Riccardo Bocci, who is in charge of seed issues at the Italian Organic Farmers' Association, writes that there is no system in place for collecting royalties from the use of farm-saved seed protected by intellectual property rights, so the control is not as strict on farmers in Italy as in some other EU countries, like France and Germany. But, he concludes, things might change in the next future due to pressure from national seed industries.

Bell Batta Torheim (Development Fund, Norway) writes that the regulations on variety release and seed marketing in Norway represent the greatest barrier to farmers' rights to save, use, exchange and sell farm saved seed, and indeed to the conservation and sustainable use of crop genetic resources. After Norway implemented the EU regulations in this regard in 2004, all forms of exchange and sales of seed among farmers were prohibited. However, this development did actually not have any support among Norwegian legislators and implementers, and thus in practice farmers could continue with their practices. Nevertheless, the legal situation was not encouraging for further innovations in the field of conservation and sustainable use of crop genetic diversity. After a comprehensive dialogue among all relevant stakeholders and researchers, the Ministry of Agriculture and Food in April 2010 adopted new regulations, based on the EU Directive on conservation varieties, but with somewhat wider margins. For example, Norway's farmers are allowed to exchange and sell seed on a non-commercial basis, and to establish seed shops for the marketing of conservation varieties following simplified procedures. Also, the intention is to allow most varieties that farmers wish to grow to enter into the system and to define the regions of origin as widely as possible. Whereas Norway has tried to stretch the EU Directive as far as possible in this regard, and the situation in Norway is better than in most of Europe, the regulations represent hurdles rather

than encouragement to the conservation and sustainable use of crop genetic diversity. Therefore the situation is far from satisfactory in terms of farmers' rights to save, use, exchange and sell farm-saved seed.

According to Patrick Mulvany, Senior Policy Advisor from Practical Action (formerly Intermediate Technology Development Group), UK, the major need is legal protection for collective rights and protection of the 'commons' with regard to plant genetic resources for food and agriculture. This is particularly important in the face of restrictive intellectual property right regimes and pressures from research institutions and seed companies to promote genetic modification techniques, he concludes.

Beate Koller from Arche Noah in Austria writes of the need to promote informal seed systems: 'The selling of farm-grown seeds should be promoted actively as a niche product for farmers in order to enhance the on-farm conservation of local varieties. There should be more programmes and projects providing farmers with know-how about seed propagation, plant breeding; more participatory plant-breeding, and more cooperation between gene banks and farmers.'

From Canada, Terry Boehm, President of the National Farmers' Union, writes: 'the variety registration system is being used to cancel the use of varieties that are freely available, replacing them with varieties that are GM with their seed-saving elimination or restrictions. Canola is a perfect example of this. Seed costs are extremely high for this crop as a result.' John Browne, Operator of the Judd Creek Nursery in the USA, states that 'the patenting of seeds by corporations – in particular the transgene seeds – currently favours the developer, and ignores the realities of insect and wind-borne pollination, to the effect of spreading those patented genes where they aren't wanted. This will probably require courts to resolve. The ignorance of basic biology by those charged with determining policies is a huge gap. The willingness of government authorities to allow the growing of plants that have been modified to produce material for pharmaceutical use totally ignores and/or overlooks the possibilities of such plants swamping the genes of related plants, creating "superweeds", or destroying the economic value of organic farming and cultivation of "heirloom" varieties of vegetables and fruits.'

5.3 Other views and experiences regarding the rights of farmers to save, use, exchange and sell farm-saved seed

Three points were frequently mentioned by respondents: (1) the need to promote the further development of informal seed systems, through legislation, capacity-building and supportive projects; (2) ensuring a better balance between farmers' and breeders' rights with regard to the issue; (3) the need to avoid the use of GMOs in order to maintain plant genetic diversity and ensure Farmers' Rights.

5.3.1 *Africa*

The main issue among the African respondents is the need to promote the further development of informal seed systems, through improved framework conditions and concrete programmes.

George Phiri (CEPA, Malawi) explains that from the consultations undertaken thus far (he consulted 141 farmers on Farmers' Rights in 2009), there is a growing demand among farmers to actively engage in the production, saving, selling, and exchanging of farm-saved seed and propagating materials, especially for traditional crop types and varieties alongside commercial crops. One of the other respondents agrees, noting that there should be more promotion of indigenous crops. Farmers who engage in on-farm seed production and distribution must be given incentives. He suggests that farmers who would like to participate should be mobilized and registered in cooperatives, which could supervise the seed production and processing activities. George O. Banja (Consumers, Kenya) stresses that it is imperative that the farmers in his country, with its agriculture-driven economy and with over 40% of its population earning less than a dollar a day, be taught the cheapest ways of preserving, saving, using, selling and exchanging farm-saved seeds. From Zimbabwe, Andrew Mushita of the NGO CTDT reports that the CTDT has been involved in community seed banking and the promotion of on-farm seed production for small-scale farmers. He explains that this initiative, which has targeted 2500 to 3000 farmers in the country, is important in ensuring that the involved farmers save, use and multiply farm-saved seed effectively for conservation.

Sue Taylor (South Africa) thinks that no-one really cares what the small-scale farmers do with their own seed in South Africa. She assumes that the farmers may sell or exchange their seed within their community or village, but not outside. She writes also that she is not aware of any broad scheme to exchange such material. It is quite usual for small-scale farmers to buy their seeds from the local co-op. A respondent from Malawi explains the situation in that country from a different angle, stressing that farmers are not free to use farm-saved seed despite the economic and climate variability challenges. Through various government programmes which support farmers with commercial seed and other input factors, farmers are encouraged to use improved seed yearly, and the current programmes promote maize monoculture at the expense of other crops. This respondent also notes the dilemma of the Ministry of Agriculture and Food Security (extension and crop production departments): Should they emphasize land races/farmers' varieties or improved varieties in order improve productivity for food security? Currently they seem to be opting for improved varieties. Another respondent from Malawi, Mahara Nyirenda (FAIR), states that it is important to encourage farmers to exchange seed and that mechanisms should be put in place to promote farmer participation in the seed sector.

5.3.2 *Asia*

Most respondents from Asia who answered this question were concerned about the balance between farmers' and breeders' rights. The need for

capacity-building and support to develop informal seed systems was also highlighted.

Pankaj Bhushan (TARA Foundation, India) is concerned about the lack of legal recognition of farmers' contributions to plant genetic resources for food and agriculture. He explains this point in some detail: 'For thousands of years, *farmers* have been breeders. They have been selecting better plant types, and always had a keen eye to look for traits that would improve the landrace they were growing. This is what led to the evolution of land races. This is what came in handy for the modern-day plant breeders to develop the so-called improved varieties, in short the high-yielding strains that led to Green Revolution. In light of the global debate on Plant Varieties Protection, discussion has often focused on developing a legal mechanism to arrange a legal title for these *farmers*. India's Plant Varieties Protection and *Farmers* Right Act is considered to be a step in this direction, allowing farmers the privilege to save, exchange and sell seeds. But there is a catch. A farmer can certainly save and exchange the land races as well as the improved varieties but cannot sell them under the same brand name. Take the case of Mr M. Lingamadaiah from Karnataka. He has developed a rice variety called Mysore Mallige. This variety outperforms the best rice variety developed by agricultural scientists in Karnataka. He has been awarded by the former President Abdul Kalam. And that is where the 'recognition' ends. Why is this variety bred by a farmer is not promoted by the Karnataka agriculture department? Why is its seed not supplied by the State Seed Corporation? Is it that the scientific system treats these farmers as "incompetent"? Think of it, isn't it unfair to treat these farmers as "incompetent" compared to the agricultural scientists? Just because they don't hold a degree in plant breeding and genetics?'

Paul Borja from SEARICE, the Philippines, writes that in some communities, farmers are asserting their rights to seeds by using protected varieties (from seed companies) as parent materials for breeding new varieties. They have been able to develop new varieties or lines which they have used for production. He claims that under the plant variety protection law of the Philippines, this practice is prohibited, thereby demonstrating the limits of this law in terms of supporting farmers' rights to seeds. It also shows the need for farmers to assert such rights on their own, he concludes. Arief Lukman (FIELD, Indonesia) argues along the same lines, writing that the informal seed system should be protected and not interfered with by the national seed system that deals with national issues.

However, Dr C. Ravindran (India) is critical to Farmers' Rights in this regard. He writes that if farmers are allowed to save the seed of particular varieties and hybrids, the genetic purity of these varieties will not be preserved, due to poor record maintenance. The selling and exchange of seed and propagating material by the farmers may allow a price difference, but it may also transmit unknown diseases in crops. That was the only response of its kind under this item. Krishna Roka (Nepal) argues, along with the majority of the respondents, that local farmers should not be restricted by any legal instruments to use, sell or exchange their seed.

From India, Dr N. Anil Kumar, (MSSRF) makes a specific suggestion on capacity-building. He suggests establishing a resource centre on biodiversity, which could address issues like forest rights, and Farmers' Rights, access to genetic resources and benefit-sharing, as well as seed management. The resource centre could build capacity where there is currently legal and genetic literacy in local communities. He proposes the establishment of resource centres at district level, thereby integrating three components: a Training Unit, organization of a Community Rights Protection Forum, and Digital Documentation Unit for chronicling the conservation contributions of local communities. The expected major impact of such an initiative would be the emergence of empowered groups able to lead the work for sustainable development in this context in their villages.

Diana Lakmini (Green Movement of Sri Lanka) shares experiences from Sri Lanka, where the exchange of planting material among farmers is encouraged by some projects implemented by NGOs. For example there is the Community Based Agro Biodiversity Management Project implemented by the Green Movement of Sri Lanka. In this project, the seed-exchange process is run by community seed banks established at project sites. The project aims to improve the capacity of seed banks to offer seeds at a commercial level, through seed marketing outlets. This is an approach intended to promote informal seed systems.

5.3.3 *Latin America*

None of the respondent groups from Latin America gave any answer to this question.

5.3.4 *Europe and North America*

European and North American respondents answering this question were most concerned about the legal framework surrounding Farmers' Rights, and about the effects of GMOs for plant genetic resources and for Farmers' Rights.

Terry Boehm (National Farmers' Union, Canada) stresses that the threat is constantly there to undermine farmers' practice of saving seed and maintaining plant genetic diversity, whether by commercial contracts which call for purchased certified seed, gene patents which are used to eliminate farm-saved seed, and a constant push to introduce UPOV'91, which would be very detrimental to the practice of seed saving. Another respondent from North America argues along the same lines, writing that the Canadian Grain Commission following the Board of Grain Commissioners for Canada created in 1912 is one of the most important Canadian institutions acting in the interest of farmers, but that its mandate is currently under attack. From Italy, Riccardo Bocci (AIAB) writes that a rural seed network is launching a campaign based on the fact that exchange of seed is always allowed in Italy. He also notes that the EU Directive on conservation varieties foresees the possibility that farmers (and not only seed companies) may sell the seed of conservation varieties at the local level, provided that they establish authorized seed shops. This system is currently not in force in Italy.

From France, Guy Kastler (Farmers' Seed Network) and Caroline Collin (Seed Commission of the Farmers' Confederation), write that the authorization of GMO crops and other genetically engineered and patented varieties would result in widespread contamination of seed. Therefore, they argue, it is advisable to maintain the ban on GMO, as well as on the marketing of contaminated seed. Beate Koller from Arche Noah in Austria argues along the same lines, writing that farmer and peasant seeds have to be protected from contamination from GMOs. Therefore, in her opinion, the 'polluter pays principle' must be implemented. In general, the cultivation of GMO should be banned throughout Europe, as it represents a danger for the conservation of plant genetic resources and of traditional farming systems that contribute to agro-biodiversity.

From Spain, the farmer organization COAG writes that approval of GM crops will lead to widespread contamination of plant genetic resources. Therefore the cultivation and marketing of contaminated seed should be prohibited. COAG stresses that governments should pay due attention to the conservation varieties and the importance of conserving plant genetic resources, to meet the new challenges of climate change adaptation.

5.4 Position papers from organizations of the seed industry

We received position papers from the International Seed Federation (ISF)²⁵, the African Seed Trade Association (AFSTA)²⁶, the Asia Pacific Seed Association (APSA)²⁷ and the European Seed Association (ESA)²⁸. Whereas the position papers from the ISF, AFSTA and ESA address Farmers' Rights, the APSA position paper deals with the protection of new plant varieties, and does not explicitly address Farmers' Rights or the International Treaty.

All position papers emphasize the important function that plant-breeders serve in achieving increased yields of food and feed crops, which is essential to the economics of farming and to the benefit of the farmers who make use of improved seed. The ISF and ESA also add that this contribution involves the conservation and characterization of genetic resources in gene banks. In addition the ESA makes it clear that farmers can be breeders, and that the ESA is against any regulation which forbids or discourages farmers to breed or participate in plant-breeding.

²⁵ The IFS position paper was submitted by Dr. Reinhard von Broock, Managing Director of KWS Lochow GMBH (www.kws-lochow.de/start_en.html), and by Anke van den Hurk, Senior Advisor (Biotechnology, Biodiversity and Organic seeds) of Plantum NL, the Netherlands.

²⁶ The AFSTA position paper was submitted by Dr. Justin Rakotoarisaona, Secretary General of AFSTA.

²⁷ The APSA position paper was submitted by Beth Erlano, Publications and Program Coordinator of APSA.

²⁸ The ESA position paper was submitted by Christoph Herrlinger, Vice-Secretary General, the German Plant Breeders' Association, and by Anke van den Hurk, Senior Advisor (Biotechnology, Biodiversity and Organic seeds) of Plantum NL, the Netherlands.

AFSTA and ESA explicitly recognize the historic and valuable contribution of farmers and farming communities to the conservation and development of plant genetic resources for food and agriculture. They fully support Farmers' Rights as they are addressed in Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture. Thereby they note that Article 9.3 does not give an unconditional right to farmers with regard to saving, using, exchanging and selling farm-saved seed, but that this is subject to national law. The ISF refers to the recognition of farmers' contribution to crop genetic diversity in the International Treaty, without explicitly supporting Farmers' Rights. However, the ISF 'fully supports an access and benefit-sharing system that respects intellectual property, whether the intellectual property is created by farmers or by plant-breeders in the public or private sector.'

All position papers state that breeders need fair remuneration for their continuous and substantial investment in breeding and for the additional genetic value of their new varieties. Therefore, intellectual property rights are required, and all associations are strongly in favour of plant-breeders' rights based on the UPOV 1991 Convention. They argue that free and unlimited use of farm-saved seed undermines the financial return for breeders, which could lead to diminished breeding efforts and thus the release of fewer new varieties. This would, in turn, be to the detriment of farmers and society as a whole.

Art. 15 of the 1991 UPOV Convention covers all exceptions to the breeder's right. Article 15(1) contains - among others - a compulsory exception for private, non-commercial use, whereas Article 15(2) contains an optional exception for farm saved seed, within certain limitations. References are made to the different elements in the various seed industry position papers:

- The ISF paper refers to 'the compulsory exception of acts done privately for non-commercial purposes allowing subsistence farmers in developing countries to save and use seed from their own harvests.'
- ESA writes that 'national laws may allow farmers to replant on their own farm the seed produced on that same farm without the consent of the breeder of the protected variety. This exception however must remain within reasonable limits and is subject to the safeguarding of the legitimate interests of the breeder.' It should be 'limited to food and feed crops where farm saved seed has been used traditionally and subject to the obligation that the farmer provides information concerning the use to the breeder and to the payment of an equitable remuneration.' However, ESA also makes a reference to the private, non-commercial use exception and states that '(...) the compulsory exception of acts done privately for non-commercial purposes is allowing subsistence farmers in developing countries to save and use seed from their own harvests'.
- AFSTA uses the same formulations as ESA. With regard to subsistence farmers they write the following: 'However, this UPOV Convention has a provision that allows the free use of farm-saved

seed of a protected variety for non-commercial purposes by African subsistence farmers.'

- APSA is 'concerned that some countries are applying special conditions which are not in compliance with the 1991 UPOV Convention. For example: benefit-sharing clauses as an essential requirement to obtain the plant variety protection; broader rights on 'Farmers' privilege' (e.g. farmer can trade farm saved seed).' Furthermore, APSA is 'strongly against any "farmers' privilege" given that it exceeds the provisions in the 1991 UPOV Act, namely: As a compulsory exception of the Breeders' Right on acts done privately and for non-commercial purposes, therefore allowing farm saved seed produced by subsistence farmers; as an optional exception, within reasonable limits and subject to safeguarding of the legitimate interests of the breeder, to permit farmers to use for propagating purposes, on their own land holdings, the product of the harvest which they have obtained by planting, on their own holding, of the protected variety.'

All position papers stress that farmers still have the opportunity to use seeds of varieties that are no longer protected, as well as land races, independently of the consent of the breeder. ESA, however, limits this statement, when it goes on to address the use of varieties that are not protected through plant-breeders' rights or other intellectual property rights: land races and farmers' varieties. Here ESA argues that regulations on variety release and seed certification have contributed to the successful development of agriculture in Europe, by guaranteeing good seed quality and information for farmers about quality and potential value of the best varieties. An important determinant for this achievement is the testing for distinctness, sufficient uniformity and stability (DUS criteria). ESA holds that such testing 'must be applied to all varieties entering such systems, irrespective of their origin and purpose, in order to avoid confusion about varietal identity and to prevent the registration of too heterogeneous varieties hampering the introduction of new and better varieties. However, existing varieties not meeting these requirements (e.g. land races) may still be allowed on a case by case basis and under adapted DUS requirements.' Then ESA refers to the EU Directive on conservation varieties. The ESA position paper is the only one referring to the importance of seed regulation in Europe which assures farmers and other users good quality seeds, thereby arguing for the regulation of variety release and seed distribution, including the legislation on conservation varieties.

All in all, the position papers argue for strong plant-breeders' rights, based on the UPOV 1991 Convention, in order to ensure remuneration to plant-breeders for their investments and contribution to agriculture. In addition, they indicate that subsistence farmers in developing countries are allowed to save and use seed from their own harvests, as long as these are acts done privately for non-commercial purposes. As subsistence farmers in the North are rare, the general rule here is that farmers should pay a fair remuneration to the breeder, in cases where the use of farm saved seeds is permitted. Under these particular conditions, ISF, ESA and AFSTA support Farmers' Rights, as long as this does not interfere with

existing intellectual property rights laws and relevant seed regulation. The APSA position paper indicates no particular stand in this regard.

5.5 Preliminary conclusions regarding the rights of farmers to save, use, sell and exchange farm-saved seed

As we have seen in this chapter, the basic question when it comes to farmers' rights to save, use, exchange and sell farm-saved seed is how to strike the best balance between the rights of farmers and breeders in this regard. This is decisive to ensuring that farmers can continue their crucial contribution to the conservation and sustainable use of crop genetic diversity to the greatest possible extent, and that the seed industry can receive the income required for continuing its pivotal work in providing agriculture with the best possible plant varieties.

We have seen that national legislation in most countries of the North limits Farmers' Rights to a substantially greater extent than in most countries in the South. Legislation on intellectual property rights (patents and plant-breeders' rights) tends to develop in a more breeder-friendly way all over the world, by restricting farmers' practices of saving, using, exchanging and selling farm saved seed of protected varieties. The extent to what these practices are restricted varies from country to country, depending on the coverage of intellectual property protection. This development is seen as positive by the seed industry and some state representatives, as it creates better incentives for innovations in plant-breeding, for the benefit of farmers, and for society as a whole. They argue that small-scale farmers in developing countries may save and use farm-saved seed of protected varieties on their own land holdings, whereas farmers in the North may do so in certain cases, against remuneration to the breeder. They argue against the exchange and sale of seed from protected varieties among farmers.

However, that same development is considered negative by most farmers and NGOs responding to this survey, because it impinges on farmers' customary rights to freely save, use, exchange and sell any farm-saved seed, and in some countries even prohibits all these practices with regard to protected varieties. Some countries (among them, Norway) seek to balance farmers' and breeders' rights by allowing farmers to save, use and exchange farm saved-seed, but not to sell it. Other countries (e.g. India) follow the same lines but allow farmers also to sell seed from protected varieties, as long as it is not done under the original brand name.

We have further seen that regulations on variety release and seed distribution have been introduced in most of the countries covered by this survey. These regulations cover not only varieties that are protected with intellectual property rights, but all varieties and seed on the market, including land races and farmers' varieties. Again the rules are strictest in the North, where the exchange and sale of seed among farmers is prohibited in many countries, and where only approved conservation varieties can be sold from authorized seed shops – within certain limits. The European seed industry is largely positive to such regulations, arguing that they support plant health and seed quality, whereas the issue

was not taken up by the seed industry in other regions. Farmers, NGOs and state representatives are critical, however, because such regulations seriously limit the legal possibilities of farmers in the North to engage in the conservation and sustainable use of crop genetic diversity. What is needed, they argue, are encouragement and incentives.

Some European countries search for more liberal solutions to enable the on-farm conservation and sustainable use of crop genetic diversity, and allow farmers to exchange and sell seed of any variety on a non-commercial basis (as in Norway). In the South, the issue is not that pressing, even though from some countries, farmers and NGOs noted that it was an increasing problem. It seems that to the extent that such regulations are in place, they are rarely enforced, due to the informal character of the seed market in many developing countries. Also from the global North there are examples of farmers exchanging and selling seed even when this is prohibited. Such practice seems still to be tolerated in, for example, Italy and Austria.

Seed fairs and informal seed exchange networks are found in many of the countries covered by this survey, in the South as well as in the North. Often they have only local outreach, although some seed exchange networks have somewhat broader coverage. These activities seem to be carried out mainly by NGOs; respondents generally saw them as being positive to farmers' rights to save, use, exchange and sell farm-saved seed, although a very few respondents (from all categories) felt that the effects could be negative, mixed or non-existent. Other measures mentioned by respondents were mainly NGO activities to support and promote seed-saving and exchange practices as well as adding value to farmers' varieties.

The major gaps and needs of the various regions are more or less the same, although their order differs:

- Most respondents perceived the lack of adequate laws and regulations to provide for farmers' rights to save, use, exchange and sell farm-saved seed as a pressing shortcoming. The current development towards restricting Farmers' Rights with regard to protected varieties as well as land races and farmers' varieties is seen as threatening the possibilities for farmers to keep contributing to the on-farm conservation and sustainable use of crop genetic diversity. This stand was shared by farmer organizations and NGO, as well as some state representatives. A few representatives from the seed industry argued that breeders' rights should be strengthened instead, for the benefit of farmers and society as a whole.
- A major problem is the lack of awareness among farmers and decision-makers with regard to the consequences of legislation affecting farmers' rights to save, use, exchange and sell farm-saved seed for their ability to further contribute to the on-farm conservation and sustainable use of crop genetic diversity. Awareness-raising and capacity-building measures were suggested.

- Several respondents stressed the need to support and promote informal seed systems, such as seed fairs, seed networks, and local seed banks, in order to encourage further work to conserve and use crop genetic diversity sustainably.
- Farmer group from Latin America highlighted the need for adequate recognition of the contributions of local organizations and NGOs in promoting farmers' practices in saving, using, exchanging and selling farm-saved seed.

The most important additional issue to those taken up in the survey was one raised by many respondents: the need to prevent the use of GMOs in order to avoid the contamination of our plant genetic heritage and ensure farmers' rights to choose what to grow.

6 Protection of traditional knowledge relevant to plant genetic resources for food and agriculture

Respondents generally agree about the importance of protecting traditional knowledge, and because the issue of traditional knowledge is less contested than some of the other aspects it is not surprising that it is within this area that most progress is reported. This chapter presents respondents' views on preferred approaches to protect traditional knowledge at the national level, national measures affecting the protection of traditional knowledge, major gaps and needs with regard to national measures, and any other views and experiences respondents wished to share.

6.1 Approaches to protecting traditional knowledge at the national level

As to traditional knowledge, opinion differs about what the major threats are and what approach should be taken to protect this knowledge. Some respondents favour an 'ownership approach' where the focus is on awarding property rights to farmers and protecting their knowledge from misappropriation. Others feel that a 'stewardship approach' that focuses on sharing and documentation of the knowledge to keep it from disappearing is more appropriate. To find out what the respondents saw as the dominant tendencies with regard to traditional knowledge in their own countries we asked them the following question: *'What, in your view, is most important in order to protect traditional knowledge relevant to plant genetic resources?'* They were presented with three alternatives: 'to protect this knowledge against misappropriation' (alternative A), 'to protect this knowledge from disappearing' (B) and 'other' (C).

This is another question where a clear tendency emerges regarding preferences across the various regions. A clear majority of the respondents, 42 out of 60, answered that in their country it is most important to protect traditional knowledge from disappearing. Only eight respondents said that protection against misappropriation is the most important aspect in their country. The remaining ten either chose the last option, 'other', or chose both of the first options, in which case they were classified in the 'other' category.

6.1.1 Africa

Only one respondent from the African region opted for alternative A, 'protection against misappropriation', while the majority, 17 respondents, chose alternative B. Among the latter were both of the respondents who had consulted groups of respectively seven and nine people. Three respondents chose both categories, indicating that they saw both approaches as equally important in their own country. The only respondent who answered that protection against misappropriation was most important came from the public sector, but no significant differences can be seen among the stakeholder groups. Representatives from NGOs, the public sector, farmers' organizations and others are all

represented in the group of respondents who chose alternative B, whereas two NGO respondent and one public sector respondent make up the group that opted for both categories. The only respondent to select alternative A came from South Africa, and this might be explained by the attention this issue has received there, through much-publicized instances like the San–Hoodia case.

6.1.2 *Asia and the Near East*

The tendency among the respondents from the Near East and Asian regions is similar to the general tendency. Only two out of eleven respondents indicated protection against misappropriation as the most important aspect with regard to traditional knowledge in their own countries. One respondent chose both A and B, while the rest saw protecting traditional knowledge from disappearing as most essential. The two respondents who opted for alternative A both happened to be NGO representatives (one from India and the other from the Philippines), but since more NGO representatives chose alternative B, this fact has no particular significance.

6.1.3 *Latin America*

The respondent groups from the Latin American region were divided somewhat more evenly on this point. Two out of five groups saw protection against misappropriation as most important, while the remaining three regarded protecting knowledge against extinction as most important. The groups who chose alternative A come from Guatemala and Nicaragua and consist of respectively seven and eight people. It was the groups from Costa Rica, El Salvador and Honduras (altogether 17 people) that saw the disappearance of traditional knowledge as the biggest threat. As all of these are farmer groups with some participation from researchers, no differences with regard to stakeholder groups can be discerned.

6.1.4 *Europe and North America*

Taking the respondents from the North American region and the European region together as one group of 17 respondents, we can note that nine respondents considered it most important to protect traditional knowledge from disappearing. Only three found protection against misappropriation to be most important, while five chose alternative C, ‘other’. As to what steps they see as the most important to protect traditional knowledge, responses varied. One respondent said that restricting patents over living materials was the essential thing. Others stressed the role of seed exchange and collaborative methods of plant breeding – for example by saying that it is important to enact seed laws that ensure that seeds cannot be privatized through intellectual property rights (IPRs) or genetically modified, and that enable local development of varieties and permit exchange within and between communities, countries and continents (Patrick Mulvany, UK). Also listed as important was capacity-building for farmers to disseminate ‘modern knowledge needed for re-establishing farm-based and cooperative methods of plant breeding, seed propagation, successful cultivation and marketing of

traditional and rare crops' (Beate Koller, Austria). Neither in this group of respondents can any major differences of opinion between different stakeholder groups be seen.

6.1.5 In summary

Most respondents in all regions are more preoccupied with saving what remains of traditional knowledge from becoming lost, than with protecting it against misappropriation. This might indicate that they favour a stewardship approach to the realization of Farmers' Rights, at least as regards the protection of traditional knowledge.

6.2 Misappropriation of traditional knowledge

After the question about what is most important to protect traditional knowledge in their own country, those respondents who chose alternative A were asked if they knew of any cases in their country of misappropriation of traditional knowledge relevant to plant genetic resources for food and agriculture, and if so, to say something about the specifics. One respondent from Malawi mentioned misappropriation of groundnut varieties with resistance to rosette disease, and patenting of genes from a particular maize variety used locally. The respondent from South Africa referred to the now well-known case of the San people of Southern Africa and the *Hoodia* plant. Misappropriation of old names and their associated good reputation was mentioned by a respondent from Italy, while a respondent from the Philippines told about cases where samples of local plants had been collected without the initial knowledge and consent of the local communities. One respondent from Indonesia mentioned a case where the knowledge behind making *tempe*, a type of fermented soya used as food in Indonesia, is being patented in Japan. Other respondents did not refer to specific cases, but thought they existed, such as one respondent from Zimbabwe who said that because 'Africans do not write down their knowledge there might be few cases that tell the full story of misappropriation of knowledge' (Kudzai Kusena, Zimbabwe). A respondent from Uganda said that she did not know of any specific cases, but added that 'farmers keep their knowledge to themselves because they gain nothing from sharing it'.

6.3 Disappearance of traditional knowledge

Those respondents who chose alternative B were asked to describe the current situation with regard to the disappearance of traditional knowledge relevant to plant genetic resources for food and agriculture in their countries.

6.3.1 Africa

A clear majority of the African respondents referred to the loss of traditional knowledge and local varieties as a problem in their countries. As to the reasons for this, nine out of the 20 respondents who made comments under this question mentioned the danger to traditional knowledge posed by the demise of its keepers. According to these respondents, with traditional knowledge it is chiefly the elder generation

who maintain local practices and varieties; they are already disappearing or in danger of doing so because of changes in culture, eating habits and the younger generations' lack of interest, which means that this knowledge is not passed on to the next generations. As the knowledge is not documented, it is highly vulnerable, and when its old keepers die it dies out with them.

Another, related, trend mentioned by altogether seven African respondents is the increasing use of modern practices and varieties. These respondents feel that traditional varieties and practices are being threatened by the focus on improved varieties, mechanized agriculture, GMOs and other modern methods often promoted by extension workers and organizations. This also leads to the demise of traditional knowledge, which depends on the continued use of such varieties and practices to stay alive.

Some respondents also mentioned increasing urbanization as a factor that threatens traditional knowledge in their countries. One respondent said that in his country it is a problem that traditional knowledge is regarded as 'primitive'. Some respondents noted the lack of support to farmers who maintain traditional knowledge, and Andrew Mushita from Zimbabwe explained that 'communities do not see an economic value in protecting traditional knowledge, that would provide them with an incentive to continue protecting it from disappearing' (Andrew Mushita, Zimbabwe).

6.3.2 Asia and the Near East

Among the respondents from the Near East and the rest of Asia there was also considerable agreement about the current trend towards the loss of traditional knowledge and varieties. One reason for this, as noted by some respondents, is urbanization and rural–urban migration. Another factor mentioned by some is the lack of interest among young people because they do not see such agriculture as profitable and because of changing diets and food preferences. As was the case with the African respondents, members of this respondent group are therefore also concerned that traditional knowledge will die out with the older generations who now hold it. Another problem mentioned by a handful of respondents was the lack of documentation. Modernization of the agricultural systems, with the introduction of improved varieties and hybrid seed, is also regarded as having an impact. Also mentioned were the role of climate change, seed policies and the green revolution.

6.3.3 Latin America

The respondent group from Costa Rica said that free trade and the demand from buyers pressure them into cultivating different types of grains than before.

6.3.4 Europe and North America

Two of the farmer respondents from Europe underlined what they saw as the negative impact on traditional knowledge of laws and regulations.

They described how the various laws make it difficult and/or illegal to exchange seed, and how this has consequences for the protection of traditional knowledge. They also feel that too much private and public research is directed toward hybrids and genetic modification. On this latter point the two representatives from the seed industry partly agreed with them, as they both felt that state involvement in, and funding of, the protection of traditional knowledge is not sufficient, and that conservation and characterization of plant genetic resources should receive more support from the government. Changes in farming practices, including traditional plant breeding and decreasing use of traditional varieties, was also mentioned by two European respondents as an important tendency that endangers the maintenance of traditional knowledge. One respondent, despite choosing alternative A, commented that since most farmers in Europe who maintain such knowledge are elderly, the disappearance of traditional knowledge is also a problem. The danger of losing even more traditional knowledge with the passing of old farmers was also mentioned by the network of farmers' organizations from Spain (COAG). An even more pessimistic sentiment was expressed by another respondent, who feared that 'most traditional knowledge might already have disappeared' (Arjen Huese, UK). On the other hand, a respondent from the public sector in Germany said that in his country 'there is a long tradition of documenting traditional knowledge and making it available to the public' (Frank Begemann, Germany).

According to one respondent from North America, the loss of traditional crops is widespread. Another respondent opined that farmers are losing their self-esteem and knowledge as a result of relying too much on corporate agricultural consultants and the packages they sell. Downsizing of government extension services is seen as part of this.

6.3.5 *In summary*

We see considerable agreement on the worrisome and increasing loss of traditional knowledge, and also on some of the reasons. Dominant factors seem to be changing agricultural practices, including increased use of hybrid varieties, new dietary preferences, lack of interest among the young and the danger of losing even more traditional knowledge when the older generation dies out.

6.4 National measures affecting the protection of traditional knowledge

Respondents were asked which national measures affected the protection of traditional knowledge in their country, and how. A list of measures was presented: 'laws on protection of traditional knowledge', 'laws on intellectual property rights', 'seed laws', 'policies/programmes on traditional knowledge', 'agricultural or other relevant policies', 'measures to document traditional knowledge', and 'project encouraging sharing of traditional knowledge'. Respondents could mark 'we have such measures', 'we don't have such measures' or 'not sure'. They were also given the opportunity to indicate whether they saw the effects of the existing measures as 'positive', 'negative' or 'mixed/none'.

From the answers across regions, we note that measures like intellectual property laws are generally more common than laws and policies on the protection of traditional knowledge. A total of 44 respondents said that their countries have laws on intellectual property rights and seed laws, while respectively 40 and 28 respondents said that in their countries there are no laws on the protection of traditional knowledge, or policies/programmes on traditional knowledge. Measures to document traditional knowledge seem more widespread than legal measures to protect it. In all, 20 respondents said that their countries had such measures. And as to projects that encourage the sharing of such knowledge, more respondents actually said that their countries had such measures (23 respondents) than the number who responded that their countries did not (19 respondents). Not all respondents chose to indicate what they thought the effects of the existing measures were in their countries, but among those who did so the majority felt that the effects of their country's seed laws were negative, while half of them thought the effects of their country's laws on intellectual property rights were negative. On the other hand, the effects of policies/programmes on traditional knowledge, measures to document traditional knowledge and projects encouraging the sharing of such knowledge were considered to be positive by most respondents who indicated an opinion. It is also worth noting that a majority of the respondents said that their countries had agricultural or other relevant policies, and that many of those expressing an opinion of the effects of these policies said that they were negative.

6.4.1 Africa

A somewhat similar tendency to that described for the groups of respondents as a whole can be seen for the African respondents. While respectively 16 and 15 respondents out of 21 said that their country has laws on intellectual property rights and seed laws, the corresponding figure is only six for laws on the protection of traditional knowledge and policies/programmes on traditional knowledge. For all measures, some respondents have also answered that they are not sure whether their country has such measures or not. Concerning measures to document traditional knowledge and projects encouraging sharing of it, respectively 10 and 6 respondents said that their country does not have such measures, while for both types seven said that their countries do; the remainder said that they are not sure. Of those who answered that these last measures exist in their country none said that they consider the effects to be negative, while two said that the effects are positive in both cases. As regards seed laws and IPR laws on the other hand, respondents are slightly more divided. For IPR laws, three respondents said that the effects are negative, three said that they are positive and four said that the effects are mixed or non-existent. Seed laws were viewed even more negatively, with three respondents saying the effects in their country are positive whereas five said they are negative.

As part of this question respondents were also given the opportunity to specify the most important measures in their country and their effects. Both seed laws and plant variety protection/IPR laws were mentioned by some African respondents, and they generally felt that these laws were

not favourable to small-scale farmers and traditional knowledge. Some respondents also mentioned laws on conservation and sustainable use of genetic resources and access and benefit-sharing legislation; while some noted positive aspects of these measures, others expressed concern about the negative effects. According to one respondent, 'there are many who think that the Access and Benefit-sharing just gets in the way of South African entrepreneurs trying to make products from local materials and knowledge' (Sue Taylor, South Africa). One respondent from Malawi mentioned national programmes that focus on improved varieties and neglect land races, but said that there are projects that document land races and traditional knowledge. Another respondent noted the lack of coordination between various relevant laws. In his opinion, the conservation and sustainable use of plant genetic resources are mentioned 'in passing and sections are scattered without meaningful coordination' (Kudzai Kusena, Zimbabwe). The work of NGOs and IGOs on creating awareness of the value of traditional knowledge and the role of traditional leaders with regard to encouraging maintenance of such knowledge – for example, through festivals – was also mentioned. Some respondents were more positive regarding the situation in their country. According to Regassa Feyissa from Ethiopia, most policies in his country recognize traditional knowledge and emphasize the need to protect it. Andrew Phiri from Zambia told of the positive effects of on farm conservation and management efforts in the traditional sector, whereas Pascal Nkwe Makongo from Cameroon said that no relevant measures had so far been undertaken in his country.

6.4.2 Asia and the Near East

Respondents from Asia and the Near East indicated that the situation was not very different in those regions. Most said that their country did not have laws on protection of traditional knowledge. Of the few who said their country did, most felt the effects were positive. As to laws on intellectual property rights and seed laws on the other hand, the majority of respondents said that their country did have such legislation. Among those to express an opinion on the effects of this legislation, there was some disagreement. There were more respondents who felt that the effects were negative than positive, but some also opined that the effects were mixed or non-existent. Although the majority of respondents from the Near East and Asia said that their country did not have policies or programmes on traditional knowledge, a somewhat greater minority than for the other regions responded that their countries did have such measures. Of these, none said that the effects were negative, while two opined that they were positive and three said they are mixed or non-existent. A majority of respondents also said that their country did not have measures to document traditional knowledge, but that there were projects to encourage the sharing of such knowledge. Opinion as to the effects of these two measures seemed quite positive, as none of the respondents indicated that they felt the effects to be negative, while an equal number said the effects were positive as those who considered the effects to be mixed/non-existent. On the other hand, opinion as to the effects of agricultural or other relevant policies was more negative, with most respondents saying that the effects were negative or mixed/non-existent.

When presented with the opportunity to list the most important measures in their countries and their effects, most respondents from the Near East and Asian region mentioned various laws, such as plant variety protection laws, IPR laws and seed laws. The effects of these were not seen as particularly beneficial for farmers and traditional knowledge. One respondent from Yemen mentioned that the national IPR laws mainly target cultural innovation such as music and literature, and that scientists have not been consulted. Mahmood Ahmad from Pakistan said that it is multinational companies that reap the benefits from IPR laws because they are the ones with the necessary resources. Arief Lukman Hakim from Indonesia shared this sentiment when he noted that the national farmers do not have the resources and capacity necessary to comply with regulations on seed and variety release. Another respondent from Indonesia, Tejo Promono, underlined that farmers had not been consulted in the drawing up of the country's seed law and that as a result it mostly benefits seed companies. Respondents also mentioned other legislation: these included laws on nature reserves in Yemen, where implementation must be improved if they are to benefit local farmers; the law on organic agriculture in the Philippines, which is seen as offering great possibilities but farmer participation in the drafting and implementation process remains a concern; and the Biodiversity Act of India and its focus on on-farm genetic diversity and the protection of traditional knowledge. In addition, the respondent from Bhutan noted that the country's Biodiversity Act from 2003 authorizes a competent authority to protect and document traditional knowledge and that the National Biodiversity Centre is currently working on the development of a traditional knowledge database (Singay Dorji, Bhutan). However, a few respondents mentioned the lack of laws on the protection of traditional knowledge as a major problem in this connection in their countries. According to some respondents in this group, projects focusing on documentation and utilization of traditional knowledge are underway. One respondent said that the only way to really protect traditional knowledge was to pass it on from one generation to the next (Ahmed Lutf Mohamed Saeed, Yemen), while another respondent felt that the lack of knowledge about the value of traditional knowledge related to biodiversity is a main reason for biodiversity loss (N. Anil Kumar, India).

6.4.3 Latin America

The respondent groups from Latin America all said that their countries do not have laws on the protection of traditional knowledge. Two groups said that their country has laws on intellectual property rights, while three groups mentioned seed laws. Measures to document traditional knowledge do not seem common in these countries, since four respondent groups say their country does not have any, while the remaining group was not sure. More prevalent are projects that encourage the sharing of such knowledge. Four of the respondent groups said that there are such measures in their country. Of these four groups, two considered the effects of the projects to be positive, whereas one group thought the effects were negative and one group said the effects were mixed or non-existent. When asked to specify the most important measures in their country and their effects, the respondent group from Costa Rica mentioned the work of universities in rescuing both genetic diversity and

the associated knowledge, while the respondent group from Honduras referred to the support from NGOs toward protection of traditional knowledge.

6.4.4 *Europe and North America*

Almost all of the European respondents said that their country does not have laws on the protection of traditional knowledge. The only exception was a respondent from Italy, who mentioned regional laws on protection of local varieties, but then indicated that the effects of these laws have been mixed/non-existent. As to laws on intellectual property rights and seed laws the situation is different, with only one respondent from Turkey and one from Georgia, respectively, saying that their country does not have such measures. Among those who say they have this type of legislation the majority think that the effects have been negative. It is with regard to these types of laws and its effects that stakeholder differences can be seen. As noted, the group of respondents from Europe is the most polarized as to stakeholder differences. Differences of opinion between the representatives from the seed industry and NGO and farmer representatives are also evident here. The European seed industry respondents feel that the effects of both seed laws and IPR laws are positive; and on the effect of IPR laws they are joined by two representatives from the public sector. As opposed to this, the group of respondents who feel that the effects of this legislation are negative is made up of farmers and NGO representatives, and, in the case of seed laws, one respondent from the category 'other' as well. To some degree these differences can also be seen in the comments offered by the respondents at the end of the question. Two of the farmer representatives underlined that the current laws and policies are mostly detrimental to the maintenance of traditional knowledge and varieties, a main problem being that the regulations do not allow for the necessary diversity in the populations. Respondents from the seed industry, on the other hand, stressed the achievements of their country within the area of documentation and collections, or praised the consequences of the plant variety protection laws and the seed laws for developing a strong breeding sector that contributes to genetic improvements like better yields and disease tolerance.

None of the European respondents said that their countries have policies/programmes on traditional knowledge, and only a handful reported projects to encourage the sharing of such knowledge in their country. Measures to document traditional knowledge seem more common. Patrick Mulvany mentioned Birmingham University and its documentation of local seed diversity and the associated traditional knowledge along with actions taken to protect it as the most important measure in the UK. Beate Koller commented on how political measures on traditional and local products tend to fall short of their aim to promote local biodiversity because they are too general or concentrate on elements of local production with touristic value, rather than promoting the 're-establishing of local varieties from the very basis' (Beate Koller, Austria).

All questionnaire respondents from North America said that their countries have laws on intellectual property rights. The majority of them feel that the effects are negative, whereas one respondent said that the effects have been mixed or non-existent. We note a similar situation regarding seed laws: most respondents said their countries have such laws, and that the effects have been negative. As to laws on the protection of traditional knowledge, policies/programmes on traditional knowledge and projects encouraging sharing of this knowledge, respondents answered either that their country does not have such measures, or that they do not know. However, some respondents did note that their country has measures to document traditional knowledge. To the question of specifying the most important measures and their effects, one respondent said that plant breeders' rights are moving in a direction where they increasingly restrict Farmers' Rights. Another respondent saw the patenting and distribution of genetically modified varieties as the measure that most severely affected traditional knowledge, and in a negative way.

6.5 Major gaps and needs with regard to national measures

In question 3.5 the respondents were asked what they saw as the most important gaps and needs as to national measures affecting the protection of traditional knowledge in their countries.

6.5.1 *Africa*

The issue mentioned by most African respondents was the lack of legislation and policy on the protection of traditional knowledge and Farmers' Rights in general, along with lack of implementation of whatever regulatory frameworks might exist. Policy development and implementation, as well as development and enforcement of laws, was therefore regarded as necessary. In this context, mention was also made of harmonization of Farmers' Rights with plant variety protection laws and seed laws. Another shortcoming mentioned by some respondents was the lack of comprehensive documentation efforts, and the need for policy and institutions targeting documentation, sharing and use of traditional knowledge. On the other hand, one respondent underlined that 'local people with indigenous knowledge need to know that their knowledge about plants could have commercial value and that they should be careful about sharing this knowledge with outsiders' (Sue Taylor, South Africa). Insufficient inclusion of farmers in decision-making processes, especially small-scale farmers, was also mentioned by some of respondents, as well as the need for increased awareness of the importance of traditional knowledge and Farmers' Rights in general. Corruption was brought up as a problem by two respondents, one from Cameroon and the other from the Democratic Republic of the Congo. Further elements mentioned were inadequate coordination between the Ministry of Environment and the Ministry of Agriculture regarding the protection of traditional knowledge, the need for seed banks focusing on traditional plants, and a lack of political will and financial resources.

6.5.2 Asia and the Near East

Many respondents from the Near East and Asia also mentioned law and policy as an issue, either because legislation and policy related to the protection of traditional knowledge were lacking or because implementation and enforcement were seen as insufficient. Documentation and dissemination of traditional knowledge were also noted. In this connection, some respondents underlined the need to make sure the new generations of farmers have access to traditional knowledge, while others mentioned the importance of making people aware of the value of such knowledge. The role of technical capacity and financial support in relation to documentation in the form of protocols and databases were also mentioned. The need for more government involvement, for example in the form of improved extension services as suggested by one respondent, was noted by some respondents. One respondent said that one of the important aspects affecting the protection of traditional knowledge in his country was the lack of farmers' own research institutions, and that there was a need for farmers to become more involved in the protection of their rights.

6.5.3 Latin America

The respondent groups from Latin America were quite unanimous in emphasizing the need for laws and policies on protection of traditional knowledge. The groups from Guatemala, Nicaragua and Honduras all mentioned the lack of suitable laws, while the group from Costa Rica noted that action had been taken by the government on the issue of traditional knowledge. In addition, the right of farmers to participate in the development of relevant laws and policies was mentioned by the respondent group from Guatemala.

6.5.4 North America and Europe

Lack of legislation and insufficient implementation were not mentioned as problems by as many of the European and North American respondents, with only one respondent citing this as a problem. However, one respondent from the USA brought up the US patent laws, which in his opinion create patent monopolies on much traditional knowledge. Respondents from these regions were more concerned about other issues, like the lack of awareness and knowledge regarding the importance of traditional knowledge. Terry Boehm from Canada mentioned what he saw as lack of interest from policy-makers, while Arjen Huese from the UK worried that most traditional knowledge might already have disappeared. These issues were also touched upon by COAG, the Spanish network of farmer organizations, who also mentioned the lack of research programmes for prospection and recuperation of local varieties and associated traditional knowledge and the lack of programmes to promote local products. The respondent from Italy, Riccardo Bocci, underlined the difficulty of keeping traditional knowledge related to crop genetic resources alive in a country where farmers in general are old and the younger generation is not interested in agriculture. He therefore regarded protection of traditional knowledge as more of a cultural problem than a legal one. The representatives from the European seed industry

emphasized the need to conserve all agricultural crops and create collections that are freely accessible.

6.5.5 *In summary*

Looking at the responses from the various regions together, we see that law and policy is the issue mentioned by most respondents as what they consider to be the most important gaps in their countries regarding national measures that affect the protection of traditional knowledge. For some it is a question of a lack of such measures, while for others implementation, enforcement or reform is necessary. The need to document the traditional knowledge that still exists, and to spread awareness about its importance, was also noted by many respondents.

6.6 Other views and experiences regarding the protection of traditional knowledge

The last question in the section on traditional knowledge in the questionnaire gave the respondents the opportunity to share any other views and experiences they might have regarding the protection of traditional knowledge in their countries. A range of issues emerged, but some of them can be seen in connection. The importance of encouraging use of traditional knowledge and local varieties is one such issue.

6.6.1 *Africa*

Among the respondents from Africa, one mentioned that farmers need information, for example on applying traditional methods in relation to modern varieties, if they are to make the most out of the resources at their disposal. The importance of research and dissemination of results was also mentioned, as was the need to involve the farming communities.

Traditional knowledge might be useful to communities adapting to climate change. This was noted by George Phiri from Malawi, who said that his country has a wealth of traditional knowledge that might enhance the resilience of the agricultural sector and help communities as they have to adapt to climate change, but that this knowledge would have to be documented and used if it is to make a difference. Documentation was also brought up by other respondents. One of them underlined how traditional knowledge can ‘serve the development and well-being of communities’ if it is documented for the use of present and future generations rather than just remaining ‘an oral tool’ (Didier Balma, Burkina Faso).

Some respondents touched on the role of relevant actors, and while one respondent said that ‘NGOs should be facilitated to take on this role’ (Gertrude Kenyangi Kabusimbi, Uganda), another respondent felt that a government department should be established, to be in charge of protecting traditional knowledge. Regassa Feyissa from Ethiopia held up the recognition of, and support to, practitioners of traditional medicine and their knowledge as an example to follow with regard to agriculture.

Benefit-sharing and the role of IPRs were also mentioned by some respondents. One respondent from Africa said that as she saw as a relevant issue how to protect communal knowledge in a way that it can also be patented.

6.6.2 Asia and the Near East

The question of IPRs in relation to traditional knowledge was also touched upon by Asian respondents. Pankaj Bhushan from India thought that the fundamental question should be how to protect traditional knowledge and resources from, rather than by, intellectual property rights, and feared that such rights and the implementation of the TRIPS agreement would reduce this knowledge to a tradable commodity. Another respondent from Asia, Paul Borja from the Philippines, was also concerned about trade agreements, as he feared misappropriation might take place as a result of the IPR component of such agreements unless measures are taken. Bikash Paudel from Nepal suggested that the system for traditional knowledge related to plant genetic resources for food and agriculture should be different from that for traditional knowledge associated with other genetic resources. The former should be based on sharing, while the latter should have access restrictions.

The issue mentioned by the greatest number of respondents from the Near East and Asia in this part of the questionnaire was documentation of traditional knowledge. The importance of using various means in this connection was mentioned, not just photos; sample collections and writing down the information, and the use of media were suggested. One respondent noted the need for the government to create community-level inventories of traditional knowledge and to help local communities take care of this knowledge. Singay Dorji from Bhutan noted that in connection with the drafting of documentation formats for traditional knowledge and pilot documentation in his country, it became clear that farmers are very willing to share their wealth of information in the interest of conservation and future use, and that they are just as concerned as the researchers and officials about the gradual loss of such knowledge.

One respondent from the Near East underlined the need to include traditional knowledge as part of the training for researchers and other practitioners within the agricultural sector, and for collaboration between scientists and the people who still possess traditional knowledge related to plant genetic resources for food and agriculture.

Other issues raised by the respondents from Asia and the Near East was the need for farmers' organizations to put pressure on their governments, the need for governments to become involved and establish proper systems for conservation of traditional knowledge, the need for governments to understand the value of farmer varieties and reform seed laws to allow the necessary practices and distribution to maintain them, as well as the need to carry out research on the nutritional value of traditional plants to provide incentives for increased use.

6.6.3 *Latin America*

Very few Latin American respondents chose to leave a comment under this question, but the respondent group from Guatemala mentioned the importance of community seed banks.

6.6.4 *Europe and North America*

The farmer respondents from Europe stressed the role of local networks and the organic community as to the maintenance of plant genetic resources, the importance of the distribution of both seed and produce outside the formal system. Another European respondent remarked on the consequences that lack of demand from the market can have in terms of increased erosion of local varieties and traditional knowledge. One respondent from the USA underlined the misappropriation historically undertaken by his country and other Western countries.

6.7 Preliminary conclusions on the protection of traditional knowledge

The protection of traditional knowledge is a less controversial subject than the other elements of Farmers' Rights, and substantial agreement among the respondents about the importance of protecting such knowledge has been noted. While some respondents think that the most important aspect is to save this knowledge from misappropriation, the majority of respondents in all regions feel that saving what remains of traditional knowledge from becoming lost is most important in their countries. This might indicate that they prefer a stewardship approach to the realization of Farmers' Rights, at least with regard to this element of Farmers' Rights.

Respondents largely agree about the worrisome and increasing loss of traditional knowledge, and also about some of the reasons. Factors mentioned by many are changing agricultural practices, including increased use of hybrid varieties, as well as new dietary preferences, lack of interest among the young and the danger of losing even more traditional knowledge when the older generation dies out.

Regarding national measures in the various countries, measures like intellectual property laws seem to be generally more widespread than are laws and policies on the protection of traditional knowledge, and measures to document traditional knowledge seem more common than legal measures to protect it. Many respondents considered the effects of their country's seed laws and laws on intellectual property rights to be negative. On the other hand, the effects of policies/programmes on traditional knowledge, measures to document traditional knowledge and projects to encourage the sharing of such knowledge were generally deemed to be positive.

As to gaps and with regard to the protection of traditional knowledge, law and policy was the issue brought up by most respondents. For some this was a question of such measures not being in place, while others stressed the need for implementation, enforcement or reform of existing

legislation and policies. The need to document the remaining traditional knowledge, and to spread awareness about its importance, was also seen by many respondents as crucial.

7 The right of farmers to participate equitably in the sharing of benefits arising from the utilization of plant genetic resources for food and agriculture

This chapter presents respondents' views on national measures affecting benefit-sharing in their countries. Major gaps and needs as regards national implementation of benefit-sharing will be presented, as will other views and experiences of the respondents regarding this issue. Some preliminary conclusions round off the chapter.

7.1 National measures affecting the right of farmers to participate in benefit-sharing

Respondents were asked a similar question to the one about national measures on traditional knowledge: *'which national measures in your country affect farmers' right to equitably participate in benefit-sharing, and how?'* Various possible national measures were then listed: right to benefit-sharing is covered by law, national fund for benefit-sharing in place, financial support to diversity farming, participatory plant-breeding projects, community seed banks, projects for marketing of diversity products, capacity-building for diversity farming, capacity-building for Farmers' Rights, awards, legislation on plant-breeders' rights, patent law and agricultural policies and incentives in general. In addition to saying whether or not their country had such measures or that they were not sure, respondents could indicate whether they thought the effects of the measures that their country had were positive, negative or mixed/non-existent.

In general, few respondents said that their country had a national fund for benefit-sharing in place, or that the right to benefit-sharing was covered by law. Only three and ten respondents, respectively, said that their countries had such measures. Of these, half said that the effects of benefit-sharing being covered by law in their country were mixed/non-existent and two of the three also said the same for their national fund on benefit-sharing. However, a majority of the respondents did say that their country had participatory plant-breeding projects and community seed banks, and a clear majority of these also said that they thought the effects of these measures were positive. Most respondents also said that their countries had legislation on plant-breeders' rights and patent laws, with only 14 and 7, respectively, replying that their country did not have such measures. Of the respondents who indicated what they thought of the effects of these measures in their countries, the majority claimed the effects were negative. However, in both cases some respondents also said the effects were positive or mixed/non-existent.

Many respondents, 26 and 25 respectively, also said that their countries had projects for marketing of diversity products and capacity-building for diversity farming, and most of these said the effects were positive. Fewer respondents, only 16, said their countries had financial support arrangements for diversity farming, while 28 said their countries did not.

Among those who indicated an opinion as to the effects, most said they were mixed/non-existent. Capacity-building for Farmers' Rights seems to be less widespread than capacity-building for diversity farming, as considerably fewer respondents, only 14, answered that their countries had this. The majority answered in the negative.

With only 12 respondents saying that their countries have awards, this measure appears even less common. However, this is the measure where the largest number of respondents was not sure: 20 respondents answered that they were 'not sure' whether their countries had awards or not. Most of those who indicated an opinion about the effects in their countries said they were positive, but two also said they were negative. It is also worth noting that a majority of respondents said that their countries have agricultural policies and incentives in general, but that most of these went on to say that the effects were negative or mixed/non-existent. For all measures, as many as between 9 and 20 respondents were not sure whether or not their country had the measure in question.

7.1.1 Africa

The measures that fewest of the African respondents said that their countries had were 'the right to benefit-sharing is covered by law', 'national fund for benefit-sharing is in place' and 'financial support to diversity farming'. As many as 17 of the 21 respondents from Africa said that their countries did not have a national fund for benefit-sharing, while the figure was 11 for benefit-sharing being covered by law and 12 for financial support to diversity farming. The only respondent who said his country had a national fund for benefit-sharing in place added that the effects were mixed or non-existent. Of the five who said the right to benefit-sharing was covered by law in their countries, two said the effects were positive, while three said they were mixed or non-existent. Neither of the respondents who said their countries had financial support arrangements for diversity farming indicated an opinion on the effects.

A majority of the respondents did say that their countries had legislation on plant-breeders' rights, patent laws and agricultural policies and incentives in general. Only some of these respondents chose to indicate what they thought the effects of these measures were, but among those who did, most felt they were negative or mixed/non-existent. With regard to plant breeders' rights and patent laws, none of the respondents said they found the effects to be positive, while for agricultural policies and incentives in general four respondents indicated that the effects of these policies in their countries were positive.

Among the remaining measures, the figures were somewhat more even as regards how many replied that their countries had them, did not have them or that they were not sure. There were more respondents who said that there were community seed banks in their countries than that there were not; and of those who offered an opinion on the effects, the majority said they were positive. Not as many respondents said there were participatory plant-breeding projects in their countries; while eight respondents said that there were such measures, nine said that there were not and four said that they were not sure. However, a clear majority of

those who gave an opinion about the effects of this measure in their country said that they were positive. The same basically even distribution can be seen with regard to projects for the marketing of diversity products, capacity-building for diversity farming and capacity-building for Farmers' Rights as well. For all three measures, seven respondents said that their countries had such measures, while nine, six and ten respectively said that they did not. A majority of those who indicated an opinion said the effects were positive, and none said they were negative. A slightly larger difference can be seen with regard to awards. Only four respondents said their countries had awards, while nine said they did not and eight were not sure. One of the respondents who indicated an opinion about the effects of this measure in his country said they were negative, while two said they were positive.

As was the case with the similar question on the subject of traditional knowledge, respondents were given the opportunity to specify the most important measures in their countries and their effects. Two of the African respondents mentioned various laws in their countries that affected benefit-sharing. Andrew Mushita from Zimbabwe said that the Access to Genetic Resources and Indigenous Genetic Resource-based Knowledge Regulations of 2009 under the Environmental Act establish a mechanism for benefit-sharing, but that these regulations have not yet been implemented. A respondent from Malawi mentioned that there were two competing bills in his country, one of which has provisions on Farmers' Rights, and that there was debate about which one to enact. Mention was made of other government initiatives as well, such as the establishment of a Genetic Resources Conservation Unit in Malawi, but in general NGO projects seem more common. Participatory plant-breeding projects, community seed banks, capacity-building for Farmers' Rights, financial support to diversity farming and capacity-building for diversity farming were all mentioned in this connection. However, the feeling also seemed to be, as articulated by Mahara Nyirenda from Malawi, that 'the government has no problem with the NGO projects, but there is no policy to guide the activity.' George O. Banja from Kenya mentioned fairs where awards were given out, but added that unfortunately very few farmers attended these fairs. Sue Taylor from South Africa said that the relevant programmes in South Africa were underfunded, and that to meet the challenges related to climate change more research on traditional crops should be undertaken.

Some of the African respondents also said that their countries had no relevant measures or that the effects of any relevant measures at present were very weak. One respondent noted that the laws and policies in his country were all directed toward large-scale commercial farmers.

In general, respondents from Africa seem to feel that greater government involvement is needed, in the form of policy, funding and support, among other things to scale up existing activities.

7.1.2 Asia and the Near East

A tendency somewhat similar to that described above emerged among the respondents from Asia and the Near East. Most respondents said that

their countries have no national fund for benefit-sharing in place or legislation that covers benefit-sharing. Of the few who did say that their countries had these measures, opinion as the effects was mixed. Two out of the four who said that benefit-sharing is covered by law in their countries opined that the effects on the rights of farmers to participate equitably in benefit-sharing were positive, while one said they were negative and one said they were mixed/non-existent. As to the effects of their respective national funds for benefit-sharing, one of the two respondents who reported that their countries have this measure said the effects were positive, whereas the other said they were mixed or non-existent.

Participatory plant-breeding projects were the measure that most respondents (13) said their countries had; three said they did not and one was not sure. Of those who indicated an opinion as to the effects of these projects, seven said they were positive and one said they were mixed or non-existent. A majority of the respondents from Asia and the Near East also said that their countries had community seed banks and projects for marketing of diversity products, but here the majority was not as great as was the case with participatory plant-breeding. In both cases nine respondents said their countries had these measures. All seven of the respondents who gave an opinion on the effects of community seed banks said they were positive, while eight of the nine who offered their views on the effects of projects for marketing of diversity products said they were positive, with the remaining one deeming the effects mixed/non-existent.

Also in these regions more respondents said their countries had capacity-building for diversity farming than capacity-building for Farmers' Rights. Nine respondents mentioned the former, while only five said their countries had the latter. In both cases a majority of the respondents who reported that their countries had such a measure and who gave an opinion on its effects said they were positive. Financial support to diversity farming appears less widespread than capacity-building for diversity farming. Seven respondents said their countries have such support, while seven said they did not and the rest were not sure. Most of those who gave an opinion said the effects were positive, while one said they were mixed/non-existent. Only five respondents said their countries had awards, and four of these felt that the effects were positive.

Legislation on plant-breeders' rights and patents laws seem quite common in these regions as well; a clear majority of the respondents reported that their countries have these measures. With regard to plant-breeders' rights, eleven respondents said their countries have such legislation, while four have said they do not and two respondents were not sure. Eleven respondents also said that their countries have patent laws, while five said they do not and one was not sure. In both cases three respondents said the effects were negative, three said they were mixed/non-existent and two said they were positive. Thus, also in Asia and the Near East, only a minority of the respondents see the effects of these last two measures as positive.

Respondents also display a somewhat sceptical attitude to the effects of agricultural policies and incentives in general. Most of those who gave an opinion about the effects of these policies said the effects were negative or mixed/non-existent.

When asked to specify the measures in their countries and the effects, some respondents from Asia and the Near East emphasized the lack of such measures. Bikash Paudel from Nepal underlined the lack of coordination of existing projects through legislation and policies, noting that the experience of his organization, LI-BIRD, had demonstrated the value and relatively easy implementation of participatory plant-breeding, community seed banks, marketing of diversity products and capacity-building as regards indirect benefit-sharing. Other respondents mentioned the need for government support if NGO-implemented projects are to have maximum impact.

Other measures that were mentioned included the distribution of farm machinery, purchase of farm produce at set prices, compensation for seed-related crop losses, and awards. N. Anil Kumar from India mentioned the Plant Genome Savior Award that has been given to tribal communities of the Wayanad area, among others, but added that also economic reward is needed to halt on-farm genetic erosion. The respondent who mentioned compensation, Pankaj Bhushan from India, said what is really needed is a seed insurance system that can distribute payments to farmers who have experienced seed failure through taxation of the seed industry.

7.1.3 *Latin America*

As the respondent groups from Latin America represent farmer groups that are involved in participatory plant-breeding, among other things, it is perhaps not surprising that all of them said that their countries had such projects, or that all of those who indicated an opinion said that the effects were positive. Four of the five groups also said that their countries had capacity-building for diversity farming, and all of these found the effects to be positive. The fifth group was not sure whether their country had this measure or not.

The respondent groups were also quite unanimous in their responses on benefit-sharing being covered by law, the existence of a national fund for benefit-sharing and financial support to diversity farming: none of the groups said that their countries had such measures. One group was not sure, while the others responded that their countries definitely did not have these measures.

Community seed banks and projects for marketing of diversity products appear relatively common, as three of the five groups said that their countries had such measures. As all of the respondent groups who gave an opinion on the effects on farmers' rights to participate equitably in benefit-sharing said that the effects were positive, such measures would seem to be highly regarded.

Also in this region, there seems to be less capacity-building for Farmers' Rights than capacity-building for diversity farming. Only one respondent group said that their country had this measure, while three groups said that their countries did not, and one group was not sure. The same figures emerged with regard to awards as well. For both measures the one group that did say their country had the measure in question also opined that the effects were positive.

Whereas four respondent groups said that their countries had patent laws, legislation on plant-breeders' rights appears less common than in some other regions. Only two of the Latin American groups said that their countries had such legislation, while three groups said that their countries did not. The groups that gave an opinion about the effects said that they were positive: one group in the case of plant-breeders' rights and two groups in the case of patent law.

In response to the question about specific measures and their effects, most of the respondent groups from Latin America answered that there were not any relevant measures in their countries.

7.1.4 *Europe and North America*

Also very few respondents from Europe/North America said their countries had the first two measures, 'right to benefit-sharing is covered by law' and 'national fund for benefit-sharing in place'. Only one respondent said his country had legislation that covered the right to benefit-sharing; he added that the effects were mixed/non-existent. None of the respondents from Europe and North America said their countries had a national benefit-sharing fund in place. In both cases, 13 respondents said their countries did not have such measures, while the remaining respondents were not sure.

The measure most respondents answered that they had were legislation on plant-breeders' rights and patent laws. Respectively 11 and 14 out of 17 respondents said their countries had these measures. None of the respondents from Europe and North America said that their countries did not have patent law, while three said they did not have legislation on plant-breeders' rights. In both cases, three respondents were not sure whether their countries had these measures or not. As noted in previous chapters, the Europe/North America group of respondents is the most polarized as regards views on the effects of these measures. None of the respondents said that they thought the effects had been mixed or non-existent with regard to either of the measures, while most of those who gave an opinion said the effects were negative. In both cases the two representatives from the seed industry said the effects of these measures were positive, and in the case of plant-breeders' rights legislation they were joined by a representative from the public sector. The group of respectively 7 and 11 respondents who said the effects of plant-breeders rights legislation and patent laws were negative was made up of NGO and farmer representatives as well as one respondent in the 'other' category.

A majority of the respondents also said their countries had agricultural policies and incentives in general, and most felt that the effects were negative or mixed/non-existent. However, no particular differences among stakeholder groups could be seen on this point.

Community seed banks were the only other measure that a majority of respondents (nine) from Europe/North America said their countries had, and seven of these felt that the effects were positive. Participatory plant-breeding projects and financial support to diversity farming seem slightly less common in these regions; seven respondents said diversity farming received financial support in their countries while eight respondents said there were participatory plant-breeding projects in their countries. Almost all of those who gave an opinion said the effects of financial support to diversity farming in their countries were mixed/non-existent. They viewed projects on participatory plant-breeding more favourably: five respondents said the effects of such projects were positive, while the two seed-industry respondents said that the effects were mixed/non-existent.

Views on projects for marketing of diversity products were also predominately positive among those who indicated an opinion. Seven respondents said their countries had this measure, and five of these said the effects were positive. Capacity-building for Farmers' Rights seems even less widespread in these two regions than in the others; only one of the respondents answered that his or her country had this measure. In these regions as well, capacity-building for diversity farming is more common. Five respondents said that their countries have this type of capacity-building; of these, three said the effects were mixed/non-existent and two felt that the effects were positive.

'Awards' is the measure the highest number of respondents were not sure whether their country had, or not. As many as ten respondents were not sure; of the two respondents who said their countries had this measure, only one offered an opinion about the effects – and that was that they were negative.

It is worth noting as regards *most* of the measures respondents did not indicate that they found the effects in their countries to be negative. The only exceptions are legislation on plant-breeders' rights, patent laws, agricultural policies in general and awards.

When specifying the measures in their countries and their effects, the seed-industry representatives mentioned the UPOV-compliant legislation on plant-breeders' rights with 'breeder's exemptions' that allow farmers to freely use protected varieties for breeding. They emphasized that these laws facilitate competition and a very quick spread of progress, and that farmers always have access to beneficial improved varieties.

However, the farmer respondents from France reiterated their belief that legislation on plant-breeders' rights undermines the rights of farmers to use, exchange and sell farm-saved seed. They also said that the various support systems for diversity farming impose legal standards that are detrimental to the development of diverse varieties with a high degree of adaptability. In their view, community seed banks and marketing of

diversity products operate on the 'fringes of national law' (Caroline Collin and Guy Kastler, France). Beate Koller from Arche Noah in Austria also underlined that allowing farmers to sell their own seed would be an important incentive for growing rare varieties. She said that in Austria such sales are mostly tolerated, but that there is no legal framework or active promotion in relation to such activities.

One respondent said that his country has no measures in place, and one respondent noted that to the extent there is any support to diversity farming, it is insufficient. In this connection, mention was made of the limited interaction between local farmers and plant-breeders. A respondent from the USA noted some support from local governments to heirloom varieties and traditional knowledge through farmers' markets, as well as university programmes for organic agriculture.

7.2 Major gaps and needs with regard to benefit-sharing

The respondents were asked the following question; *'in your opinion, what are the most important gaps and needs with regard to benefit-sharing in your country?'* Again, the lack of relevant legislation and policies and the lack of awareness and knowledge were mentioned as important shortcomings by many respondents from all regions.

7.2.1 Africa

The issue mentioned by the greatest number of African respondents was legislation and policies. For most of these respondents, the lack of relevant laws and policies on benefit-sharing was the problem, while for some it was a question of implementing existing legislation and ensuring that other existing laws, such as the seed act and plant-breeders' rights act, are not in conflict with the objective of equitable benefit-sharing. One respondent, Shelix Munthali from Malawi, also mentioned that she thought that intellectual property rights related to local knowledge should be put in place to ensure benefit-sharing and provide incentives for farmers to maintain local diversity and the related knowledge.

Lack of awareness and knowledge on the subject of benefit-sharing was mentioned by many respondents. Mahara Nyirenda (also Malawi) underlined that greater awareness about the importance of benefit-sharing and Farmers' Rights in general was needed both among farmers, so that they can know about their rights, and at the national level. Regassa Feyissa from Ethiopia mentioned that his country already has a legal tool in place for benefit-sharing, but that awareness about it and the relevant procedures and measures are needed for local-level implementation.

Some respondents mentioned issues related to participation as a barrier to benefit-sharing. A respondent from Uganda, for example, said that subsistence farmers that are not engaged in consultations with the government make up 90% of the population. She felt that NGOs and civil society organizations should receive the necessary support to take on this role. Another respondent mentioned the lack of organizations working for this cause.

Other issues mentioned included marketing support related to indigenous crops, the need to implement the Plant Treaty nationally, the need for a national forum where the relevant actors can share ideas on the subject, and the general lack of measures. Sue Taylor (South Africa) said that commercial exploitation of indigenous plants and knowledge usually takes place without any benefit-sharing, but mentioned the case of Amarula Liquor made by Distell from Marula trees as one exception. The local communities are in this case paid to collect fruit from the wild Marula trees, something which both promotes the conservation of these trees and brings in money to the communities.

7.2.2 *Asia and the Near East*

Among the respondents from Asia and the Near East, the issue of awareness and knowledge and related aspects was mentioned by the greatest number of respondents. Specifically mentioned were lack of knowledge among relevant organizations, lack of capacity-building programmes, lack of agricultural training programmes, the need to disseminate information to farmers and the need for improved awareness on Farmers' Rights in general among farmers. To improve awareness, C. Ravindran of India suggested a large-scale, national level survey among farmers.

Many respondents noted the lack of relevant legislation and policies as a barrier to benefit-sharing. In this connection, Singay Dorji from Bhutan specified that what was needed was a national policy on access and benefit-sharing, a national access and benefit-sharing fund, development of national mechanisms for access and benefit-sharing and appropriate organizations to coordinate this matter nationally. Khalil M. Alsharjabi (Yemen) underlined the lack of 'well-integrated and multi-sector policy, strategy and coordinated action plan'.

The issue of participation was also touched upon by two respondents: one mentioned the lack of power among and representation of small-scale farmers and local communities, while another said that strong farmer organizations were needed at both the national level and at the community level.

In addition, Diana Lakmini from Sri Lanka mentioned the gap between farmers and researchers. She said that research findings are not successfully delivered to farmers, and as a result the benefits of the research are not shared with farmers as much as they should be. Other issues mentioned included the lack of financial support and funds, deficient extension services and encouragement of corporate farming at the expense of cooperative farming.

7.2.3 *Latin America*

Lack of legislation was reported by almost all respondent groups from Latin America. The only group not to mention this issue was FPMA El Salvador, which noted farmers' lack of information as a major obstacle to benefit-sharing. The need to exchange knowledge and experiences was also brought up by the group from Guatemala. Among the respondent

groups that underlined the current lack of laws, FPMA Guatemala specified that the legislation in question was related to property rights and benefit-sharing, while the group from Nicaragua thought there should be a law that provided production incentives, loans and patents for farmers and ensured benefit-sharing. FPMA Honduras wanted improved land distribution and laws for this purpose. They also underlined the need for predictability, and that changes of government should not have an effect on equitable distribution.

7.2.4 Europe and North America

Many respondents from Europe and North America mentioned the lack of national legislation on benefit-sharing. In addition, existing laws were also here mentioned as an obstacle, with one respondent from Canada saying that benefit-sharing is of no use to Canadian farmers as long as the laws on intellectual property make it illegal for them to save their own seeds.

Other issues mentioned included the lack of federal government support, the fact that the USA is reluctant to sign international treaties, and the need for governments in the North to prevent the illegal acquisition of plant genetic resources and the associated knowledge from other states. This last issue was mentioned by Patrick Mulvany from the UK, who also underlined the need for governments to support effective benefit-sharing measures, especially those that build on local knowledge and encourage South–South exchanges. He also thought that intellectual property rights should be outlawed in relation to varieties covered by the Plant Treaty and that the list of varieties in Annex 1 should be expanded. The Spanish farmers' organization COAG reported that there are no initiatives related to benefit-sharing in Spain because of pressure from plant-breeders.

7.3 Other views and experiences regarding benefit-sharing

To give the respondents an opportunity to share any opinions or information that might not have been covered by the previous questions, the following question was asked: '*do you have any other views and experiences regarding benefit-sharing in your country?*' Not many respondents had any additional points to add, but the issues brought up are presented here.

7.3.1 Africa

The need for improved awareness – both for government representatives, so they will understand the concepts better, and for farmers, so that they become aware of their rights – was mentioned under this heading as well. One respondent said that farmers are not aware of the benefit-sharing mechanism under the Plant Treaty.

George Phiri from Malawi noted that his country has plans to develop National Regulations for Access and Exportation of Genetic Resources, and that these also will provide for benefit-sharing. Regassa Feyissa from Ethiopia mentioned two benefit-sharing agreements from his country, one for *tef* and one for *vernonia*, and added that there are challenges related to

making these meaningful and acceptable. He also said that very little information about these agreements has so far been disseminated to the local farming communities.

A respondent from Kenya said that small-scale farmers are left out of the existing benefit-sharing projects, for example farmers' shows, and that there therefore is a need for exhibitions intended specifically for small-scale farmers. Another African respondent said that his country needs help in setting up a management unit for the purpose of benefit-sharing. The need to facilitate NGOs so that they can take the lead on the issue of benefit-sharing and Farmers' Rights in general was reiterated by Gertrude Kenyangi Kabusimbi from Uganda.

7.3.2 *Asia and the Near East*

No particular tendency could be observed with regard to the issues taken up by the respondents from Asia and the Near East in response to this question.

Bikash Paudel from Nepal restated his belief that there should be two separate systems for benefit-sharing; one for plant genetic resources for food and agriculture with mechanisms for indirect benefit-sharing, and one based on bilateral access with a mechanism for direct sharing of benefits for other genetic resources and the associated traditional knowledge.

Diana Lakmini (Sri Lanka) said that her experience from participatory plant-breeding projects has made her understand the value of and need for farmer participation in relevant research. Another respondent, Krishna Roka from Nepal, thought that agriculture should be part of the school education in rural areas and that people should have access to information materials on agriculture. Paul Borja (the Philippines) said that he did not know of any cases where farmers had been involved in benefit-sharing.

The issue of seed-saving practices was taken up by Pankaj Bhushan from India, who emphasized that farmers' rights to save, use, exchange and sell seeds should be an inalienable right and the basis for any legislation and policy related to seed.

7.3.3 *Latin America*

Only two of the respondent groups from Latin America had any further points to add. FPMA Nicaragua said that their country has an environmental law that covers incentives, but this law has not yet been implemented. FPMA Honduras said that thus far they had observed only non-equitable benefit-sharing.

7.3.4 *Europe and North America*

None of the respondents from North America wrote any additional comments under this question, but the respondents from Europe who did so had slightly diverging views on the subject of benefit-sharing. Frank Begemann (Germany) wrote that the Plant Treaty does not cover farmers'

land races only, but also modern varieties, and that in Germany farmers benefit from high-quality, high-yielding varieties. As he sees it, these varieties contribute to income generation of farmer families, and a fair and equitable balance has been found that meets the interests of all stakeholders in the agricultural sector. Patrick Mulvany from the UK, on the other hand, wrote that most benefits from plant-breeding go to the seed companies, holders of intellectual property rights and contracted research institutes. He feels that farmers are seen as 'consumers', and not 'beneficiaries'. The farmer respondents from France, Guy Kastler and Caroline Collin, underlined that because they do not recognize intellectual property rights on living organisms and seeds, they do not accept monetary benefit-sharing from such rights. In their view, the benefits to be shared must stem from the sale of seed which prevents farmers' free use, and should be used to finance participatory plant-breeding, on farm conservation and local seed banks. Riccardo Bocci (Italy) noted that the regional laws in his country could be seen as contributing to non-monetary benefit-sharing.

7.4 Preliminary conclusions on benefit-sharing

According to the respondents in this survey, the most widespread measures affecting benefit-sharing nationally are patent laws, agricultural policies and incentives in general, plant-breeders' rights legislation, participatory plant-breeding projects and community seed banks. Of these, the last two were generally regarded in a more favourable light as regards their effect, although some stakeholder differences were evident in Europe.

The least common measures affecting benefit-sharing in the countries represented in this survey, according to the participating respondents, are national funds for benefit-sharing, benefit-sharing legislation, awards, capacity-building for Farmers' Rights and financial support to diversity farming. Most of these measures were generally seen as having positive effects by those from countries that did have such measures.

Also with regard to benefit-sharing, the lack of relevant legislation and policies and a lack of awareness and knowledge were noted as important shortcomings by the greatest number of respondents across the various regions.

8 The rights of farmers to participate in making decisions at the national level regarding plant genetic resources for food and agriculture

This chapter presents respondents' views on national measures affecting farmer participation regarding plant genetic resources for food and agriculture in their countries, as well as what they see as the major gaps and needs as regards national implementation of such participation. Any other views and experiences the respondents chose to share regarding this issue are also presented.

8.1 National measures affecting the participation of farmers in decision-making

A similar phrasing to that used to elicit respondents' views on the protection of traditional knowledge and the realization of benefit-sharing was used to find out about national measures affecting the participation of farmers in decision-making and what the respondents thought of them: *'which national measures in your country affect the participation of farmers in decision-making at the national level, and how?'* The measures listed as alternatives were: legal right to participation is covered by law, participation in relevant committees, hearing procedures involving farmers' organizations (consultations of farmers), decision-makers are trained in farmers' rights, capacity-building for farmer participation, and facilitation of farmer activity/participation in major newspapers/media. Respondents indicated whether or not their country had such measures or if they were not sure, and those who answered in the affirmative could indicate whether they felt the effects of the measures in question were positive, negative or mixed/non-existent. Respondents could also add information on any measures in their countries not covered by these categories.

The most common measures across regions were participation in relevant committees and hearing procedures involving farmers' organizations. More than half of the respondents, 32 in both cases, said their countries have these measures. The measure mentioned by the fewest respondents was 'decision-makers are trained in farmers' rights': only 10 respondents said their countries had this measure. Of the remaining three measures, legislation that covered the legal right to participation was noted by one third of the respondents as something their country had, while only 15 and 16 respondents respectively said their countries had capacity-building for farmer participation and facilitation of farmer participation in media.

Facilitation of participation in media, capacity-building for farmer participation, and training of decision-makers in Farmers' Rights were regarded as having positive effects by a clear majority of the respondents who indicated an opinion. Ten of the respondents whose countries had this measure said they thought the effects of facilitation of farmer participation in media were positive, whereas two said they thought they were negative and three said the effects were mixed/non-existent. For capacity-building for farmer participation the corresponding figures were

nine, zero and two; and for training of decision-makers in Farmers' Rights nine of the ten respondents who said their countries had this measure opined that the effects were positive, while no one said the effects were negative or mixed/non-existent.

Most of those who gave their opinion also regarded participation in relevant committees as having positive effects, but here the majority was smaller. While 15 respondents said they found the effects to be positive, ten said they thought the effects were mixed or non-existent and one respondent said the effects were negative. It is worth noting that for all these measures more respondents considered the effects to be mixed or non-existent than directly negative.

On the other hand, legislation covering the right to participate in decision-making and hearing procedures involving farmers' organizations were seen by a majority of those who indicated an opinion as having negative or mixed/no effects. Of those who said their country had hearing procedures involving farmers, 13 found the effects to be mixed or non-existent, while 12 respondents said the effects were positive. For the measure 'legal right to participation is covered by law' seven respondents who answered that their country had this measure thought the effects were mixed or non-existent; while two thought they were negative and six found the effects to be positive.

For all six measures, between 9 and 17 respondents were not sure whether their countries had the measure in question or not.

8.1.1 Africa

In line with the general findings, the measure the greatest number of African respondents said that their countries have was hearing procedures involving farmers' organizations. As many as ten respondents noted that their countries had this measure, while eight said their country's farmers participate in relevant committees. It was only with regard to these two measures that a higher number of respondents replied that their countries had the measure than said their countries did not have the measure. Among the respondents who indicated their opinion about the effects, a majority in both cases deemed them to be positive. With respect to hearing procedures, none of the respondents said the effects had been negative, while three said the effects had been mixed or non-existent. On the other hand, one respondent labelled the effects of participation in relevant committees as negative.

'Capacity-building for farmer participation', 'decision-makers are trained in Farmers' Rights' and 'legal right to participation is covered by law' were the measures lacking in the greatest number of countries, according to respondents. Additionally, very few said that their countries facilitated farmer participation in media, but there were many who were not sure. Of the respondents who thought their countries had these measures and indicated their opinion as to the effects, most felt that the effects had been positive. The exception was 'legal right to participation is covered by law', as none of the respondents chose to label the effects either positive or negative, while two said they were mixed or non-existent. It is also

worth noting that while all of the respondents who indicated an opinion thought the effects of ‘decision-makers are trained in Farmers’ Rights’ and ‘capacity-building for farmer participation’ were positive in their countries, one respondent found the effects of facilitating farmer participation in the media to be negative.

In response to the question ‘*please specify the most important measures in your country, and their effects*’, the problem of implementation was mentioned by the greatest number of respondents. It was felt that this was an area where improvement is needed, as useful legislation often exists but is not implemented.

Farmers’ unions were also mentioned, as many African countries have such unions that coordinate farmers at the national level, but it was mentioned that these organizations are not well equipped to deal with the issue of Farmers’ Rights. Lawrent L.M Pungulani from Malawi claimed that the farmers’ organizations in his country put too much emphasis on a few crops and ignored other and equally important ones.

One respondent mentioned that the government listens to farmers only when there is an agricultural crisis affecting national food security, such as droughts. Andrew Mushita from Zimbabwe said that there was some farmer participation in his country, mainly through NGO efforts and limited to the areas where such NGOs operate. As an example of a positive development, one respondent mentioned the annual Farmers’ National Day in Burkina Faso where farmer-breeders are given the floor, something that gives them confidence in their work.

8.1.2 Asia and the Near East

Also among the respondents from Asia and the Near East, the greatest number said their countries have the measures ‘participation in relevant committees’ and ‘hearing procedures involving farmers’ organizations’. A majority said their countries had farmer participation in relevant committees, while a considerable minority said their countries had hearing procedures where farmer organizations were involved. Of those who indicated their opinion about the effects of these measures, none categorized them as negative. In both cases the majority said the effects were positive, while some saw them as being mixed or non-existent.

With seven respondents saying that their country had ‘legal right to participation covered by law’, this measure came in third, although the remaining ten respondents constituted the majority. Also with regard to this measure the majority of those giving an opinion said the effects in their country had been positive, and none chose to label the effects as negative.

Of the three least common measures, ‘decision-makers are trained in Farmers’ Rights’ had the lowest number of mentions, five altogether. With regard to both ‘capacity-building for farmer participation’ and ‘facilitation of farmer participation in media’, six respondents replied that their countries had such measures. For all three measures a clear majority of respondents responded that their countries did not have such measures

– eleven in the case of decision-makers being trained in Farmers' Rights, and ten and nine for the other two respectively. In all cases some respondents also replied that they were not sure.

With regard to the effects of decision-makers being trained in Farmers' Rights and capacity-building for farmer participation, all of the respondents who gave their opinion labelled the effects in their own countries as positive. However, when it came to facilitation of farmer participation in media, one respondent felt that the effects were negative, although the majority saw them as positive.

Among those who responded to the open question regarding the most important national measures regarding farmer participation in their respective countries and the effects, one point mentioned by more than one respondent was the issue of true and effective farmer representation. Respondents from both India and Nepal, for example, noted that the national legal framework gives farmers the opportunity to be represented in committees and decision-making bodies, but that challenges remain in effective implementation of the provisions and in ensuring that the representatives actually represent farmers. Both capacity-building for farmer representatives and the procedures for choosing representatives were seen as relevant in this context.

While some respondents underlined that their countries have farmer participation in relevant committees, especially at the local level, and the positive effects of this for farming communities, others, like Diana Lakmini from Sri Lanka, reported that there were no possibilities for farmers to engage in decision-making at the national level in her country, so their views are not represented in national policy planning.

Other respondents highlighted their country's efforts towards enhancing farmers' participation in the protection of crop genetic resources through farmer trainings and capacity-building, but it was also noted that such activities often need institutionalization and follow-up.

8.1.3 Latin America

Participation in relevant committees was also the measure that the greatest number of respondent groups from Latin America noted that their country had: three of the five groups said their country had this measure, while two groups said they did not. Two of the groups also indicated that they found the effects to be positive, but the others did not share their views on this point.

With regard to the other measures, only two groups said their countries had these. The only exception was 'decision-makers are trained in Farmers' Rights', where only one of the respondent groups noted that their country had this measure. Of those that had reported that their countries had the measures in question and gave their opinion on their effects, most groups found these effects to be positive. The only exception here was the one group that considered the effects of 'legal right to participation is covered by law' to be negative in their country.

In response to the open-ended question about the most important measures in their country and the effects, the respondent group from Guatemala replied that the effective participation of farmers was most important, while FPMA Nicaragua responded that there were no such measures. FPMA Honduras underlined that they would like to be able to give their opinion and participate through committees.

8.1.4 *Europe and North America*

As was the case with the other aspects of Farmers' Rights, the group of respondents from Europe and North America is also the most divided on farmer participation and the effects of the measures in question. However, the internal regional differences were not great, as there were clear majorities in one of the directions for many of the measures. This was the case with regard to decision-makers being trained in Farmers' Rights, where only one respondent out of seventeen said that this was the case in his/ her country. Similar strong tendencies, although in the opposite direction, could be seen with regard to the participation of farmers in relevant committees and hearing procedures involving farmers' organization: in both cases, twelve respondents said that their countries had these measures while only three said they did not (the remaining said they were not sure). Of the respondents who noted that their countries had these measures and who gave their opinion about the effects, most said that the effects were mixed or non-existent, while the remainder said they were positive. Again some stakeholder differences could be noted in this group, as all the respondents who thought the effects were positive came from the seed industry. This was actually the tendency with regard to all measures in this category, not only the two cited by the greatest number of respondents as existing in their countries. No respondents described the effects of any measure as negative, but while the farmers and NGO representatives tended to find the effects non-existent or mixed, the respondents who saw them as positive came either from the seed industry, or, as in the case of 'facilitation of farmer participation in the media', from the public sector. As few as four respondents said that their countries had this measure; six said they had it, and as many as seven said they were not sure. A clearer majority, as many as eleven, reported that their countries did not have capacity-building for farmer participation. With regard to the right to participation being covered by law, the figures were more even, as seven said this measure existed in their countries, eight said it did not and three were not sure.

As to saying more about the most important measures in their countries and their effects, the respondents from Europe and North America mentioned processes in which farmers participate in their countries, such as the organic certification process in the USA and regional and national committees in Spain. However, many expressed discontent with the organization of the participatory processes. One respondent felt that the organization of consultative meetings and hearings and the framing of the questions ignore dissenting opinions, while another said that national-level farmer participation is merely reactive and that the farmers have no influence with regard to policies and planning. Some respondents felt that decision-makers are overly concerned with plant-breeders' rights at the

expense of Farmers' Rights. The importance of capacity-building in relation to effective participation in decision-making was also underlined.

Differing views on the situation in a given country also emerged, as between the respondents from France, two of whom were from the seed industry and two were farmer representatives. The seed-industry representatives underlined that farmers are present in all relevant bodies through their representatives, as provided by law, whereas the two farmers felt that the role of small-scale farmers was very minor compared to that of the industry and large-scale farmers.

8.2 Major gaps and needs with regard to participation in decision-making

Various issues surfaced when respondents were asked: *'in your opinion, what are the most important gaps and needs with regard to the participation of farmers in decision-making regarding plant genetic resources for food and agriculture in your country?'* Lack of legislation and policies properly targeting this issue and facilitating effective farmer participation was a recurring issue. That farmers had insufficient awareness of their rights, as well as insufficient capacity to actually participate, was also brought up. In some regions the need for farmers' organizations was mentioned, and especially in Europe and North America the issue of balanced representation of various farmer groups came up.

8.2.1 Africa

The issue touched upon by the greatest number of African respondents when asked the question above was the lack of policies and mechanisms that require and facilitate farmer participation at the national level. Respondents from six different countries mentioned this lack as a barrier to farmer participation in decision-making.

Some respondents also underlined that most farmers in their countries are not aware of their rights and 'would not easily get to hear of opportunities to "participate"' (Sue Taylor, South Africa). It was also noted that most farmers lack the resources or capacity to participate in such processes, so there seems to be a need both to disseminate information about Farmers' Rights and to improve farmers' abilities to participate in a way that can improve the chances for actual impact. Illiteracy was also mentioned as a barrier.

A few respondent saw the lack of effective farmers' organizations as an obstacle to participation; they stressed that well-organized cooperatives or associations that could participate in relevant processes are needed and that it is necessary for farmers to coordinate before participating in decision-making processes. One respondent who raised the issue of farmer organization was Mahara Nyirenda from Malawi, who said that 'farmers are not well organized into strong institutions like cooperatives or associations which can easily be used in forums regarding genetic resources.'

One respondent noted that his country needed local community organizations that are involved in management of plant genetic resources for food and agriculture, while another respondent expressed the wish for a national consultation process involving all stakeholders.

8.2.2 *Asia and the Near East*

Capacity-building was seen as the most important aspect by many respondents from Asia and the Near East. For some this was mostly a matter of increasing farmers' capacity to participate in decision-making processes, while others considered it important to ensure that functionaries and official institutions, both locally and nationally, have the necessary knowledge and capacity, or that the members of the public in general are educated about these issues and capacity-building is conducted on a large scale. A related aspect also mentioned was the need for greater awareness of the importance of farmer participation among decision-makers.

Another issue mentioned by respondents from these regions was the lack of legislation and policies addressing Farmers' Rights, or specifically the right of farmers to participate in decision-making regarding plant genetic resources. Tejo Pramono from Indonesia, for example, felt that existing laws mainly protected the corporations.

The importance of strong and well organized farmers' organizations was also mentioned as a prerequisite for participation, and was described as lacking in some countries. Respondents stressed that farmers must discuss the issues, and that farmer participation should be collective and group-based, rather than individual. On the subject of choosing farmer representatives, C. Ravindran from India underlined that selection should be on the basis of merit, and that representatives should be selected by the farmers in the respective villages after voting. It was pointed out that for example in Nepal there are no national farmers' organizations that truly represent the farmers (Bikash Paudel, Nepal) and that it is mostly 'elite farmers' who take part in decision-making processes (Krishna Roka, Nepal).

Mention was also made of the lack of coordination between farmers, research and extension services, and the need for government officials to encourage farmer participation and to consult small-scale farmers.

8.2.3 *Latin America*

The lack of legislation addressing farmer participation in decision-making was brought up as an issue in this region as well. It was also mentioned that small-scale farmers should be better represented in decision-making processes nationally, and that lack of knowledge was a barrier to participation. FPMA Costa Rica felt that the opinions of farmers were not taken sufficiently into account.

8.2.4 *Europe and North America*

The issue mentioned by the greatest number of respondents from Europe and North America as to gaps and needs in relation to farmer

participation in decision-making in their countries was the representation of small-scale farmers and farmers who maintain agricultural biodiversity. These respondents represented NGOs and farmer groups and felt that the farmers who conserve and develop plant genetic resources were underrepresented, and that the farmer representatives who take part in decision-making processes were not representative of diversity farmers. In their opinion there is a need to involve the farmers who maintain plant genetic resources, and not just the big farmers' unions. For example, Riccardo Bocci from Italy said that it is the farmers' union that takes part in relevant processes, but that they do not represent the farmers who maintain biodiversity; moreover, they dismiss agricultural biodiversity as something of the past.

The representative from Arche Noah from Austria said that the national ministry of agriculture does not provide enough resources for coordination and information exchange between stakeholders. Further, the country needs a body or structure that could promote such sharing and cooperation between the formal and informal sectors and farmers' organizations, as well as systematically involve farmers in decision-making processes.

COAG from Spain on the other hand, felt that one of the main problems was that the authorities do not take into account the proposals of farmers in the consultation processes. In this context capacity-building was seen as central, both to raise the capacity of farmers, and to make decision-makers better informed about Farmers' Rights.

In North America somewhat different aspects than in Europe were emphasized. Here the main problems were seen as being the power of the agri-business corporations and the corporate concentration in this sector.

8.3 Other views and experiences

Also in connection with the issue of participation respondents were given the opportunity to share any opinions or information not covered by the other questions under this issue. Only some of the respondents had additional information to share.

8.3.1 Africa

The African respondents revealed that many countries in this region still have quite a long way to go in terms of farmer participation in decision-making. Many respondents said that there was either limited or no such participation in their countries, and underlined that any participation currently being practised was mostly at the local level.

Some participants mentioned certain forms of farmer participation through NGOs and projects, for example the consultations organized by the CTDI in Zimbabwe and the participation of farmers in crop trials were also brought up. George Phiri from Malawi underlined that in his experience farmer participation in decision-making, for example in pilot projects, have resulted in enhanced agricultural biodiversity and resilience.

Unsuccessful efforts by farmers to influence decision-makers, such as the campaign by Kenyan farmers against GMOs, were also mentioned.

One respondent emphasized that decisions affecting farmers should only be made after wide consultations with farmers and farmer organizations, and Gertrude Kenyangi Kabusimbi from Uganda underlined that true and effective farmer participation will only happen through organizations actually initiated by farmers rather than imposed on them.

8.3.2 *Asia and the Near East*

Also some of the respondents from Asia and the Near East shared information that underlined the rather limited role played by farmers in decision-making related to plant genetic resources for food and agriculture. One respondent from Yemen said that the projects built around farmer participation usually involve farmers in only a rather superficial way in the planning stages, through consultations and information gathering. Another respondent from the same country reported that farmers do not take part in the management, implementation and follow-up of such projects. Mahmood Ahmad from Pakistan underlined that it is mostly the farmers involved in large-scale agriculture who are consulted by the government, whether at the provincial or the national level. Paul Borja from the Philippines wrote of farmer participation in forming legislation and policy, but at the local level only. Farmers often have little time available, and one respondent underlined that time constraints function as an obstacle to participation.

Some respondents also reported on positive developments. Bikash Paudel from Nepal said there is a growing acceptance among Nepalese policy-makers of the importance of farmer participation in decisions affecting farmers, but stressed that capacity-building is necessary to achieve effective farmer participation. Diana Lakmini from Sri Lanka emphasized that in her country NGOs are encouraging farmer participation in national-level policy forums where NGOs and government representatives also take part.

Gender was raised as an issue by N. Anil Kumar from India, who said that women should get the opportunity to represent farmers, as they are very knowledgeable about seed protection and management. With respect to farmer representatives, another respondent stressed that more farmers should be involved in decision-making processes to a greater extent, but that such representatives need to have well-informed about the crop genetic resources in their area before participating in decision-making. Capacity-building is thus central in this context as well.

8.3.3 *Latin America*

None of the respondent groups from Latin America had any further comments to add under this question.

8.3.4 *Europe and North America*

The additional comments from Europe and North America were somewhat pessimistic. One participant referred to the national rhetoric in Canada on including all stakeholders, and how this leads to the dominance of the industry because they have the resources to influence the outcomes; another respondent said that the possibility for farmer impact in Canada used to be greater when the Western Canadian Wheatpool was still in operation. One of the US respondents noted that the Washington State Grange, a nation-wide farmers' organization, has been able to influence policy in some instances through lawsuits, but that the average age of members is high, and new recruitment a problem.

However, positive experiences were also noted. One participant referred to Italy's Rural Seed Network (Rete Semi Rurali) as a good example of how various associations can come together and try to influence law and policy.

8.4 Preliminary conclusions with regard to participation in decision-making

As to measures affecting the participation of farmers in decision-making, the most common measures across regions were participation in relevant committees and hearing procedures involving farmers' organizations. More than half of the respondents said their countries have these measures. The measure mentioned by fewest respondents was 'decision-makers are trained in farmers' rights': only 10 respondents said their countries had this measure. Of the remaining three measures, legislation that covered the legal right to participation was cited by one third of the respondents as something their country had, while only 15 and 16 respondents respectively said their countries have capacity-building for farmer participation and facilitation of farmer participation in the media.

Facilitation of participation in the media, capacity-building for farmer participation, and training of decision-makers in Farmers' Rights were regarded as having positive effects by a clear majority of respondents who indicated an opinion. Most of those who gave their opinion also regarded participation in relevant committees as having positive effects, but for this measure the majority was smaller. It is worth noting, however, that there were more respondents who considered the effects to be mixed or non-existent, than negative. On the other hand, legislation covering the right to participate in decision-making and hearing procedures involving farmers' organizations were seen by a majority of those who indicated an opinion as having negative or mixed/no effects.

Absence of legislation and policies to facilitate effective farmer participation, insufficient awareness among farmers of their rights to participate, insufficient capacity to actually participate, the need for well-functioning farmers' organizations and balanced representation of various farmer groups were among the factors mentioned when respondents were asked about important gaps and needs. Once again it can therefore be concluded that there is in many countries a need for awareness-raising and capacity-building, as well as legislation and policies targeting Farmers' Rights.

9 Recommendations and other input

In this chapter, we present the respondents' recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level. We also highlight other issues taken up by the respondents and not covered by the original questionnaire.

9.1 Recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level

The responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments, according to Article 9 of the International Treaty. Nevertheless, the Governing Body of the Treaty, which consists of all contracting parties, shall promote the full implementation of the Treaty, including the provision of policy direction and guidance, and monitoring of implementation (Article 19). According to Article 21, the Governing Body is to ensure compliance with all provisions of the International Treaty, and the Preamble highlights the necessity of promoting Farmers' Rights at the national as well as the international levels. A crucial question is thus how the Governing Body can promote compliance with the provisions of the Treaty related to Farmers' Rights. We asked the respondents to provide recommendations to the Governing Body.

Recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level were provided by 43 respondents and the farmers consulted in five countries in Latin America. Several of the answers contained longer lists of recommendations.

9.1.1 *Africa*

From Africa, 18 respondents made recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level. Several of the answers contained longer lists of recommendations. The majority of these respondents (11) stressed the importance of providing guidance and support to countries for the purpose of developing adequate legislation, policies, strategies and programmes for the realization of Farmers' Rights. Some of these also highlighted the need to establish a Farmers' Rights government body for the promotion and coordination of activities. Enforcement of legislation and implementation of policies and strategies is an important concern which requires support; it was raised by several respondents. Whereas the Governing Body has an important role to play in facilitating advice and supporting countries in their efforts to establish functional legal and political frameworks for the realization of Farmers' Rights, also the countries need to establish financial mechanisms on their own, to ensure such policies. Several respondents (10) offered recommendations as to what the Governing Body should support financially, or how countries themselves can establish national-level financial mechanisms.

Awareness-raising and capacity-building is another central concern among many respondents (10). Farmers are central in this regard, but several respondents also stressed the importance of awareness and capacity-building among relevant government officials, as well as researchers and in the seed sector as a whole. One respondent also underlined the need for awareness-raising among the general public. There were many suggestions as to how to organize such activities; these are further detailed below. The Governing Body has a key role to play in this regard, to facilitate and ensure support for such activities. Involving farmers in participation at all levels was raised as a concern by some respondents, and was also implicit in several of the responses. Various suggestions were offered for achieving farmer participation. Awareness-raising and capacity-building are important means to enable the development of such participation.

A few respondents explicitly voiced the need to improve informal seed systems. This concern was also implicit in several other recommendations (about legislation, policies and capacity-building).

One respondent voiced the need to develop minimum standards for Farmers' Rights based on national and regional experiences, and bringing these to a level of international harmonization. This would be a core task for the Governing Body in supporting the realization of Farmers' Rights.

Supporting the development of legal framework, policies and programmes

Andrew Mushita (Zimbabwe) writes that there is a need for the Governing Body to assist governments of contracting parties, especially those from developing and least developed countries, to assess and identify the aspects of Farmers' Rights that are important for their respective countries. Lawrent L.M Pungulani (Malawi) recommends that the Governing Body should encourage contracting parties to develop and enact Farmers' Rights. George Phiri (Malawi) recommends that the Governing Body should promote and support the development of national agricultural biodiversity policy with key provisions in the realization of Farmers' Rights. Regassa Feyissa (Ethiopia) suggests that the Governing Body could assist national governments in developing policies and strategies to enable farmers' participation in planning and decision-making while designing agricultural development programmes/projects and activities. Didier Balma (Burkina Faso) highlights the need for legalization with regard to traditional knowledge. George O. Banja (Kenya) recommends that the over 100 pieces of legislation in this sector in Kenya should be consolidated and harmonized to ensure full implementation for the benefit of farmers and consumers.

Shelix Munthali (Malawi) suggests that the Governing Body should encourage governments to develop policy formulation and legislation to create an environment favourable to awareness-raising about Farmers' Rights, whereas Amédé Daki Bopolo (DRC Congo) suggests that it put pressure on the decision-makers of developing countries, to get them to comply and bring those rights into reality.

Edwin E. Ekaiko (Nigeria) recommends the establishment of national bodies or agencies. Another respondent suggests that a focal person within each ministry of agriculture be appointed, while there should also be a contact person with a small management unit outside the government to coordinate relevant activities and channel funds.

On behalf of consulted farmers in Cameroon, Pascal Nkwe Makongo suggests that the Governing Body should encourage the State of Cameroon to adopt national legislation through the signing of the National Collective Agreement of Farmers' Rights (CCNDP), which was submitted to the Head of State in May 2010. The Governing Body should further encourage the State of Cameroon to create a national monitoring agency on Farmers' Rights violations and to establish a register of those involved in activities related to crop genetic resources.

Funding the realization of Farmers' Rights

One of the respondents from Malawi recommends that the Governing Body continue funding country programmes through the call for proposals that it advertises through its benefit-sharing mechanism. Thereby it should make sure that effective linkages are supported between government and non-governmental institutions for the promotion of conservation and sustainable utilization of plant genetic resources.

Andrew Mushita (Zimbabwe) writes that there is a need for the Governing Body to assist those contracting parties that have developed legislative and administrative measures to promote Farmers' Rights at the national level, by providing funding for implementation-focused projects. Didier Balma (Burkina Faso) suggests that the Governing Body should extend financial support into the farming communities and build comprehensive exchange networks for plant genetic resources for food and agriculture and related information. Edwin E. Ekaiko (Nigeria) recommends that the Governing Body fund research and documentation of farmers' innovations at all levels. Mahara Nyirenda (Malawi) highlights the need to support institutions that advance Farmers' Rights, to be identified by government. Gertrude Kenyangi Kabusimbi (Uganda) endorses this stand, stressing need to support farmers' organizations with technical expertise and logistics.

Regassa Feyissa (Ethiopia) recommends that governments develop a mechanism whereby they commit themselves to invest in the conservation and development of crop genetic resources. Through this mechanism, farmers would continue to play their roles and be recognized, supported and rewarded for the responsibilities they shoulder to the benefit of the present and future generations. Most other development sectors have such privileges, directly or indirectly. It should be recognized that as long as we need food, farming and farmers must be there, and those who farm for us deserve to be recognized and rewarded, and not merely on a voluntary basis. This is the kind of perception that the Governing Body needs to promote, he writes.

George O. Banja (Kenya) suggests that access to micro-credits for small-scale farmers engaged in the management of crop genetic resources

should be facilitated. In this context it would also be conducive to undertake the collection and dissemination of information relevant for promotion of good farming practices. Finally, he suggests that partnership between smallholder farmers and players in the agribusiness should be encouraged.

Pascal Nkwe Makongo (Cameroon), on behalf of consulted farmers, recommends that the state should set up a national allocation fund for farmers in order to care for and support them during their earned retirement and during periods of disability resulting from occupational illness and accidents.

Awareness-raising and capacity-building

Regassa Feyissa (Ethiopia) writes that farmers in the centres of diversity, who generally live on limited resources but still maintain and develop the crop/plant genetic diversity essential to present and future generations, are often perceived as 'backward'. National governments and the international community hardly invest in their agricultural systems. The Governing Body can play a role in contributing toward changing such attitudes and perceptions and bringing views together in order to clear up these misunderstandings.

George Phiri (Malawi) recommends that the Governing Body facilitate capacity-building to realize farmer' rights, especially in among the least developed parties whose economies and livelihoods are heavily dependent on the small-scale agricultural sector. Babagana Abubakar (Nigeria) suggests that the Governing Body assist in capacity development as well as in organizing series of train-the-trainers workshops for relevant stakeholders. George O. Banja (Kenya) suggests that the Governing Body promote agricultural education, training, and human resource development that can serve the needs of production, processing and trade activities in this vital sector. Thereby, strong linkages between universities, research institutes, extension agents and producers should be promoted. The focus of capacity-building among farmers should be on value addition, especially processing/labelling of agricultural products.

One respondent stresses the need to for the Governing Body to assist local farmers' organizations in creating mass awareness in the farming sector about Farmers' Rights. They need direct information from the Governing Body relevant for such awareness-raising, as well as financial support for activities, as they have only limited access to information from the Government, and government extension services are too expensive for peasants. Shelix Munthali (Malawi) supports this stand when he writes that the Governing Body should strengthen civil society organizations to create awareness about Farmers' Rights. It should improve farmers' access to information through community radio and newsletters in local languages, and encourage civil society organizations to facilitate the organization of exchange visits for farmers to areas where farmers are exercising their rights. Capacity-building in this regard is important, as highlighted by Amédé Daki Bopolo (DRC Congo): the

Governing Body must help local organizations to participate in training seminars in order to strengthen their abilities.

Pascal Nkwe Makongo (Cameroon) suggests that the Governing Body motivate states to announce a Farmers' National Day. Such an arrangement would enable farmers to communicate with the consumers, the government and others about their rights and roles, as well as cases of rights violations that are barriers to not only their food security but also that of the family and the entire community.

As regards implementing the various elements of Farmers' Rights, Didier Balma (Burkina Faso) suggests various awareness and capacity-building measures, and also stresses the need for farmers' participation in decision-making. He highlights the need for the Governing Body to promote greater public awareness as to the value of knowledge and know-how of farmers and the scope of their protection by strong national laws. Furthermore, in order to promote farmers' rights to participate equitably in benefit-sharing arising from the use of plant genetic resources for food and agriculture, he suggests improving farmers' access to the texts of international conventions (e.g. the Convention on Biological Diversity (CBD), the Plant Treaty) by developing innovative techniques of education and training made available to local rural communities. For Farmers' Rights to be effective, farmers themselves need to be actors. They must take part in such activities as collection, conservation and use of crop genetic resources, and participate in the formulation of laws and regulations, and in the implementation of international conventions relating to plant genetic resources. According to Balma, a strong national programme for voicing the rights of farmers is required, and farmers should be ensured participation in national and international committees relevant to plant genetic resources.

Improving informal seed systems

Didier Balma (Burkina Faso) suggests that farmers' rights to save, use, exchange and sell farm-saved seed and propagating material can be supported by providing support to on-farm management and improvement of crop genetic diversity by broadening the genetic basis of different species. Furthermore he recommends that the production and distribution of seed through strong national laws and regulations be supported. Sue Taylor (South Africa) is concerned about the vulnerability of the farming sector due to climate change. New crop varieties need to be developed to meet this challenge. Crop-breeding takes time, but there are few plant-breeders left in the country and resources are lacking. Thus there is a need for funding to train and retain plant-breeders to help the country adapt to climate change based on its crop genetic diversity and in the context of Farmers' Rights. She asks if the Governing Body can help. Also George O. Banja (Kenya) stresses the need to build up institutional and human resource capacities at local and national levels for sustainability of good crop yields that can address the perennial food poverty in arid and semi-arid areas of the country.

Minimum standards for the realization of Farmers' Rights

Andrew Phiri (Zambia) stresses the need for the Governing Body to develop minimum standards for Farmers' Rights based on national and regional experiences, bringing these to a level of international harmonization. This could result in the development of a model on Farmers' Rights and demonstrate the benefits of the realization of such rights.

9.1.2 Asia and Near East

From Asia and the Near East, 14 respondents provided recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level. Some of the answers contained lengthy lists of recommendations. Most of the respondents (8) recommended the Governing Body to provide guidance and support, technically and financially, to the development of legislation, policies and programmes for the realization of Farmers' Rights, as well as their implementation. One respondent also suggested that the Governing Body should develop guidelines for the purpose.

Several respondents (4) stressed the need for awareness-raising and capacity-building. Here print and electronic media should be utilized and national capacity-building programmes launched. It is important to highlight the crucial importance of these rights, and to get more stakeholders on board in such programmes, not least from government and research. Mass education and awareness programmes are also among the recommendations.

Farmers' participation in decision-making at all levels from the local and up to the international level was stressed as an important concern among some respondents; this was also implicit in other recommendations.

Several respondents from Yemen made suggestions for how the realization of Farmers' Rights could be supported financially, either through the Benefit-sharing Fund of the Multilateral System or a fund to be established for Farmers' Rights. The findings from this survey could serve as a point of departure for efficiently allocating funds to the most important tasks.

Two respondents wrote of how the Governing Body could promote informal seed systems. One recommendation was to encourage the parties to undertake research and education in the area of nutritional and climate change resilient aspects of farmers' varieties. Participatory plant-breeding was also suggested as an important means in this regard. Another recommendation was to develop a mechanism under the Treaty to allow for farmer-to-farmer exchange of plant genetic resources, without necessarily going through the current Multilateral System requirements.

Supporting the development of legal framework, policies and programmes

Singay Dorji (Bhutan) recommends that the Governing Body provide technical and financial support to states for the development of policies and legal frameworks supportive of Farmers' Rights. Such support should include the development of national capacity to implement Farmers' Rights legislation and policies. Mohammed Saleh Al-Nusairi (Yemen) suggests that the Governing Body should help revitalize the existing regulation and enhance its implementation without any barriers. Paul Borja (Philippines) stresses the need to require governments to prioritize the recognition and protection of Farmers' Rights through legislation and policies. Krishna Roka (Nepal) suggests that the Governing Body should help poor countries to write policies and implement them, and in particular giving farmers the rights to what they produce regardless of seed source. Diana Lakmini (Sri Lanka) suggests that the Governing Body develop a proper system to protect and document traditional knowledge, to be introduced in the countries that have signed the Treaty. C. Ravindran (India) recommends that Farmers' Rights be implemented as law for sustainable agriculture development all over the world.

Mahmood Ahmad (Pakistan) stresses the need to design and implement projects/programmes at all levels from the local and up to the national level. Furthermore there is a need for knowledge sharing through, *inter alia*, exhibitions at the national, regional and international levels. The Governing Body should promote such activities.

Pankaj Bhushan (India) has provided a comprehensive analysis of the barriers to realization of Farmers' Rights internationally and in India (see last sub-chapter). Here he stresses the fact that trade international rules supersede other frameworks and commitments and are also subject to sanctions in case of violations. This is a real obstacle to the pursuit of other objectives that could protect millions of livelihoods of poor populations in this country, he claims. On this basis he recommends that, to be farmer-centric, any legislation or policy related to seed should ideally be based on the following objectives: (1) farmers' rights of breeding, saving, using, exchanging, distributing and selling seeds should be upheld as inalienable rights and not be given as residual rights – in other words, control in the hands of farmers over their seed resource; (2) help to increase biodiversity; (3) help to enhance choices at the farmer level; (4) support farmer-level self-sufficiency in the form of community seed banks and seed networks, primarily from the public sector, followed by the private sector if needed; (5) farmers should be given protection rights in case of violation of trust in terms of quality, quantity and price of seeds, (6) accountability and liability clauses should be fixed, in terms of civil and criminal damages against seed traders.

Awareness-raising and capacity-building

Mahmood Ahmad (Pakistan) stresses the need to launch awareness programmes at the national level. They should be launched through print and electronic media as well as through national capacity-building programmes. Such programmes should include linkage building among

farmers' organizations, NGOs and government institutions at the national level. An important component of such programmes would be advocacy at the national level to protect farmers' rights to plant genetic resources for food and agriculture.

Arief Lukman Hakim (Indonesia) is concerned that only NGOs and farmers' organizations are campaigning for Farmers' Rights, whereas researchers and universities tend to be sceptical to the issue. He therefore suggests facilitating the exchange of information, experiences, tools, and methods between and among the NGOs, farmers' organizations and government institutions. Ahmed Abdul-Kader Al-Ahnumi (Yemen) argues partly along the same lines when he suggests supporting agricultural extension services to undertake extensive advocacy and awareness campaigns related to the realization of Farmers' Rights at the national level.

Diana Lakmini (Sri Lanka) writes that each country should be convinced to protect Farmers' Rights by highlighting the importance of these rights. Singay Dorji (Bhutan) recommends mass education and awareness programmes for Farmers' Rights.

Promoting participation in decision-making

Ali A. Alshurai (Yemen) writes that coordination with farmers' associations must play a key role in following up the implementation of Article (9) of the International Treaty on Plant Genetic Resources for Food and Agriculture. Mohammed Saleh Al-Nusairi (Yemen) supports this stand.

Bikash Paudel (Nepal) stresses the need to involve farmers' organizations in decision-making regarding the implementation of the International Treaty at the local, national, regional and international levels. There is a need to develop monitoring mechanisms in this regard and to ensure effective multilateral sharing of benefits.

Funding the implementation of Farmers' Rights

Four respondents from Yemen have mentioned the issue of how to fund the implementation of Farmers' Rights. Ali A. Alshurai stresses the need to search for financial resources to increase the Benefit-Sharing Fund of the Multilateral System. He also suggests establishing a specific fund to support and improve the realization of Farmers' Rights. To allocate funds in the most efficient way, the gaps and needs uncovered in this survey could form the basis for considering physical and financial support. Khalil M. Alsharjabi argues along the same lines and suggests in addition evaluating experiences in order to make use of funds efficiently. Technical assistance is also required, he concludes. Mohammed Saleh Al-Nusairi (Yemen) suggests establishing a fund or to utilize the existing 'Agriculture Promotion Fund' in Yemen to improve the Farmers' Rights in the country.

Promoting informal seed systems

N. Anil Kumar (India) writes that he has only one recommendation to make: that is commitment from the parties to the Plant Treaty on the need to undertake research and education in the area of nutritional and climate change resilient aspects of farmers' varieties. Promotion of research and education in these two areas will definitely help to raise awareness of the importance of farmers' varieties, among decision-makers and the public alike. This will require an integrated research development with plant genetic resources experts, nutrition scientists, climate change scientists and social scientists working together, he writes.

Paul Borja (Philippines) argues for the promotion of informal seed systems from a different angle. He highlights the need for the Governing Body to develop a mechanism under the Treaty to allow for farmer-to-farmer exchange of plant genetic resources without necessarily going through the current Multilateral System and its requirements. Furthermore he stresses the need for governments to adopt participatory plant-breeding as Farmers' Rights policy and as vital in dealing with the impact of climate change on agriculture. The Governing Body should promote this.

Guidelines for the realization of Farmers' Rights

Diana Lakmini (Sri Lanka) recommends that the Governing Body should establish guidelines for the realization of Farmers' Rights, and that it should act against violations of Farmers' Rights.

9.1.3 Latin America

From Latin America we have received recommendations from the consulted farmer groups in Guatemala, Nicaragua, Honduras, El Salvador and Costa Rica. They recommend that the Governing Body should:

- acknowledge the contribution of farmers to the conservation and sustainable use of crop genetic diversity by disseminating information about this contribution (consulted farmers in Guatemala).
- create a space for the active participation of farmers under the International Treaty (consulted farmers in Guatemala).
- take into account the opinions of farmers in the decision-making process of the Governing Body (consulted farmers in Nicaragua).
- take into consideration the situation of the majority of the farmers in the countries, and recognize their opinions in this context. The farmers' organizations are willing to assist in this effort, and it would be good if the organizations can be involved in the dissemination of such information (consulted farmers in Honduras).
- open a space through various channels/media in which farmers can express themselves and ensure the recognition of their rights (consulted farmers in El Salvador)

- put pressure on the governments for greater openness in decision-making processes for farmers, and to be more concrete in terms of the realization of Farmers' Rights (consulted farmers in Costa Rica).

9.1.4 *Europe and North America*

From Europe and North America, 11 respondents provided recommendations to the Governing Body as to how it can support the realization of Farmers' Rights at the national level. Several of the answers contained lengthy lists of recommendations. The majority (8) of the respondents recommended the Governing Body to provide guidance and support with regard to the development of legislation, policies and programmes. Several of these respondents stressed the need to promote legislation that can enable farmers to exchange and sell farm-saved seed of local varieties. Some respondents also suggested revising patent law and breeders' rights legislation in order to enable farmers to save seed of protected varieties and use farm-saved seed for the next season. Several respondents (6) argued that it is necessary to prohibit the marketing of seeds of genetically modified plants due to the danger of GM-contamination of local varieties.

Four respondents recommend measures to promote informal seed systems in Europe. Participatory plant-breeding and local seed banks are some of the suggested measures. A conducive legal framework is a precondition for such activities (see above).

Two respondents wrote about capacity-building and the participation in decision-making processes. However, these issues are also implicit in several of the other recommendations. In particular, better ways and means must be found to involve farmers in the decision-making forums of the International Treaty. Also important are capacity-building to improve farming practices and farmers' capacity to participate in decision-making processes at the national level.

A special issue not dealt with by the other regions is the need to understand Farmers' Rights in the larger context of the International Treaty, as raised by two respondents. It is important to focus on the main purpose of the Treaty and be practical about the implementation of Farmers' Rights, writes one of these respondents. The other respondent highlights the linkages between the provisions on Farmers' Rights with other parts of the Treaty, such as the parts on conservation, sustainable use, access and benefit-sharing. The Governing Body should protect, develop and increase the full range of plant genetic resources for food and agriculture in current use in all regions, and call on contracting parties to implement other measures that will support more biodiverse farming and gardening. This is important for realizing the objectives of the Treaty. It will require the international recognition and realization of Farmers' Rights, without which there will be no conservation, sustainable use and development of plant genetic resources for food and agriculture – which means that the Treaty will fail.

Finally, also from this region one respondent recommends that the Governing Body should prepare guidelines for contracting parties, now with a particular focus on the linkages between Article 6 (sustainable use) and Article 9 (Farmers' Rights).

Support the development of legislation, policies and programmes for Farmers' Rights

A respondent from Canada writes that a 'strong international statement on Farmers' Rights might have an influence on the national situation in Canada where farmers are increasingly stripped of any right over their own seed.'

Beate Koller (Austria) recommends that the Governing Body promote the selling of farm-saved seeds within a clear but not restrictive legal framework and conditions that fit the reality of small-scale farmers. Arguing along the same lines, COAG (Spain) recommends that the Governing Body ensure that regulations on variety release and seed marketing are adapted to local conditions in order to enable the on-farm production of seeds and to conserve and develop plant genetic resources *in situ* on farms. Furthermore, they require that no patents shall be authorized on seeds, their genes or any other living organism in general. Finally, the contracting parties of the Governing Body should work towards a revision of the 1991 Act of the UPOV Convention. The aims of such a revision should be to (1) remove the restrictions against saving and using farm-saved seed from protected varieties; (2) remove plant-breeders' rights from material harvested by farmers; and (3) eliminate the right to derivative varieties.

Guy Kastler and Caroline Collin (France) write that it is advisable to prohibit any form of patents on seeds or their genes and on living organisms in general. They also recommend abolishing the 1991 Act of the UPOV Convention, which turns the saving of seed by farmers into a violation. Rather, non-reproducible seed should be taxed to compensate for the damage caused by generating a farming model which harms biodiversity, climate, the environment at large, as well as the prospects for food sovereignty. These two farmers suggest that such compensation from the seed industry should be allocated to finance local seed banks managed by communities, as well as participatory selection programmes in fields of local reproducible seeds. Farm-saved seed should be exempted from compliance with regulations on variety release and seed marketing, they recommend.

Terry Boehm (Canada) suggests that Farmers' Rights for the countries having ratified the International Treaty should not be subject to national laws. Rather, disputes of ownership should be settled by independent third party arbitrators whose say is final, to avoid the expense of the court system. He also suggests that the so-called farmers' privilege in UPOV'91 should be 'clearly described as the sham it is by breeders having the right to control cleaning (conditioning) and stocking of seed with the cascading right which trumps farm saved seed'. Production contracts should not be tied to the use of non-farm saved seed, he concludes.

Work against GM contamination of crop genetic diversity

Six of the respondents from Europe and North America, most of them affiliated with NGOs or farmers' organizations, voiced their concern about GM contamination of crop genetic diversity. COAG (Spain) writes that it is necessary to prohibit the commercialization of all GMO seeds due to the danger in terms of the contamination of local varieties. Guy Kastler and Caroline Collin (France) both recommend to ban the marketing of any genetically modified plant or seed or contaminated by GMOs. Beate Koller (Austria) writes: 'Ban GMOs and patents on plants and seeds.' Terry Boehm (Canada) writes: 'standby utility is not appropriate as a concept in gene patents or anything related to seed'. John Browne (USA) recommends to 'hold the developers of transgene (GMO) seeds legally responsible for ANY genetic pollution of the crops of those who do not choose to use their seeds.' This is not enough, he writes, but 'it might be a helpful beginning to a better understanding and appreciation of this world of ours'.

Promoting informal seed systems

Beate Koller (Austria) recommends promoting the development of locally adapted crops and reproducible seeds on all levels, involving farmers, also in Europe. This should be promoted in the context of small-scale organic farming.

COAG (Spain) suggests that the Governing Body promote the production of seeds of local adaptable varieties on-farm by farmers through participatory plant-breeding and local seed banks. Organically and sustainably grown local food, based on crop genetic diversity, should be supported, rather than industrial monoculture production for export. For farming communities, local varieties offer opportunities to increase livelihoods in terms of added value. For the organic farming sector, local varieties are of special relevance. However, they are also increasingly important for consumer groups looking for more diverse and specialized food with better nutritional value. This can be seen, for example, in the growing interest for local or regional food products and in the popularity of movements like Slow Food.

Guy Kastler and Caroline Collin (France) write that the development of non-reproducible seed from the industry should be immediately replaced by support for the production of locally adapted reproducible seed, produced by the farmers and in their fields. The development of industrial single-crop farming and of export crops must be replaced by the development of organic production methods, primarily for local food.

Capacity-building and the participation in decision-making processes

Patrick Mulvany (UK) writes that the involvement, support and protection of those who develop crop genetic diversity, local farmers and gardeners, is essential. The Governing Body must find ways of decisively involving the representative organizations of these food providers in the decision-making forums of the Treaty, he recommends, noting that 'current arrangements are insufficient'.

Frank Begemann (Germany) suggests that the Governing Body may emphasize farmers' education and training as a major prerequisite to improve farming practices, including choice and use of the most appropriate varieties, as well as their ability to participate in decision-making processes such as hearing procedures or participation in relevant committees, at the national level, regarding plant genetic resources for food and agriculture.

Understanding Farmers' Rights in the larger context of the International Treaty

François Burgaud (France) suggests that the Governing Body may influence all member states to have a more open and practical view on Farmers' Rights, but to focus on the main purpose of the International Treaty which he states is the implementation of the Multilateral System.

From another stance, Patrick Mulvany (UK) argues that the implementation of Farmers' Rights should not solely be in relation to Article 9, but also in relation to aspects of Articles 5, 6, 12, 13, and 18 (to highlight a few): 'And the challenge for the Governing Body is beyond Farmers' Rights per se. It needs to consider and be judged by the extent to which the Treaty protects, develops and increases the full range of PGRFA (plant genetic resources for food and agriculture) on farm and in current use in all regions. The Governing Body could also explicitly call on contracting parties to implement other measures that will support more biodiverse farming and gardening. A useful start would be, for example, for all contracting parties to immediately implement the findings of the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), especially finding #7 about a move towards more agroecological sciences. The contribution of the Treaty to the wider conservation of sustainable use of agricultural biodiversity and its related ecosystem functions (of all species at all levels and in all regions) as agreed by the CBD also requires careful assessment. All these aspects are important for realizing the objectives, goals and purposes of the Treaty. To achieve these requires international recognition and realisation of the rights of farmers to produce, have access to resources and protection from destructive forces, markets, technologies and legislation. Without the sustained commitment and activities, in the framework of food sovereignty, of knowledgeable farmers and gardeners in all regions, there will be no conservation, sustainable use and development of PGRFA (essential in these times of changes in climate, demand and resource constraints) and the Treaty will fail', Mulvany concludes.

Developing guidelines for the realization of Farmers' Rights

Riccardo Bocci (Italy) recommends that the Governing Body should prepare guidelines for contracting parties explaining the linkages between articles 6 and 9. In fact, he adds, many of the activities under Article 6 could be considered as non-monetary benefit-sharing measures under Article 9.

9.1.5 Preliminary conclusions

The prime concern among most of the respondents who answered this question (27) is the need for guidance and support from the Governing Body to develop national legislation, policies, strategies and programmes for the realization of Farmers' Rights. In this context, also the establishment of adequate bodies and implementation practices was mentioned as an issue in need of support.

Technical and financial support is required, and respondents from Africa and Asia explicitly highlighted the need for financial support. However, some of these respondents also suggested that the countries need to establish financial mechanisms on their own, to ensure the realization of Farmers' Rights.

In Europe, respondents are particularly concerned about the need to amend regulations on variety release and seed marketing as well as plant-breeders' rights and patent laws in order to allow farmers to continue maintaining their practices of conservation and sustainable use of plant genetic resources for food and agriculture. Also, several respondents from Europe and North America wish to prohibit the marketing of seeds of genetically modified plants, due to the danger of GM contamination of local varieties.

The need to support awareness-raising and capacity-building was a particularly important concern among the African respondents, and was also raised by some respondents from Asia and Europe/North America (altogether 16 respondents). For other respondents, it was implicit in other recommendations. Awareness-raising and capacity-building measures are required for farmers, government officials, researchers and the seed sector as such. The Governing Body has a key role to play in this regard, to facilitate and ensure support for such activities. Print and electronic media should be utilized and national capacity-building programmes launched. Mass education and awareness programmes were also suggested.

Respondents from all regions provided recommendations on how to enable farmers' participation in decision-making at all levels. Awareness-raising and capacity-building are seen as important means to enable the development of such participation. The consulted farmers in Meso-America paid particular attention to this issue, recommending acknowledgement and recognition of the contribution of farmers to the conservation and sustainable use of crop genetic diversity by disseminating information about this contribution; creating space for the active participation of farmers under the International Treaty; taking into account the opinions and situation of farmers in the decision-making process of the Governing Body; opening a space through various channels/media where farmers can express themselves and ensure the recognition of their rights; and putting pressure on governments for greater openness in decision-making processes for farmers.

Several respondents from Africa, Asia, Europe and North America voiced the need to improve informal seed systems; this concern was also implicit

in several other recommendations (about legislation, policies and capacity-building). Research, participatory plant-breeding and seed banks/networks were mentioned as important measures. Also it was suggested to develop a mechanism under the Treaty to allow for farmer-to-farmer exchange of plant genetic resources without the necessity of going through the current Multilateral System requirements. A conducive legal framework is a precondition for such activities (see above).

Two respondents from Europe highlighted the need to understand Farmers' Rights in the larger context of the International Treaty. It is important to focus on the main purpose of the Treaty and recognize the linkages between the provisions on Farmers' Rights with other parts of the Treaty, such as the parts on conservation, sustainable use, access and benefit-sharing. This is important for realizing the objectives of the Treaty and ensuring that it will not fail.

One respondent each from Africa, Asia and Europe voiced the need to develop minimum standards for Farmers' Rights based on national and regional experiences, bringing these to a level of international harmonization. Here the Governing Body has a key role.

9.2 Other views and experiences regarding the realization of Farmers' Rights

Towards the end of the questionnaire respondents were given the opportunity to share any views and experiences related to Farmers' Rights not already covered in their answers to previous questions. These views and experiences are presented here.

9.2.1 *Africa*

Only a handful of the respondents from Africa had any additional comments or thoughts to share, but among those who did a range of issues were mentioned. One respondent emphasized the need for farmers to have access to land, water, electricity and good quality seeds, as well as social security and housing, and to be recognized for their work as farmers and breeders. Another respondent wanted to educate the farmers in his country about their rights and believed that this would also benefit consumers. The issue of documentation was also brought up, with one respondent expressing the need for documentation of farmers' innovations. It was also noted that exchange visits between farmers in their region should be an important part of the work with Farmers' Rights.

9.2.2 *Asia and Near East*

Diana Lakmini from Sri Lanka emphasized that farmers should be involved in the research activities at research stations. Her own experiences with participatory plant-breeding have shown her that farmers are keen to take part in such activities, that they learn very quickly and grasp the concepts of plant-breeding very easily. In her view, such research should therefore be done with farmer participation to achieve maximum output. Another respondent stressed the need to follow up the

implementation of Article 9 on Farmers' Rights, while a third mentioned the WTO, TRIPS and the CBD.

9.2.3 *Latin America*

Only one of the respondent groups from Latin America provided a response to this question. That group, FPMA Guatemala, emphasized the need to recover the country's biodiversity.

9.2.4 *Europe and North America*

A greater number of participants from Europe and North America had additional comments than from the other regions. These respondents expressed their views on everything from the Benefit-sharing Fund of the Plant Treaty to the development of industrialized agriculture. Both COAG from Spain and the farmer representatives from France underlined that the Benefit-sharing Fund of the Plant Treaty has experienced some difficulties in attracting funds through the mechanism established by the Treaty. In their opinion the holders of plant-breeders' rights do not want to contribute even though they prohibit the re-use of seed from their varieties. These respondents felt that pressure to extend IPR protection to all resources containing or expressing certain characteristics should be withstood and that such privatization of plant genetic resources should not be accepted. Because of their resistance to such privatization, these respondents did not want the funds of the Benefit-sharing Fund to originate from these practices.

Representatives from the seed industry underlined that the implementation of Article 9 must remain at the national level, emphasizing that the national contexts vary too much for an international approach to be useful.

Riccardo Bocci from Italy suggested focusing on the implementation of Article 6 of the Plant Treaty on sustainable use of plant genetic resources for food and agriculture. He felt this would be a more practical way of promoting these issues, as Article 9 is more controversial.

The issue of patents was also brought up. One respondent from Canada said that a big problem for farmers is the Supreme Court ruling giving the patent holders ownership rights over all entities where the patented matter appears. The court process for settling disputes was seen as slow, expensive and difficult for farmers to deal with, and Terry Boehm worried that farmers complied with company demands due to a 'litigation chill' effect.

Another respondent worried that industrialized agriculture, as promoted for example in the UK, threatens agricultural biodiversity both in Europe and other regions. He felt that the realization of Farmers' Rights would not be possible in the face of this development.

As can be seen, views on this subject and the issues emphasized vary among individual respondents, and especially among the various stakeholder groups.

10 Conclusions

This survey, conducted to elicit views on and experiences from the realization of Farmers' Rights from a broad range of relevant stakeholders as part of the 2010 Global Consultations, shows that there is considerable agreement on the importance of Farmers' Rights among the respondents. The survey has also highlighted that progress is taking place with regard to the realization of Farmers' Rights for all four components; protection of traditional knowledge, equitable benefit-sharing, participation in decision-making and rights related to saving, using, exchanging and selling farm-saved seed.

However, a clear majority of the respondents also rated their own countries' performance in realizing Farmers' Rights as insufficient. This indicates that although progress has been made, extensive efforts are still needed. According to the respondents, most of the achievements so far have been the result of NGO and IGO projects, and from this it is possible to conclude that further action is required on the part of the national authorities in many countries. The achievements also constitute a rich source from which lessons can be derived as to how the realization of Farmers' Rights can be scaled up and further developed.

As it was pointed out by many that awareness and capacity is lacking in their countries in relation to Farmers' Rights, capacity-building and awareness-raising targeting both decision-makers and farmers might be an important first step towards greater realization of these rights in many countries. In addition, both a lack of relevant laws and policies and lacking implementation of existing laws and policies were mentioned by many respondents as a barrier to the realization of Farmers' Rights in their own countries with regard to all elements of Farmers' Rights. Also, several respondents considered existing and implemented legislation and policies, such as plant variety protection laws and seed regulations, as obstacles to Farmers' Rights, and demanded legal space for farmers to continue conserving, sustainably using, and developing crop genetic resources.

However, differences can be seen between stakeholder groups on many of these issues. Respondents from the seed industry in general view their countries performance and legislation in relation to Farmers' Rights in a more positive light than NGO and farmer respondents, and consider plant variety protection an important means to safeguard the rights of breeders, as this provides incentives for the development of plant breeding.

The primary concern among most of the respondents suggesting recommendations to the Governing Body was the need for guidance and support from the Governing Body to develop national legislation and policies, as well as strategies and programmes, for the realization of Farmers' Rights.

Attachment 1: Excerpts from the Plant Treaty

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:

d. protection of traditional knowledge relevant to plant genetic resources for food and agriculture;

e. the right to equitably participate in the sharing of benefits arising from the utilisation of plant

genetic resources for food and agriculture; and

f. 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.

In addition, several other provisions are relevant, in particular the ones on conservation (Art. 5), sustainable use (Art. 6), the multilateral system (Part IV), the Governing Body (Art. 19), and compliance (Art. 21).

Attachment 2: Resolution 6/2009

Third Session of the Governing Body of the ITPGRFA, Tunis

Agenda Item 14, 4 June 2009

RESOLUTION ON FARMERS' RIGHTS

The Governing Body,

- (i) **Recalling** the recognition in the International Treaty of the enormous contribution that local and indigenous communities and farmers of all regions of the world have made, and will continue to make, for the conservation and development of plant genetic resources as the basis of food and agriculture production throughout the world;
- (ii) **Recalling** the importance of fully implementing Article 9 of the International Treaty;
- (iii) **Recalling** also that according to Article 9 of the International Treaty, the responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national Governments and is subject to national law;
- (iv) **Acknowledging** that there is uncertainty in many countries as to how Farmers' Rights can be implemented and that the challenges related to the realization of Farmers' Rights are likely to vary from country to country;
- (v) **Recognizing** that exchange of experiences and mutual assistance between Contracting Parties can significantly contribute to making progress in the implementation of the provisions on Farmers' Rights in the International Treaty;
- (vi) **Recognizing** the contribution the Governing Body may give in support of the implementation of Farmers' Rights;
- (vii) **Recalling** Resolution 2/2007 adopted by the Second Session of the Governing Body, in which Contracting Parties and relevant organizations were encouraged to submit their views and experiences on Farmers' Rights as set out in Article 9 of the International Treaty;
- (viii) **Recalling** also that the Governing Body through Resolution 2/2007 decided to consider these views and experiences as a basis for an agenda item on its Third Session to promote Farmers' Rights at the national level;
- (ix) **Noting** that the number of contributions on views and experiences received by the Secretariat has been limited;
- (x) **Based** on the received views and experiences from Contracting Parties and other organizations;

- (xi) **Invites** each Contracting Party to consider reviewing and, if necessary, adjusting its national measures affecting the realization of Farmers' Rights as set out in Article 9 of the International Treaty, to protect and promote Farmers' Rights.
- (xii) **Encourages** Contracting Parties and other relevant organizations to continue to submit views and experiences on the implementation of Farmers' Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers' organizations and other stakeholders;
- (xiii) **Requests** the Secretariat to convene regional workshops on Farmers' Rights, subject to the agreed priorities of the Programme of Work and Budget and to the availability of financial resources, aiming at discussing national experiences on the implementation of Farmers' Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers' organizations and other stakeholders;
- (xiv) **Requests** the Secretariat to collect the views and experiences submitted by Contracting Parties and other relevant organizations, and the reports of the regional workshops as a basis for an agenda item for consideration by the Governing Body at its Fourth Session, and to disseminate relevant information through the website of the International Treaty, where appropriate; and
- (xv) **Appreciates** the involvement of farmers' organizations in its further work, as appropriate, according to the Rules of Procedure established by the Governing Body.

Attachment 3: Questionnaire



FRIDTJOF NANSENS INSTITUTT
FRIDTJOF NANSEN INSTITUTE

Invitation to global consultations on Farmers' Rights

We herewith invite you to participate in global consultations on Farmers' Rights as these are addressed in Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (also called the Plant Treaty; see www.planttreaty.org). The background for these consultations is a decision made by the Governing Body of the Plant Treaty at its third session (Resolution 6/2009). Here the Governing Body recalls the importance of fully implementing Farmers' Rights, and, among other things, requests the Secretariat to convene regional workshops on Farmers' Rights to discuss relevant national experiences. The Fridtjof Nansen Institute (www.fni.no) in Norway is assisting the Secretariat in carrying out this task. Funding is limited, so we begin by carrying out consultations via e-mail, in order to involve as many stakeholders as possible, in all parts of the world. The e-mail consultations have been made possible thanks to support from SwedBio of Sweden and the Development Fund, Norway. We are still trying to raise the funds necessary to hold a consultation conference towards the end of the year, which will then be global, with regional components. The results of the global consultation process will be presented to the Governing Body of the Plant Treaty at its Fourth Session in 2011, as a basis for its deliberations on promoting the realization of Farmers' Rights at the national level.

The following questionnaire is designed to obtain information in the context of Resolution 6/2009 of the Governing Body and to facilitate discussions at the consultation conference. The Secretariat will follow this process and provide information to Contracting Parties accordingly.

We hope that you can distribute this questionnaire to organizations and individuals engaged in plant genetic resources for food and agriculture and Farmers' Rights – in your own country and abroad. We would also be grateful if all those who are working with farmers take this opportunity to distribute the questionnaire among them, or to convene group consultations among farmers to complete the questionnaire collectively, if appropriate, and send it to us.

We sincerely hope that you will take the time to complete this questionnaire to the best of your capacity, and return it to us.

The final deadline for submission of this questionnaire is 31 August 2010.

Please e-mail the questionnaire to tow@fni.no or as fax to (+47) 67 11 19 10.

We will publish the results of this e-mail based part of the consultation by the beginning of November 2010 in the form of a report, with the responses presented region-wise. For more information please visit the website of the Farmers' Rights Project of the Fridtjof Nansen Institute at (www.farmersrights.org) or contact Tone Winge (tow@fni.no).

Thank you for all your help in making these important global consultations a success!

Oslo, Norway 6 July 2010

Sincerely yours,

(sign.)

Regine Andersen,

Senior Research Fellow and

Director of the Farmers' Rights Project

Fridtjof Nansen Institute

Views and experiences: The realization of Farmers' Rights

1. Respondent information:

Name:			
Country:			
Affiliation:		Web-site (if any):	
Position:		E-mail address:	

Stakeholder category:	Farmers	Seed industry	Research	Ministry	NGO	IGO	Other, please specify :

In which capacity are you sharing your views and experiences here?	Personal capacity:	As representative of my institution:	On behalf of a group (see below)

If you have consulted a group of people, how many? Please attach a list of names	1-10	11-20	21-30	31-40	41-50	More (please specify)

We will present your input as part of a report. Will you also:	Yes	No
- allow us to publish this questionnaire online?		
- allow us to cite you by name in the report?		

2. Farmers' Rights in general

2.1 In your view, how important are the following aspects of Farmers' Rights in your country?	Very important	Important	Less important	Not important
A. protection of traditional knowledge relevant to plant genetic resources for food and agriculture				
B. the right to participate equitably in sharing the benefits arising from the utilization of plant genetic resources for food and agriculture				
C. the right for farmers 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				

D. the rights to save, use, exchange and sell farm-saved seed/propagating material				
E. other aspect (please specify):				
F. other aspect (please specify):				
Please explain why (you may select one or two aspects):				

2.2 What do you regard as the major achievements of your country with regard to Farmers' Rights? (choose one or more, as appropriate)	Adoption of conducive law	Adoption of conducive policy	Implementation of conducive law/ policy	Government programme running	Project(s) implemented by NGO/IGO	Markedly increased awareness	Other
A. protection of traditional knowledge relevant to plant genetic resources for food and agriculture							
B. the right to participate equitably in sharing the benefits arising from the utilization of plant genetic resources for food and agriculture							
C. the right for farmers 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							
D. the rights to save, use, exchange and sell farm-saved seed/propagating material							
E. other (please specify here):							
Please specify the achievement(s) of your country:							

2.3 What do you see as the major obstacles to the realization of Farmers' Rights in your country?

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3. Protection of traditional knowledge relevant to plant genetic resources for food and agriculture:

3.1 What, in your view, is most important in order to protect traditional knowledge relevant to plant genetic resources for food and agriculture in your country? (please choose only one response)	A. to protect the this knowledge against misappropriation	B. to protect this knowledge from disappearing	C. other (please specify):

3.2 If you answered 'A' (protection against misappropriation): do you know of any cases of misappropriation of traditional knowledge relevant to plant genetic resources for food and agriculture in your country? (please specify)

3.3 If you answered 'B' (protection against disappearing): how would you describe the current situation of the disappearance of traditional knowledge relevant to plant genetic resources for food and agriculture in your country?

3.4 In your experience, which national measures affect the protection of traditional knowledge in your country, and how?	We have such measures	We don't have such measures	The effects of the existing measures are:			Not sure
			Positive	Negative	Mixed/none	
laws on protection of traditional knowledge						
laws on intellectual property rights						
seed laws						
other laws (please specify):						
Policies/programmes on traditional knowledge						
agricultural or other relevant policies:						
measures to document traditional knowledge						
Projects encouraging sharing of this knowledge						
other programmes/projects (please specify below)						
other (please specify below):						

Please specify the most important measures in your country, and their effects:

3.5 In your opinion, what are the most important gaps and needs when it comes to national measures affecting the protection of traditional knowledge in your country?

3.6 If you have any other views and experiences regarding the protection of traditional knowledge in your country, please write them here:

4. The right of farmers to participate equitably in the sharing of benefits arising from the utilization of plant genetic resources for food and agriculture

4.1 Which national measures in your country affect farmers' right to equitably participate in benefit-sharing, and how?	We have such measures	We don't have such measures	The effects of the existing measures are (choose one):			Not sure
			Positive	Negative	Mixed/none	
Right to benefit sharing is covered by law						
National fund for benefit sharing in place						
Financial support to diversity farming ²⁹						
Participatory plant breeding projects						
Community seed banks						
Projects for marketing of diversity products						
Capacity building for diversity farming						
Capacity building for farmers' rights						
Awards						

²⁹ 'Diversity farming' here refers to farming practices where plant genetic resources are utilized and maintained. 'Diversity products' are the products resulting from such farming.

Legislation on plant breeders' rights						
Patent law						
Agricultural policies and incentives in general						
Other (please specify below):						
Please specify the most important measures in your country, and their effects:						

4.3 In your opinion, what are the most important gaps and needs with regard to benefit sharing in your country?

--

4.4 Do you have any other views and experiences regarding benefit sharing in your country? Please indicate them here.

--

5. The rights of farmers to participate in making decisions, at the national level, regarding plant genetic resources for food and agriculture

5.1 Which national measures in your country affect the participation of farmers in decision-making at the national level	We have such measures	We don't have such measures	The effects of the existing measures are (tick one):			Not sure
			Positive	Negative	Mixed/none	
Legal right to participation is covered by law						
Participation in relevant committees						
Hearing procedures involving farmers' organisations (consultations of farmers)						
Decision makers are trained in farmers' rights						
Capacity building for farmer participation						

Facilitation of farmer activity/participation in major newspapers/media						
Other (please specify below):						
Please specify the most important measures in your country, and their effects:						

5.2 In your opinion, what are the most important gaps and needs with regard to the participation of farmers in decision making regarding plant genetic resources for food and agriculture in your country?

--

5.3 Do you have any other views and experiences regarding farmers' participation in decision-making in your country? Please indicate them here.

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6. The rights of farmers to save, use, exchange and sell farm-saved seed and propagating material

6.1 Which national measures in your country affect the rights that farmers have to save, use, exchange and sell farm-saved seed and propagating material, and how?	We have such measures	We don't have such measures	The effects of the existing measures are (tick one):			Not sure
			Positive	Negative	Mixed/none	
patent law						
plant breeders' rights legislation						
variety release regulations						
seed marketing regulations						
seed fairs						

seed exchange networks						
other programmes/projects supporting seed saving and exchange practices						
other (please specify below):						
Please specify the most important measures in your country, and their effects:						

6.2 In your view, what are the most important gaps and needs with regard to farmers' rights regarding the saving, use, exchange and sales of farm-saved seed and propagating material?

--

6.3 Do you have any other views and experiences regarding the rights of farmers to save, use, sell and exchange farm-saved seed in your country? Please indicate them here.

--

7. Other views and experiences

7.1 On a scale from 1 to 6, how would you rate the performance of your country with regard to the realization of Farmers' Rights? Please choose one answer only.

1	2	3	4	5	6
Insufficient	Tolerable	Fairly good	Good	Very good	Excellent

7.2 What do you see as the most important measures that still remain to be taken in your country in order to promote the realization of Farmers' Rights?

7.3 Do you have any other views and experiences regarding the realization of Farmers' Rights under the Plant Treaty that have not been covered in the above? Please indicate them here.

8. Recommendations to the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture as to how it can support the realization of Farmers' Rights at the national level:

8.1 Please list the points you would recommend to the Governing Body:

Thank you very much for your assistance!

Attachment 4: List of respondents

Africa		<i>Affiliation</i>	<i>Position</i>
Burkina Faso	Balma, Didier	INERA (Institut de l'Environnement et de Recherches agricoles)	Director
	Mamounata Belem		
	Jeremy Ouedraogo		
	Jérôme Belem		
	Bertin Zagre		
	Jean-Baptiste Tignegre		
	Mahamoudou Sawadogo		
	Roger Zangre		
	Sada Bagagnan		
Cameroon	Léopold Zinsone	CORDAP (Rural Council for the Development of Agriculture and Fisheries)	President national
	Nkwe Makongo, Pascal (signed by the CORDAP consultation group)		
	Bopolo, Amede Daki		
Ethiopia	Feyissa, Regassa	Ethio-Organic Seed Action	Director
Kenya	Banja, George O.		Chief Executive Officer
	Malomba, Peter Beda Obuyu	Bungoma Energy Saving Technologies	Partner
	Ong'ang'a, Obiero	OSIENALA (Friends of Lake Victoria)	Executive Director
Malawi	Kafuwa, Dalitso	FAIR	Project Coordinator
	Kapitapita, Charles		Project Officer
	Munthali, Shelix	Rural Enterprises Initiative	Managing Director
	Nyirenda, Mahara	FAIR	Agriculture Coordinator
	Phiri, George (consulted 141 farmers on FR in 2009)	CEPA (Centre for Environmental Policy and Advocacy)	Biodiversity Specialist
Nigeria	Pungulani, Lawrent L.M.	Malawi Plant Genetic Resources Centre	Curator
	Abubakar, Babagana	Kanuri Development Association (an NGO)	Vice President
	Ekaiko, Edwin E.		Programme director
	Ekaette E. Okon		

	Ime S. Akpan Udeme S. Sam Emmanuel Matthew Uwana Isaiah Anieman Ubom Maculay Osom		
South Africa	Taylor, Sue	University of Free State	Research Associate
Uganda	Kabusimbi, Gertrude Kenyangi	SWAGEN (Support for Women in Agriculture and Environment)	Executive Director
Zambia	Phiri, Andrew	Zambia Agriculture Research Institute	Agriculture Research Officer
	Sialwiindi, Redson	Kasco Outgrowers' Scheme	Development Officer
Zimbabwe	Kusena, Kudzai	Genetic Resources and Biotechnology Institute	Curator
	Mushita, Andrew	CTDT (Community Technology Development Trust)	Executive Director
Asia			
Bhutan	Dorji, Singay	National Biodiversity Center	Sr. Biodiv. Officer
India	Bhushan, Pankaj	Tara Foundation (and GM Free Bihar Movement)	Secretary
	Kumar, N. Anil	MSSRF (M.S. Swaminathan Research Foundation)	Director (Biodiversity)
	Ravindran, C.		Assistant Professor
Indonesia	Hakim, Arief Lukman	FIELD (Farmers' Initiative for Ecological Livelihoods and Democracy)	Programme Manager
	Nugroho Wienarto	FIELD Indonesia Foundation	Executive Director
	Engkus Kuswara	FIELD Indonesia Foundation	Ecological Agriculture
	Endang Sutarya	FIELD Indonesia Foundation	Field Coordinator
	Lardian Isfandri	FIELD Indonesia Foundation	Field Coordinator
	Rendra Wijaya Kusuma	FIELD Indonesia Foundation	Field Coordinator
	Ms. Atik	FIELD Indonesia Foundation	Field Assistant
	Ms. Pipi	FIELD Indonesia Foundation	Field Assistant
	Mr Masroni	Indonesian IPM Farmer Association at Indramayu District, West Java	Coordinator
	Mr Warsiyah	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer
	Mr Darmin	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer

Nepal	Mr Nurkila	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer
	Mr Joharipin	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer
	Mr Taryana	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer
	Mr Yusuf	IPM Farmer Association at Indramayu District, West Java	Farmer Breeder and Trainer
	Pramono, Tejo	Indonesian Peasant Union (SPI)	Staff
Pakistan	Paudel, Bikash	LI-BIRD (Local Initiatives for Biodiversity, Research and Development)	Programme Coordinator
	Roka, Krishna	Penn State University	Student
Philippines	Ahmad, Mahmood	Pakistan Kissan Trust	Director
Sri Lanka	Borja, Paul	SEARICE (Southeast Asia Regional Initiatives for Community Empowerment)	Policy Advocacy Officer
	Lakmini, Horagampita Lokugamage Diana	The Green Movement of Sri Lanka	Project Manager
Europe			
Austria	Koller, Beate	Arche Noah	CEO
France	Burgaud, Francois	G.N.I.S (The French Association for Seeds and Seedlings)	International and Public Affairs Manager
	Collin, Caroline	Confederation paysanne	Animatrice de la commission semences
	Kastler, Guy (response validated by RSP board)	Réseau Semences Paysannes/the Farm-Saved Seed Network	Delegue General
Georgia	Marchand, Martine	U.F.S.	IP manager
	Guram, Aleksidze	Academy of Agricultural Science	Vice-President
Germany	Begemann, Frank	Federal Office for Agriculture and Food (BLE), Information and Coordination Centre for Biological Diversity (IBV)	Head of Division
Italy	Bocci, Riccardo	AIAB (Italian Association for Organic Agriculture) and Rete Semi Rurali	responsible for seed issues
Norway	Torheim, Bell Batta	Development Fund	Advisor
Spain	COAG	COAG (Coordinadora de Organizaciones de Agricultores y Ganaderos)	Comision Ejecutiva de GOAG

Turkey	Erzincanli, Hakan Ozan	Green Party	Agric. Working group coordinator
UK	Huese, Arjen Mulvany, Patrick	Biodynamic Agricultural College Practical Action	Director Senior Policy Adviser
Latin America			
Costa Rica	FPMA Costa Rica Alexis B. Camacho Ronal C. Arias Gerardo V. Porras Alexander F. Gonzalez Rodolfo A. Villalobos Juan Carlos H. Fonesca	FPMA (Programa Colaborativo de Fitomejoramiento Participativo en Mesoamérica)	
El Salvador	FPMA El Salvador Maria M. del Cid Maribel de Leon Garay Tobias A. Aleman Carlos H. Reyes	FPMA (Programa Colaborativo de Fitomejoramiento Participativo en Mesoamérica)	
Guatemala	FPMA Guatemala Esvin R. Lopez Miguel A. L. Figueroa Juan C. Vicente Juan F. Herrera Patricia E. L. Martinez Mario Fuentes Gustavo Tovar	FPMA (Programa Colaborativo de Fitomejoramiento Participativo en Mesoamérica)	
Honduras	FPMA Honduras Abraham Aleman Mainor Pavon Juan P. Herrera	FPMA (Programa Colaborativo de Fitomejoramiento Participativo en Mesoamérica)	

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	Azucena Fajardo		
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	Ana G. Vargas		
	FPMA Nicaragua		
	German P. Videa		
	Santos L. O. Merlo		
	Rolando Herrera		
	Lucila Umanzor		
	Julio C. Molina C.		
Norman Alfaro			
Blanca I. C. Briones			
Miguel A. Moreno			
Near East			
Yemen	Al-Ahnumi, Ahmed Abdul-Kader	Agricultural Research and Extension Authority of Yemen (AREA)	Agric. Ext. Specialist
	Al-Nusairi, Mohammed Saleh	AREA	DG of Research
	Mohammed A. Al-Khawlani		
	Shafal A. Muhsen		
	Salah Shalan		
	Ali Al-Sayadi		
	Wadee Al Selwi		
	Mahboud Al-Agbari		
	Alsaghier, Mansour Amin	AREA	Wheat breeder
	Alsharjabi, Khalil M.	AREA	DG, technology dissemination
Alshurai, Ali A.	AREA	National Focal Point for GRFA	
Saeed, Ahmed Lutf Mohamed	AREA	Director of National Genetic Resources Center	

North America			
Canada	Boehm, Terry	National Farmers union	President
	Müller, Birgit	National Farmers Union	Researcher/farmer
USA	Bereano, Philip L.	Washington Biotechnology Action Council	Vice-President
	Browne, John	Judd Creek Nursery	Operator
	Müller, Nora Manon		Student
Other input			
(Asia)	Erlano, Beth	APSA (Asia Pacific Seed Association)	Publications and Program Coordinator of APSA
(Kenya)	Rakotoarisaona, Justin	AFSTA (African Seed Trade Association)	Secretary General
(Europe)	Anderson, Fergal	Via Campesina, Europe	
Germany	Herrlinger, Christoph	ESA and German Plant Breeders' Association	Vice-Secretary General
Germany	von Broock, Reinhard	KWS	Managing Director
Spain	Red de Semillas	Red de Semillas	
Netherlands	van den Hurk, Anke	Plantum NL	Senior adviser, biodiversity

Attachment 5: Position paper from ISF**Farmers' Rights**

(Antalya, May 2009)

Plant breeders serve an important function in achieving increased yields of food and feed crops, which are essential to preserving the economics of farming and the livelihoods of farmers. Plant breeders not only develop new varieties but also explore the value of unused germplasm to enhance genetic resources already in use on-farm. By this means they play an important role in conserving plant genetic resources.

In today's industrialized and urbanized societies almost all agricultural production is undertaken by farmers who specialize in production using seeds that have been developed by plant breeders. At the same time many farmers, particularly in developing countries, continue their traditional practices of seed saving and exchange for their seed supply; and in so doing also play a role in distributing germplasm and exploiting genetic resources.

Thus, plant genetic resources can be explored, characterized and developed by plant breeders and exploited by breeders and farmers at the same time that they are being conserved, both *in situ* and *ex situ*. Therefore, as a means of supporting sustainable use ISF fully supports an access and benefit sharing system that respects intellectual property, whether the intellectual property is created by farmers or by plant breeders in the public or private sectors.

In order to create an environment that encourages the continuous and substantial investments required to support breeding and the large scale characterization and conservation of germplasm undertaken by the commercial sector, breeders - companies or individuals – must have the opportunity to protect their new varieties through intellectual property rights in order to obtain a fair remuneration. ISF strongly supports Plant Breeder's Rights based on the UPOV 1991 Convention as it provides an adequate protection of plant varieties against inappropriate exploitation by others. This protection is combined with free access and use for further breeding purposes (breeder's exemption) and the compulsory exception of acts done privately for non-commercial purposes (Article 15 (1) of the UPOV 1991 Convention) allowing subsistence farmers in developing countries to save and use seed from their own harvests.

Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (the "Treaty") refers to the contribution farmers have made towards the conservation and development of plant genetic resources, but it also expressly acknowledges that

implementation of a system that allows farmers to “save, use, exchange and sell farm saved seed” rests with national governments “subject to national law and as appropriate”. The Treaty recognizes that each Contracting Party has its own domestic needs and priorities, and recognizes that a Contracting Party may also have obligations under other international agreements and conventions it adheres to.

Most national laws recognize and protect intellectual property. They allow protection of new plant varieties created by breeders through years of breeding effort and significant economic investment to the exploration, characterization and development of germplasm as intellectual property. The Treaty does so too. Even as Article 9 calls for Farmers’ Rights it does not exclude the intellectual property of commercial plant breeders.

Farmers are the primary market for new varieties developed and protected by commercial plant breeders. Free and unlimited use of farm saved seed that is harvested from protected varieties developed by plant breeders destroys the economic incentive to those breeders to continue to conserve, characterize and develop the available genetic resources in important food and feed crops. If farm saved seed of protected varieties is permitted and used (According to Article 15 (2) of the UPOV 1991 Convention), breeders should receive a fair remuneration for that use. Failure to respect and protect the property newly created by breeders will eventually restrict the release of genetically diverse and improved varieties to the detriment of farmers and to society as a whole. However, farmers still have the opportunity to freely use seeds of landraces and seeds of varieties that are not or no longer protected, independently of the consent of the breeder.

www.worldseed.org

Attachment 6: Position paper from ESA**POSITION on Farmer's Rights**

ESA European Seed Association

Rue du Luxembourg 23/15 - B 1000 Brussels

Phone: +32 (0) 2 743 28 60 - E-Mail: secretariat@euroseeds.org - Web: www.euroseeds.org

Brussels, 28.11.2008

ESA_08.0773

"Farmer's Rights" have become an important subject on the international political agenda for farmers and the seed industry alike. Therefore, ESA, the representative organization of the European seed industry herewith makes its views known on this specific issue.

ESA appreciates the historic and valuable contribution of farmers to the development and conservation of genetic resources of food and feed crops as mentioned in Article 9(1) of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA).

At the same time, ESA points out the important function of the European seed industry in contributing to better yields of food and feed crops by conservation and characterization of genetic resources in gene banks and further enhancing these genetic resources through breeding and development of improved varieties.

Therefore ESA, as a means of sustainable use, fully supports an open access to all genetic resources, including land races, gene bank accessions, wild relatives and protected varieties for breeding purposes by all breeders: farmers or companies alike. ESA is against any regulation which forbids or discourages farmers to breed or participate in plant breeding or to use other ways of improving the value of their crop.

For their continuous and substantial investment in the breeding work, breeders need a fair remuneration for the additional genetic value of their new varieties. Because plant varieties, especially the open pollinated types, can very easily be reproduced by anybody, breeders, whether companies or individuals, must have the opportunity to protect their new varieties through intellectual property rights. ESA is strongly in favour of Plant Breeder's Rights based on the UPOV 1991 Convention as it provides an adequate protection of plant varieties against inappropriate exploitation by others. This protection is combined with free access and use for further breeding purposes (breeder's exemption) and the compulsory exception of acts done privately for non-commercial purposes (Article 15(1) of UPOV 1991 Convention) allowing subsistence farmers in developing countries to save and use seed from their own harvests.

Although the IT PGRFA - in general - recognizes the right of farmers to save, use, exchange and sell farm saved seed, its Article 9(3) clearly indicates that this right is subject to the national law in force in a given country, where such acts may be prohibited or subject to specific requirements and/or limitations. This paragraph thus does not give an unconditional

right to farmers but merely states that Article 9 does not intend to limit any rights that farmers are granted at national level.

Under the UPOV 1991 Convention, national laws may allow farmers to replant on their own farm the seed produced on that same farm without the consent of the breeder of the protected variety. This exception however must remain within reasonable limits and is subject to the safeguarding of the legitimate interests of the breeder (Article 15(2) of UPOV 1991 Convention). This optional exception to Plant Breeder's Rights should be limited to food and feed crops where farm saved seed has been used traditionally and subject to the obligation that the farmer provides information concerning the use to the breeder and to the payment of an equitable remuneration.

Free and unlimited use of farm saved seed undermines the financial return for breeders in important food and feed crops. Insufficient income for breeders will lead to less breeding efforts and eventually stop the release of new varieties to the detriment of farmers and society as a whole. However, farmers still have the opportunity to use seeds of varieties that are not or no longer protected, including landraces, independently of the consent of the breeder.

In the EU Member States, like in many countries, governments have implemented regulations for variety registration, variety listing and seed certification, in order to guarantee a good seed quality combined with objective and adequate information for farmers about the quality and potential value of the best varieties. ESA draws the attention to the fact that these regulations have contributed extensively to the successful development of agriculture in Europe.

For this purpose, like for Plant Breeders' Rights, varieties need to be tested for distinctness, sufficient uniformity and stability (DUS). ESA emphasizes that these requirements must be applied to all varieties entering such systems, irrespective of their origin and purpose, in order to avoid confusion about varietal identity and to prevent the registration of too heterogeneous varieties hampering the introduction of new and better varieties. However existing varieties not meeting these requirements (e.g. landraces) may still be allowed on a case by case basis and under adapted DUS requirements. In the EU, this approach is being followed by the specific conditions set for the marketing of seed of conservation varieties.

In conclusion, ESA fully supports farmer's rights as mentioned in Article 9 of the IT PGRFA, taking into account the contribution of farmers to the conservation of genetic resources and the mutual benefits of improved varieties for farmers and breeders by sustainable use of genetic resources for further breeding and safeguarding the legitimate interest of the breeder.

Attachment 7: Position paper from AFSTA

AFSTA POSITION ON FARMERS' RIGHTS

The issue of "Farmers' rights" has brought concerns within the seed industry, farmer communities and policy makers especially in Africa. AFSTA would like therefore to express its view on this important subject.

The African Seed Trade Association (AFSTA) recognizes the contribution of farmer communities to the conservation and the improvement of plant genetic resources for food and agriculture. This has to be balanced with the important role of the African seed industry in maintaining and improving crop yields through continuous crop breeding to create superior varieties, which benefit farmers and to which they have access.

Accordingly, AFSTA fully supports access to genetic resources for breeding purposes by all breeders i.e. farmers themselves, public research institutes and seed companies and is not in favor of any regulations that prevent them from sustainably exploiting available plant genetic resources to add value to their crops.

In addition, breeders need to get a reasonable return on their investment in plant breeding so that they can continue developing novel products. Free use of farm-saved seed undermines this principle and would lead to less breeding efforts and eventually prevent the release of new varieties to the detriment of farmers and agricultural development as a whole. However, farmers still have the opportunity to use seeds of varieties that are not or are no longer protected, including landraces, without the consent of the breeder.

In Africa, lack of public and private investment in plant breeding has led to a shortage of improved varieties limiting the choice of farmers. To give incentives to breeders, there is need to protect new varieties using intellectual property rights as provided for under the UPOV 1991 Convention. This Convention gives adequate protection against inappropriate use of protected varieties while having provisions for free access and use for further breeding purposes i.e. breeders' exemption and the compulsory exception of acts done privately for non-commercial purposes (*Article 15 (1) of UPOV 1991 Convention*) allowing African subsistence farmers to save and use seed from their own harvests, specifically for their own use. As stipulated in article 9 (3) of the International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA), this right is subject to the national law in force in a given country where such acts may be prohibited or subject to specific requirements and/or limitations i.e. the right is not unconditional for farmers and the Article 9 does not intend to limit any rights granted to them at national level.

Under the UPOV 1991 Convention, national laws may allow farmers to replant on their own farm the seed produced on that same farm without the consent of the breeder of the protected variety. This exception however must remain within reasonable limits and is subject to the safeguarding of the legitimate interests of the breeder (*Article 15(2) of UPOV 1991 Convention*). This optional exception to Plant Breeders' Rights should be limited to food and feed crops where farm-saved seed has been used traditionally and subject to the obligation that farmers provide information concerning the use to the breeder and to the payment of an

equitable remuneration. However, this UPOV Convention has a provision that allows the free use of farm-saved seed of a protected variety for non commercial purposes by African subsistence farmers.

AFSTA therefore fully supports farmers' rights as mentioned in Article 9 of the International Treaty for Plant Genetic Resources for Food and Agriculture (IT PGRFA) taking into consideration farmers' contribution to the conservation of genetic resources and to the mutual benefits for farmers and breeders by sustainable use of plant genetic resources for further breeding while safeguarding the legitimate interest of the breeder. It is very important that governments and all seed stakeholders make efforts in Africa to promote the development of more improved varieties with a view to addressing the needs of the diversified agro-ecological zones of the continent, which is widely ignored by the rest of the world, through effective protection of new plant varieties with clear mechanism of royalty collection for the breeders.

Attachment 8: Position paper from APSA

Position Paper on Protection of New Plant Varieties in Asia and the Pacific

Independent document and validity of past documents

This position paper is compiled to address specific Intellectual Property Right (IPR) issues which are unique or particularly critical for the APSA membership countries. Although this paper is an independent document to express our position, any past APSA documents related to IPR issues remain valid.

Importance of IPR on plant varieties in Asia and the Pacific

APSA recognizes that the protection of intellectual property rights is essential for the sound development of the seed industry in the Asia Pacific Region. In particular, the protection of new plant varieties provides incentives for continuing plant breeding, and thus is essential for the improvement of agricultural productivity in the region.

APSA also recognizes that the protection of new plant varieties is essential to achieve the mission of APSA, which is “to improve production and trade of quality seed planting material of agricultural and horticultural crops”.

The seed business is more susceptible to the risk of IPR infringement than many other businesses because:

- ⌚ Many plant varieties are easily reproduced and propagated
- ⌚ Seed production and plant propagation are commonly done by 3rd parties and not 100% controlled by the breeder, in comparison to factory-made products.

Therefore, it is essential for breeders to have a viable plant variety protection system to continue breeding activities.

Measures of protection for plant varieties

There are two types of protection for plant varieties, namely, Plant Variety Protection (PVP) and Utility Patents. APSA recognizes that both are legitimate systems and that every country has an option to choose either or both of them as a protection for plant varieties. However, there are only four countries (USA, Australia, Korea and Japan) worldwide which now provide Utility Patents for plant varieties and all four countries also have a well established PVP system as an option to protect plant varieties.

APSA recommends that our members and their respective countries first focus on establishing a viable PVP system before considering Utility Patents for plant varieties.

Endorsement of the UPOV 1991 ACT

Given that the Asia Pacific Region has the largest and fastest growing population in the world, it is critical to have active and sound plant breeding activities for the region to provide adequate nutrition. It should be noted, however, that Asia Pacific is one of the most complex regions in the world in terms

of its widely diversified cultures, languages, economies, and ethnic groups. Anything we do to harmonize our actions is a big challenge and involves significant time and efforts.

Nonetheless, APSA is longing for a uniform, simple, cost-effective, and reliable plant variety protection system in the Asia Pacific region. In this sense, APSA endorses the 1991 Act of the UPOV Convention as it provides a uniform and well-balanced system for plant variety protection, ensuring benefits to breeders, farmers and consumers provided that it is fully implemented. Full implementation includes the breeder's exemption, which confers free access to protected varieties for further research and breeding, and the farmer's exemption which authorizes farm saved seeds under specified conditions.

Industry concerns

It is encouraging to note that many of the APSA membership countries have decided to initiate or have already introduced a national PVP system. However, the legislation and establishment of a national system for the implementation of PVP are very slow in some countries. Some countries have legislation enacted, but practical implementation is still not in place after several years. Furthermore, some countries where the PVP law has already been enacted seem to be unable to provide enough incentives for the breeders to utilize it, resulting in a low number of applications by both domestic and foreign breeders. In fact, PVP laws and rules in the Asia Pacific Region vary and mostly are not uniform. For example:

- ⌚ Application format varies, depending on the country
- ⌚ DUS test results are not shared among countries (and possibly, test protocol is different)

As it is difficult for many of the APSA members to access and understand the PVP system in foreign countries, those obstacles resulting from the diversity of the PVP system in the region make it financially and practically impossible for many of the APSA members to apply for PVP protection outside their home country.

APSA is also concerned that some countries are applying special conditions which are not in compliance with the 1991 UPOV Act. For example:

- ⌚ Benefit sharing clauses as an essential requirement to obtain the PVP
- ⌚ Broader rights on "Farmer's privilege" (e.g. farmer can trade farm saved seed)

In this respect, APSA is strongly against any "farmer's privilege" given that it exceeds the provisions in the 1991 UPOV Act, namely:

- ⌚ As a compulsory exception of the Breeder's Right on acts done privately and for non-commercial purposes, therefore, allowing farm saved seed produced by subsistence farmers
- ⌚ As an optional exception, within reasonable limits and subject to safeguarding of the legitimate interests of the breeder, to permit farmers to use for propagation purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holding, of the protected variety.

PVP and international treaties

In order to avoid confusion, loss of effectiveness and increased bureaucracy, APSA favors a straightforward implementation of UPOV 1991, without any additional requirements from other

international treaties like CBD. Each treaty should be implemented for its original intended purpose in its own context and legal environment

Although benefit sharing should be addressed by the APSA membership countries, it should not become a prerequisite for the grant of IPR.

Role of APSA and APSA members

APSA members in their respective countries/regions are encouraged to raise awareness about the importance of the plant variety protection for sustainable plant breeding and for a sound development of the national seed industry.

APSA and its members' interaction with their respective Ministry of Agriculture and National PVP Office (if any) is critical to facilitate the introduction and implementation of an effective plant variety protection system. In this respect, APSA strongly recommends that each local National Seed Association (NSA) establish an IPR Committee within their organization, and APSA is willing to support NSAs to initiate and/or realize their plan. In the meantime, APSA should strengthen its co-operation with NSAs and relevant international organizations working in the field of intellectual property rights on plant varieties such as UPOV, ISF, etc.

It should be also noted that information dissemination and education about IPR to all parties in the seed industry is an indispensable part to make the whole system work.

Conclusion

Protection of intellectual property rights on plant varieties is not at an ideal state in the Asia Pacific Region and has not achieved the level the seed industry has been seeking. In order to improve the current situation, all related parties should first be aware of the importance of IPR.

A UPOV-based PVP system should be put into force in those countries where PVP itself is not yet available, however, that system should be also "usable" for the breeders in a true sense.

The legal enforcement of PVP should be developed further in countries where the system is available but only a few foreign applications are being made. APSA and its members, with their local government officials, should interact and work together in order to address these problematic issues, overcome the obstacles, and expedite the process.

Attachment 9: Input from ECVC

Dear sir / madam,

We welcome the initiative taken by your organization to participate in an international consultation on Farmers' Rights.

The European Coordination office Via Campesina is a regional grouping of 24 farming organizations and unions throughout Europe, including Turkey, Switzerland and Norway.

Although some of our members have completed the consultation launched by your organization, we believe it is also important for us as a European organization to communicate our concerns and priorities on the Farmers' Rights situation in Europe.

We are especially interested in comments on the final parts of your questionnaire, sections 7 and 8.

Our organizations have repeatedly stated their disappointment at the lack of action on Farmers' Rights on the part of their governments, which allows us to make a general analysis of the European situation and recommendations to the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture.

We hope that our contributions are well received and thank you once again for your work of establishing a clearer picture of the current state of Farmers' Rights worldwide.

Kind Regards,

European Coordination Via Campesina

What are the most important measures that are required to promote the implementation of Farmers' Rights?

Our member organizations across Europe have encountered difficulties in their jobs to meet the accepted average means of livelihood. Priority is always given to intellectual property rights. There are fundamental difficulties with intellectual property rights that are, to a greater or lesser degree, hindering the implementation of Farmers' Rights.

There is an urgent need for a specific legal recognition of the right of farmers who are not necessarily conventional farmers of commercial seed, to exchange and sell their seeds. Farmers engaged in the preservation and renewal of plant genetic resources need to be given legal recognition to their priority of working under the intellectual property rights system.

This means a specific legal status and promotion of this work through public support and legislation, as opposed to the continuation of the "underground" system that often exists outside the commercial catalog, an area dominated by large seed companies.

Other opinions and experiences related to the implementation of Farmers' Rights under the International Treaty?

There are two specific issues that we identified that are not fully covered in the survey.

The first refers to benefit-sharing from the Fund. There are problems with the funding system prescribed in the treaty.

Seed companies often do not make the required payments into the system of benefit-sharing funds, even if they prohibit farmers from reusing their varieties. Farmers (on the other hand) may be forced to pay license fees, even when they use their own farm-saved seed.

The second refers to laws and patent legislation. Patents on seed varieties prohibit farm-saved seeds. Protection of patents on genes or gene technology extends to any plant that contains these genes or gene markers of the protected technology, which causes an enormous concentration of the seed industry in the hands of larger patent portfolios' owners.

By extending also to any plant or variety contaminated with a patented gene, the patent prohibits farm-saved seeds of indigenous non-protected varieties to the same extent as those of protected varieties. When the patent protects a gene that is derived from other genetic technologies than transgenesis, information about its existence is not accessible to farmers and is hardly accessible to the industry. It then prohibits any protection against contamination of local varieties and neutralizes new varieties.

Please make a list of your recommendations to the Governing Body:

1. The aggressive promotion of "improved" irreproducible seeds destroys local farmers' varieties. These F1 hybrid seeds, "terminator" or protected by intellectual property rights have been selected to only grow with large doses of fertilizers and chemical pesticides the purchase of which ruins small farmers who work primarily to feed the community and not for the money market. And when these farmers seek to sow again, they can no longer reuse a portion of their crop. They are forced to buy commercial seed and the technology package essential to their crop while they have no money for that.
2. The distribution of non-reproducible seed from the industry must be immediately replaced by support channels for the production of locally adapted reproducible seed by farmers in their fields.
3. The promotion of industrial monocultures should be replaced by the promotion of agroecology turned primarily to the local food.
4. The standards imposed by the industry to the marketing of seeds (homogeneity, stability, development of chemical fertilizers) and the cost of certifications or required catalogs exclude locally diversified farm-saved seeds endowed with great adaptability. Farmers' seeds must be exempted from compliance with these standards and certifications.
5. Any kind of patents on seeds and their genes, and on life in general, ought to be prohibited.
6. All the "improved" seeds sold by the industry come from selected seeds maintained by hundreds of generations of farmers, then taken from their fields without pay. The PBR (Plant Breeders' Rights) and patent on the gene legalize this biopiracy by allowing the protection of varieties "discovered" in farm fields and then simply homogenized or genes "discovered" in these varieties. This does not hinder the industry to do all it can to ban the use or exchange by farmers of their farm-saved seed, or force them to pay royalties when they don't buy certified seed. With patents on life, it is advisable to also abolish the UPOV agreement of 1991 which turns farm-saved seed into a counterfeit.
7. Contamination of crops and seeds by GMOs destroys locally adapted farmers' seeds. The marketing of any GM seed, or contaminated by GMOs, ought to be prohibited.

Attachment 10: Input from Red de Semillas

(translated from Spanish)

IMPLEMENTATION OF FARMERS' RIGHTS IN SPAIN

Introduction

As it is established in the International Treaty on Plant Genetic Resources for Food and Agriculture (IT-PGRFA), Contracting Parties recognize the enormous present and future contribution made by local communities and indigenous people and farmers from around the world, particularly those in centres of origin and harvested plant diversity, to the conservation and development of plant genetic resources that constitute the base for food and agriculture production worldwide.

In this context, they agreed that the responsibility for realizing Farmers' Rights regarding plant genetic resources for food and agriculture rest to national governments. In accordance with their needs and priorities, each Contracting Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including:

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

Resolutions of the Governing Body

During the first Session of the Governing Body of the IT-PGRFA held in Madrid in June 2006, Norway proposed that the follow up of the implementation of Article 9 on Farmers' Rights was considered for its inclusion in the agenda of the Second Session of the Governing Body. The recommendation was fully supported. During its meeting in November 2006, it was decided to include the implementation of Article 9 as one of the agenda items for the Second Session of the Governing Body of the IT-PGRFA.

With the aim to prepare the debate in the framework of the agenda, Norway took the initiative to do a global consultation, co-organized by the Agriculture Research Institute of Zambia, the Ministry of Food and Agriculture of Norway and the Fridtjof Nansen Institute from Norway. Information related to this consultancy is available at <http://www.farmersrights.org/database/europe.html>

Furthermore, the implementation of Farmers' Rights has been reinforced by the Resolutions arising from the meetings of the Governing Body held in Rome in 2007 (Resolution 2-2007) and 2009 in Tunis (Resolution 6-2009).

Resolution 2-2007 requested Contracting Parties and relevant organizations to views and experiences on Farmers' Rights as established in Article 9 of the International Treaty to elaborate an analysis. The number of submissions of views and experiences received by the Secretariat was limited.

Resolution 2-2009, recognizes that there is uncertainty in many countries as to how Farmers' Rights can be implemented and that the challenges related to the realization of Farmers' Rights are likely to vary from country to country. Additionally:

1. Invites each Contracting Party to consider **reviewing** and, if necessary, **adjusting** its **national measures** affecting the realization of Farmers' Rights as set out in Article 9 of the International Treaty, to protect and promote Farmers' Rights;
2. Encourages Contracting Parties and other relevant organizations to continue to submit **views and experiences** on the implementation of Farmers' Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers' organizations and other stakeholders;
3. Requests the Secretariat to convene **regional workshops** on Farmers' Rights, subject to the agreed priorities of the Work Programme and Budget and to the availability of financial resources, aiming at discussing national experiences on the implementation of Farmers' Rights as set out in Article 9 of the International Treaty, involving, as appropriate, farmers' organizations and other stakeholders;
4. Requests the Secretariat to **collect** the **views and experiences** submitted by Contracting Parties and other relevant organizations, and the reports of the regional workshops as a basis for an agenda item for consideration by the Governing Body at its Fourth Session, and to disseminate relevant information through the website of the International Treaty, where appropriate.

Legal Baseline in Spain

The legal basis in Spain regarding Farmers' Rights is focused in:

- Ratification instrument of the International Treaty on Plant Genetic Resources for Food and Agriculture made in Rome 3 November 2001 (BOE No. 109 of 05-05-2004)
- Law 30/2006 of 26 July, on Seeds and seedlings and plant genetic resources (BOE No. 178 of 26-07-2006).

The Law of seeds refers to this issue in particular in its Article 51 (Farmers' Rights):

It will be established by regulation the mechanisms to protect and promote farmers' rights, in particular, mechanisms should be established for the participation in the distribution of benefits arising from the use of plant genetic resources for food and agriculture. The public administrations, within their competencies, should establish measures to promote the use and conservation of endangered genetic resources to:

- a) Facilitate farmers the conservation, use and commercialization of seeds and seedlings conserved on-farm of endangered local varieties, in limited quantities and according to the legislation on seeds and seedlings.
- b) The protection, conservation and development of traditional knowledge of interest for plant genetic resources for food and agriculture.

Analysis on the Implementation in Spain

Element	What has been done
a) The protection of traditional knowledge of interest for plant genetic resources for food and agriculture	Nothing

b) The right to participate in the equitable distribution of benefits arising from the use of plant genetic resources for food and agriculture	Nothing
c) The right to participate in decision making, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture	Nothing, even though the Law of Seeds establishes that in relation with the conservation and use of plant genetic resources for food and agriculture, a collective body under the MARM, with participation of Autonomy Communities, will be established to study and recommend policy issues in this matter. Nevertheless, it does not speak anything about farmer organizations.

Attachment 11: Extract from Submission to the Plant Treaty by Via Campesina

Extract from Submission to the Treaty Secretariat by La Via Campesina

Lift the obstacles to farmers' rights

The contribution of farmers to the conservation of biodiversity is hindered by numerous obstacles to their collective rights to conserve, use, exchange and sell the seeds of their farms, to protect them from biopiracy and from genetic contamination, to fairly share the benefits and to participate in local decisions regarding the management of seeds.

These obstacles are primarily the result of the absence of judicial and institutional recognition of peasant seed systems, which are called "informal", i.e. the conservation and dynamic management of local varieties in the farms, participatory peasant selections, local seed banks managed by the communities... even though these seed systems form the basis of the food of the majority of the world's population. To various degrees depending on the country, these obstacles are then reinforced with "agricultural development aid" and with legislation that benefits seed and agrofood transnational companies.

- 1) The aggressive promotion of "improved" non-reproducible seeds destroys local peasant varieties. Hybrid and "terminator" seeds, or those protected by intellectual property rights, were selected to grow only when accompanied by large doses of chemical fertilizers and pesticides. Buying these ruins farmers whose priority is to feed their community, not the global market. When the farmers then want to sow again, then can't reuse part of their harvest. They are instead forced to purchase commercial seed again along with the technological packages that are needed for their cultivation, and they don't have enough money to do so.
- 2) The distribution of non-reproducible seeds by the industry must immediately be replaced by support to the production of reproducible seeds that are adapted to local conditions, by farmers and in their fields.
- 3) The promotion of industrial cash crop monocultures destroys local agriculture which is destined to feed the population, results in the expulsion of hundreds of millions of farmers to slums, in the disappearance of their local varieties and in their replacement by corporations controlled by speculative financial capital. It must be replaced by the promotion of agroecological models that focus on local food production.
- 4) The standards imposed by the industry for the commercialization of seeds (homogeneity, stability and valorization of chemical fertilizers) and the costs of certification or of mandatory catalogues exclude local peasant seeds that are diverse and very adaptable. Peasant seeds must be exempted from these standards and from certification.
- 5) Patents on varieties outlaw farm seeds. Patent protection for genes or genetic technologies covers all of any plant that contains the genes in question or the marker genes of the protected technology, which results in an enormous concentration of the seed industry in the hands of the biggest patent holders. By extending coverage to any plant or variety contaminated by a patented gene, patents outlaw farm seeds of non-protected peasant varieties as well as those of protected varieties. When patents protect a gene that comes from genetic technologies other than transgenesis, information on its existence is not available to farmers and is difficultly available to the industry. Patents forbid any protection against the contamination of local varieties and sterilize any possible variety innovation. All forms of patent on seeds, their genes, or on life in general should be banned.
- 6) All "improved" seeds that are sold by the industry come from seeds that were selected and preserved by hundreds of generations of farmers, then picked from their fields without any remuneration. Plant breeders' rights and gene patenting legalize this biopiracy by authorizing the protection of varieties that are "discovered" in farmers' fields and then simply homogenized, or of genes that are "discovered" in these varieties. This doesn't stop the industry from doing everything to forbid farmers to use or exchange the seeds of their farms, or from forcing them to pay royalties when they don't buy certified seeds. The 1991 act of the UPOV convention, that makes farm seed into counterfeit, should be done away with along with patents on life.

- 7) The contamination of crops and seeds by GMOs destroys locally adapted peasant seeds. The commercialization of all GMO seeds, or seeds that are contaminated by GMOs, should be banned.

The local adaptation of cultivated biodiversity to local constraints is dealt with locally and collectively. The collective usage rights of this biodiversity can only be defined locally, their global management can only be the result of multilateral negotiations between local communities and not of "universal" standards that barely conceal the dictatorship of the global market and of intellectual property rights.

Attachment 12: Paper on FR from IIED and partners

(not received and analysed as input to survey, but included here as supplement to its findings)

FAO International Treaty on Plant Genetic Resources for Food and Agriculture **Implementation of Farmers' Rights**

Information and Views submitted by:

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Introduction

In response to Resolution 6/2009 of the International Treaty's Governing Body, this paper provides the findings of research on the protection of traditional knowledge and farmers' rights in Peru, China, India, Kenya and Panama. The research was conducted over 5 years (2004-2009), as part of the project "Protecting community rights over traditional knowledge: Implications of customary laws and practices". It entailed 7 studies with over 60 indigenous and local communities in areas of important but threatened bio-cultural diversity:

- Peru: The Andean Potato Park, near Cusco – a centre of potato diversity
- China: Southwest Karst mountains – a centre of maize and rice diversity
- India: Eastern Himalayas – centre of diversity for rice and traditional crops
- India: Chattisgarh – a centre of traditional rice diversity
- Kenya: Southern coast – kaya forest areas with rich traditional crop diversity
- India: Andhra Pradesh – Yanadi traditional knowledge and food systems
- Panama: Kuna and Embera-Wounaan traditional knowledge systems

This paper has 5 sections:

- Farmers' rights under the Treaty (p.1)
- Review of implementation of Farmers' Rights in these countries (p.2)
- Research findings on how to effectively implement Farmers Rights (p.8)
- Research findings on PGR conservation and sustainable use (p.11)
- Conclusions and recommendations (p. 12)

1. Farmers' Rights under the Treaty

Article 9.1 of the Treaty recognises the enormous contribution that indigenous and local communities (ILCs) and farmers have made to the conservation and development of PGRs. Article 9.2 identifies 3 measures to protect and promote farmers' rights:

- Protection of traditional knowledge relevant to PGRFA
- The right to equitably participate in sharing benefits from the use of PGRFA
- The right to participate in national decision-making on conservation and sustainable use of PGRFA

³⁰ We are grateful to Robert Lettington for his advice and comments on the draft.

Article 9.3 states that “nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed”.

The implementation of Farmers’ Rights should be guided by the overall objectives of the Treaty on the conservation and sustainable use of PGRFA, and related provisions on in situ conservation and sustainable use, in particular:

- Article 5.1 on supporting farmer and community efforts to manage and conserve PGR on farm; and in situ conservation of wild crop relatives and wild plants for food production, including the efforts of ILCs; and
- Article 6 on promoting sustainable use of PGRFA through appropriate policy and legal measures, which may include fair agricultural policies that promote the maintenance of diverse farming systems.

Taken together, these provisions call for a broad interpretation of farmers’ rights which goes beyond the right to benefit-sharing, to include the right of farmers to continue the practices which contribute to the conservation and sustainable use of PGRFA and to sustain the traditional knowledge and livelihood systems needed for this. The protection of Farmers Rights is essential to enable in situ conservation of PGRFA and sustainable use.

The recently adopted Nagoya Protocol on Access to Genetic Resources and Benefit-Sharing under the Biodiversity Convention also requires countries to take measures to ensure equitable benefit-sharing from the use of traditional knowledge associated with genetic resources (TK), and genetic resources held by communities. It emphasises the need for prior and informed consent of communities for access to TK, and genetic resources where communities have the right to grant access, based on mutually agreed terms. It also emphasises the need for customary laws, community protocols and procedures to be taken into account when implementing its provisions on traditional knowledge; and encourages support for the development of community protocols for access and benefit-sharing relating to TK.

2. Review of Implementation of Farmers’ Rights

Protection of traditional knowledge relevant for PGRFA and the right to participate equitably in benefits from PGR use

Summary of key findings: While some progress has been made in protecting farmers’ rights at national level, much remains to be done. Peru and Panama have developed laws to protect the collective traditional knowledge of indigenous peoples. However, these do not protect the rights of farmers and communities over the associated genetic resources and hence their right to equitably participate in the benefits from their use. In India, the Plant Variety Protection and Farmers’ Rights Act (2001) aims to protect farmers’ rights through registration of farmer varieties and benefit-sharing, but this has not been implemented given the unclear system for farmers to apply for registration.

At the same time, other policies and laws have negative impacts on Farmers Rights. In particular:

- The existence of IPR protection for plant breeders’ rights, without equivalent protection for Farmers’ Rights in many countries (eg. Peru, India, China) has the effect of undermining the rights of farmers. A number of countries are facing pressure to adopt UPOV ’91 which is a particular concern since plant breeders’ rights can extend to on-farm saved seeds, thereby threatening farmer seed systems.
- Agricultural subsidies flooding markets with subsidised farm goods which reduces market access for smallholder farmers. This was also a common constraint across the studies, reducing the ability of farmers to equitably benefit from the use of their genetic resources.

Peru and **Panama** were amongst the first countries to introduce national laws for protecting traditional knowledge. Peru introduced a National Regime to protect the Collective Traditional Knowledge of Indigenous People associated with biodiversity, in 2002. Panama introduced a Special Regime governing the collective rights of Indigenous Peoples for Protection and Defence of cultural identity and Traditional Knowledge in 2000, but this does not explicitly cover TK related to bio-genetic resources. Both laws explicitly recognise traditional knowledge as the collective heritage of indigenous communities. This is important given that traditional knowledge and genetic resources are developed, held and conserved cumulatively and collectively within and between communities. Protecting individual rights as in most western IPRs would undermine the customary practices through which TK and genetic resources are improved and conserved in traditional subsistence economies.

However, these laws still mirror existing IPR standards in other respects. For example, they only protect rights over the intellectual component of knowledge systems, and not over the associated genetic resources. Most policies to protect TK at international and national level emphasise 'state sovereignty' over natural and genetic resources. While this is not incompatible with community ownership, since it applies to all state actors, governments often interpret it as government ownership. Thus, genetic resources, including traditional crop varieties developed by generations of farmers, tend to be seen as state owned. This undermines the rights of farmers to equitable benefit-sharing from the use of PGR, and to customary use of genetic resources which underpins conservation and sustainable use of PGRs, and is important for subsistence. Farmers and communities sustain, use and develop TK and bio-genetic resources together – the two are closely inter-related and inter-dependent.

At the same time, other policies and laws in **Peru** are impacting adversely on farmers' rights and the protection of TK. The IPR commitments in the US-Peru Free Trade Agreement (2006) allow for the patenting of genetic resources and traditional knowledge that have been developed and conserved by indigenous and local communities for thousands of years. With the ratification of the FTA, Peru accepted the US demand to make 'all reasonable efforts' to begin patenting plants and plant material. This goes against Decision 486 of the Andean Community which prohibits the patenting of plants. Furthermore, the FTA does not require patent applicants to disclose the origin of plants or obtain authorisation before using TK. This again contradicts Andean Community patent regulations, which require the biological and genetic heritage and TK of ILCs to be safeguarded, and patent applicants to provide a license to use the TK of indigenous and local communities. In addition, the FTA led to the approval of a new 'Law to Promote the use of Modern Biotechnology in Peru' which allows GMOs to enter Peruvian territory, in place of existing legislation which stressed the risks of GMOs and how to prevent them. Furthermore, markets have been flooded with subsidised farm goods based on modern varieties, which has significantly impeded market access and returns for the agricultural products of smallholder and indigenous communities and their diverse traditional varieties.

In light of these national policy changes, the Cusco government introduced two regional laws. The first, passed in 2007, aims to protect native potatoes from transgenic contamination, in order to safeguard the rich PGRs and related TK in this centre of potato diversity. The second (2008) aims to combat bio-piracy. These were developed with support from the NGO Asociacion ANDES and input from indigenous farming communities in the area.

Asociacion ANDES has been working for the last 15 years to protect native potato varieties and farmers' rights in situ in the Cusco region of the Peruvian Andes. It has helped six Quechua farming communities to establish a Potato Park. The Park is an Indigenous Bio-Cultural Territory managed collectively by the six communities, with about 1300 potato varieties and the greatest wild potato diversity in the world. It uses a number of tools to protect farmers' rights, agrobiodiversity and livelihoods:

- The Park itself enables farmers to assert their rights over the varieties and knowledge in the collective land title area, and provides the basis for a landscape based *sui generis* system for protecting TK and PGRs *in situ*.
- The Park signed a collaborative agreement with the International Potato Centre in Lima in 2004, for a reciprocal exchange of potato varieties and benefit-sharing, and in situ conservation and monitoring of potato GRs. This resulted in the return of 400 varieties to the park. The CIP also agreed not to allow any patents on varieties from the Park, thereby recognising and protecting the rights of the communities over them.
- An inter-community agreement for equitable benefit-sharing amongst the six communities provides the basis for protecting farmers' rights at community level, and for promoting collective TK and PGR management and conservation in situ.
- The Park's register database of potato varieties serves as a tool for the protection of farmers' rights over these varieties and for strengthening related access protocols based on customary laws, as well as for monitoring and in situ conservation of PGRs.

India's experience in the protection of TK and farmers' rights is spread over a number of national laws: the Protection of Plant Varieties and Farmers' Rights Act, 2001, the Biological Diversity Act, 2002, the Patent (Amendment) Act, 2005 and a proposed Seed Bill of 2004.

In the past, India had kept agriculture and plants out of the patent regime to ensure that the first link in the food chain, the seed, is held as a common property resource in the public domain. The recent amendment to the Patents Act has increased the possibility for international and national agribusinesses to patent plants and seeds, which could lead to monopolies and increase farmers' vulnerability and dependence on monopolies of modern varieties (Shiva, 2005). However, the Patent (Amendment) Act provides defensive protection to the farmers in the form of a disclosure provision. According to the amendment, a patent application not disclosing the source of geographical origin of the biological material used in the invention or incomplete specification of claims in the application thought to be from the knowledge of indigenous and local communities, forms a ground for raising objections to the patent applications filed.

It was only in 2005 that the PPVFR Act, 2001, became operational. The Act simultaneously grants IP rights to both plant breeders and farmers. The Indian government considers it to be the national response to the *sui generis* provision of the WTO/TRIPs to protect plant varieties. However, the PVP Act is not acceptable to many farmers associations and civil society organisations working towards protection of TK and farmers' rights. The Act recognizes the farmer as a cultivator, a conservator of the agricultural gene pool and a breeder who has bred successful varieties. Although it provides protection to farmers' seeds, this will only be possible when farmers' varieties are registered with the help of NGOs. The Act does not specify the system and criteria to be adopted for registering farmers' varieties and thus does not adequately protect farmers' rights (Sahai, 2003). The yardstick of DUS (Distinctness, Uniformity and Stability) used for other varieties does not suit farmers' varieties and even the government has recognised the need to find a more pragmatic procedure to register Farmers' Varieties (Nagarjuna et al, 2008).

The PVPFR Act has adopted the provisions of the CBD relating to benefit sharing but these provisions are vague and are left to be determined by the PVP authority in India (Sahai, 2001). There is no representation of farmers in the authority.

The Act provides IPRs over plant varieties through a system of registration. But given the vague system for registration and benefit sharing in the law and the inability of farmers to apply for registration, it seems extremely far-fetched that farmers' rights are going to be protected through the law. Farmers' varieties are developed as a collective and spread over large geographical regions and often the same variety is found in several villages and sometimes, even across national borders in

villages of neighbouring countries especially if the same ethnic communities reside in the same agro-ecological region. In such a situation, the process of registration would also need to address these issues. (Pant 2008)

In India, the farming community is the largest seed producer, fulfilling about 87% of the country's annual requirement of over 6 million tons. Although this is largely done through a process of seed-exchange, sometimes money also changes hands when farmers do not have anything to barter. Control over seed production is vital to food security. However, weak Farmers' Rights in the legislation will allow seed corporations and modern varieties to dominate the seed market.

The PVP law is based on the view that plant variety protection accorded to commercial plant breeders leads to increased food production, greater food security and the development of new varieties by spurring investments in this sector. But the reality is that the commercial seed sector is essentially engaged in research on hybrid technology in a few commercial crops such as the maize, canola, sunflower, etc. Food production in India is still largely in the hands of the small farmers who use farm saved seeds (Shiva and Jafri, 2003).

The Seed Bill proposed in 2004 is likely to further curtail the rights granted to farmers in the PVPFR Act. This is due to a provision requiring compulsory registration of all farmers' varieties. This bill proposes prohibition of exchange of unregistered seeds, a traditional practice still being followed in large parts of the country.

Agrarian communities are not able to come to grips with the new policy situation. They find it difficult to believe that laws could be enacted which will take away their right to save, sow, exchange and sell their seed. The introduction of IPRs prevents farmers from exchanging unregistered seeds and engaging in their own seed production which eventually leads to extinction of the farmers' varieties thus leading to a loss of agro-biodiversity. It also hampers their right to determine what they would like to grow, what inputs they would like to use, and their right to follow their own practices which are closely linked to their socio-cultural ethos.

The government also promotes seed distribution through the extension services of the departments of agriculture and horticulture and other development programmes. These seeds are mostly modern varieties, and this undermines markets for local varieties.

The National Biodiversity Act recognises the rights of communities over traditional knowledge, but its implementing Rules only provide communities with the authority to develop community registers, and there is hardly any community participation in the biodiversity institutions established to implement it at national, state and sub-state levels. There are also concerns about the TK Digital Library and pressure to add community TK registers to this, in the absence of effective policies and institutions for ensuring farmers' and community rights are protected.

A number of NGOs in India have been working with communities for the last decade or more, to protect local varieties and farmers' rights, through community TK registers, seed banks etc. Ecoserve along with a local NGO, Centre for Mountain Dynamics, initiated a capacity development programme for small farmers in district Darjeeling in the Eastern Himalayan region. This programme entailed a legal literacy component, where farmers, especially women, were appraised about the provisions of the new laws and the implications such laws have had in other countries where they have been in force for a while now. Modules were developed and farmers were taken on exposure and learning visits to interact with farmers in other parts of the country. Farmers decided to document their knowledge pertaining to traditional rice varieties in the form of a computerised database to be available with the local NGO. And from time to time, these farmers with the help of the local NGO, update this database when they are able to find seeds of a traditional variety with some farmer in a remote village. These farmers have also created a small seed bank with the local NGO. The NGO has created a small rice

park in their premises as an in situ conservation initiative, to grow these seeds on a periodic basis by rotation to keep the seeds alive. Farmers are welcome to take these seeds from the NGO when these varieties are not available any more.

In **China**, the protection of traditional knowledge and farmers' rights is included in China's NBSAP and these issues are increasingly being discussed. The Chinese government has set up 62 protected areas for in situ conservation of wild PGRs and invested in integrating in situ and ex situ conservation. There is no specific legislation to protect TK or farmers' rights in China. However, the rights of farmers to their TK and plant genetic resources and benefit-sharing are under discussion for the development and implementation of concrete elements.

In general, farmer TK and seed systems are still not fully recognised by the formal agricultural system, and the public sector is mainly engaged in hybrid breeding. In the absence of legislation to protect the rights of farmers, current legislation on Plant Variety Protection (1997) and the Seed Law (2000) tend to favour the rights of plant breeders.

Scientists in China largely assume that gene banks are enough to conserve PGRFA. A recent scientific study found that landraces in the field are far more genetically diverse than the same varieties collected from the same area 20-30 years ago (CCAP forthcoming paper on the results of laboratory analysis of 170 landraces in SW China). This shows that farmers and ecological factors play a critical role in conserving and enhancing PGRFA.

Some explorations and practices have been conducted to address these issues and protect PGRFA and TK in field over the last decade. The Chinese Centre for Agricultural Policy, under Chinese Academy of Science, has been working with poor farmers in the genetically and culturally rich provinces of South West China since 2000 to protect farmer knowledge and local genetic resources and promote benefit-sharing. The main focus has been on Participatory Plant Breeding with maize, the staple food crop for the poor, in SW China. Since 2008, PPB has spread to Yunnan and Guizhou, and to rice, cassava and beans.

PPB contributes to in situ conservation because local landraces and knowledge are used and valued rather than replaced with modern varieties. It has enhanced both the farmer seed system and the formal seed system. For the farmer seed system it has broadened seed access and exchange networks. For the formal seed system, it has provided genetically diverse landraces which can promote future breeding. The collaboration established through PPB provides the basis for negotiating equitable benefit-sharing. Two types of benefit-sharing agreement have been established between farmers and communities and formal breeding institutions. The first is for conservation and management of local landraces for future breeding, recognising that landraces are the product of farmer knowledge; and the second for farmer collaboration in the PPB process, recognising their contribution of GRs and knowledge. PPB, where farmers needs and interests are addressed, is now being supported by provincial governments in some areas.

The basic tools used in conducting participatory plant breeding (PPB) and related protection, value addition and capacity building for TK and PGRFA are as follows:

Around PPB –

- Community-based seed registration and conservation – through which farmers get to know more information about varieties, including landraces, farmers' traditional varieties and modern hybrids. Based on such information and its annual change, farmers can plan for both landrace conservation and quality hybrid adoption.
- On-farm experiments and varietal selection – through which farmers and local communities recognize the values of their genetic resources and their TK and share them, in an appropriate way,

with other communities and scientists through PPB and PVS. This helps farmers find/breed better adapted varieties.

- Community-based seed production – through which farmers can get monetary benefit from their seeds; and the farmer seed system can be enhanced, since it has been challenged by the industrialized and profit-driven hybrid seed systems for a long time.
- ABS discussion and contracting with public breeding institutes – which can be seen as the implementation of PIC and MAT at the project level. Both farmers and institutes have reached an ABS agreement at the project level, which regulate benefit sharing principles and working mechanisms in written form. These should be signed before accessing the crop germplasm.

Around traditional organic products –

- Niche market development together with local NGO and/or public institute – through which value can be added to PGR & TK with specific recognition of their biological and cultural values.
- Interaction with urban consumers – through which the value of PGR & TK can be introduced to consumers and integrated into diverse food systems. The linkages between traditional farming and organic farming have been defined by consumers and intermediaries, which will provide more opportunities for PGR & TK products in light of concerns on national food safety.
- Farmers' organization and network building – can support mutual learning among farmers and communities. Farmers can thus get back their varieties and knowledge as well as their confidence through learning from each other.

The right to participate in national decision-making on conservation and sustainable use of PGRFA.

National efforts on the conservation and sustainable use of PGRFA still focus largely on supporting the role of plant breeders, scientist and gene banks, rather than the role of farmers, in situ conservation and farmers' rights. Despite progress in introducing new laws to protect TK, PBR and seed laws increasingly threaten the rights of farmers and in situ conservation. This suggests that there is limited participation of farmers and communities in national decisions relating to PGR conservation/sustainable use.

In India for example, farmer participation in agriculture policy and decision-making is limited. Rich industrial farmers have an influence (eg. on the Public Distribution System for seeds) but not poor traditional farmers. In the environment and biodiversity sector, government institutions have tended to be more open to farmer and community involvement. However, the government has become quite closed to NGOs in recent years (Swiderska et al 2008). Community participation in biodiversity institutions dealing with TK protection is still very limited, and there is no farmer participation in the authority that decides over implementation of the PVPFR Act.

In Peru, there has been some farmer and community involvement in national environment policy-making, but this has generally been consultation rather than active participation in decision-making, and there has been far less involvement in the agriculture sector. The process to develop Peru's Free Trade Agreement with the US in 2006 was largely conducted behind closed doors, without involvement of civil society or the Environment Ministry - but with some industry involvement (Siegele, Swiderska and Argumedo, 2006).

Industry and scientists tend to be by far the most influential in national decision-making, and increasingly foreign industry through Free Trade Agreements and other trade deals. The seed industry is pushing for the adoption of UPOV 91 in all countries, as evident from the World Seed Conference in September 2009, organised with the FAO, where there was very limited participation of farmer organisations. Most FTAs include an obligation to accede to the 1991 UPOV regime, which supports the rights of industrial breeders over those of farmers and communities and threatens farmer seed systems (ie. seed saving and seed exchange). Many FTAs require protection of IPRs beyond existing international agreements (eg. WTO/TRIPS), including on the patenting of plants. Where developers of

GMOs are able to patent GM seed, they generally charge a royalty to cover research and development costs and require farmers to agree not to save, replant or sell the seeds from crops grown with the patented seed. Generally, regional and bilateral trade agreements have been negotiated behind closed doors without taking account of civil society concerns, and have excluded the local stakeholders – ie. small farmers and local communities – who are most likely to be affected by their outcome (Siegele, Swiderska and Argumedo 2006).

3. Research Findings on how to effectively implement Farmers' Rights

The protection of Traditional Knowledge and Equitable Benefit-sharing from PGR use

Recognising collective rights: Our research into community perceptions and patterns of knowledge 'ownership'³¹ stressed the importance of recognising collective rights. Knowledge is believed to come from God and so is always considered to be collectively held, even if it can be attributed to a particular inventor or provider in the community, in which case both collective and individual rights should be recognised. Knowledge and related bio-genetic resources are widely shared within and between communities and this sharing is important to sustain traditional subsistence economies in often difficult environments– no individual can survive based on their knowledge and resources alone. Sharing allows farmers to innovate further and add to the stock of knowledge and genetic resources. In this context, recognising individual or exclusive rights would not only threaten livelihoods but also the innovation systems which sustain and enrich genetic resources and traditional knowledge.

This means that measures to protect TK, such as the Prior Informed Consent of communities and equitable benefit-sharing, must also be collective. Obtaining PIC and sharing benefits with a single individual or family would promote individual rights and undermine sharing values. As our research found, indigenous communities make decisions collectively. Even where traditional authorities have been weakened, many decisions are still made collectively, particularly in relation to farming and natural resources. Collective PIC and benefit-sharing reinforces collective resource rights and responsibilities, which underpins community-based action to conserve PGRFA. Furthermore, when access is negotiated by an individual, there is a risk that the full value of TK will not be taken into account.

The Kuna of Panama have developed a protocol for research on biodiversity on their territories, which sets out the process and requirements for PIC. Consent is required from the Kuna Congress level (representing 49 communities), the source community authority and the individual knowledge provider, and can be granted or denied at any stage.

Communities can also use 'soft' IPRs, such as collective trademarks or Geographical Indications, to protect their rights over particular products based on TK and genetic resources (defensive protection). These are termed 'soft' because they protect collective rights, rather than exclusive rights, and can link a product to a particular territory and culture. For example, the six Potato Park communities have registered a collective trademark, and a percentage of the sale of trademarked products goes into a communal trust fund to support the park's activities for PGR conservation.

Ensuring equitable benefit-sharing amongst communities. Equitable benefit-sharing at community level is very important to ensure that conflicts over benefits are minimised amongst communities, and that benefits and conservation incentives are widely distributed, rather than captured by local elites. However, this requires strong, locally accountable institutions. The six Quechua communities of the Potato Park, Peru have developed an Inter-community agreement for equitable sharing of the benefits that they are deriving from a collaborative research agreement with the International Potato Centre in

³¹ Knowledge is not owned outright as in the western concept of property – it is held by custodians as heritage to be passed on to future generations.

Lima. The agreement is based on a long process of participation and deliberation within and amongst the six communities. It is a community protocol which establishes the rules for how the monetary benefits and potato varieties acquired are shared amongst them. The rules are based on customary laws which promote conservation and equity. Those most involved in the park activities – ie. in sustaining PGRFA – get the most benefits.

Understanding the drivers of traditional innovation. Measures to protect traditional knowledge rights should also provide incentives for innovation. This is the original purpose of IPRs, and is particularly important for protection of TK given its rapid loss. It is estimated that 50-90% of all TK will extinct or threatened by 2100 (UNESCO, 2003). TK relating to PGRFA is a subset of TK and needs to be sustained as part of wider traditional knowledge and livelihood systems.

Western IPRs protect and incentivise innovations through financial benefits - but financial benefits and incentives alone are unlikely to be sufficient to promote traditional innovation – and could undermine the traditional cultural values, collective/sharing practices and dependence on natural resources that sustains TK.

Our research identified the following key drivers of traditional innovation: collective activities, use of diverse GRs, landscapes, cultural and spiritual values and customary laws:

- Collective agriculture and NR use activities at family and community level.
- Use of diverse genetic resources – both wild and domesticated.
- Access to wild gene pools and wide sharing/exchange of genetic resources and TK (within and between communities).
- Cultural values and preferences eg. for traditional varieties/foods.
- Spiritual values and beliefs and customary laws that promote conservation of PGR, sharing and reciprocity.
- Land and landscapes which support all the above.

Land is an essential resource for traditional subsistence economies that depend directly and substantially on natural resources for meeting basic needs (food, agriculture, healthcare, income and cultural/religious needs). Landscapes provide access to wild gene pools and wild plants for food production and healthcare, and to sacred wilderness areas for sustaining spiritual beliefs. Landscapes not only have economic value but are tied to cultural identity and spiritual beliefs (eg. gods associated with mountains and forests). They also provide the physical space for sharing and conservation practices based on customary laws – the wider the area for sharing and exchange between farmers and communities, the richer the genetic and intellectual basis for further innovation.

Protecting ‘bundles of rights’. Therefore, policies and laws to protect TK should not only protect TK, but also rights to the associated genetic resources, landscapes, cultural and spiritual values and customary laws that sustain it, in order to protect TK from loss as well as misappropriation. Most policies only protect the intellectual component of knowledge systems, but not the biological, cultural and landscape components that sustain TK and innovation systems. They separate rights over TK which are vested in communities, and rights over genetic resources, which vested in governments (‘state sovereignty’). Yet knowledge forms part of genetic resources which have been domesticated, improved and conserved by farmers, and the two are used and transmitted together. In the holistic indigenous worldview, knowledge and bio-genetic resources are inextricably linked and cannot be separated.

Cultural and spiritual values and customary laws also play an important role in sustaining TK and PGRFA, but are being eroded by various processes and policies. Land tenure and access are at threat from development pressures (eg. biofuels, commercial agriculture) as well as conservation schemes in some cases (eg. strict protected areas). While farmers need *access* to land and natural resources to

sustain TK and in situ conservation, research has also shown that secure tenure rights over land and NRs is also important for communities to invest in conservation (eg. research on common property resources by Ostrom in the 1990s). Our comparative research also suggests that rights to land are important to revitalise TK systems and reduce the loss of TK and PGRs. In the Potato Park, Peru, collective land rights have helped to re-establish a sense of collective responsibility for managing traditional potato varieties.

Thus, in order to protect TK and PGRs in situ and prevent their loss, we need to focus on farmers' rights as bundles of rights - rights to traditional knowledge, genetic resources and related landscapes, cultural and spiritual values and customary laws – or to 'collective bio-cultural heritage' as a whole. Such an approach is consistent with the overall objectives of the Treaty of conservation and sustainable use, and implements articles 5 and 6 on in situ conservation and sustainable use. It also implements the UN Declaration on the Rights of Indigenous Peoples, which requires countries to protect the rights of indigenous peoples to their traditional territories, resources, seeds, cultures and customary laws, as well as their knowledge.

Recognising customary laws. Measures to protect TK should be based on the customary laws and practices of indigenous and local communities for protecting and sustaining TK, rather than existing IPR standards. Communal knowledge relating to seeds, farming and everyday healthcare is openly shared, while specialised or sacred knowledge is restricted to elders, family or clan members. The obligation to share is particularly strong in relation to seeds, and the principle of reciprocity means that the more seeds are shared the more seeds are received. Hence reciprocity promotes diversity, and the wider the space for sharing and exchange the greater the diversity. In the Potato Park for example, an additional 100 varieties have been gained from reciprocal exchange of potatoes with communities outside the park.

The Peruvian study identified three key Andean customary principles which guide all aspects of life:

- Reciprocity, meaning equal exchange in society and with nature
- Equilibrium, meaning balance in society and in nature
- Duality, meaning that everything has a complementary opposite

These principles were found to be essentially the same for all the other indigenous and local communities involved in the project. The principle of solidarity was also common, meaning helping those in need (eg. widows, orphans, women headed households etc).

Despite a weakening of customary laws in some cases (eg. SW China), similar values are still evident in more remote areas; and even in less remote areas where it was assumed that no customary laws would be found (eg. 7 hrs drive from Delhi, India). In India, the traditional practice of seed barter in many parts of the country has for various reasons, been partly replaced by sale and purchase either within the community or in *haats* (local village market). However, the traditional practice of seed exchange is still very common among the mountain communities where the community bonding is strong.

In the Potato Park, these customary principles – along with the holistic concept of bio-cultural heritage- have guided the development of all the different tools to protect traditional knowledge and farmers rights, in order to strengthen the customary laws that sustain TK, bio-genetic resources and traditional agricultural landscapes.

Supporting local as well as national measures. National measures alone are unlikely to be enough to effectively protect TK or farmers rights, and need to be complemented by measures at local and community level, particularly if farmers' rights are to be a tool for in situ conservation. The threats to TK and PGRs and drivers of change affect communities at local level, and hence require local as well as national responses to effectively address them.

At the same time, protecting TK in situ may also be the best way to protect the rights of communities over their TK, because it enables communities to strengthen control and management of TK and customary laws. The participatory action-research process facilitated by ANDES has strengthened the capacity and motivation of farmers, empowering them to protect their rights, TK and PGRs. A number of different tools are likely to be needed to effectively protect and strengthen TK at community level – including community protocols, registers, territories and collaborative agreements (see the Potato Park example p. 3).

Promoting reciprocal exchange of PGRs As explained above, financial benefits are not the only or even the best type of benefits to contribute to the conservation and sustainable use of PGRFA by subsistence farmers. Communities have shared many genetic resources with outsiders over the years, but received little in return. According to the customary law of reciprocity, they expect genetic resources in return for those shared. Genetic resources have been eroded and are increasingly critical to enable farmers to adapt to climate change. This is why the Potato Park communities insisted on gaining access to potato varieties collected from the Park in the 1960s by the CIP, which have since been lost due to genetic erosion, as well as financial benefits from the past use of their potato varieties.

4. Research Findings on PGR conservation and sustainable use

Rapid genetic erosion over the last 1-2 decades:

Southwest China is a centre of maize diversity, the origin of maize cultivation in China and of waxy maize worldwide. In Guangxi, Yunnan and Guizhou provinces, 90% of survey households were cultivating maize landraces in 1998, but only 56% in 2008, as more and more farmers are turning to hybrids accessed from markets (according to a survey in 2009). In Guangxi, all maize varieties were local before the mid 1980s, from the mid 1980s to the 1990s more and more hybrids were imported, but local varieties were still the majority; and since 2000 the planting area for hybrid maize has enlarged at great speed, with the consequence that the local varieties have decreased rapidly. Maize is the main staple food crop. A key reason for the adoption of hybrids is limited arable, which means that increasing productivity is a priority. Local GRs are lost in the process, and this weakens resilience to climate change. However, older people and women are still growing some traditional varieties such as waxy maize (eg. in their kitchen gardens) due to cultural preference and for use in festivals (eg. to make maize wine for weddings).

There has also been a major loss of genetic varieties across the **Himalayan region** and this is happening very fast. In the Eastern Himalaya study area near Kalimpong, only a few traditional rice varieties are still planted, not because modern varieties are being planted but because they are cheap to buy, since they are often subsidised. Nevertheless, traditional varieties are still grown for use on special occasions, festivals, weddings etc. Different varieties are grown in different seasons, and rice is still widely exchanged between farmers, even between communities and across country borders (this has been witnessed especially where there are marriages across borders).

Similarly, the **Andean region** has experienced significant genetic erosion over the last few decades, due to modern agriculture and development processes, and the disintegration of collective resource management systems under colonial feudal farming systems where farmers became farm labourers. But collective management has been re-established amongst the six communities of the Potato Park thanks to the potato being a symbol of common cultural identity, legal reforms allowing the recognition of collective land rights, and the revival of customary laws in the park.

Key common factors eroding genetic resources and traditional knowledge

Across the different studies, the following common drivers of loss of genetic resources and related traditional knowledge were identified:

- Promotion of modern varieties and technologies by agricultural policies, subsidies and R &D

- Promotion of modern varieties/food products in the media, influencing consumer demand and decreasing markets for traditional foods
- The reduction in size of landholdings and/or take over of community land for other uses
- The existence of plant breeders' rights to protect new varieties without commensurate protection of farmers rights over traditional varieties, which means that farmers have no economic incentive to sustain them
- Erosion of cultural values and customary laws undermining cultural incentives and local rules for PGR conservation and sustainable use. This is due to a number of drivers of change, including the spread of modern/urban values and lifestyles, western education and religion, extension of government authorities and national laws for natural resources, and migration to cities and changes in occupation due to economic pressures.

These factors apply to both genetic resources and traditional knowledge because the two are closely linked – traditional varieties embody the knowledge of farmers that have developed and conserved them. The studies show that erosion of genetic diversity leads to the loss of associated TK, and this can lead to further erosion of genetic resources.

Key common factors sustaining genetic resources and traditional knowledge

Across the different studies, the following factors were identified as playing a key role in sustaining genetic resources and traditional knowledge:

- The use of diverse bio-genetic resources is critical for sustaining traditional knowledge. The return of traditional varieties to ILCs has also revived related traditional knowledge and cultural values and practices (eg. in Peru and China).
- Cultural values and preferences associated with traditional varieties – eg. for use in festivals, ceremonies and because of preferred qualities such as taste.
- Spiritual beliefs and customary laws associated with nature which promote conservation and sustainable use
- Customary laws which promote sharing and reciprocal exchange (eg. evidence in Peru and India studies that reciprocity contributes to conservation).
- Land and landscapes which sustain traditional knowledge and belief systems by providing access to sacred sites and wild gene pools for breeding. Communities need sufficient land to sustain traditional subsistence economies and to exchange and conserve genetic resources over wide areas, based on customary laws.

5. Conclusions and Recommendations on Measures to Implement Farmers' Rights

In order to implement the Treaty's provisions on Farmers' Rights, governments need to take measures at four levels:

1. Developing effective national legislation for protection of Farmers' Rights National legislation to protect TK should recognise TK as the collective heritage of indigenous and local communities, be developed with their active participation and leadership, and be fully designed on the basis of customary laws rather than western IPR standards. They should ensure that farmers and communities have the authority to decide over access and use of their knowledge. In order to implement the right of farmers to equitably participate in sharing benefits, laws on TK protection and ABS should recognise the rights of farmers and communities over their varieties in the exercise of national sovereignty. This should include farmers' rights over traditional varieties held in situ, including crop wild relatives, and over traditional varieties which have been collected from their land/communities and are held ex situ. To facilitate this, a list of traditional varieties of communities and farmers could be developed with their participation, including in the development of criteria to be used for identifying these varieties. The PIC of farmers and communities should be required for access to these varieties, along with equitable benefit-sharing from their use based on mutually agreed terms. In order to protect traditional

knowledge from loss as well as misappropriation, and to support in situ conservation, legislation is also needed to protect farmers' and ILC rights to traditional landscapes, cultural values and customary laws associated with TK and genetic resources.

2. Addressing the impacts of other policies and laws on Farmers' Rights. Existing policies and laws tend to favour the interests and rights of plant breeders and agri-business over those of poor farmers. To effective, protection of farmers' rights needs to be commensurate with that provided to plant breeders, and other policy constraints also need to be identified and addressed. For example, Plant Breeders' Rights under UPOV 91 which extends breeders' rights to on farm saved seeds; seed laws which require registration based on uniformity and distinctiveness and prevent exchange of unregistered seeds; and agricultural subsidies which flood the market with cheap modern foods, making it very difficult for small farmers to sell their products/varieties.

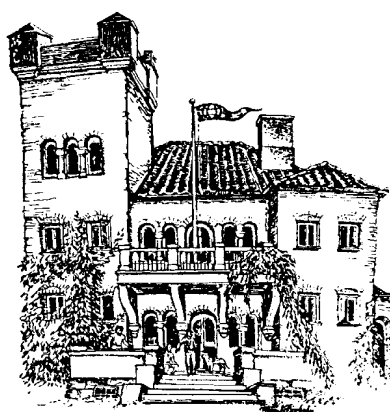
3. Supporting farmer and community level initiatives. Protecting farmers' rights requires new practical tools for PIC and equitable benefit-sharing. Supporting policy pilot experiments at farmer and community level provides a way to test out and develop these new approaches, and inform the design of policy and law. At the same time, this will build the capacity of farmers and others to implement farmers' rights, and ensure that new laws are informed by farmers' needs and based on practical experience. Such experiments might include the development of agreements between farmers and plant breeders for access to genetic resources and equitable benefit-sharing. Supporting community initiatives and capacity is also important to enable poor farmers to protect their rights - national laws on farmers' rights alone may not be enough given the many threats that communities face at sub-national and local level.

4. Supporting and institutionalising farmer participation in national decision-making on PGR conservation and sustainable use: Farmer participation in national decision-making is far from being standard practice. Laws to ensure public participation tend to be non-existent or poorly implemented in developing countries. Legal reforms are often needed to ensure that traditional farmers can participate in decisions relating to PGRs. New institutional structures are also needed to enable farmer representatives to participate in national policy and legal processes on genetic resources and agriculture, and ensure that farmers can actually influence the outcome of decisions, and have the same voice and influence as trade and economic actors. This is also likely to require funding for farmer information, capacity building and consultations at local level, to enable farmers to participate effectively.

References

- Nagarajan S., Yadav S.P. and A. K. Singh. 2008. Farmers' Variety in the Context of the Protection for Plant Varieties and Farmers Rights Act, 2001. *Current Science*, Vol 94 No 6, pp 7092.
- Pant, Ruchi. 2008. Protection and Empowerment of Indigenous Plant Breeder Community in India. Ph D. Thesis, Jawaharlal Nehru University, New Delhi.
- Sahai, Suman. 2003. India's Protection of Plant Varieties and Farmers' Rights Act, 2001. In *State of the Rights of Farmers and Plant Breeders in Asia*. Gene Campaign, New Delhi.
- Shiva, V. 2005. Seed Patents and Police States. In *Seed Dictatorship and Food Fascism*. Navdanya, New Delhi.
- Shiva, V and A. H. Jafri. 2003. Need for a Genuine *Sui Generis* Law to Defend Farmers' Rights as Traditional Breeders: the Inadequacies of the PVP Act, 2001. *Bija*, Autumn 2003, pp 10.
- Siegele, L, Swiderska, K and Argumedo A. 2006. The impact of foreign trade agreements on pro-poor implementation of the Biosafety Protocol.
- Swiderska, K, Roe D, Siegele L and Grieg-Gran M. 2008. The Nature of Governance and the Governance of Nature. *Policy That Works for Biodiversity and Livelihoods*. IIED

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