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Rights Project**



Background Study 5

Farmers' Rights in Ethiopia

A Case Study

By Regassa Feyissa



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The Farmers' Rights Project



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Farmers' Rights in Ethiopia: A Case Study

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Abstract

Ethiopia is an agrarian country with 85% of its population deriving their livelihood from small scale agriculture. It is also one of the centres of diversity and origin of agricultural crop genetic resources to which farmers' role and activities are strongly linked. Farmers therefore, play an important role in the agricultural sector of the country, and their varieties serve as major sources of planting materials. The role of farmers and the importance of their varieties were for the first time officially recognized with the National Seed Industry Policy in 1992. Various policies that recognize farmers' and community rights have been formulated since then. This study highlights perceptions of different stakeholders, the achievements made, and existing barriers and opportunities regarding the implementation of farmers' rights in Ethiopia. It also proposes possible measures to be taken at the global level. The study reveals that development of various legislative measures to implement the formulated policies is lagging, and the level of awareness among various stakeholders regarding the issues of farmers' or community rights is still found to be rather low. For these reasons, and because it involves diverse social, economic and cultural elements, the realisation of farmer rights is a challenging task in the Ethiopian context. To overcome the challenges at the national level, concerted support from the international community through the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture is critically important. The international community should support efforts to minimize the serious problems of erosion of plant genetic resources for food and agriculture which takes place in almost all countries. This requires clear commitments by states and intergovernmental actors to protect and support farm communities in order to ensure universal food security for the present and the future.

Key Words

farmers' rights, plant genetic resources for food and agriculture, agrobiodiversity, biodiversity, Ethiopia, African Model Legislation, FAO, ITPGRFA, access and benefit sharing, traditional knowledge, intellectual property rights, plant breeders' rights

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Preface

This background study is part of *The Farmers' Rights Project*, which addresses farmers' rights related to plant genetic resources, as they are recognized in the International Treaty on Plant Genetic Resources for Food and Agriculture. The Farmers' Rights Project aims to provide an empirical basis for proposals to the Governing Body of the International Treaty on the realization of farmers' rights. The first phase of the project, March 2005 – June 2006, comprises a literature and document survey on the history of farmers' rights, an international questionnaire survey covering 30 countries in Asia, Africa, the Americas and Europe, four in-depth country case studies on the situation of farmers' rights in Peru, Ethiopia, India and Norway respectively, and a final synthesis report. The findings are to be presented at a side event at the first meeting of the Governing Body of the International Treaty in June 2006. Starting in March 2005, the project is being carried out by the Fridtjof Nansen Institute (FNI), supported by the Norwegian Ministry of Foreign Affairs. The GTZ Sector Project *People, Food and Biodiversity*, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), is contributing to the Farmers' Rights Project with two of the four country case studies, and is an important discussion partner in all phases of the project.

The present study is one of the four country case studies and provides an in-depth analysis of the situation of farmers' rights in Ethiopia, the barriers and options to their further realisation and an overview of stakeholder perceptions in the country on the issue of farmers' rights. Ethiopia is a particularly interesting case because it is rich in agrobiodiversity while being among the worlds' poorest in economic terms, but has nevertheless made outstanding achievements in the conservation of its plant genetic resources. Ethiopia has also been a leading country with regard to the promotion of community and farmers' rights in Africa as well as internationally. However, the country only recently adopted its own legislation in this regard. The study highlights core challenges for the realisation of farmers' rights in Ethiopia and shows how crucial these rights are for the livelihoods of farming communities in one of the world's economically poorest countries.

The study has been written by Regassa Feyissa, Co-Founder and Director of the Ethio-Organic Seed Action (EOSA) and expert delegate to various international negotiations (International Undertaking, Global Plan of Action and the Convention on Biological Diversity), with support from the GTZ, and following the joint guidelines for the four case studies. We would like to thank the author for close and good co-operation throughout work with the study and for an interesting and highly valuable contribution to *The Farmers' Rights Project*.

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Regassa Feyissa

Executive Summary

At the FAO Conference in 1989 member countries endorsed the concept of Farmers' Rights in Resolution 5/89 for the first time. The resolution vested the International Community as trustees for farmers' rights, to ensure that the need for conservation of plant genetic resources is globally recognized and that sufficient funds are made available for this purpose. It also emphasized the need to assist farmers and farming communities in all regions of the world, and to allow farmers and their communities as well as their countries to share benefits derived from the use of plant genetic resources.

Realizing the spirit of this resolution required a lengthy process and years of dialogue and negotiations that were concluded in 2001 with the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) as a legally binding international agreement. The Treaty stresses the necessity to promote farmers' rights at both national and international levels, but there is as yet no common understanding of how this can be achieved. It is clear, however, that there can be no standard package for implementing farmers' rights in all countries, and governments are expected to implement farmers' rights according to the prevailing situations and needs in their respective countries. From this point of view, this report provides an overview of the state of implementation of farmers' rights in Ethiopia by examining the existing situation and progress made in the country. It also assesses perspectives for global support towards this end.

Ethiopia is an agricultural country where over 85% of its population derive their livelihood from small scale agriculture that contributes about 50% of the country's domestic product (GDP). Farming in Ethiopia is practised under diverse farming systems and cultural contexts, and farmers' varieties play a very vital role in the agricultural productivity as a whole. As a matter of fact, the highest portion of the country's genetic resource wealth essential for food and agriculture is still being conserved and improved on small-scale farmers' fields, and farmers practices in these regards are essential to meet their livelihood needs. The vital roles that farmers and their varieties play in the agricultural development of the country make promotion of farmers' rights very essential in order to support farmers in continuing to play their role. Considering the existing and potential contribution of the farming communities to the overall agricultural development of the country, promotion of farmers' rights should be included as one of the highest priority issues for socio-economic development in the country.

Various efforts have been made to formulate policies that recognize farmers' and community rights. The National Seed Industry Policy of 1992 recognizes farmers' participation in the seed industry for the promotion of sustainable use of local plant varieties, and also emphasizes farmers' right to share benefits arising from the use of local varieties they have developed over generations. The Environmental Policy and the National Policy on Biodiversity Conservation and Research recognize community rights to biodiversity resource ownership and use, as well as their rights to share benefits deriving from such use, and to participate in planning and decision-making in the conservation and use of these resources.

Protection of farmers' and community traditional knowledge is recognized in all relevant policies and is aimed at ensuring that farmers decide on the access to, and use of their knowledge, combined with the right to equitably share benefits arising from the use of such knowledge. Regardless of all these policy commitments made to address farmers' and community rights, the process of formulating legal instruments for the implementation of the policies has been very slow.

A recent proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights as well as a proclamation on Plant Breeder' Rights are seen as progressive steps taken to address issues of community and farmers' rights. The proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights provides communities with the right to receive 50% of the share that the state obtains in monetary form from the use of genetic resources. According to this proclamation, communities have the right to decide over access to their knowledge, while the state has the authority to decide over access to genetic resources – on behalf of the communities. Communities do, however, have the right to disagree in cases where access to genetic resources affects their culture and their livelihood. There is some lack of clarity regarding the process of prior informed consent, particularly as related to access to genetic resources. It is anticipated that clarification of this and other aspects may be achieved when implementing rules and regulations for this proclamation are adopted.

The Plant Breeders' Rights Proclamation upholds farmers rights to save, use, multiply, exchange and sell farm-saved seed of protected varieties, but they are not allowed to sell seed protected with plant breeders' rights. Although this proclamation provides for farmers' rights in a separate article, these provisions are limited to the conditions under which farmers can use protected varieties. There is no mention of how farmers are supported and recognized for the role they play in conserving and developing crop genetic diversity, and how their rights to share benefits derived from the use of their varieties are ensured.

There are noticeable gaps in both proclamations with regard to a clear definition of farmers and communities as well as clarity on farmers' role within the local community structures in Ethiopia. The result is weak emphasis on the role that farmers play in crop genetic resources conservation and development as well as on their rights to be rewarded for contributions they make in maintaining and developing plant genetic resources for food and agriculture. The gaps necessarily require careful examination and treatment when adopting implementing rules and regulations.

Perceptions on farmers' rights in Ethiopia are based on varying degrees of understanding of the issue itself. The majority of respondents involved in the case study are not aware of the concept of farmers' rights. Awareness on the issues of farmers' rights is limited to circles of a few individuals and institutions that are involved in international negotiations. Similarly, although policies like those on seed, plant breeders' rights, access and community rights, biodiversity and environment all address farmers' and community rights, the details of these policies are not known to most local farmers.

However, the general reflection gathered during the interviews shows that basic requirements for implementing farmers' rights are that farmers are provided with ownership and use rights, and are recognized and rewarded for the responsibilities they shoulder in both resource management and production. Emphasis is also on treating breeding work of farmers on a par with that of formal breeding. The point here is that since over 90% of crop production in the country depends on farmers' varieties, and formal breeders also depend on the same, fair recognition of farmers and their varieties should be included in the agricultural development strategy of the country.

Suggestions of the stakeholders stress the need to strengthen the promotion of the concept of farmers' rights at all levels, and to involve farmers and communities in the process of developing policies and legislation that are directly relevant to them. The concern is that lack of understanding of the content of farmers' and community rights can result in inconsistent perceptions and conclusions about farmers' and communities, especially while formulating relevant policies. This in turn may affect the process of proper implementation of the rights. Although there is a conducive policy environment for implementing community and farmers' rights in Ethiopia, there is a need to study the nature of community structures as well as relevant policies thoroughly, in order to avoid unnecessary gaps and overlaps that may hamper the implementation of farmers' and community rights.

Support to farmers from both national and international levels is required, as emphasized by all respondents. In a situation where genetic erosion of agricultural crops is increasing in all corners of the world, and would eventually affect humanity as a whole, protection of these resources is left to the poor farmers particularly of the centers of origin and diversity for plant genetic resources. If this situation continues, global targets for food security may not be achieved, mainly due to eroding sources of food and breeding materials. It is therefore critical that farmers are supported in order to protect and develop these resources, and as one of the measures to recognize farmers' contributions. Support to farmers should not be provided as charity, but as a means of meeting the survival needs of humankind – today and in the future. In this context, there should be a strong concern for the protection, development and sustainable use of agricultural genetic resources managed and nurtured by local farmers, similar to the concerns for trade issues, human rights, environment pollution, weapons of mass destruction, and other issues.

Various efforts have been made and are underway to support farmers of Ethiopia. This however, is not directly done in the context of farmers' rights. Farmers are supported through various governmental, non-governmental and international programs and projects aimed at improving the livelihoods of local communities. Most of these programmes and projects provide services in the area of seed and input supply, genetic resource conservation and improvement, education and health care, water supply, road construction, and others. Although the farmers' rights concept is not articulated in the implementation of such programmes and projects, they all contribute support to farmers. Considering such programmes and projects in the context of contributions toward the realization of farmers' rights may provide a ground for establishing a gene fund

system for the purpose of supporting farmers work in the conservation and development of genetic diversity.

Farmers' contributions play a significant role in Ethiopia's agricultural productivity. Taking this into account, and considering the enormous role that farmers' varieties play in the agricultural development of the country, it is necessary to develop a strategy that fairly recognizes and encourages the contributions of farmers and breeders alike. Such strategy should also consider the needs and priorities of local communities, farmers and other relevant stakeholders. It is also important to develop laws on farmers' and plant breeders' rights that take sustainable management and use of agricultural genetic resources into consideration. In this case, some elements of the African Model Legislation may be adopted in addition to the farmers' rights provisions under the Plant Breeders' Rights Proclamation as appropriate to Ethiopia.

Promotion of farmers' rights at the international level requires coordinated efforts at a global level where the ITPGRFA Governing Body can play a role in developing systems for this purpose. The Governing Body can create such systems for facilitating support for the implementation of farmers' rights at the national level, and for creating awareness within the international community. The international community needs to share responsibility for supporting farmers to ensure the continuing existence of plant genetic resources for food and agriculture. The international community should also recognize that farmers in various parts of the world are important to the global society and economy, and further marginalization of these farmers would affect the global food system. From this point of view, protection of farmers' rights and support for their contributions should be of common concern, and clear commitments by states and intergovernmental actors are needed in order to ensure universal food security for the present and the future.

1 Introduction

Farmers' Rights are recognized as 'rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources for food and agriculture' (FAO Resolution 5/89). It took years of dialogues and negotiations to formulate these rights in the context of a legally binding international agreement. This lengthy process was eventually concluded in 2001 with the adoption of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which emphasizes the necessity of promoting and protecting farmers' rights at both national and international levels. At the national level, governments are responsible for implementing farmers' rights according to their needs and priorities, as appropriate and subject to national legislation.

The present study assesses perceptions and the implementation of farmers' rights in Ethiopia. This is done by examining the available policy and legal instruments, and by assessing the progress made and prevailing constraints as well as available opportunities and options for promoting farmers' rights in Ethiopia.

Ethiopia is one of the centres of diversity and origin for various agricultural crops. Various agro-ecological and farming systems are managed by local farmers who practise conservation, seed selection, varietal development and production, saving of planting materials and exchange of seed within and among the agricultural communities. Seed production in most cases is non-specialized, and integrates the production of seeds and grains, roots and tubers for consumption and marketing. Farmers' varieties are important back-ups to the overall agricultural crop production in the country (Feyissa, 2000), representing 94% of the planting materials. Local farmers contribute 85% of the country's agricultural production (Molla *et al*, 1995). The role that local farmers play in production and nurturing of diversity is enormous, so the case of Ethiopia seems well suited for examining the complexities and possibilities of implementing farmers' rights in countries in relatively comparable situations.

The study employed semi-structured interviews that involved measuring the awareness of various groups as to farmers' rights. Perception and anticipation of the groups were recorded. Available policy and legislative tools were assessed by reviewing policy and legislative documents, and views of relevant individuals on policies were gathered.

Ethiopia is a vast country with diverse farming systems and with a range of farmers' needs and objectives. It was not possible to gather the opinions of all, particularly of pastoralists and distant communities following extremely traditional practices. However, the author was able to gather many in the course of personal duty trips, and past experiences and documents were also used as sources of information.

2 The agricultural sector

Agriculture in Ethiopia has a major influence on all development processes in the country, as some 85% of the total employment and 90% of the country's export are based on agriculture (Environmental Policy, 1997). It also contributes about 50% of the country's gross domestic product (GDP) and supports around 70% of the raw material requirements of

agro-industries. This high proportion of the country's economic gains made from agriculture depends mainly on the existing diversity of indigenous crops/plants and livestock. Crop production is estimated to contribute on average about 60%, livestock 27% and forestry and other sub-sectors around 13% of the total agricultural value (Ministry of Water Resource, 2001).

Due to shifts in rain patterns, crop production in the highlands and in most areas of low elevation can be affected by drought, leading to food shortages. The response is often food aid supply, which may involve grain distribution, especially of maize and wheat. In some cases, extended aid supply in the form of grain leads to market price failure for locally produced crops. As a measure to mitigate the negative impacts of grain aid on the market of prices of local crops, strategic arrangements have been made between donors and the government, whereby grain aid supply is based on local sources as much as possible. This strategy has proven useful in keeping the local grain prices at reasonable levels.

2.1 Agro-ecology

Agricultural practices and farming systems in Ethiopia are based on diverse agro-ecological conditions that in turn require varying approaches in crop production. In general terms, the agro-climatic zones of the country can be grouped into three types: Kolla (warm semi-arid, at 500–1500m above sea level), Woinadega (cool semi-arid, at 1500–2400m) and Dega (cool and humid, higher than 2400m). More recent discipline oriented studies further distinguish and define this agro-ecological classification by linking related a-biotic factors such as annual rainfall, altitude and temperature (Negash *et al*, 1989).

2.2 Farming systems

Frequently varying agro-climatic conditions with diverse cultural and farming practices remain characteristics of agriculture in Ethiopia. These can be grouped into three major systems (Feyissa, 1999):

The highland mixed-farming system practised in areas of higher elevation, usually above 2000m as a crop-livestock complex involving the cultivation of diverse crops. Continuous cropping is exercised through crop rotation, where cereal production alternates with the production of legume and oil crops as a means of maintaining soil fertility. Barley, oats and highland legume crops dominate.

The low plateau and valley mixed-farming system practised in the intermediate or low highlands, mountain foothills and upper valleys, at elevations ranging from 1500 to 2000m. Both crop and livestock productions are economically essential; crop production is dominated by sorghum and maize followed by wheat, teff and some legume and oil crops.

The pastoral and agro-pastoral farming system is practised in the arid and semi-arid zones mainly at elevations below 1500m and with annual rainfall less than 450mm. In the arid zone, nomadic and semi-nomadic pastoral livestock production dominates, with camels and goats as important components. In the semi-arid zone, semi-nomadic or semi-sedentary agro-pastoral production is practised with sorghum and maize

as main crops. Livestock production in the semi-arid zone focuses on cattle and sheep. Water and range developments are important elements for improving both crop and livestock production under this system.

2.3 Staple crops

Major staple crops in Ethiopia vary according to the cultural and agro-ecological conditions. The indigenous Ethiopian tetraploid wheat (*Triticum durum*) and the introduced bread wheat (*Triticum aestivum*) have a wider coverage in the northern, central and south eastern parts of the country. Other important staples are barley in the highlands; teff (*Eragrostis tef*) with its wide adaptation to various agro-ecologies; sorghum, maize and millets in the lowlands; and different root crops such as enset (*Enset ventricosum*) and yam (*Dioscorea spp.*). Major legume crops are horse bean (*Vicia faba*), pea (*Pisum sativum*), lentil (*Lens culinaris*) and vetch (*Lathyrus satives*); these are all essential dietary components along with the other staples. Major oil crops are gomenzer (*Brassica Carinata*), noog or niger seed (*Guizotia abyssinica*), linseed (*Linum usitatissimum*) and sesame (*Sesamum indicum*) dominant in the lowlands.

Coffee is an economically important crop in the east, southwest, and the western parts of the country. Various types of spices, including *Aframomun corarima* and *Capsicum spp.* and *Piper longum* are widely distributed in humid areas. Cotton (*Gossypium spp.*), which has three wild species in Ethiopia, and kenaf (*Hibiscus spp.*) are important cash crops particularly for lowland farmers.

There are also many wild plant species which are used as food, particularly during food shortage in the interval between planting and harvest. Some domesticated types of these plant species still occur with their wild relatives in some parts of the country.

2.4 Varietal use and production

The potential use of formal seed, characterized by a vertically organized production and distribution of tested seed and approved varieties, is limited under most agro-ecological conditions in Ethiopia. As a result, although the adoption of introduced improved varieties of crops like bread wheat is significant (particularly in agro-ecologically uniform high-production potential areas), the share of formal seed in the total seed supply system of the country hardly reaches 10% (Feyissa, 1999). With main exceptions of hybrid seed supply of maize by a single public seed enterprise and Pioneer, a private seed company (altogether 10-15% of the total maize production in the country), and some introduced varieties of bread wheat, all planting materials are still farmers' varieties.

Crop production is dominated by small-scale subsistence farming, which on average accounts for 95% of the total farmed area, and for more than 90% of total agricultural output. Most of the food crops (94%), and coffee (98%) are produced by small-scale farmers while the remaining 6% of food crops and 2% of coffee is generated by state and private farms (Ministry of Water Resources, 2001). In general, variety use and development, seed production by the local farmers, and traditional seed exchange mechanisms still remain major components of the seed system in Ethiopia.

2.5 Crop conservation practices

Ethiopia has a well organised *ex situ* conservation facility, which was established as a National Gene Bank in 1976 through a bilateral agreement between the Ethiopian Government and the Government of the Federal Republic of Germany. The *ex situ* holdings of the gene bank currently include some 64,000 accessions of 106 crop/plant species, over 95% of which is indigenous material. This local crop germplasm serves as a source of materials for national crop improvement programmes. Records show that germplasm distribution for local use over the years have reached up to 71%, 86% and 95% of the holdings for cereals, legumes and oil crops respectively (Feyissa, 2001b).

As a measure taken to integrate *ex situ* and *in situ* conservation activities, practical on-farm conservation programmes have been underway since 1989. On-farm maintained farmers' varieties serve as sources of materials for a wide range of adaptation, famine mitigating traditional varieties, and as a gene pool from which farmers and breeders select special lines. The community seed bank system is one of the elements of the community genetic resource management programme, serving as a seed and grain reserve and a germplasm repository at community level.

3 State of Farmers' Rights as derived from ITPGRFA

Ethiopia has been an active sympathizer of farmers' rights ever since the mid-1980s when the concept of farmers' rights began to emerge. Since then, it has played a significant role in all the negotiation processes related to farmers' rights and access to genetic resources. Particular mention should be made of the work of the Plant Genetic Resources Center/Ethiopia (PGRC/E), the Biodiversity Institute, through its then Director Dr. Melaku Worede and his successors.

Similarly, the Ethiopian Environment Protection Authority (EPA) through its Director General Dr. Tewolde Berhan Gebre Egziabher has played an important role on issues of farmers' rights, the Convention on Biological Diversity and on Biosafety. Ethiopia has also significantly contributed to the development of African Model Legislation for the protection of the rights of local communities, farmers and breeders, and for the regulation of access to biological resources.

Important progress has been made in developing policy frameworks to address the rights of communities, farmers and breeders at national level. However, the pace toward implementing farmers' rights has not been as significant as the role that Ethiopia has played at the regional and global levels.

3.1 Policy frameworks

According to the Ethiopian Constitution of 1995 (Constitution of the Federal Democratic Republic of Ethiopia), that the government and citizens have the duty to protect the country's natural resources. Citizens have the right to benefit from the country's legacy of natural resources and with the right to participate in the formulation of national development policies and programmes (Art.89). Further, the government has the obligation to hold the natural resources of the country and deploy these for the com-

mon benefits of the people. Sectoral and cross-sectoral policies have been formulated on the basis of this constitutional framework.

3.1.1 National Seed Industry Policy

The National Seed Industry Policy of Ethiopia, 1992 emphasizes the role of agriculture in the country's economic development, and the need to strengthen the sector in order to sustainably manage and improve the productivity of the agricultural resource base. Although the Seed Policy was formulated three years before the Constitution came into force, elements of the Policy remain consistent with the provisions of the Constitution concerning natural resources.

The Seed Policy recognizes the accelerated genetic erosion of local landraces due to aggressive promotion of improved exotic varieties, and notes the need to minimize such impacts through the implementation of balanced development strategies in conservation, seed production and supply of plant genetic resources (Articles 3.07 & 7.01). It is in this sense that the Seed Policy recognizes the active participation of farmers in the seed industry for the promotion of sustainable use of local cultivars. According to Seed Proclamation No.2006/2000¹ farmers can produce and sell certified seed to other farmer, but can not be engaged in a large scale seed sale without being certified by the National Seed Agency (Art. 3).

3.1.2 Environmental Policy

The overall policy goal of the Environmental Policy of Ethiopia (Environmental Policy, 1997) is to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole. The key guiding principle here is that natural resource and environmental management activities are to be integrated – laterally across all sectors and vertically among all levels of organization. Integrated implementation of cross-sectoral and sectoral, federal and regional policies and strategies is thus a prerequisite for achieving these objectives.

Major policy guidelines for the various sectors are:

For agriculture: fostering of a feeling of assured, uninterrupted and continuing access to land and natural resources on the part of farmers and pastoralists;

For genetic, species and ecosystem biodiversity: promotion of *ex situ* systems in gene banks, farms and botanical gardens as supplementary to *in situ* conservation, and involvement of local communities in the planning and management of development programmes including protected areas and parks;

For environmental information system: establishing science and technology associations in all communities to support traditional community systems of research; and creation of a system for the legal protection of community intellectual property rights.

¹ Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, Vol.6, No.36, 6th June, 2000. pp. 1317-1330

For sectoral and cross-sectoral coordination: ensure legally established coordination and management bodies from the federal down to the community level, and genuine grassroots-level decisions in resource and environment management.

3.1.3 National Policy on Biodiversity Conservation and Research

The overall objective of the National Policy on Biodiversity Conservation and Research of 1998 is to ensure sustainable conservation and management of the country's plant, animal, microbial genetic resources and essential ecosystems (section 2, 1998).

The policy emphasizes:

- community participation in decision making on biodiversity conservation, development and utilization activities;
- creation of community-based systems that recognize community rights to biodiversity resource ownership and use;
- fostering indigenous knowledge and methods relevant to the conservation, development and sustainable use of biological diversity;
- ensuring of community sharing of benefits accrued as a result of the use of indigenous knowledge and germplasm.

3.1.4 Plant Breeders' Rights Proclamation

The Plant Breeders' Rights Proclamation (Proclamation No. 481/2006)² was developed to encourage plant breeders by offering economic rewards as incentive for their contributions in the agricultural sector, realizing that the utilization of new plant varieties developed through research play a significant role in improving agricultural production and productivity. The Proclamation also recognizes the contributions of local farmers in the conservation and use of genetic resources that constitute the basis for breeding new varieties for agricultural production (Art. 27). In this regard, the farmers' rights principle as set out in Article 27 of the Proclamation contains elements of the African Model Legislation that are important components of farmers' rights:

Farmers' Rights stem from the enormous contributions that local farmers have made and will continue to make in the conservation and sustainable use of plant genetic resources that constitute the basis of breeding for food and agriculture production.

However, there is no clear indication as to how these principles are to be followed to achieve the protection of farmers' rights or how farmers are to be rewarded. According to Article 28, the inclusion of farmers' rights into the Plant Breeders' Rights Proclamation is more about the conditions under which farmers are to be allowed to use protected varieties. Farmers can save, use, multiply and sell protected varieties but not as a certified seed. The role that farmers play in conserving and developing plant genetic resources that constitute the basis of breeding according to the princi-

² *Federal Negarit Gazeta* of the Federal Democratic Republic of Ethiopia. Vol. 12 No. 12, 27 February 2006, pp. 3339-3352.

ple, and rewarding them for what they are doing and will continue to do, are not mentioned.

The scope of the application of this Proclamation is to be specified in the directives to be issued by the Ministry of Agriculture and Rural Development (Art. 3 on the scope of application). Similarly the Ministry may revise, from time to time, as necessary, the list of the plant genera and species to which this Proclamation shall apply (Art.3.2). This may provide a room for developing mechanisms by which farmers' varieties are recognized and protected aimed at enabling benefit sharing among farmers from the use of such varieties.

3.1.5 Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation

The objective of the Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation (Proclamation No. 482/2006)³ is to ensure that the state and communities obtain fair and equitable shares from the benefits arising from the use of genetic resources. The Proclamation recognizes the contributions of communities in genetic resources conservation, their right to participate in relevant decision making, and the right to share benefits derived from the use of their knowledge and the resources in their care.

According to the Ethiopian Constitution of 1995, ownership of natural resources is vested in the state and the people. In line with this, the 2006 Proclamation stipulates that state decides on access to genetic resources, while communities decide on access to community knowledge (Art.5). Accordingly, the Institute of Biodiversity Conservation and Research (IBCR) established by Proclamation No. 120/1998 has been designated by the state to decide on and facilitate access to genetic resources and community knowledge. Recently the name was changed to Institute of Biodiversity Conservation (IBC).

Communities, however, have the right to have prior informed consent on access to genetic resources when this may affect their socio-economic life or their natural or cultural heritage (Proclamation 482/2006, Art.7.1c-d). Communities may even demand restriction or withdrawal of access agreements entered into by the IBC.

3.2 Protection of farmers' traditional knowledge relevant to plant genetic resources for food and agriculture

Protection of farmers' and community traditional knowledge is recognized in all relevant policies. Farmers and communities have the right to decide on access and use of their traditional knowledge, including the right to share benefits derived from the use of this knowledge. As yet, no legal tools have been developed for protecting these rights, but it is expected that such tools will be developed with the enactment of laws to implement the 2006 Proclamations on Plant Breeders' Rights and on Access to Genetic Resources, Community Knowledge, and Community Rights.

³ *Federal Negarit Gazeta* of the Federal Democratic Republic of Ethiopia, Vol. 13, No. 13, 27 February 2006, pp. 3353-3373

3.3 Farmers' participation in the sharing of benefits arising from the use of plant genetic resources for food and agriculture

All these policies recognize the rights of farmers and communities to share the benefits arising from the use of indigenous knowledge and plant genetic resources that they maintain and develop. The National Seed Industry Policy (National Seed Industry Policy, section.3.07, 1992) and the Environmental Policy (section 3.3.j, 1997), as well as the National Policy on Biodiversity Conservation and Research Policies recognize the rights of farmers and communities to share benefits accrued as a result of the use of their knowledge and resources.

The Proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights provides communities with the right to 50% of the share that the state obtains in monetary form from the use of genetic resources (Art. 9.2). The money obtained in this form is channelled to services of common advantage to the concerned local communities, as will be specified by a regulation to be issued under this Proclamation.

The portion of monetary benefit left after deducting the community share shall be allocated by the state for the conservation of biodiversity and promotion of community knowledge (Article 18). Non-monetary benefits arising from the same are to be shared between the state and the concerned communities as specified in each access agreement, and based on the kinds of agreed benefits to be shared with the access permit-holder (Article 18.3).

Some access agreements were made prior to the approval of the Proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights. One of these is the Agreement on Access to, and Benefit Sharing from Teff Genetic Resources, between IBC and the Ethiopian Agricultural Research Organization (EARO) from the Ethiopian side, and the Health and Performance Food International (HPFI) of the Netherlands, concluded in December 2004.

A second agreement is the not yet signed agreement on access to and sharing of benefits from vernonia genetic resources (Draft Agreement, 2005). This agreement is to be made between the IBC and Vernique Biotech Ltd., whose registered address is Anson House Churchill Oxfordshire OX7 6NU England. Vernonia (*Vernonia galamensis*) is a semi-arid plant the seed of which contains about 42% of oil, of which ca. three-quarters is vernolic acid used in plastic formation and coating.

According to the TefF Agreement, teff varieties developed by the access permit-holder company shall be co-owned by the company and EARO (Paras 5.2 & 5.3). Those varieties that are not developed by the company shall be owned by the provider (the IBC) on behalf of the farming communities. However, if varieties held on behalf of farmers become in the interest of the provider or the company, these varieties may be registered in the name of EARO, and the company shall also have the right to register the varieties outside Ethiopia. The company however, can not claim intellectual property rights over teff genetic resources or over any of the components the plants.

The company agrees to share with the IBC and EARO the knowledge and technologies generated while using teff germplasm. The benefits registered on behalf of farmers are to be 5% of net company income and will be channelled to the funding system to be established as 'Financial Resource Support for Teff', a resource designated for improving living conditions of farmers and teff business in Ethiopia (Annex 3). So far, however, no benefits have been shared.

According to both the Teff and the Vernonia Agreements (under Applicable Law of the agreements, section 15 & 14 respectively), the CBD, ITPGRFA (in particular its Article 9 on farmers' rights) and the Bonn Guidelines shall apply to matters not addressed in the agreements. Both parties consider the Bonn Guidelines, Paragraph 16(d) (iv) annexed to Section A of Decision VI/24 of the 6th COP of the CBD, as dealing with infringements of this Agreement.

These two agreements made on access to teff and vernonia germplasm were new experiences in the country in terms of formalized arrangements of access to genetic resources and benefit sharing that recognizes farmers' rights. As a starting point for formal access and benefit sharing arrangement, useful lessons were expected from the process particularly with regard to the treatment of benefit sharing arising from the use of uncultivated plant genetic resources. For example, vernonia, for which the seed is of a primary interest, is uncultivated, and for certain, the process of promoting vernonia seed to industrial level use requires cultivation of the plant for seed production. This in turn would lead to the domestication of the species where selection and development of varieties over time become tasks that involve farmers, and eventually link the conservation and use of the plant to farmers' rights. Farmers can also gain direct economic benefits if they are involved in cultivating the species for seed production. But if the farming communities are not involved in the process of domestication and seed production, unlike the cultivated crop, the communities may not gain direct benefit from the access to the resource, and may also not care for the protection of the resource and the ecosystem it inhabits.

However, as noted in the Proclamation of Access to Genetic Resources and Community Knowledge, and Community Rights (Art. 33 on transitory provisions), access agreements made prior to the coming into force of this Proclamation shall be revised and harmonized with the provisions of the Proclamation. Similarly, access to genetic resources under agreements concluded prior to the coming into force of the Proclamation shall be suspended until they are revised and harmonized with the provisions of this Proclamation (ibid.).

3.4 Farmers' participation in decision-making processes on conservation and use of agricultural plant genetic resources

Farmers are entitled to conserve, use or grow crop varieties of their interest. Customary rules of the use of genetic resources are not directly interfered with. Various policies recognize farmers' and community participation in decision making (National Seed Industry Policy, Biodiversity Conservation and Research Policy, Environmental Policy), but there exists no formal arrangement whereby farmers directly participate in making decisions on issues relevant to genetic resources. According to the

2006 Proclamation on Access and Genetic Resources and Community Knowledge, and Community Rights, the state on behalf of the communities negotiates on issues relevant to genetic resources. Accordingly, granting permission to collect germplasm of any kind is under the mandate of the IBC, regardless whether farmers allow such collecting or not. Users have access to farmers' varieties in various forms, including access to materials in their fields and to those in the national gene bank, which holds over 95% of its collections as farmers' varieties. On the other hand, farmers are not forced to allow collecting of germplasm from their fields or stores. They also have the right to demand the restriction or the withdrawal of the prior informed consent given by the IBC for access to their genetic resources if they find out that it is likely to be detrimental to their socio-economic life or their natural or cultural heritages (Proclamation No. 482/2006, Art.7.6).

3.5 Farmers' practice of saving, using exchanging, and/or selling farm saved seeds and propagating materials

Varietal development research in Ethiopia is a state-funded research programme. Farmers' varieties as well as working materials accessed through exchange among research institutions within the country and abroad serve as sources of germplasm. Varieties developed through this programme are registered, multiplied and distributed to farmers on sale basis. According to the Seed Proclamation (No.206/2000), farmers or anyone not licenced may not sell seed of the varieties on a large-scale basis, although farmers can exchange among themselves and sell seeds of such varieties at farm-gate level without any restriction on use.

Similarly the recently approved proclamation to protect breeders rights (Plant Breeders' Rights Proclamation No. 481/2006) provides farmers with the following rights:

- to save, use, exchange and sell farm-saved seed of their own varieties;
- to use protected varieties including gene-bank materials for developing new farmers' varieties;
- to save, use, multiply, exchange and sell farm-saved seed of protected varieties.

But the Proclamation restricts farmers from selling farm-saved seeds of protected varieties on a large scale and as certified seed, unless licensed (Art.31).

3.6 The state of support to farmers in the country

The bulk of genetic diversity of agricultural crops in Ethiopia is still on the farms of local farmers, who continue to manage, improve and maintain this diversity in its dynamic state. These resources and farmers' efforts to manage them are important to ensure the availability of the resources for use. Their value is not limited to their use within the country as shown by the contributions to world agriculture of early collections from Ethiopia by Harlan and Vavilov. Further development and use of these resources require sustainable conservation and improvement of the

genetic diversity of the resources, which can hardly be achieved without practical efforts of local farmers.

Ethiopia's farmers are supported in various ways. There are governmental rural development programmes that include water supply and health-care services, infrastructure and school building, seed and input supplies, as well as bilateral and NGO projects that contribute toward the same goals. Here mention should be made of the Arsi-Bale Rural Development Project supported by the Italian government, the diverse projects supported by the GTZ, by the Norwegian Development Fund and by the Irish government.

There are also various grassroot-level projects implemented by NGOs like Institute of Sustainable Development (ISD), Forum for Environment (FFE), Ethio-Organic Seed Action (EOSA), Farm Africa and others. Important grassroot activities implemented by NGOs include environmental and socio-economic development programmes to promote reforestation and agro-forestry, soil protection, on-farm conservation, strengthening of seed supply systems and market promotion for farmers' products. These projects have been useful in restoring lost optional crops and degraded ecologies. Dissemination of appropriate agricultural technologies for promoting productivity and improved sources of animal fodder and energy are among the areas that still need more strengthened support from which farmers can benefit.

Such projects and programmes, whether implemented by governmental organizations or by NGOs, all help farmers and can be considered as contributions toward farmers' rights. Although these projects contribute to improving farmers' livelihoods, they are not that directly framed within the context of promoting the concept of farmers' rights. However, even if these projects are implemented within the context of the promotion of farmers' rights concept, much of what can be done is what these projects are doing now. It would be useful if forums are created to raise awareness on the concept of farmers' rights within NGO circles, in order to enable them to observe and promote of farmers' rights within the framework of the implementation of relevant projects.

4 Stakeholder perceptions on Farmers' Rights

Although Ethiopia is considered as an active negotiator on issues relevant to farmers' rights, awareness has remained limited to certain informed individuals and institutions participating in negotiations processes. Many of the most relevant groups are not well informed about such issues.

In this study, stakeholder respondents were categorized into 'Farmers, Public Institutions, Private Sectors and NGOs'. In addition, opinions of informed individuals about farmers' rights, such as breeders, genetic resource experts and lawyers were also gathered.

4.1 Description of stakeholders

4.1.1 Farmers

The farmers of Ethiopia are small-scale farmers working as individuals and family groups on small land-holdings for survival rather than high

economic gain (Padmavathi *et al*, 2001). They are organized into informal village-level groups as well as into peasant associations that are usually established as local-level governance structures. The peasant associations are generally organized into cooperatives that are made up of groups of peasant associations, and cooperatives are further organized into unions. These structures in most cases receive guidance from the local government offices like the district administration offices and bureaus of agriculture. Farmers tend not to favour such a centralized system of organization, since they have little influence on decision making on the operations of these organizations.

In some cases farmers are organized in independent associations such as Farmer Conservator Associations and Farmers' Seed Producer Associations, which are supported by some rural development projects. The number of such associations however, is very much limited, and their strength and survival usually depend on the longevity of the life of projects that support such initiatives. The author had the opportunity to discuss with representatives of Farmer Conservator Association of Ejere, Farmers Seed Producer Association of Chefe Donsa, and with representatives from Peasant Associations of Tiliti and Elebela localities of East Showa Zone, and Agarfa district of Bale zone.

4.1.2 Public Institutions

Most of the stakeholders as public institutions are not familiar with the issues of farmers' rights, although there are public institutions – like the IBC and EPA – that are well informed. These two institutions serve as focal points for biodiversity and the environment, respectively, and represent the country in regional and international negotiations.

Institute of Biodiversity Conservation (IBC)

The IBC is nationally responsible for collecting and preserving/conserving the country's germplasm materials (National Biodiversity Conservation and Research Policy, 1998; Biodiversity Conservation and Development Strategy, 2000). It is now a nationally mandated institute to regulate access to genetic resources (Proclamation No.381/2004, Art. 6).

Environmental Protection Authority (EPA)

The EPA is mandated to coordinate environmental activities, to develop environmental policies, strategies and laws, and to monitor their implementation (Proclamation No. 295/2002). It has the power to ensure that sectoral and cross-sectoral environment-related programmes encourage genuine grassroot-level decisions in natural resources and environment management practices, and that they promote mechanisms that can enable communities to share the benefits deriving from such programmes.

Ministry of Agriculture and Rural Development (MoARD)

MoARD has the responsibility to promote the expansion of agricultural development and to develop policy and laws on land, forest, and wildlife resources (Proclamation No. 380/2004, Art.5). It is given the power to administer breeders' rights in which farmers' rights is included (Plant Breeders' Rights Proclamation No.481/2006).

Ethiopian Agricultural Research Organization (EARO)/ Ethiopian Institute of Agricultural Research (EIAR)

According to Proclamation No.79 of 1997 EARO generates, develops and popularizes research results (Art.5). It is also responsible for formulating agricultural research policy and strategies, setting research priorities and issuing research guidelines, and following up the implementation of agricultural research policy. In October 2005 EARO was renamed Ethiopian Institute of Agricultural Research (EIAR)

Ethiopian Intellectual Property Office (EIPO)

EIPO was established by Proclamation No 320 of 2003 to study, analyse and recommend intellectual property policies and laws. The Office is not mandated to deal with farmers' or community rights as related to intellectual property.

4.1.3 Private sector

There are no private breeding institutions or private seed enterprises in Ethiopia at present. However, the National Seed Industry Policy recognizes the importance of such a sector and responsibility is vested in the government to promote the development of a domestic private seed sector (National Seed Industry Policy, 1992. Arts.5.06 and 12.21).

In terms of seed-related activities, the private sector involves mainly commercial grain producers registered as investors in agriculture. Some of them work closely with local farmers as they offer better farm-gate prices for farmers' produce, whereas others come into conflicts with local farmers when investing on communal lands (interview with Mr.Bulbula, President of Oromia Private Agricultural Investment Association).

4.1.4 NGOs

Most NGOs in Ethiopia are involved in relief and food-aid works in food-insecure areas repeatedly affected by drought. Some participate in development works like education, health and forestry and a few are involved in policy issues like land-tenure systems. There are also some NGOs involved in agricultural development work although most of them are not familiar with the issues of farmers' rights. NGOs like the ISD, FFE and EOSA work closely with local farmers and are better informed about the concept of farmers' and community rights (interview with Mr. Zerihun Assefa of EOSA and Mr. Ayele Kebebe of FFE).

4.2 Stakeholder perceptions

4.2.1 Farmers

Although policies like those on seed, plant breeders' rights, access and community rights, biodiversity and the environment all address farmers' and community rights, the details of these policies are not known to most local farmers. This is mainly due to lack information dissemination to grassroot-levels. Discussions with wider groups of farmers like peasant associations, farmer conservator associations and members of farmer seed producer association at Cheffe Donsa identified the following as common needs which link all resource-poor farmers:

- control over their produce - the right to save and exchange seed in accordance with the customary practices;
- the right to benefit from others' use of their traditional knowledge and experience;
- security of tenure on the lands they farm or occupy;
- the right to have equal societal security such as credit and collateral for term lending, water supply, health centres, schools and infrastructure like roads;
- access to proper markets and to technology;
- being consulted on decisions that directly affect them.

4.2.2 Public institutions

The IBC and EPA recognize communities' resource ownership and use rights, their participation in decision making and planning and sharing of benefits. According to the EPA, sectoral and cross-sectoral development programmes have failed to involve communities in decision making and benefit sharing as anticipated. Therefore, the EPA is planning to develop mechanisms whereby it can monitor the sectoral programmes to ensure that community participation and the right to share benefits are taken into consideration.

MoARD and EIAR recognize the values of farmers' varieties, and are of the opinion that farmers should be recognized for their contributions - and in a wider sense than that provided in Plant Breeders' Rights Proclamation of 2006. Although EIPO is not mandated to deal with farmers' or community rights as related to intellectual property, it would like to consider studies on farmers' and community rights as related to intellectual property rights.

4.2.3 Private sector and NGOs

Private investors suggest that an attractive market should be organized for farmers to encourage them to improve the quality of their produce. One of the important things that they consider as farmers' rights is that farmers should have the right to sale or lease their farm lands without restrictions.

NGOs stress that the burden of conserving genetic diversity, promoting production and managing soil fertility is mainly left to subsistence farmers. They are of the opinion that if genetic resources are remaining the property of the state and the people of the country, farmers should be recognized and rewarded for the responsibility placed on them in conserving and developing the diversity of these resources. NGOs also suggest that farmers' rights should involve the right to secure land-tenure whereby farmers can use the land in the form they want to make use of it. The justification for this is that farmers' livelihoods are closely linked to the land they use, and it is the only real form of social security that farmers can enjoy.

4.2.4 Experts and lawyers

Experts on genetic resources feel that widespread perception of traditional farmers' practice as something backward may detract attention and support that might have gone to improving farmers' practices, and may also prove counter-effective on the implementation of farmers' rights. The emphasis is on the need to recognize that improved knowledge of modern agriculture has its roots partly in the knowledge of farmers, and that farmers' knowledge on agricultural practices should be valued. They also consider prior informed consent on access as an element of farmers' rights that should have been clearly stated in the provisions of the newly developed proclamation to protect plant breeders' rights – which unfortunately fails to mention this aspect.

The general view of experts and lawyers is that farmers' rights in Ethiopia should focus on equity, with the breeding work of farmers treated on a par with that of formal breeding. This equity implies supporting, recognizing and valuing of farmers' efforts and varieties that still are bringing a tremendous economic benefit for the country. Examples are coffee, teff, sesame, niger seed and various spices that are all farmers' varieties. The principle of equity should be such that it values the contributions of farmers and formal breeders alike, without controversies. The objective must be to support and recognize farmers' practices as a strategy to enhance agricultural productivity.

This group is also of the opinion that farmers should have the right to share benefits arising through the modification of their varieties by formal breeding. The point of justification for this is that in a country where well over 90% of crop production depends on farmers' varieties, and where formal breeding depends on the same, farmers' contributions and their varieties also deserve fair recognition and proper emphasis.

4.3 Stakeholder perceptions on achievements in Farmers' Rights in Ethiopia

Formal recognition was granted to farmers' rights in 1992 when the National Seed Policy was formulated. According to this policy, the government promulgates national seed laws that recognize breeders' and farmers' rights. Responsibility for implementing farmers' rights was given to the National Seed Industry Agency, which was established for implementation of the National Seed Policy. The Agency, later restructured as the National Seed Input Authority (dissolved in 2004), was not able to develop the legal instruments for treating these rights.

Informed respondents recognize the efforts made in formulating policies that are relevant to community, farmers' and breeders rights as a step forward. However, they feel that the implementation of farmers' or community rights has lagged behind, mainly due to the slow process of enacting laws to implement policies.

Nevertheless, there have been some grassroot-level projects that promote programmes involving farmers as direct beneficiaries. Activities here have included conservation, natural resources development and income-creation for farmers. Farmers have benefited from programmes designed to strengthen community seed supply systems, on-farm conservation and

improvement of farmers' varieties and promotion of market for farmers' produce through projects such as Seeds of Survival/Ethiopia, the GEF project and others. Such programs should be further strengthened and expanded to include more program elements oriented toward the realization of farmers' rights.

4.4 Stakeholder perceptions on barriers to Farmers' Rights in Ethiopia

Policy overlap, absence of legal instruments and instability of institutions and their mandates, and redundancy in institutional mandates are seen as barriers to the realization of farmers' rights. For example, the responsibility of harmonizing federal, regional and sectoral genetic resource programmes given to the IBCR (later IBC) under Proclamation No. 120/1998 was removed from its mandate by Proclamation No.381/2004, but without being assigned to any other institution. Other perceived gaps include the absence of strong linkages among line institutions at federal and regional levels, the lack of structures for administering genetic resource programmes and related issues at regional and local levels. For example, the national biodiversity conservation strategy spearheaded by IBC is not yet fully integrated into regional level programs. Without strengthening such links, it may not be possible for example, to properly facilitate the process of access to genetic resources and benefit sharing.

According to lawyers' observations, the National Seed Industry Policy (1992), the National Agricultural Research Policy (1997) and the National Biodiversity Conservation and Research Policy (1998) overlap in the areas of conservation and development of agricultural genetic resources. Similarly, the mandates of the IBC and of the MoARD overlap in the areas of *in situ* conservation and ecosystem management. Lawyers see this as an indication of poor communication among relevant institutions, and as weak cross-reference to existing policies while developing the new ones. Such factors have hindered the development of mechanisms to implement what is anticipated in each policy leaving some development problems without being addressed by one or the other institute, and at times becomes the cause for conflicts over institutional mandates.

Yet another problem is the lack of awareness and consultation with farmers or communities as a whole on developing policies and legislations that directly affect them. Moreover, the content of farmers' and community rights in the context of Ethiopia has not been well studied or understood. This has led to the inclusion of redundant policy elements and institutional mandates across institutions, and to prevailing inconsistent perceptions about farmers and communities. A thorough study to define the structures of communities and farmers in the Ethiopian context is suggested, as is policy research to avoid the overlap and contradiction of policies and institutional mandates. One example of policy contradiction is the investment policy: while promoting investment on agricultural development it remains inconsistent with the national biodiversity and forestry policies and strategies, as well as with sectoral environmental policies. For example, the Chewaku-Utto Tea Development Project in the southern part of the country was reported as a business of high environmental risk that involves clearing of significant areas of natural high forest, which negatively affects habitats of rare plant and threatened bird species as well as the adjacent wetlands (Yeshitela, 2001).

4.5 Stakeholder perceptions on the necessity of promoting Farmers' Rights in Ethiopia

As noted in section 2 above, Ethiopia boasts an immense diversity in agricultural crops, thanks to generations of domestication and development work carried out by local farmers. Thus promotion of farmers' rights aimed at encouraging and supporting them to continue their activities is decisive. All respondents in this study agreed that material, technical and socio-economic support to strengthen farmers' practices and to improve their livelihoods is one way by which farmers' rights can be promoted and realized. Since such support to subsistence farmers directly contributes to ensuring food security, it should also be seen as a strategy for promoting greater agricultural productivity. The general view is that the contribution of farmers to the agricultural development of the country should be recognized by acknowledging the rights of farmers to a fair share of the benefits arising from the overall development outputs.

The unfortunately widespread notion that traditional farmers' agricultural practices and knowledge are backward and their varieties primitive and less productive is a reductionist view that can dangerously affect the enhancement of food production in Ethiopia. This and other perceptions that fail to understand the role that farmers play may have a direct and negative impact on proper recognition of the role of farming communities.

4.6 Stakeholder perceptions on the necessity of promoting Farmers' Rights internationally through the ITPGRFA governing body

Study respondents who were better informed on farmers' rights consider institutionalizing of the issues of farmers' rights at the global level as an important achievement. In a situation where genetic erosion of many agricultural crops is continuing unabated, particularly in the centres of origin and diversity of these crops, there is the risk of losing much of the remaining global resources unless local farmers' efforts are supported. Further erosion of crop genetic resources would mean that fewer and fewer genetic materials remain for adaptation and breeding for the present and future generations. As a result, global targets for food security may prove impossible to achieve because of shrinking options for sources of food and breeding materials.

A further concern is that evolving socio-economic needs and human population increasingly exacerbate the vulnerability of crop genetic diversity, particularly in the centres of genetic diversity. The practice and knowledge as well as the survival options of local farmers also change over time, to meet the evolving conditions. In the process, the world may lose much of the genetic resources and the knowledge that developed them - indeed this is already the case at most centres of agricultural crop genetic diversity. Under such a circumstance, the remaining global resource base will face even greater danger if all responsibility for managing these resources is left to the impoverished farmers of the centres of diversity, with no supportive interventions to backstop their efforts.

The current case on the highlands of Ethiopia may serve as one example of the impacts of changes in farming conditions and socio-economic pressure on genetic diversity. Population is increasing dramatically, and

especially in the highlands where the major farming systems of the country are practised and crop genetic diversity is high. Land fragmentation among household members and marginalization of farms due to degradation are major causes of the decline in crop genetic diversity. As a result, the types and number of crop species grown by each household are gradually declining to a limited number of cereals and pulses. To compensate yields on small-size farm fields, there is a significant tendency to limit the types of crops grown by farmers (Debele *et al*, 1998, Feyissa, 1999). The prevailing changes in farming conditions and the socio-economic factors are becoming serious challenges to the genetic diversity of the country.

In such circumstances, it becomes essential to produce a crop that can cover household food needs, rather than maintaining a variety of crops on a very small piece of land. The long-term consequence may be food insecurity and malnutrition due to shrinking of options of sources of food and the disappearance of diverse genetic resources. In the present study, respondents were asked for their suggestions for salvaging these global agro-biodiversity resource bases. They respond that, just as with the emphasis put on trade, human rights, environment pollution, weapons of mass destruction, and others, serious attention must be paid to agricultural genetic resources that are closely managed and nurtured by local farmers.

Farmers' rights should not be promoted just for the sake of farmers in developing countries, but also for meeting the survival needs of humankind – today and in the future. Attitudes must be changed, so that farmers' rights can be recognized as a concern of all humanity, to be treated at national and global levels. A change of attitude toward this common concern may also offer a better context to the issue of common heritage of genetic resources as set out in the FAO Conference Resolution 5/89 on Farmers' Rights, provided that maintenance, development and protection of these resources also remain common responsibilities.

Facilitation of these responsibilities requires a global-level focal body that can spearhead the resolution of the multi-dimensional issues of farmers' rights, as related to the goal of ensuring global food security. The Governing Body of the ITPGRFA is expected to have a greater role to play in linking farmers' rights issues to a range of international and national development perspectives, and in creating mechanisms whereby farmers can be supported and recognized.

4.7 Stakeholders suggestions on what the Governing Body should do in this regard

International promotion of farmers' rights requires coordinated efforts at the global level. The ITPGRFA Governing Body can play a role in developing systems, to address the objectives of protecting farmers' rights at the global level by focusing on the development and promotion of mechanisms to encourage balanced social equity and concern over genetic resource development and use.

Among possible major interventions required we may note:

- Facilitation of support to the implementation of farmers' rights by promoting mechanisms for creating various incentives, including ap-

appropriate technologies to lighten the burden on subsistence farmers. Such support may also include promotion of farmers' decision-making, negotiating capacity and strengthening of their traditional community-based institutions. Support to the development of mechanisms for linking off-farm and on-farm genetic resource activities and for enhancing farmers' varieties to ensure economic gains may also be important. This may involve promotion of strategies that countries that are parties to the ITPGRFA may adopt to support farmers' activities in maintaining and developing diversity while productivity is also enhanced through the direct involvement of farmers.

- Creating international level awareness about the need to support and farmers' rights as a mechanism for ensuring equity and the existence of genetic resources for the benefit of humanity at large can be another task of the Governing Body. It can also act as a watchdog by maintaining the balance between technology development and use, and resource and knowledge protection. This may involve providing advice and encouraging governments to develop proper policies, strategies, legislative instruments and institutional arrangements to properly implement farmers' rights as provided in the Treaty.
- The Governing Body may also develop strategies for promoting awareness of international communities and national governments on the basic goals of farmers' rights: to balance breeders' rights and encourage farmers to continue as stewards and providers of genetic materials; further, that farmers' rights are held collectively; and that measures shall not limit access to genetic resources (Brush, 2003); and finally, there must be support for the realization of farmers' rights as a strategy to ensure the existence of genetic resources for the benefit of humanity at large (Brush, 1994).

The ITPGRFA Governing Body may also create possibilities to reinforce internationally supported genetic resource programmes and activities with similar concerns including support for strengthening of exploration, collection and *ex situ* conservation of germplasm. It may also develop appropriate international legal frameworks to promote the protection of traditional knowledge relevant to the conservation, use and development of PGRFA, and encourage governments to formulate compatible and nationally suitable legislation.

Governments may be encouraged to adopt elements of the African Model Legislation (OAU 2000) and India's Protection of Plant Varieties and Farmers' Rights Act (2001) according to the needs and conditions in their respective countries when enacting laws pertaining to farmers' rights.

The Governing Body may also address the unresolved issues related to germplasm materials collected from farmers' fields before the coming into force of the CBD, and held in the national and international genebanks. The Governing Body could develop mechanisms whereby those important collections of plant genetic resources stored in gene banks under FAO auspices can be managed and used in a transparent manner. In this regard, it may also develop and promote systems for sharing benefits derived from materials accessed from international collections. This may involve monitoring of the use of shared benefits to ensure that it is channelled to those development activities that contribute to supporting local farmers' livelihoods.

The ITPGRFA Governing Body may need a financial mechanism to facilitate use of available funds to support the implementation of initiatives such as projects for developing and promoting policies, and for the transfer of appropriate technologies to help farmers in practicing conservation, varietal development and improvement.

5 Success Stories

Farmers' rights involve a complex combination of diverse social, economical and cultural values. It may not be possible to have one uniform standard for addressing the issues, as priorities, objectives and needs of farmers vary so greatly, even within the same country. In addressing farmers' rights, one must consider the complexity and diversity of the issue, carefully identify the objectives of addressing it within a given farming community system.

As Ethiopia is an agricultural country where small-scale farmers play a vital role, the emphasis of agricultural and other relevant policies is on increasing productivity by providing various kinds of support to farmers. Policies that recognize the contributions of and support to farmers, their rights to improve and use local varieties, their rights to share benefits and other policies are already in place. There are national agricultural development programmes that establish farmers' training centres all over the country, made possible through international support including loans from international monetary organizations like the World Bank and the African Development Bank.

All these various rural development programmes have focused on improving the livelihoods of the local farming communities. This is not being done explicitly within the current farmers' rights concept, but the objective is to improve the livelihoods of farmers as the larger single sector of the population of the country. The question is whether the concept of farmers' rights is adequately framed within these rural development programmes.

Here, it may be useful to briefly refer to some relevant projects and programmes implemented through various governmental and non-governmental organization initiatives, geared toward improving the livelihoods of local farmers. These projects and programmes place farmers in focus, recognizing their roles and contribution to the conservation and development of genetic diversity, and have been designed to support farmers' practice of management and improvement of crop genetic diversity on farms. Some of these projects developed seed security strategy such as community seed banks, which have benefited farmers by increasing options for planting materials.

5.1 The Seeds of Survival/Ethiopia Project and its follow-up

Mention should be made of the Seeds of Survival/Ethiopia (SOS/E) project developed in 1989 right after the drought disaster of the 1987 that cost many lives and lots of crop genetic diversity, particularly in northern Ethiopia. Supported by a Canadian NGO known as USC-Canada, the SOS/E project was able to reintroduce and recover the diversity lost due to the drought. A system of community-based seed supply was also created in order to ensure seed security during recurrent drought events.

This was followed by the Global Environmental Facility (GEF) supported project 'A Dynamic Farmers Based Approach to the Conservation of Ethiopian Plant Genetic Resources' through which the experiences of the SOS/E project were expanded to reach 12 different parts of the country. This project aimed at developing a scientific basis for on-farm conservation and improvement of farmers' varieties, as well as at establishing a seed security system under different farming systems. Participatory varietal selection where farmers and researchers worked jointly was one of the major activities of the project.

Implementation involved various public research and learning institutions where the state covered the costs of public institution involvement as a matching fund or contribution to the project. Funds were channelled to farmers through organized Farmers' Conservator Associations for the establishment of community seed banks, and for management activities of on-farm conservation. The experiences of both the SOS/E and the GEF projects have been useful in addressing some aspects of farmers' rights, even though the approach is not directly aimed at promoting the concept of farmers' rights.

5.2 Other projects aimed at strengthening seed supply systems

There are some other projects operating in various places strengthening the experiences of earlier projects and expanding into other areas. One example is a project implemented by EOSA 'Integrated Agrobiodiversity Management and Seed Security Project', that has been able to increase the diversity of highly threatened indigenous durum wheat from 5% to over 50% occurrence of a wide range of diversity on farms. The increased diversity has given farmers wide options to select types with qualities suitable for food processing factories. This approach has been encouraged by relevant government sectors. Public food factories for example, pay premium prices for farmers' produce as market incentive to encourage them (Tamiru and Manda, 2002). Farmers have also benefited from the promotion of non-market incentives through ensured seed security.

Similar initiatives are underway throughout the country. The project known as 'Strengthening Seed Supply Systems at the local Level' in the eastern part of Ethiopia, funded by the government of Norway and executed by FAO and the Ministry of Agriculture, is one such initiative. The main objectives of this project are to increase farmers' income; to improve farmers' access to good quality seed; and to promote diversification toward cash crops for markets (FAO Project: GCP/ETH/062/NOR).

Thus we may conclude that progressive activities are in progress, contributing toward the realization of farmers' rights. However, it is also clear that the concept of farmers' rights has not been articulated in most efforts currently underway, due mainly to lack of awareness. On the other hand, there is room to inject this concern into rural development activities by articulating the concept of farmers' and community rights in a way that reflects the Treaty and other international agreements to which Ethiopia is a party.

6 Barriers to the realization of Farmers' Rights in Ethiopia

Efforts made to address community and farmers' rights in Ethiopia can be considered as a progressive step although there are some gaps in perceiving the structures of community and farmers as well as the content of their rights. The general understanding is that communities in Ethiopia are all farming communities, be it pastoralists or those involved in mixed crop-livestock agriculture, and also include other groups with special knowledge and practices such as traditional medicine practitioners. However, as specifically related to farmers' rights, policies and proclamations relevant to farmers do not provide clear definitions or explanations of farmers and farmers' rights within the context of the local community.

As noted, more than 85% of the population in Ethiopia is rural. These are small-scale farmers, living from their agricultural practices within diverse farming systems throughout the country. As individuals and family groups, they work on small land holdings for survival rather than high economic gain (Padmavathi *et al*, 2001). It is in this context that local farmers constitute local communities, so it may not be practical to draw dividing lines between 'communities' and 'farmers' in the case of Ethiopia. Nevertheless, local communities and farmers have been perceived as different entities, and this has led to the drafting of separate proclamations for community and farmers' rights. It has been a challenge to reach common understanding as to how to define farmers and communities in the case of Ethiopia, and the result has been inconsistencies in different policies.

Similarly, there are some limitations in the recent proclamations in setting the scope of rights and roles of communities and farmers. Farmers' rights as briefly noted in the Plant Breeders' Rights Proclamation, for example, are restricted to farmers' use of the seed of formally bred varieties; there is no mention of the role of farmers in conserving and developing crop genetic diversity. The proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights recognizes communities' rights over the genetic resources and knowledge they have developed, but limits community decision-making powers to decisions on access to their knowledge only. Access to genetic resources is to be decided by the state, although communities may appeal if the access decision negatively affects them.

It seems that such discrepancies were created due to lack of comprehensive knowledge on the structure of farmers and communities in Ethiopia, and on the scope of their rights. A major problem has been poor awareness of the conceptual frameworks, issues, trends and challenges of farmers' rights among the relevant stakeholders including policy makers and farmers themselves.

6.1 Lack of awareness

Except some individuals and institutions involved in the process of negotiations, most stakeholders are not informed about the objectives and concept of farmers' rights. Farmers are totally unaware of the issues. For example, the current perception of farmers' rights as enshrined in the recently approved Plant Breeders Rights Proclamation is limited, the rights

related to the creation and use of commodities. In other words, the concept of genetic resources is reduced to its purported essence as a commodity, presumably separable from its complex relationships with farmers' activities and agro-ecological systems, and valued only in terms of its immediate consumption. This in turn reduces farmers' roles and tasks in the entire process of conserving and developing diversity to simply, growing of varieties of immediate commercial use.

6.2 Lack of understanding of local structures

Communities in Ethiopia are all recognized as farming communities – be it pastoralists or those involved in mixed crop-livestock agriculture. There are also groups within the community that for example deal with and have the practice and knowledge on medicinal plants, upon which over 85% of the population depends. But such groups are still small-scale farmers, part of a continuum of rural communities that have varying and immediate interactions with the environment they live in. They remain members of 'local communities' as identified in the Article 8j of the CBD (Convention on Biological Diversity, 1992). They do not depend on only a single crop or crop variety for their subsistence or on a wider market for their livelihood, but grow several varieties of crops/plants, harvest and still domesticate semi-wild and wild plant species (Yemane, 2003). They are not engaged in solely crop cultivation but practice mixed farming systems based on both livestock and crops. Lack of awareness about these structures of farmers and communities has become a limitation in understanding the conceptual frameworks, issues, trends, the scope of the rights and challenges of implementing farmers' and community rights.

6.3 Lack of clarity regarding definitions

Another barrier is lack of clarity regarding the definition of farmers and communities in the context of Ethiopia. For example, the country's environment and biodiversity policies lack any clear definition related to specific socio-economic activities of groups that form a 'community'. Limitations in the definition of the targets and problems as well as the scope of right protection in the recently approved Proclamation on Access to Genetic Resources and Community Knowledge, and Community Rights is another example. The Proclamation on Plant Breeders' Rights does not define or explain what is meant by 'farmers' and 'farmers' rights', and does not sufficiently articulate the customary and custodianship rights of farmers. One reason for the lack of progress in developing mechanisms for protecting rights could be unclear perceptions as to the scopes of resource use and ownership rights in the country as a whole.

6.4 Lack of strategic institutional arrangements

Policies and mandates of institutions overlap. Interlinked programmes of institutions are not integrated into a system that facilitates division of tasks among institutions. Institutional focal point systems to coordinate relevant policies and programmes of various institutions either do not exist or are not efficient. For instance, various biodiversity, seed and environment policies recognize the role of farmers and local communities, and their right to equitable shares of benefits arising from the use of resources they conserve and develop – but there have been no strategies or integration of institutional approaches to fulfill the commitments made in these policies (Bayu and Estrella, 2004).

6.5 Land tenure

Another barrier, according to almost all stakeholders surveyed is the land tenure system which is an yet unresolved problem of the country (Rahmato, 2004). Previously (1975) the military government nationalized all rural lands without compensation and abolished tenancy, although with special provision for pastoralists that gave them the right of possession to land they used for grazing (Gebremedhin Berhanu and Negaa Berhanu, 2004). This government land reform eventually led to land fragmentation and insecurity of tenure where farmers were obliged to redistribute farms to young families or new households moving into their areas. Moreover, farmers were also pressurized to collectivize farms where they remained reluctant to improve their land, fearing they would not receive adequate compensation for upgrades or would not have possession rights over the land (Ayalew *et al*, 2005).

This trend has remained the same under the current government where according to the Constitutional Proclamation No. 1/1995, Art. 40.1, land is owned by the state and the people, and the scope of farmers' land ownership is limited to usufruct rights and without security to invest in land upgrading. Many see the current land tenure system as restrictive and as a cause for tenure insecurity that gives the state an immense power over peasant farmers. The complaint is that it is inefficient and rigid, unable to impact on agricultural and economic progress (Rahmato, 2004).

7 Options for further realization of Farmers' Rights in Ethiopia

Major problems of the seed sector in Ethiopia include limited availability of formal varieties suitable for the diverse agro-ecologies of the country. Limited seed multiplication farms and inactive involvement of the private sector in the seed business; absence of effective seed distribution channels, and lack of sustainable formal variety development strategies all contribute to the difficulties. Taking such problems into account, and considering the enormous role that farmers' varieties play, it is necessary to develop a strategy that can fairly recognize and encourage the contributions of farmers and breeders alike.

Such a strategy should consider the needs and priorities of local communities, farmers and other national stakeholders; the state of the art in domestic research in plant breeding; ensuring of food security and improving of livelihoods of the poor; and developing laws on farmers' and plant breeders' rights that take into consideration sustainable management and use of genetic resources. To maintain the balance between farmers' and breeders rights, the following approaches of the African Model Legislation that provides for establishing farmers' rights, may be adopted in addition to the farmers' rights provisions under the Plant Breeders' Rights Proclamation as appropriate for the situation of Ethiopia (OAU Model Law, 2000):

- a. Farmers varieties and breeds are recognized and protected under the rules of practice as found in, and recognized by the customary practices and laws of the concerned communities, whether such laws are written or not (Art. 25.1)

- b. A variety with specific attributes identified by a community is granted intellectual protection through a variety certificate which does not have to meet the criteria of distinction, uniformity and stability. This variety certificate entitles the community to have the exclusive rights to multiply, cultivate, use or sell the variety, or to license its use without prejudice to the Farmers' Rights set out in this law (Art. 25.2);
- c. Farmers are given the right to obtain an equitable share of benefits arising from the use of plant and animal genetic resources [Art. 26(1.b)];
- d. Farmers' varieties are granted certificate or label of recognition as a product being derived from the sustainable use of biological resource (Art. 27.2).

These approaches address two concerns: (1) Not allowing certification of farmers' varieties with specific attributes may lead to the notion that farmers' knowledge and their rights over the varieties they develop and maintain are underestimated. (2) At the other hand, licensing the use of such varieties and thus introducing exclusive rights to farming communities may lead to the concern that this may hamper customary rules and practices of community seed systems, for example in terms of the free exchange of seeds. As the proclamations in this regard are all quite new, there are no experiences with these concerns in Ethiopia so far. The issues can be discussed within the following context:

Varieties of farmers are developed collectively or individually but are utilized through the traditional seed exchange system, and unlike formal varieties, they have diverse characters and use values under diverse locations and growing conditions. These varieties may have specific identity associated to the characters they show, and to their use values over different locations that usually are expressed through vernacular names. Farmers develop these varieties in such a way that they meet their needs under the conditions they practice farming. There are for example, local barley and emmer wheat varieties that have healing values and are used in treating broken bones in some parts of Ethiopia. However, not all barley and emmer wheat varieties, and even those with healing effects grown in specific locations, can have the same value under all locations. Thus the varieties and farmers growing such varieties are traditionally recognized in their specific localities. This recognition as it is and as long as the traditional seed system is not interfered with, does not hamper the free flow of the variety in the community seed network system.

The other situation is that under diverse agro-ecological conditions of Ethiopia, a single variety may not fit to all conditions, and not all varieties have similar desired qualities when grown under different conditions. It is because of this that farmers select and develop types with qualities they desire, and are appropriate for their respective localities. Hence, these selected and developed varieties may be designated for use in those respective localities as they meet farmers' objectives and needs.

The other scenario is that the same farmers' variety may have different qualities and values under different conditions, where for example, a durum wheat variety grown under low elevation with higher temperature fits for making pasta, and the same variety grown under higher elevation

and with increased precipitation best fits for making biscuits. In the case of Ethiopia therefore, this could be one of the principles on the basis of which farmers are allowed to develop new varieties even by using protected breeders' varieties, where varieties they have developed may be certified or recognized for specific values they offer under a given condition.

In the above mentioned particular case of local durum wheat (see Section 5.2), the newly initiated practice of decentralized use of farmers' varieties has now become an incentive to farmers and can be considered as a contribution to the realization of farmers' rights, but in need of further work to develop sustainable mechanisms. This may involve registration of special farmers' varieties and development of systems whereby the use of such varieties is promoted in line with customary seed systems, and with recognition and rewarding of farming communities' varietal development practices and knowledge.

Thus, farmers in different locations and growing the same variety may benefit in different ways from different values that the variety offers, without affecting the customary seed system. The rule of distinctiveness as in the case of breeders' varieties can not be applied to farmers' varieties that have a wider range of adaptations. This goes well in line with African Model Legislation that supports certification of farmers' varieties and excludes the rule of distinctiveness and uniformity applied to formal plant breeders' rights. In the African Model Legislation, certification or labelling of farmers' varieties should not necessarily be in the sense of mapping genes to claim ownership rights, but for specific use values that the varieties offer under specific agronomic practices, and for encouraging farmers to maintain these varieties and further improve their use values.

Experiences gained in enhancing and promoting different farmers' varieties of durum wheat for industrial use through agro-ecologically decentralized participatory selection practices justify the appropriateness of certifying such farmers' varieties as varieties suitable to a given agro-ecological condition (Feyissa *et al.* 2005). It has been observed that these enhanced farmers' varieties have qualitatively become satisfactory to market requirements, but with varying degrees of the required quality when grown across diverse locations.

In Ethiopia, farmers' contributions play a significant role in the agricultural productivity of the country. Thus agro-ecologically decentralized and participatory varietal development approach is very important in terms of increasing productivity, and also to encourage farmers to intensify and improve their variety development practices and knowledge. Technically, this approach also provides the opportunity for spreading diversity across locations, and for enhancing different use values of the diversity, which in turn sustains the occurrence of genetic diversity on farms. In fact, this is how diversity is distributed across space and time in the practice of traditional agriculture, where changes in environmental conditions induce changes in the use values of those farmers' varieties that have a wider genetic base. The increased use values of these varieties as they are grown in different locations may create a range of socio-economic incentives for farmers, which encourage farmers to maintain genetic diversity through use.

It is important here to stress that the value of genetic resources for local farmers mainly lies in its use, and it is through various uses of the genetic diversity that farmers do conservation. Support to farmers to further develop the values of the diversity, for example, could be one way by which farmers' benefit sharing can be ensured and their rights protected. As there can be no universal standard for the protection of farmers' rights, what is important is the development of practical mechanisms that consider all relevant situations in the country in order to protect farmers' rights. Here is where the responsibility is put on the national government to carefully examine all possible opportunities and the prevailing conditions in the country while developing legal instruments to protect farmers' rights.

This may also need policy research to establish the nature, scope of implementation of the rights and structures of communities in Ethiopia. Important policy research areas would include the Agricultural and Rural Development Policy; the extension service approach that put major emphasis on input use and formal varieties solely; the Agricultural Research Policy as well as land use and market policies. As a new experience, it is expected that promotion of farmers' rights may involve various challenges, but may also provide the opportunity to learn more in the process of its implementation.

8 Lessons for the international implementation of Farmers' Rights

Evolving human needs and technologies to meet these needs are usually accompanied by both positive and negative effects of the processes of satisfying these needs. The impact of the past experiences of indiscriminate expansion of new agricultural technologies with little or no regard for genetic diversity is now being paid for expensively. In some cases, these technologies have affected farmers' own long-term productive potential due to changes induced in agro-ecological requirements, and unsustainable alternatives that left a significant number of farmers below the poverty line. Similarly, the impact of national laws and policies driven by international commitments to increase production and food security in a one-sided manner has contributed to the exacerbation of genetic erosion in crops. Indeed, the consequences of these practices were among the reasons why measures for conservation and recognition of farmers' contributions in this regard became issues of concern.

Recognition of farmers' contributions - past, present and the future - has a wider dimension involving ethical and ecological imperatives, the imperative for equal recognition of creativity, and the economic imperative that enables the provision of health and nutrition services. The interest in plant genetic resources that farmers of the world have maintained and developed through generations cuts across national boundaries, public and private sectors, and rural and urban communities of the world. These resources need to be further maintained and developed to satisfy human needs now and in the future.

Farming communities do not simply exist in a vacuum: their members live and work in settings where local social norms have an important influence on daily life, and on their practices of managing and using the

resources around them. In these processes are emerging new needs and objectives for coping with the evolving social dynamics, where farmers develop new approaches and knowledge to meet their needs and objectives. This shows that subsistence farmers do practice conservation, and not just for the sake of conservation as such. They practice it to meet their immediate and future needs and as a security for their livelihoods in the case of unpredictable situations such as drought and disease epidemics.

In a wider context, it is vital to recognize the rights of farmers and plant breeders are closely linked with the seed supply system (Hardon, 2004). In most cases, variety protection and licensing are privileges in the formal protection systems of plant varieties. If farmers are allowed to enjoy the same privileges, this may provide incentives for the maintenance of traditional varieties. As such, it may counterbalance the current trend that farmers discard diversity and opt to grow crop types that can yield immediate benefits. Therefore, there is reason to believe that such a system will not destroy traditional seed systems, but rather strengthen them.

When we consider the contributions of both parties to agricultural development and food security in all over the world, however, polarizing the two may become dangerous to the world food system as a whole. To what extent can we discriminate in favour of one or the other aspect of farmers' and breeders' rights as related to variety protection? Unless these challenges are met, and with the increasing socio-economic pressure on farmers, we risk that enormous amounts of genetic diversity will disappear because farmers can no longer maintain them. From this point of view, protecting and supporting farmers to continue their contributions should remain the responsibility and concern of all – at the local, national and international levels. Here, the concept of common concern for common heritage should be applied to support farming communities that take care of the common heritage on behalf of us all.

The international community should take into account that genetic erosion of plant genetic resources for food and agriculture is a serious problem in almost all countries. Moreover, *ex situ* gene bank systems as a means of conserving crop/plant genetic resources seem beset with many weaknesses, including inadequate resources for running the facilities, lack of capacity to systematize information on conserved samples, technical problems in maintaining some species under such conditions, and isolation of genetic materials from evolving environmental changes (FAO, 1996). The *ex situ* system alone is not the solution for controlling genetic erosion. The integration of *ex situ* and *in situ* approaches remains indispensable for overcoming the problems of genetic erosion – and here the farmers' role in managing the *in situ* system is an essential requirement, and recognition of and support to farmers' efforts in this connection can be linked to farmers' rights.

The international community needs to share responsibility for supporting farmers to ensure the continuing existence of these resources. These responsibilities should be reflected in a concerted manner, and through the Governing Body of the ITPGRFA. One way that the latter can facilitate the involvement of the international community for the implementation of farmers' rights is through promotion work and support to national governments to formulate appropriate policies and legislations that enable them to implement farmers' rights effectively. The Governing Body

should stress the obligations of both developed and developing countries to support farmers' practices of conserving and developing plant genetic resources beyond funds raised in relation to the commercialization of improved varieties.

It is important that the Governing Body develops programmes to deal with how the benefits accruing to farmers can be used to achieve conservation goals. One strategy might include the establishment of gene-funds at both national and international levels, where the national governments and various local projects related to bioprospecting can serve as national sources of gene-funds. Such funds could be channelled to the support of farmers to promote *in situ* conservation and enhancement of farmers' varieties (Brush, 1994), as well as to strengthening *ex situ* facilities at the local (farmers' storage facilities and community seed banks) and central levels (formal gene banks).

It should be the responsibility of all to recognize that farmers and farm communities are vitally important to the global society and economy at present and the in future. It is also important to recognize that farmers in almost all parts of the world are facing pressures that are suppressing their livelihoods and their capacity to provide goods and services to the world food system, which in turn is in the process of exacerbating global food insecurity. The tendency to further marginalize farmers through monopolization of food sources would certainly lead the world into serious conflicts over food sources.

The way forward, therefore, requires rationalization of thinking and actions in order to overcome the challenges humanity faces due to irrational thinking and unfair way of exploiting global resources. International agricultural policy actors such the World Bank, the CGIAR system, WTO and the TNC's have the responsibility in assisting the ITPGRFA and farmers, in order to put things in the right perspectives. What is indeed needed is a clear commitment by states and intergovernmental actors to protect and support farm communities in order to ensure universal food security for the present and the future.

References

- Ayalew, Daniel, Stefan Dercon and Madhur Gautam (2005): *Property Rights in a Very Poor Country: Tenure insecurity and investment in Ethiopia*. Global Poverty Research Group, GPRG-WPS-021 (Washington: World Bank, in collaboration with University of Oxford).
- Bayu, Mesfin and Jaime Estrella (2004): *Report of the brain-storming workshop* (Addis Ababa: Genetic Resources Policy Initiative).
- Brush, Stephen B. (2003): *The Demise of 'Common Heritage' and Protection for Traditional Agricultural Knowledge*, paper prepared for Conference on Biodiversity, Biotechnology and the Protection of Traditional Knowledge, St. Louis, Mo., 4–5 April 2003.
- Brush, Stephen B. (1994): *Providing Farmers' Rights through In Situ Conservation of Crop Genetic Resources*, CPGR Background Study Paper No.3 (Rome: FAO).
- Buckland, Jerry (2004): *Ploughing up the Farm: Neoliberalism, Modern Technology and the State of the World's Farmers* (London: Zed Books).
- Debele, Berhanu, Regassa Feyissa and Wassie Berhanu (1998): *Oromia National Regional Government Regional Conservation Strategy, Volume I: The Resource Base, its Utilization and Planning for Sustainability*. Paper for the Land Use Planning and Resource Management Project in Oromia Region (GTZ-LUPO), Finfine.
- Edwards, Sue (1991): 'Crops with Wild Relatives Found in Ethiopia', pp. 42–71 in: J.M.M. Engles, J.G. Hawkes & M. Worede (eds): *Plant Genetic Resources of Ethiopia* (New York: Cambridge University Press).
- FAO (1996): Report on the State of the World's Plant Genetic Resources for Food and Agriculture. Prepared for the International Technical Conference on Plant Genetic Resources. Leipzig, Germany. 17-23 June. Final version published in 1998 as *State of the World's Plant Genetic Resources for Food and Agriculture* (Rome: FAO).
- FAO Project GCP/ETH/062/NOR (2002): Project Inception Report September, Strengthening Seed Supply Systems at the Local Level in Eastern and Western Hararghe Zones, Oromia Region, Ethiopia.
- Federal Democratic Republic of Ethiopia (2004): *Proclamation to Re-establish Institute of Biodiversity Conservation* (Proclamation No.381/2004).
- Federal Democratic Republic of Ethiopia (2003): *Proclamation to Establish the Ethiopian Intellectual Property Office* (Proclamation No.320/2003).
- Federal Democratic Republic of Ethiopia (2002): *Environmental Organs Establishment Proclamation* (Proclamation No.295/2002).
- Federal Democratic Republic of Ethiopia, Ministry of Water Resources (2001): Initial National Communication of Ethiopia to the United Nations Framework Convention on Climate Change.
- Federal Democratic Republic of Ethiopia (1998): *National Biodiversity Conservation and Research Policy*.

- Federal Democratic Republic of Ethiopia (1997): *Environmental Policy*.
- Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 13th Year No.13, Addis Ababa – 27th February, 2006: *Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation* (Proclamation No. 482/2006), pp. 3353-3373.
- Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 12th Year No.12, Addis Ababa – 27th February, 2006: *Plant Breeders' Right Proclamation* (Proclamation No. 481/2006) pp.3339-3352.
- Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 6th Year No.36 Addis Ababa – 6th June, 2000: *Seed Proclamation* (Proclamation No.206/2000), pp.1317-1330.
- Feyissa, Regassa, Alexander Kudriavtsev, Elena Chiapparino, and Tiberio Chiari (2005): On-farm Conservation and Enhancement of Local durum wheat Genetic Resources in Ethiopia. Proceedings of the XLIX Italian Society of Agricultural Genetics Annual Congress, Potenza, Italy, 12-15 September 2005.
- Feyissa, Regassa (2001a): 'Forest Resources Ownership and Use Rights and the Role of Local Communities in Forest Management', in: *Imperative problems associated with forestry in Ethiopia*. Proceedings of a Workshop Organized by Biological Society of Ethiopia, Faculty of Science, Addis Ababa University.
- Feyissa, Regassa (2001b): Agro-biodiversity of Ethiopia, in: Silver Jubilee Anniversary Magazine (Addis Ababa: Institute of Biodiversity Conservation and Research).
- Feyissa, Regassa (2000): 'Community Seed Banks and Seed Exchange in Ethiopia: a farmer-led approach', pp. 142–148 in: Esbern Friis-Hansen and Bhuwon Sthapit (eds) (2000): *Participatory Approaches to the Conservation and Use of Plant Genetic Resources* (Rome: International Plant Genetic Resources Institute).
- Feyissa, Regassa (1999): 'Mainstreaming Biodiversity Conservation Towards Sustainable Agricultural Development: An Ethiopian Perspective', in: *Food security through sustainable land use: Policy on institutional, land tenure and extension issues in Ethiopia*. Proceedings of the First National Workshop of NOVIP Partners Forum on Sustainable Land Use.
- Gebremedhin, Brehanu and Brehanu Negaa (2004): *Land and land policy in Ethiopia in the eyes of Ethiopian Farmers: An empirical investigation*. Paper presented at the 13th Annual Conference of the Ethiopian Economic Association. June 3-6, 2004, Addis Ababa.
- Hardon, Jaap (2004): 'Plant Patents Beyond Control. Biotechnology, Farmers' Seed Systems and Intellectual Property Rights', *AgroSpecial* No.2.
- IBCR (2000): *Biodiversity Conservation and Development Strategy and Action Plan for Ethiopia*, Volume I. Updated October 2000 (Addis Ababa: Institute of Biodiversity Conservation and Research).
- Institute of Biodiversity Conservation (IBC), Ethiopian Agricultural Research Organization (EARO) and Health and Performance Food

- International (HPFI) (2004): *Agreement on Access to, and Benefit Sharing from, Teff Genetic Resources*, Addis Ababa, December 2004, Final Version.
- Institute of Biodiversity Conservation and Vernique Biotech Ltd. (2005): *Agreement on Access to, and Sharing of Benefits from Vernonia Genetic Resources* (draft).
- Molla, Daniel, Hagos Gebre, T.S. Jayne, and James Shaffer (1995): *Designing Strategies to Support a Transformation of Agriculture in Ethiopia*, Working Paper 4, Grain Market Research Project (Addis Ababa: Ministry of Economic Development and Cooperation).
- Negash, Mengistu, Haile Tesfaye and Olkeba Tafesse (1989): *Agro-Ecological Zones of Ethiopia* (Addis Ababa).
- OAU (2000): *OAU Model Law for the Protection of Community, Farmers' and Breeders' Rights and for the Regulation of Access to Biological Resources*.
- Padmavathi, Chintalapati, Kefyalew Desta, Kassahun Tesfaye, Gubo Qi and Andrey Rodionov (2001): *The shift to cereal mono-cropping, a threat or a blessing? Toward sustainable agricultural production in the highlands of southeast Oromia, Ethiopia*, Working Document Series 92 (Addis Ababa: ICRA, EARO, KARC, OADP, ABRDP).
- Rahmato, Desalegne (2004): *A review of Ethiopia's Land Tenure System and New Policy Initiatives*, report prepared for the World Bank, Addis Ababa, June 2004.
- Tamiru, Muluaem and Joanne Manda (2002): *Case Study Report – Ethio-Organic Seed Action Project, Ethiopia: Options for supporting on-farm conservation in Eastern and Southern Africa*. Funded by the UK Darwin Initiative and BMZ/GTZ.
- Transitional Government of Ethiopia (1992): *National Seed Industry Policy*.
- Yemane, Beruk (2003): *Food security situation in the pastoral areas of Ethiopia*. (Oxford, GB: Oxfam).
- Yeshitela, Kumilachew (2001): *'Loss of Forest Biodiversity Associated with Changes in Land Use': The Case of Chewaka-Utto Tea Plantation*, in: *Imperative problems associated with forestry in Ethiopia*. Proceedings of a Workshop Organized by Biological Society of Ethiopia. Faculty of Science, Addis Ababa University.

Annex 1: List of Respondents

No	Name	Affiliation	Date of interview
1	Dr. Melaku Worede	International Advisor, Genetic Resource Expert	4/12/05
2.	Dr. Tewolde Berhan Gebre Egziabher	Director General, Environmental Protection Authority	11/02/06
3	Dr. Kidane Giorghis	Ethiopian Institute of Agricultural Research Organization, Director, Dry-land Agriculture	2/12/05
4	Dr. Assefa Mebrate	African Park Organizer, Addis Ababa University	13/12/05
5	Mr. Tesema Tanto	Institute of Biodiversity Conservation, Head, Crop Genetic Resource	16/12/05
6	Mr. Yemane Tsehaye	Institute of Biodiversity Conservation, Geneticist and Researcher	16/12/05
7	Mr. Adugna Abdi	Institute of Biodiversity Conservation, Researcher and Breeder	16/12/05
8	Mr. Mesfin Bayu	Lawyer, Legal Advisor to the Institute of Biodiversity Conservation	25/11/05
9	Mr. Getachew Mengiste	Manager(Lawyer), Ethiopian Intellectual property Organization	21/12/05
10	Mr. Bulbula Tule	Manager, Hawas Agri-business (private farm), President, Oromiya Private Agricultural Investors Association	22/12/05
11	Mr. Mulugeta Amba	Bale Agricultural Enterprise (public farm)	27/12/05
12	Mrs. Birtukan Kebede	Women group leader Ejere Farmer Conservator Association	19/11/05
13	Mrs. Workinesh Belda	Member Ejere Farmer Conservator Association	19/11/05
14	Mr. Girma Chikuala	Farmer, Chair of Ejere Farmer Conservator Association	19/11/05
15	Mr. Alemu Tulema	Farmer, Tiliti Peasant Association (Shewa zone)	19/11/05
16	Mr. Taddesse Reta	Farmer, Elebela Peasant Association	19/11/05
17	Mr. Borena Gergara	Farmer, Chair of Farmer Seed producer Association(Chefe Donsa)	26/11/05
18	Mr. Daba Yaei	Chair, Arsi Farmers Cooperative (Arsi Zone)	8/12/05
19	Mr. Teshome Aga	Farmer, (Bale zone)	9/12/05
20	Mrs. Fanaye Bekele	Farmer, (Bale zone)	9/12/05
21	Mr. Ayele kebede	Director, Forum For Environment (NGO)	15/12/05
22	Mrs. Sue Edwards	Institute of Sustainable Development (NGO)	15/12/05
23	Mr. Eshetu Demisse	Project Coordinator, Arsi-Bale Rural Development Project	6/12/05
24	Mr. Gebremedhin Birega	Ethiopian Consumers Association	15/12/05

Annex 2: Environmental Policy

(The following text is a shortened version of this document, consisting of selected excerpts)

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ENVIRONMENTAL POLICY
ENVIRONMENTAL PROTECTION AUTHORITY
In collaboration with the
MINISTRY OF ECONOMIC DEVELOPMENT AND COOPERATION
ADDIS ABABA
April 2, 1997

I. THE RESOURCE BASE AND THE NEED FOR A POLICY

1.1 The Natural Resource Base and the Rural Environment

Natural resources are the foundation of the economy. Smallholder peasant agriculture, in some areas including forestry, is the dominant sector accounting for about 45 per cent of the GDP, 85 per cent of exports and 80 per cent of total employment. Agriculture has also been the main source of the stagnation and variability in GDP growth caused in the main by policy failures and exacerbated by recurrent drought, civil war, natural resource degradation, and poor infrastructure.

Renewable natural resources, i.e. land, water, forests and trees as well as other forms of Biodiversity, which meet the basic needs for food, water, clothing and shelter have now deteriorated to a low level of productivity. In many areas of highland Ethiopia, the present consumption of wood is in excess of unaided natural sustainable production. Estimates of deforestation, which is mainly for expansion of rainfed agriculture, vary from 80,000 to 200,000 hectares per annum.

The burning of dung as fuel instead of using it as a soil conditioner is considered to cause a reduction in grain production by some 550,000 tonnes annually. In 1990, accelerated soil erosion caused a progressive annual loss in grain production estimated at about 40,000 tonnes, which unless arrested, will reach about 170,000 tonnes by 2010. Livestock play a number of vital roles in the rural and national economy but according to one estimate some 2 million hectares of pasture land will have been destroyed by soil erosion between 1985 and 1995. Land degradation is estimated to have resulted in a loss of livestock production in 1990 equivalent to 1.1 million tropical livestock units (TLUs), and, unless arrested, will rise to 2.0 million TLUs or to 10 per cent of the current national cattle herd by 2010.

In economic terms, soil erosion in 1990 was estimated to have cost (in 1985 prices) nearly Birr 40 million in lost agricultural production (i.e. crop and livestock) while the cost of burning dung and crop residues as fuel was nearly Birr 650 million. Thus in 1990 approximately 17 per cent of the potential agricultural GDP was lost because of physical and biological soil degradation.

The permanent loss in value of the country's soil resources caused by soil erosion in 1990 was estimated to be Birr 59 million. This is the amount by which the country's soil "capital" should be depreciated in the National Accounts or which should be deducted (as capital depreciation) from the country's Net National Income (NNI).

The Ethiopian Forestry Action Program (EFAP) estimated the full value of forest depletion in 1990 to have been about Birr 138 million or some 25 per cent of the potential forestry GDP of Birr 544 million.

Despite the presence of mineral resources in quantities and qualities suitable for exploitation, they currently contribute only about 2 per cent of the GDP. Only 1 per cent of the potential of Ethiopia's vast water resources for irrigated agriculture and hydropower generation have been developed. The energy sector is one of the least developed in the world with 90 per cent of needs being met from biomass fuels, particularly wood, charcoal and animal dung. The genetic diversity of Ethiopia's domesticated plants and its unique flora and fauna is increasingly being eroded because the long history of disruptive interventions by the state and the weakening of local management in the face of an expanding population and the increasing needs of agriculture.

II. THE POLICY GOAL, OBJECTIVES AND GUIDING PRINCIPLES

2.1 The Overall Policy Goal

The overall policy goal is to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

2.2 Specific Policy Objectives

The Policy seeks to:

- a. Ensure that essential ecological processes and life support systems are sustained, biological diversity is preserved and renewable natural resources are used in such a way that their regenerative and productive capabilities are maintained and where possible enhanced so that the satisfaction of the needs of future generations is not compromised; where this capability is already impaired to seek through appropriate interventions a restoration of that capability;
- b. Ensure that the benefits from the exploitation of non-renewable resources are extended as far into the future as can be managed, and minimize the negative impacts of their exploitation on the use and management of other natural resources and the environment;
- c. Identify and develop natural resources that are currently underutilized by finding new technologies, and/or intensifying existing uses which are not widely applied;
- d. Incorporate the full economic, social and environmental costs and benefits of natural resource development into the planning, implementation and accounting processes by a comprehensive valuation of the environment and the services it provides, and by considering the social and environmental costs and benefits which cannot currently be measured in monetary terms;
- e. Improve the environment of human settlements to satisfy the physical, social, economic, cultural and other needs of their inhabitants on a sustainable basis;
- f. Prevent the pollution of land, air and water in the most cost-effective way so that the cost of effective preventive intervention would not exceed the benefits;
- g. Conserve, develop, sustainably manage and support Ethiopia's rich and diverse cultural heritage;
- h. Ensure the empowerment and participation of the people and their organizations at all levels in environmental management activities; and
- i. Raise public awareness and promote understanding of the essential linkages between environment and development.

2.3. The Key Guiding Principles

Underlying these broad policy objectives are a number of key principles. Establishing and clearly defining these guiding principles is very important as they will shape all subsequent policy, strategy

and programme formulations and their implementation. Sectoral and cross-sectoral policies and environmental elements of other macro policies will be checked against these principles to ensure consistency.

The Key Guiding Principles are:

- a. Every person has the right to live in a healthy environment;
- b. Sustainable environmental conditions and economic production systems are impossible in the absence of peace and personal security. This shall be assured through the acquisition of power by communities to make their own decisions on matters that affect their life and environment;
- c. The development, use and management of renewable resources shall be based on sustainability;
- d. The use of non-renewable resources shall be minimized and where possible their availability extended (e.g. through recycling);
- e. Appropriate and affordable technologies which use renewable and non-renewable resources efficiently shall be adopted, adapted, developed and disseminated;
- f. When a compromise between short-term economic growth and long-term environmental protection is necessary, then development activities shall minimize degrading and polluting impacts on ecological and life support systems. When working out a compromise, it is better to err on the side of caution to the extent possible as rehabilitating a degraded environment is very expensive, and bringing back a species that has gone extinct is impossible;
- g. Full environmental and social costs (or benefits foregone or lost) that may result through damage to resources or the environment as a result of degradation or pollution shall be incorporated into public and private sector planning and accounting, and decisions shall be based on minimizing and covering these costs;
- h. Market failures with regard to the pricing of natural, human-made and cultural resources, and failures in regulatory measures shall be corrected through the assessment and establishment of user fees, taxes, tax reductions or incentives;
- i. Conditions shall be created that will support community and individual resource users to sustainably manage their own environment and resources;
- j. As key actors in natural resource use and management, women shall be treated equally with men and empowered to be totally involved in policy, programme and project design, decision making and implementation;
- k. The existence of a system which ensures uninterrupted continuing access to the same piece(s) of land and resource creates conducive conditions for sustainable natural resource management;
- l. Social equity shall be assured particularly in resource use;
- m. Regular and accurate assessment and monitoring of environmental conditions shall be undertaken and the information widely disseminated within the population;
- n. Increased awareness and understanding of environmental and resource issues shall be promoted by policy makers, by government officials and by the population, and the adoption of a "conservation culture" in environmental matters among all levels of society shall be encouraged;
- o. Local, regional and international environmental interdependence shall be recognized;
- p. Natural resource and environmental management activities shall be integrated laterally across all sectors and vertically among all levels of organization;
- q. Species and their variants have the right to continue existing, and are, or may be, useful now and/or for generations to come;
- r. The wealth of crop and domestic animal as well as micro-organism and wild plant and animal germplasm is an invaluable and inalienable asset that shall be cared for; and

- s. The integrated implementation of cross-sectoral and sectoral federal, regional and local policies and strategies shall be seen as a prerequisite to achieving the objectives of this Policy on the Environment.

III. SECTORAL ENVIRONMENTAL POLICIES

3.1 Soil Husbandries and Sustainable Agriculture

The Policies are:

- a. To foster a feeling of assured, uninterrupted and continuing access to the same land and natural resources on the part of farmers and pastoralists so as to remove the existing artificial constraints to the widespread adoption of, and investment in, sustainable land management technologies;
- b. To base, where possible, increased agricultural production on sustainably improving and intensifying existing farming systems by developing and disseminating technologies which are biologically stable, appropriate under the prevailing environmental and socio-cultural conditions for farmers, economically viable and environmentally beneficial;
- c. To promote the use of appropriate organic matter and nutrient management for improving soil structure, nutrient status and microbiology in improving soil conservation and land husbandry;
- d. To safeguard the integrity of the soil and to protect its physical and biological properties, through management practices for the production of crops and livestock which pay particular attention to the proper balance in amounts of chemical and organic fertilizers, including green manures, farm yard manures and compost;
- e. To promote effective ground cover as one of the most important factors in soil erosion control, taking advantage of the wide range of sustainable agronomic, pastoral and silvicultural approaches used in various areas of Ethiopia as potentially flexible alternatives to mechanical soil conservation systems;
- f. To promote in drought-prone and low rainfall areas water conservation which is as important as physical soil conservation for more secure and increased biomass production, including crop production;
- g. To ensure that, for reasons of cost and acceptability, improvements in land husbandry are made with an appreciation of existing husbandry systems, technologies and knowledge;
- h. To ensure that, given the heterogeneous environment of the Ethiopian highlands, agricultural research and extension have a stronger focus on farming and land use systems and support an immediate strengthening of effective traditional land management systems;
- i. To promote, for the relatively more environmentally uniform Ethiopian lowlands, a long-term approach to agricultural research programmes to develop appropriate farming and land management systems that yield high outputs;
- j. To ensure that planning for agricultural development incorporates in its economic cost-benefit analysis the potential costs of soil degradation through erosion and salinization as well as soil and water pollution;
- k. To ensure that inputs shall be as diverse and complementing as the physical, chemical and biological components of the soil require, and shall not focus solely on a quick and transitory increase in plant nutrients to the long-term detriment of soil structure and microbiology;
- l. To institute the stall feeding of domesticated animals through a combination of providing agricultural residues, on-farm produced forage and fodder as well as the cutting and carrying of grass and browse from meadows and hillsides in order to encourage revegetation of grazing lands and the reduction of soil erosion;

- m. To develop forestry on the farm, around the homestead and on eroding and/or eroded hillsides in order to increase the stock of trees for fuel wood, construction material, implements and crafts, for forage and for other tree products ;
- n. To shift the emphasis in crop breeding from single line plant varieties and animal breeds to multiple lines involving as many different but adapted lines as possible in order to increase both plasticity in adapting to environmental variations, and resistance to pests and diseases;
- o. To use biological and cultural methods as well as resistant or tolerant varieties or breeds, pheromones or sterile male techniques in an integrated manner as a pest and disease management method in preference to chemical controls;
- p. To safeguard human and environmental health by producing adequate regulation of agricultural (crop and livestock) chemicals;
- q. To use the precautionary principle in assessing potentially damaging impacts when taking decisions that affect social and economic conditions, natural resources and the environment, especially in the pastoral areas, which are perhaps the least studied in the country;
- r. To ensure that new technical recommendations are compatible with existing pastoral and agricultural systems, agro-ecological conditions and the prevailing socio-economic environment; and
- s. To undertake full environmental, social and economic impact assessments of all existing irrigation schemes in the rangelands and wherever needed establish programmes of correcting their negative environmental, social and economic impacts.

3.3. Genetic, Species and Ecosystem Biodiversity

The Policies are:

- a. To promote *in situ* systems (i.e. conservation in a nature reserve, farmer's fields, etc.) as the primary target for conserving both wild and domesticated biological diversity; but also promote *ex situ* systems (i.e. conservation outside the original or natural habitat) in gene banks, farms, botanical gardens, ranches and zoos as supplementary to *in situ* conservation;
- b. To promote *in situ* conservation of crop and domestic animal biological diversity as well as other human made and managed ecosystems through the conscious conservation of samples of such ecosystems, even when change as a whole is taking place;
- c. To ensure that the importation, exportation and exchange of genetic and species resources is subject to legislation, e.g. to ensure the safeguarding of community and national interests, the fulfilling of international obligations, quarantine, etc. Above all biological material which is self-regenerative and impossible to control once allowed to get out of control may result in the most insidious and damaging form of pollution which is biological pollution, thus the importation and use of biological material including those genetically engineered should be under stringent regulations;
- d. To ensure that factors such as the level of vulnerability, uniqueness, importance and economic and environmental potential of the genome be taken into account in determining priorities in conservation;
- e. To ensure that the conservation of genetic resources *in situ* maintains a dynamic system of genetic variability in an environment of constant selection pressure that is normally present in the natural or human made ecosystem as the case may be;
- f. To promote the involvement of local communities inside and outside protected areas in the planning and management of such areas;
- g. To ensure that the conservation of biological diversity outside the protected area system be integrated with strategic land use plans, local level plans and sustainable agricultural and pastoral production strategies;

- h. To include in protected areas as wide a range of ecosystems and habitats as possible and where appropriate to link them by corridors of suitable habitats along which species can migrate;
- i. To ensure that pricing policies and instruments support conservation of biological diversity;
- j. To ensure that park, forest and wildlife conservation and management programmes which conserve biological diversity on behalf of the country allow for a major part of any economic benefits deriving therefrom to be channelled to local communities affected by such programmes; and
- k. To recognize that certain animal and plant species are vermin or pests or may be a reservoir of disease to humans, crops and livestock, and to control them.

3.10. Cultural and Natural Heritage

The Policies are:

- a. To promote the perception of heritage conservation as part of, and integrated with, Ethiopia's general social and economic development;
- b. To recognize that the country's heritage conservation should not be seen as the responsibility of government alone and to encourage communities to play a leading role in assessing and nominating places or items of heritage significance and in conserving them;
- c. To promote a sustainable heritage conservation and management programme that seek to understand all the elements of the system, their interrelationships and the ways in which each contributes to social and economic development; and
- d. To ensure that the environment of heritage sites is so managed as to protect the landscape, the monuments, and the artefacts or the fossils as the case may be.

4.2. Community Participation and the Environment

The Policies are:

- a. To ensure that all phases of environmental and resource development and management, from project conception to planning and implementation to monitoring and evaluation are undertaken based on the decisions of the resource users and managers;
- b. To reorient management professionals employed in natural resource and environmental extension programmes to embrace participatory development, and to strengthen their communication skills so as to more effectively disseminate both the results of scientific research and the practical experience of local farmers;
- c. To develop effective methods of popular participation in the planning and implementation of environmental and resource use and management projects and programmes;
- d. To develop the necessary legislation, training and financial support to empower local communities so that they may acquire the ability to prevent the manipulated imposition of external decisions in the name of participation, and to ensure genuine grassroots decisions in resources and environmental management;
- e. To authorize all levels of organization to raise funds locally from the use of natural resources to fund the development, management and sustainable use of those resources;
- f. To greatly increase the number of women extension agents in the field of natural resource and environmental management; and
- g. To ensure information flow among all levels of organization including the Federal and Regional States and the people at the grassroots level by developing a two way mechanism for data collection and dissemination.

4.3. Tenure and Access Rights to Land and Natural Resources

The Policies are:

- a. When taking decisions to recognize that the constitution now ensures that the user of land has the right to a secure and uninterrupted access to it and to renewable natural resources on it (e.g. trees, water, wildlife and grazing);
- b. To recognize and protect wherever possible the customary rights of access to and use of land and natural resource which are constitutionally acceptable, socially equitable and are preferred by local communities.

4.4. Land Use Plan

The Policy is:

To ensure that Federal, Regional and Community Strategic Land Use Plans (SLUP) define broad land use and land user categories together with generalized resource management recommendations which can then be used to guide the formulation of detailed local resource use and management plans by individuals or communities as the case may be.

V. POLICY IMPLEMENTATION

5.1. Institutional Framework, Responsibilities and Mandates

The Policies are:

- a. To give political and popular support to the sustainable use of natural, human-made and cultural resources and environmental management for effectiveness at the federal, regional, zonal, wereda and community levels;
- b. To ensure that legally established coordination and management bodies from the federal down to the community level handle the sectoral and cross sectoral planning and implementation issues identified as the responsibilities of concerned line ministries commissions, authorities and bureaus, as applicable to the level of organizations, including those of the relevant federal executive organs as well as regional and municipal governments, elected councillors, non-governmental organizations, community representatives, representatives of professional or other environmental associations and the private sector;
- c. To use to the maximum, whenever possible, existing institutional structures;
- d. To determine institutional arrangements for the formulation of conservation and natural resource development and management strategies, legislation, regulation, monitoring and enforcement using the following criteria:
 - (i) conformity with the Constitution, especially with respect to the decentralization of power;
 - (ii) harmonization of sectoral interests;
 - (iii) integration of environmental planning with development planning;
 - (iv) minimization of incremental financial requirements;
- e. To avoid conflicts of interest by assigning responsibilities to separate organisations for environmental and natural resource development and management activities on the one hand, and environmental protection, regulation and monitoring on the other;
- f. To ensure that enforcement of government laws and regulations with respect to environmental protection remain the responsibility of federal and regional courts and administrations; nevertheless, where government's own development activities are controlled by laws and regulations, the monitoring of such laws and regulations to ensure compliance of specific ministries and other government entities should be carried out by the government organization responsible for environmental protection and regulation.

5.2. Legislative Framework

The Policies are that the Law should:

- a. To provide a framework for encouraging participation by the people of Ethiopia in the development of federal and regional policies, laws and plans for the sustainable use and management of the natural, human-made and cultural resources and the environment;
- b. To enable the creation of programmes that motivate the peoples of Ethiopia into restoring, protecting, managing and sustainably using the natural, human-made and cultural resources and the environment of the country;
- c. To ensure agreement with the constitution and the prevailing, political, social, cultural and economic policies, laws and practices and to harmonize these with the principle of sustainable development;
- d. To be consistent with Article 44 of the Constitution and assure all people living in the country of their fundamental right to an environment adequate for their health and well-being;
- e. To create the conditions for formulating, reviewing and updating sectoral regulations on, and procedures for, the restoration, protection, management and sustainable use of the natural, human-made and cultural resources and the environment; and
- f. To provide a broad framework for both punitive and incentive measures.

5.3. Monitoring, Evaluation and Policy Review

The Policies are:

- a. To ensure that individual programme and project monitoring becomes the responsibility of the appropriate federal and/or regional implementing and/or mandated agencies;
- b. To ensure that the monitoring of the overall impacts of the implementation of the Federal Environmental Policy on the country's renewable natural resources and environmental support systems, and that the compilation of recommendations for any modification that is required, should be consistent with the institutional arrangement specified in the CSE and also be responsive to popular opinion;
- c. To ensure that the Environmental Protection Authority carries the overall monitoring of the Policy implementation and is responsible for proposing modifications, in consultation with the mandated line ministries and/or the opinion of stakeholder communities and groups, and for having them approved by the Inter-Ministerial Environmental Protection Council;
- d. To ensure that line ministries and regional and lower level bureaus and branches of bureaus monitor the overall impact of the implementation of this Federal Environmental Policy on those sectors and elements for which they have the legal mandate;
- e. To ensure that, starting with the Community Environmental Coordinating Committee and aggregating upwards through the appropriate level offices of Water Resources, Mines and Energy, Agriculture, and Economic Development and Cooperation, reviews of the status of natural resources and the environment, including evaluation of the implementation of this Federal Environmental Policy, are completed annually at the appropriate levels; and to ensure that the Environmental Protection Authority will be responsible for prompting the compilation of the reports and for reporting on the process;
- f. To ensure that, at least annually, meetings held by communities at the village level with their Community Environmental Coordinating Committees then successively from the Wereda and the Regional Environmental Coordinating Committees through to the Environmental Protection Council, evaluate these reviews and make their recommendations; the Environmental Protection Authority will be responsible for prompting that the evaluation takes place and for reporting on the process.

Annex 3: Agreement on Access to, and Benefit Sharing from, Teff Genetic Resources

**Addis Abeba
December 2004
Version 5 final**

1 Parties

This **agreement** is signed between:

The Institute of Biodiversity Conservation, whose address is Yeka Kifle Ketema, Kebele 08, P.O.Box 30726; telephone 251-1-627504/612244, fax: 251-1- 627730/613722; e-mail: ibcar@telecom.net.et or Biod@telecom.net.et, Addis Ababa, Ethiopia, hereafter referred to as the “**Provider**”

The Ethiopian Agricultural Research Organization, whose address is Bole Kifle Ketema, Kebele 12/13, P.O.Box 2003; Tel: 251-1-462270; fax: 251-1-461251; e-mail: dg@earo.org.et; Addis Ababa, Ethiopia, hereafter referred to as “**EARO**”

And

Health and Performance Food International bv. (HPFI), whose registered address is P.O. Box 427, Azieweg 4, 9407 TG Assen, NL-9400, the Netherlands, Tel: +31 (0) 6 53 413847, e.mail j.turkensteen@soilandcrop.com, hereafter referred to as the “**Company**”.

2 Preamble

- 2.1 Whereas Teff (*Eragrostis tef*) is a crop species of Ethiopian origin and has various attributes of interest to the food industry.
- 2.2 Whereas the **Company** has come up with new applications of Teff and thus wants to have access to Teff varieties to be used for producing Teff-based food and beverage products and to develop new Teff varieties more suitable for producing such products.
- 2.3 Whereas the **Company** acknowledges that the genetic resources of Teff the **Company** has acquired or will acquire irrespective of the source are of Ethiopian origin and thus belongs to Ethiopia, and it agrees to respect this fact.
- 2.4 Whereas the **Provider** is a national institution in Ethiopia with the authority to grant and regulate access to genetic resources of Teff and other species and is responsible for effecting the sharing of the benefits from those genetic resources.
- 2.5 Whereas the **EARO** is a national research institution responsible for the coordination of national agricultural research on Teff in Ethiopia and has developed various Teff varieties.
- 2.6 Whereas Articles 1 and 15-19 of the ‘Convention on Biological Diversity’ and the ‘Bonn guideline on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilization,’ which "are a useful first step of an evolutionary process in the implementation of relevant provisions of the Convention", require that the benefits arising out of the utilization of genetic resources be shared fairly and equitably between the **Provider** and the **Company**; and whereas the access to genetic resources and the fair and equitable sharing of the benefits arising from the utilization thereof is to be determined by terms mutually agreed by the two parties.
- 2.7 Whereas the **Company** wants to use the genetic resources of Teff and is willing to share with the **Provider** the benefits arising out of the use; and whereas the **Provider** has consented to the use of the genetic resources of Teff by the **Company**.
- 2.8 Therefore, in witness thereof, the following **agreement** on access to Teff genetic resources and the fair and equitable sharing of the benefits arising from the access has been concluded by the two parties.

3 The scope of access

- 3.1 The **Provider** agrees that the **Company** accesses and uses the genetic resources of Teff specified in Annex 1 to this **agreement**.
- 3.2 Under this **agreement**, the **Company** is permitted to use the genetic resources of Teff only for the purpose of developing non-traditional Teff based food and beverage products that are listed in Annex 3 to this **agreement**.
- 3.3 The **Company** cannot use Teff for any other purposes (e.g. chemical, pharmaceutical etc.) whatsoever unless explicit written consent is given by the **Provider**.
- 3.4 The **Provider** shall not grant to other parties access to Teff genetic resources for the purpose of producing the products of the **Company** listed in Annex 3 of this **agreement** unless it secures the consent of the **Company**.
- 3.5 The **Company** is not permitted to access the traditional knowledge of Ethiopian communities on the conservation, cultivation and use of Teff. Therefore, the **Company** shall not claim any rights over, nor make commercial benefit out of, such traditional knowledge unless explicit written **agreement** is given to it by the **Provider**.
- 3.6 To avoid possible confusion between the traditional knowledge of Ethiopian local communities and inventions made by the **Company**, the **Provider** shall, upon submission by the **Company** of its research proposals, inform the **Company** of the existing traditional knowledge of relevance to the research areas proposed by the **Company**.
- 3.7 The **Company** acknowledges that the genetic resources of Teff it has acquired or will acquire, irrespective of the source, is of Ethiopian origin and thus belongs to Ethiopia. It agrees to respect this fact.
- 3.8 Should there arise any claim challenging the origin or ownership of Teff, the **Provider** shall take the responsibility to defend the parties against that claim, and the **Company** shall assist the **Provider** in the defence.
- 3.9 The **Company** shall assist in identifying and bringing to court infringers upon the rights of Ethiopia over Teff.

4 Intellectual property ownership

- 4.1 The **Company** shall neither claim nor obtain intellectual property rights over the genetic resources of Teff or over any component of the genetic resources. However, plant variety protection may be obtained over Teff varieties.
- 4.2 The plant variety protection rights over new Teff varieties the **Company** will develop shall be co-owned by the **Company** and **EARO**. Such varieties shall be used by **EARO** and the **Company** in such a way as not to damage the business interests of the **Company** in so far as the products listed in Annex 3 or the interests of **EARO** or the **Provider** are concerned.
- 4.3 The Teff varieties that are not developed by the **Company** shall be owned by the **Provider** on behalf of the Teff farming local communities of Ethiopia. If it is found to be in the interest of the **Provider** or the **Company**, such varieties may be registered in the name of **EARO**. The **Company** shall handle and cover the cost of such registration outside of Ethiopia, provided that it has the finances in the given budget year.

5 Transfer to third parties

The **Company** shall not transfer Teff seed samples or any component of the genetic resources of Teff to third parties without first having explicit written consent from the **Provider**.

6 Effect of the agreement

- 6.1 The **agreement** shall not affect the sovereign rights of Ethiopia over the genetic resources of Teff and the **Provider** shall always retain the authority to grant other parties access to any genetic resources of Teff.

- 6.2 This **agreement** shall not affect whatsoever any traditional products of Teff, be it in Ethiopia or abroad.
- 6.3 This **agreement** shall not affect whatsoever any non-traditional products of Teff, be it in Ethiopia or abroad, except for those the Company has specified in Annex 3 to this agreement.
- 6.4 This **agreement** shall not prohibit the exporting of Teff from Ethiopia to other parties. However, if an importer or anyone who buys Teff from that importer wants to use or uses Teff for making any of the products specified in Annex 3 to this agreement and this fact is brought to the attention of the **Provider**, Ethiopia will refuse to export Teff to that importer.

7 **Benefit sharing**

The **Company** has agreed to share the benefits that arise out of the utilization of the genetic resources of Teff.

- 7.1 The **Company** agrees to pay to the **Provider** a lump sum equal to the amount

$$1\% \times \frac{\text{Gross net income in the years 2007 + 2008 + 2009}}{3} .$$

3

This payment shall be made immediately after the publication of the annual account of the **Company** for the year 2009 (i.e. shortly after publication and shareholder approval in June 2010).

- 7.2 The **Company** agrees to pay to the **Provider** annually a royalty of 30% of the net profit from the sale of basic and certified seeds of the Teff varieties specified in column 3 of Annex 1 to this **agreement**.
- 7.3 The **Company** agrees to pay to the **Provider** annually a license fee equal to the amount defined in Annex 2.
- 7.4 The **Company** agrees to contribute 5% of its net profit, which shall not be less than 20,000 Euro per year, to the **Financial Resource Support for Teff**, hereafter referred to as **FiRST**. The **FiRST** shall be used for improving the living conditions of local farming communities and for developing Teff business in Ethiopia.
- 7.5 The **FiRST** shall be administered jointly by the **Provider** and the **Company**. The University of van Hall/Larenstein will participate in the administration of the **FiRST**. The role of van Hall/Larenstein University in the administration of the **FiRST** will be to ensure that Dutch scientific knowledge and experience with product innovation are transferred into Ethiopia in the process of using the **FiRST**. Other details of the administration of the **FiRST** shall be specified by another agreement of the parties.
- 7.6 The **Company** agrees to share with the **Provider** and **EARO** the results of research it will undertake on Teff. Accordingly, the **Company** shall share with the **Provider** and **EARO** the knowledge or technologies it may generate using Teff except when it constitutes Undisclosed Information to the **Company** according to Article 39 of the Agreement on Trade-related Aspects of Intellectual Property Rights of the World Trade Organization.
- 7.7 The **Company** agrees to involve Ethiopian scientists in the research it will undertake. The kinds of research on which Ethiopian scientists will participate and the mode of participation shall be specified by mutual agreement of the parties in the research plan of the **Company**. As appropriate, the **Company** will contract out research to Ethiopian research institutions.
- 7.8 The **Company** will take the **EARO** as the most preferred institution to breed Teff varieties.
- 7.9 By way of contributing to the Ethiopian local economy in connection with the access to Teff genetic resources, the **Company** agrees to establish profitable Teff businesses in Ethiopia, such as establishing Teff farming, cleaning and milling enterprises, bakeries, etc. The **Company** will therefore create joint ventures with Ethiopian counterparts.
- 7.10 Furthermore the **Company** will find funding that will augment the **FiRST** specified in paragraph 0 using the opportunity created by the joint ventures.

- 7.11 The **Company** shall acknowledge, in all its publications and application for the registration of Teff varieties and other intellectual property rights over products it will develop from Teff, that Ethiopia is the country of origin of that Teff.

8 Ownership and confidentiality

- 8.1 Results of any joint research conducted on Teff materials shall be owned by both parties and shall be released only upon written consent of both parties.
- 8.2 Information that is identified by either party as confidential shall be kept as such by both parties.

9 Duration of the agreement

The **agreement** shall remain in force for a period of 10 years. The parties may renegotiate the **agreement** at the end of that period.

10 Penalty

- 10.1 A party that breaches the terms of this **agreement** shall pay to the aggrieved party a penalty of 50,000 Euro if asked to do so by the aggrieved party.
- 10.2 The penalty that is specified in paragraph 0 is applicable on the **Provider** if it breaches the terms of this **agreement**, particularly those given in paragraphs 0, 0, 0, 0, 0, 0 and 0
- 10.3 The penalty that is specified in paragraph 0 is applicable on the **Company** if it breaches the terms of this **agreement**, particularly those given in paragraphs 0, 0, 0, 0, 0, 0, 0, 0 and 0.
- 10.4 If the **Company** fails to fulfil its financial obligations as specified in part 0 of this **agreement** on ‘7 Benefit sharing’, the **Provider** may add a penalty of 5% of the due payment for any delay of between 90 and 180 days, and 25% thereafter.

11 Termination

- 11.1 If the company is in the process of bankruptcy, the **Provider** can immediately terminate the **agreement**.
- 11.2 If one of the parties repeatedly fails to fulfil or repeatedly violates its obligations under this **agreement**, then the aggrieved party may terminate the **agreement** upon 30 days notice given in writing to the other party.
- 11.3 Termination of this **agreement**, except in the case of bankruptcy, will be done through mutual agreement by both parties.
- 11.4 The termination of this **agreement** shall not affect the rights and obligations that were due to accrue to either party prior to the effective date of termination.
- 11.5 Starting with the day of termination of the agreement, the **Company** shall stop using the genetic resources of Teff. However, the **Company** is entitled to continue the use of co-owned Teff varieties upon payment of royalties to be mutually agreed upon by both parties.

12 Dispute settlement

- 12.1 If any dispute arises in connection with the interpretation or application of this agreement, both parties shall seek solution by negotiation. If the dispute cannot be resolved by negotiation, it shall be submitted to an arbitration body in accordance with the procedure laid down in part I of Annex II of the Convention on Biological Diversity.
- 12.2 For the purpose of Paragraph 13.1, the word “party” in Part I of Annex II of the Convention on Biological Diversity shall mean “**Provider**” or “**Company**”.
- 12.3 The decision of the arbitral tribunal shall be final and binding on the parties without appeal.
- 12.4 If either of the parties fails to comply with the award of the arbitral tribunal, the aggrieved party may, in accordance with Paragraph 16 (d) (iv) of the Annex to Section A of Decision VI/24 of the 6th Conference of the Parties of the Convention on Biological Diversity, UNEP/CBD/COP/6/20, the Hague, 7-19 April 2002, ask the Government of the Federal Democratic Republic of

Ethiopia or the Government of the Netherlands to enforce the award given by the arbitral tribunal.

13 Guarantee

Each year, the **Company** shall pay a sufficient sum of money in advance from which the requests by the provider for payment will be subtracted.

14 Applicable laws

14.1 The Convention on Biological Diversity (CBD) and the relevant decisions, guidelines and laws that emanate from it, including the International Treaty on Plant Genetic Resources for Food and Agriculture, in particular but not restricted to, its Article 9 on Farmers' Rights, the Bonn Guidelines, decisions of the various Conferences of the parties as well as those provisions of the Union for the Protection of New Plant Varieties (UPOV) that are consistent with the CBD and the relevant decisions, guidelines, and laws that emanate from it shall apply to matters not addressed in this agreement.

14.2 The CBD and the decisions, guidelines or laws that emanate from it shall prevail over the UPOV in cases on which the two do not agree.

15 Monitoring and follow-up

15.1 The **Company** shall submit to the **Provider** annual research and financial reports.

15.2 The **Provider** has the right to review at any moment, through an independent accountant if it so wishes, the bookkeeping as well as the relevant administrative details of the items covered by this **agreement**.

15.3 Meetings between the two parties will be held as required to exchange information.

16 Annexes to the agreement

The following Annexes shall form part of this **agreement**.

16.1 Annex 1: Varieties of Teff accessed by S&C. This Annex shows the different varieties of Teff and the authorization of use given by the **Provider** to the **Company**. This Annex may be updated by mutual agreement of the parties as needed.

16.2 Annex 2: Annual payments of licence fee per hectare for growing Teff. The annual payment of the licence fee provided for in Paragraph 0 will be determined after each harvest season based on this Annex.

16.3 Annex 3: List of products of the **Company**. This Annex shall be updated by mutual agreement of the parties as needed.

Annex 4: Proclamation No. 481/2006: Plant Breeders' Rights Proclamation

FEDERAL DEMOCRATIC NEGARIT GAZETA
OF THE DEMOCRATIC REPUBLIC OF ETHIOPIA

12th Year No. 12

ADDIS ABABA – 27th February, 2006

Proclamation No. 481/2006

Plant Breeders' Right Proclamation....Page 3339

PROCLAMATION NO. 481/2006

A PROCLAMATION TO PROVIDE FOR PLANT BREEDERS' RIGHT

WHEREAS, the utilization of new plant varieties developed through research play a significant role in improving agricultural production and productivity;

WHEREAS, the development of new plant varieties requires considerable effort and investment;

WHEREAS, it is necessary to provide for recognition and economic reward for those who contribute to such effort and investment so as to encourage their involvement in the sector;

WHEREAS, it is necessary and appropriate to ensure that the farming and pastoral communities of Ethiopia, who have been conserving and continue to do so in the future the agro-biodiversity resource used to develop new plant varieties, continue to their centuries old customary practice of use and exchange of seed;

NOW, THEREFORE, in accordance with Article 55 (1) of the Constitution of the Federal Democratic Republic of Ethiopia, it is hereby proclaimed as follows:

PART ONE GENERAL PROVISION

1. Short Title

This Proclamation may be cited as the "Plant Breeders' Right Proclamation No. 481/2006."

2. Definitions

In this Proclamation unless the context otherwise requires:

- 1/ "applicant" means a person who has filed an application with the Ministry for a plant breeders' right;
- 2/ "Ministry" means the Ministry of Agriculture and Rural Development;
- 3/ "breeder" means a person who:
 - a) has bred and developed a new plant variety; or
 - b) has employed or commissioned the work of the person who has bred or developed a new plant variety; or
 - c) is a successor in title of the person mentioned in (a) or (b) of this Sub-Article;
- 4/ "holder" means a person to whom a plant breeders' right has been granted by the Ministry;
- 5/ "new plant variety" means a variety that:
 - a/ by reason of one or more identifiable characteristics, is clearly distinguishable from all other varieties the existence of which is a matter of common knowledge at the date of application for a plant breeders' right;
 - b/ is stable in its essential characteristics, in that after repeated reproduction or multiplication, at the end of each cycle, remains true to its description;

- c/ having regard to its particular features of sexual reproduction or vegetative propagation, is sufficiently homogenous or is a well-defined multi-line; and
- d/ its material has not been sold or otherwise disposed of to others by the breeder for purposes of commercial exploitation of the variety:
 - i) in the territory of Ethiopia, earlier than one year before the date of filling of application for plant breeders' right with the Ministry; or
 - ii) in the territory of any other state, earlier than six years in the case of varieties of tree, fruit tree or grape vines, or in the case of other species, earlier than four years before the date of the application.
- 6/ "Plant" means a living-organism which is not an animal and which can reproduce itself naturally.
- 7/ "protected variety" means a new plant variety that is protected by a plant breeders' right granted by the Ministry;
- 8/ "variety" means a plant grouping within a single botanical taxon of the lowest known rank, which can be:
 - a) defined by the expression of the characteristics resulting from a given genotype or combination of genotypes;
 - b) distinguished from any other plant grouping by the expression of at least one of said characteristics; and
 - c) considered as a unit for being propagated unchanged;
- 9/ "Farmers variety" means a plant variety having specific attributes and which has been discovered, bred, developed or nurtured by Ethiopian farming communities or a wild relative of variety about which the Ethiopian farming communities have common knowledge;
- 10/ "Wild relative" means a plant variety which is not domesticated by man and which is found in the wild by nature.
- 11/ "Propagating material" means any part of a plant which can be propagated.
- 12/ "Person" means natural person or juridical person.
- 13/ "Institution" means a state or private organization having juridical personality.

3. Scope of Application

- 1/ This Proclamation shall apply to new plant varieties of the genera and species, which the Ministry shall determine by directives;
- 2/ The Ministry may revise, from time to time, as necessary, the list of the plant genera and species to which this Proclamation shall apply.

PART TWO PLANT BREEDERS' RIGHT

4. Protection of Right

Subject to the conditions and limitations provided for in this Proclamation, a breeder shall be granted a plant breeders' right in respect of his new plant variety.

5. Scope of Plant Breeder's Right

- 1/ Subject to the exemptions and restrictions provided for in this Proclamation, a plant breeders' right entitles the holder an exclusive right to:
 - a) sell, including the right to license other persons to sell, the seed or propagating material of the protected variety; and
 - b) produce, including the right to license other persons to produce, propagating material of the protected variety for sale.
- 2/ The carrying out of the activities referred to in Sub-Article (1) of this Article by other persons with respect to a protected variety is prohibited unless with the authorization of the holder.

6. Exemptions to Plant Breeders' Right

- 1/ Notwithstanding the existence of a plant breeder's right, any person or farmers' community may:
 - a) propagate, grow and use a protected variety for purposes other than commerce;
 - b) sell plants or the propagating material of the protected variety for use as food or for any other use that does not involve growing the plant or the propagating material of the protected variety;
 - c) sell plants or propagating material of a protected variety as they are within a farm or any other place where plants of the variety are grown;
 - d) use plants or propagating material of a protected variety as an initial source of variation for purpose of developing another new plant variety except where the person makes repeated use of plants or propagating material of the variety for the commercial production of another variety;
 - e) sprout a protected variety for use as food for home consumption or for the market;
 - f) use a protected variety in further breeding, research or teaching;
 - g) obtain, with the conditions of utilization, protected variety from gene banks or plant genetic resources centers.
- 2/ Notwithstanding the provisions of Sub-Article (1) of this Article, farmers cannot sell farm-saved seed or propagating material of a protected variety in the seed industry on commercial scale.

7. Restrictions on Plant Breeders' Right

- 1/ The Ministry may, when public interest so requires, due to the following grounds, put restrictions on the exercise of a plant breeders' right where:
 - a) problems arise due to competitive practices of holders;
 - b) food security, nutritional or health needs or biological diversity are found adversely affected;
 - c) a high proportion of a protected variety offered for sale is being imported;
 - d) the requirements of the farming community for propagating material of a particular protected variety are not met;
 - e) it is considered important to promote public interest for socio-economic reasons and for developing indigenous and other technologies.
- 2/ When the Ministry decides to put restrictions on the exercise of a plant breeders' right, it shall:
 - a) give to the holder the copy of the decision setting out the particulars of the restrictions;
 - b) give public notice of the restrictions; and
 - c) specify the compensation to be paid to the holder.
- 3/ where the holder is dissatisfied with the compensation decided to be paid, he may lodge his appeal in accordance with Article 34 of this Proclamation.

8. Compulsory Licensing

- 1/ Without prejudice to the provisions of Article 8 of this Proclamation, the Ministry may, to safeguard public interest, grant a compulsory license upon application by any interested person.
- 2/ The Ministry may grant a compulsory license only if:
 - a) the holder is not producing and selling the propagating material of the protected variety in sufficient amount to meet the needs of the general public and has refused to license other persons to produce and sell the propagating material of the protected variety or is not willing to give such license under reasonable terms; or
 - b) there exist no condition under which the holder can be expected to give a permit to use his protected variety.

- 3/ Where the Ministry grants compulsory license, it shall determine the remuneration the person to whom the compulsory license is granted shall pay to the holder, the duration of the compulsory license and other conditions as necessary. The duration of a compulsory license shall not be shorter than three years and longer than five years; provided, however, that the Ministry may extend the duration if an application for extension is made and the conditions warranting compulsory licensing continue to exist.
- 4/ A person to whom a compulsory license is granted shall have a non-exclusive right to perform all or any of the activities for which the authorization of the holder would have been required.
- 5/ Compulsory licensing shall not preclude the holder from using the variety or to grant license to others.

9. Duration of Plant Breeders' Right

Without prejudice to other provisions of this Proclamation, a plant breeders' right shall exist for a period of 20 years in the case of annual crops, and 25 year in the case of trees, vines and other perennial trees from the date the successful application for a plant breeders' right was accepted.

10. Persons Entitled to Plant Breeders Right

- 1/ A breeder shall be entitled to a plant breeders' right in respect of his new plant variety, whether or not the breeder is an Ethiopian national or a foreigner, or is an Ethiopian resident or not, and whether the variety was bred locally or abroad.
- 2/ Where two or more persons bred the variety jointly or that they are joint successors, they shall jointly be entitled to plant breeders' right; provided however, that only one or some of such persons may apply for a plant breeders' right provided that the remaining other persons have given their consent in writing to this effect.
- 3/ Where the breeder is a public or a private institution, the plant breeders' right shall be granted in the name of the institution.
- 4/ Where a variety has been bred by two or more persons independently of each other, the entitlement to plant breeders' right shall belong to the person who has first filed an application with the Ministry for plant breeders' right.
- 5/ Where an application is filed by a person who is not entitled to plant breeders' right, the person who is entitled to the plant breeders' right may apply to the Ministry for the assignment of the application to him.

11. Application

A breeder who wants to be granted a plant breeders' right in respect of a new plant variety shall, present written application to the Ministry. The conditions and procedure in accordance with which applications may be lodged, examined and decided shall be specified by regulations.

12. Provisional Protection

- 1/ The applicant shall be deemed to have a plant breeders' right in respect of the new variety during the period between the date the application for plant breeders' right is filed and the granting of plant breeders' right or the final rejection of the application.
- 2/ The genetic material of the new plant variety under provisional protection shall not be used for non-research purposes. The Ministry shall take the necessary measures to prevent the use of the genetic material of such variety for non-research purposes.

13. Opposition

Where an application is lodged for a plant breeders' right, any person, who considers that the granting of plant breeders' right will be contrary to public interest, or that the variety does not fulfill the requirements for granting plant breeders' right, or that the applicant is not entitled to

plant breeders' right, may lodge with the Ministry an opposition to the application setting out the particulars for the opposition. The conditions and procedure pursuant to which opposition shall be lodged, examined and disposed shall be specified by regulations.

14. Granting of Plant Breeders' Right

The Ministry shall grant a plant breeders' right if it is satisfied that:

- 1/ the plant variety is new;
- 2/ there is no ground, as provided for in this Proclamation, to refuse the granting of plant breeders' right to the applicant;
- 3/ the breeder has a proof that he has obtained the genetic resource used to develop the variety in accordance with the relevant laws on access to genetic resources;
- 4/ a plant breeders' right has not been granted to another person in respect of the variety;
- 5/ there has been no earlier application, that has not been withdrawn or rejected, for a plant breeders' right in respect of the new variety in question; and
- 6/ all fees payable in relation to the granting of plant breeders' right have been paid.

15. Register of Plant Breeders' Right

The Ministry shall keep a register of plant breeders' rights. The particulars that may be entered in the register shall be specified by regulations.

16. Publication of Plant Breeders' Right

Where the Ministry grants a plant breeders' right, it shall give public notice to that effect.

17. Deposition of Samples

The Ministry shall, for the purpose of conservation, cause that the holder deposits at the Institute of Biodiversity Conservation sample of the new plant varieties with respect to which a plant breeders' right have been granted.

18. Maintenance of Variety

- 1/ The holder shall have the obligation to maintain the variety to ensure that all the characteristics of the variety at the date of granting the right are maintained throughout the duration of the plant breeders' right.
- 2/ The Ministry may, to ensure that the variety is maintained, require the holder to furnish material of the variety or any other necessary information.

**PART THREE
TRANSFER AND REVOCATION OF PLANT BREEDERS' RIGHT**

19. Transfer of Right

- 1/ Plant breeders' right may be transferred to other persons by a contract or by the law.
- 2/ A transfer of plant breeders' right by a contract may have no effect unless entered in the register of plant breeders' right.

20. Surrender of Plant Breeders' Right

- 1/ A holder may surrender his plant breeders' right by giving notice to the Ministry.
- 2/ Upon receiving notice of surrender, the Ministry shall enter same in the register of plant breeders right and give public notice thereof.
- 3/ Where an action in respect of a plant breeders' right is pending before a court, the Ministry shall not register the surrender except by leave of the court or by consent of the parties in the court proceeding.

21. Plant Breeders' Right Granted to a Person not Entitled to

- 1/ Where a plant breeders' right has been granted to a person who is not entitled to, the person who is entitled to the plant breeders' right may apply to the Ministry demanding that the plant breeders' right be transferred to him.

- 2/ The Ministry shall, upon examining the application for the transfer and the response of the holder and ascertaining that the right has wrongly been granted to the holder and that the applicant is entitled thereto, cause the plant breeders' right to be transferred accordingly.

22. Revocation

- 1/ The Ministry shall revoke a plant breeders' right if;
 - a) it is proved that the variety was not new or that facts exist which, if known before the granting of the right, would have resulted in the refusal of the right;
 - b) the holder has failed to pay the prescribed fee payable in respect of the plant breeders' right within 90 days after having been notified that the payment has fallen due; or
 - c) the holder has failed to maintain the variety.
- 2/ Where the Ministry decides to revoke a plant breeders' right in accordance with Sub-Article (1) of this Article, it shall give written notice of the revocation to the holder stating the grounds for the decision, and it shall give public notice of the revocation.

23. Application for Revocation

Any person whose interest is affected by the granting of a plant breeders' right may apply to the Ministry for the revocation of the plant breeders' right in accordance with this Proclamation. The procedure in accordance with which an application for revocation of plant breeders' right may be examined and decided shall be specified by regulations.

**PART FOUR
INFRINGEMENT OF PLANT BREEDERS' RIGHT**

24. Act of Infringement

Any act in respect of a protected variety for which the authorization of the holder is required and which is done without such authorization shall constitute an act of infringement of a plant breeders' right.

25. Legal Action

- 1/ A holder whose plant breeders' right has been infringed may institute an action in court to require the cessation of the act of infringement and claim compensation for damage.
- 2/ The court shall order the cessation of an act of infringement and the payment of compensation for the damage caused on the holder unless the defendant forthwith proves that the plant breeders' right alleged to have been infringed has to be revoked in accordance with the provisions of article 23(1) of this Proclamation.

26. Counter Claim

- 1/ A defendant in an action against infringement may institute a counter claim for the revocation of the plant breeders' right in question, if it is revocable in accordance with Article 23(1) of this Proclamation.
- 2/ The court shall order the revocation of the plant breeders' right in question, if any of the grounds specified in Article 23(1) of this Proclamation is proved to exist by the counter claim.
- 3/ Where the court orders the revocation of the plant breeders' right, the defendant shall serve the copy of the court order to the Ministry. Upon receiving the court order, the Ministry shall register the revocation of the plant breeders' right and give public notice of the revocation.

PART FIVE FARMERS' RIGHT

27. Principle

Farmers' Right stem from the enormous contributions that local farmers have made and will continue to make in the conservation and sustainable use of plant genetic resources that constitute the basis of breeding for food and agricultural production.

28. Farmers' Right

- 1/ In relation to the use of plant varieties, farmers shall have the following rights:
 - a) to save, use, exchange and sell farm-saved seed or propagating material of farmers' varieties;
 - b) to use protected varieties including material obtained from gene banks or plant genetic resource centres to develop farmers' varieties;
 - c) to save, use, multiply, exchange and sell farm-saved seed or propagating material of protected varieties.
- 2/ Notwithstanding the provisions of Sub-Article (1) of this Article, farmers may not sell farm-saved seed or propagating material of a protected variety in the seed industry as a certified seed.

PART SIX MISCELLANEOUS PROVISIONS

29. Penalty

Any person who infringes a plant breeders' right shall, in addition to the confiscation of the seed or propagating material of the protected variety which is the proceed of the infringement, be punished with imprisonment not exceeding three years or a fine up to five thousand Birr or with both such imprisonment and fine.

30. Appeals

A party who is aggrieved of a decision on the granting, refusal, revocation or restriction of a plant breeders' right may lodge an appeal to the federal high court within sixty days from the date of receipt of the decision.

31. Fees

The amount and schedule of payment of fees to be paid in relation to plant breeders' right shall be determined by regulations to be issued hereunder.

32. Issuance of Regulations

The Council of Ministers may issue regulations for the proper implementation of this Proclamation.

33. Inapplicable Laws

No law, regulation, directive or practice shall, in so far as it is inconsistent with this Proclamation, have effect in respect of matters provided for by this Proclamation.

34. Effective Date

This Proclamation shall come into force upon publication in the Federal Negarit Gazeta.

Done at Addis Ababa, this 27th day of February, 2006

**GIRMA WOLDEGIORGIS
PRESIDENT OF THE FEDERAL DEMOCRATIC
REPUBLIC OF ETHIOPIA**

Annex 5: Proclamation No. 482/2006: Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation

FEDERAL NEGARIT GAZETA
OF THE DEMOCRATIC REPUBLIC OF ETHIOPIA

13TH Year No. 13

ADDIS ABABA – 27th February, 2006

Proclamation No. 482/2006

Access to Genetic Resources and Community Knowledge,
and Community Rights Proclamation....Page 3353.

PROCLAMATION NO. 482/2006

A PROCLMATION TO PROVIDE FOR ACCESS TO GENETIC RESOURCES AND COMMUNITY KNOWLEDGE AND COMMUNITY RIGHT

WHEREAS, the immense biodiversity wealth Ethiopia is endowed with must be conserved and sustainably utilized for the benefit and development of its peoples;

WHEREAS, it is necessary to recognize the historical contributions Ethiopian communities made to the conservation, development and sustainable utilization of biodiversity resources;

WHEREAS, Ethiopia is party to the Convention on Biological Diversity and the Convention requires the enactment of access legislation;

WHEREAS, Ethiopia has agreed to the African Model Law on Community, Farmers' and Plant Breeders' Rights and Access to Biological Resources;

WHEREAS, it is necessary to protect and encourage the customary uses of genetic resources by Ethiopian communities which are relevant to the conservation and sustainable use of the biodiversity resources of the country;

WHEREAS, it is necessary to recognize and protect the knowledge of Ethiopian communities generated and accumulated with respect to the conservation and utilization of genetic resources and promote the wider application of such knowledge with the approval of and sharing benefits by such communities;

WHEREAS, it is necessary to involve communities in the making of decisions concerning the use of genetic resources and community knowledge and sharing of benefits derived from the utilization thereof;

WHEREAS, in order to realize these objectives, it is necessary to determine by law the access to genetic resources and community knowledge, and to provide for the rights of communities over genetic resources and community knowledge;

NOW, THEREFORE, in accordance with Article 55(1) of the Constitution of the Federal Democratic Republic of Ethiopia, it is hereby proclaimed as follows:

**PART ONE
GENERAL PROVISIONS**

1. Short Title

This Proclamation may be cited as "Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation No. 482/20056."

2. Definitions

In this Proclamation, unless the context requires otherwise:-

- 1/ "access" means the collection, acquisition, transfer or use of genetic resources and/or community knowledge;

- 2/ "biological resource" includes genetic resources, organisms or parts thereof, populations or any other biotic component of ecosystems with actual or potential value for humanity;
- 3/ "derivative" means product extracted or developed from biological resource; this may include products such as plant varieties, oils, resins, gums, chemicals and proteins;
- 4/ "ex situ" means a condition in which genetic resource is found outside of its natural habitat;
- 5/ "exploration" means an activity to find out the existence or the status of a given genetic resources;
- 6/ "genetic resource" means any genetic material of biological resource containing genetic information having actual or potential value for humanity; and it includes derivatives;
- 7/ "in situ" means a condition in which genetic resource is found in its natural habitat or ecosystem;
- 8/ "Institute" means the Institute of Biodiversity Conservation established by Proclamation No. 120/1998 (as amended);
- 9/ "local community" means a human population living in a distinct geographical area in Ethiopia as a custodian of a given genetic resource or creator of a given community knowledge;
- 10/ "person" means a natural or juridical person;
- 11/ "prior informed consent" means the consent given by the Institute and the concerned local community based on an access application containing a complete and accurate access information to a person seeking access to a specified genetic resource or community knowledge;
- 12/ "relevant institution" means a state organ responsible for administering or having special technical expertise on a specific sector of genetic resources or community knowledge;
- 13/ "state" means, the Government of the Federal Democratic Republic of Ethiopia or its Regional States, as applicable;
- 14/ "community knowledge" means knowledge, practices, innovations or technologies created or developed over generations by local communities on the conservation and use of genetic resources.
- 15/ "Biodiversity" means the variability among living organisms from all sources of ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems;

3. Objectives

The objective of this Proclamation is to ensure that the country and its communities obtain fair and equitable share from the benefits arising out of the use of genetic resources so as to promote the conservation and sustainable utilization of the country's biodiversity resources.

4. Scope of Application

This Proclamation shall apply to access to genetic resources found in in-situ or ex-situ conditions and community knowledge.

Notwithstanding the provision of sub-article (1) of this Article, this Proclamation shall not apply to:

- a) the customary use and exchange of genetic resources and community knowledge by and among Ethiopian local communities; and
- b) the sale of a produce of biological resources for direct consumption, that do not involve the use of the genetic resource thereof.

5. Ownership

- 1/ The ownership of genetic resources shall be vested in the state and the Ethiopian people.
- 2/ The ownership of community knowledge shall be vested in the concerned local community.

PART TWO
PROTECTION OF COMMUNITY RIGHTS

6. Principle

Local communities shall have the following rights over their genetic resources and community knowledge:

- 1/ the right to regulate the access to their community knowledge.
- 2/ an inalienable right to use their genetic resources and community knowledge;
- 3/ the right to share from the benefit arising out of the utilization of their genetic resources and community knowledge.

7. Art. 7. Right to regulate access

1. The right of local communities to regulate access to their community knowledge shall include the following:
 - a) the right to give prior informed consent for access to their community knowledge;
 - b) when exercising the right to give prior informed consent, the right to refuse consent when they believe that the intended access will be detrimental to the integrity of their cultural or natural heritages;
 - c) the right to withdraw or place restriction on the prior informed consent they have given for access to their community knowledge where they find out that such consent is likely to be detrimental to their socio-economic life or their natural or cultural heritages;
 - d) the right to demand the restriction or withdrawal of the prior informed consent given by the Institute for access to their genetic resources where they found out that is likely to be detrimental to their socio-economic life or their natural or cultural heritages;
2. The conditions and the procedure in accordance to which local communities shall give prior informed consent for access to their community knowledge shall be specified by a regulation;

8. Use Right

- 1/ Local communities shall have an inalienable right to use or exchange among themselves their genetic resources or community knowledge in the course of sustaining their livelihood systems in accordance with their customary practices and norms.
- 2/ No legal restriction shall be placed on the traditional system of local communities on the use and exchange of genetic resources and community knowledge;

9. Right to share benefit

1. Local communities shall have the right to share from the benefit arising out of the utilization of their community knowledge;
2. Local communities shall have the right to obtain 50% of the benefit shared by the state in the form of money from the benefits derived out of the utilization of their genetic resources in accordance with article 18(1) of this proclamation;
3. The money obtained pursuant to sub-article (1) and (2) of this article shall be put to the common advantage of the concerned local communities.
4. The procedure in accordance to which such money shall be used for the common advantage of local communities shall be specified by regulation to be issued under this proclamation.

10. Protection of Community Rights

- 1/ The rights of local communities over their genetic resources and community knowledge shall be protected as they are enshrined in the customary practices and norms of the concerned communities.

- 2/ An item of community knowledge shall be identified, interpreted and ascertained in accordance with the customary practices and norms of the concerned local community.
- 3/ The non-registration of any community knowledge shall not render it unprotected by community rights.
- 4/ The publication or oral description of a given genetic resource or community knowledge, or the presence of the genetic resources in gene bank or any other conservation center or that it is in use shall not affect its protection as community rights.

PART THREE CONDITION OF ACCESS

11. Requirement of Permit

- 1/ Without prejudice to the provision of Sub-Article 2(a) of Article 4 of this Proclamation, no person shall access genetic resources or community knowledge unless in possession of written access permit granted by the Institute based on prior informed consent.
- 2/ Unless otherwise explicitly expressed, the granting of permit to access genetic resources shall not be construed to constitute permit to access the community knowledge associated therewith and vice versa.
- 3/ Without prejudice to the provisions of Sub-Article 2(b) of Article 4 of this Proclamation, no person shall export genetic resources out of Ethiopia unless in possession of permit granted by the Institute to this effect.
- 4/ Notwithstanding the provisions of Sub-Article (1) of this Article, organs of the state which are empowered by law to conserve genetic resources may not be required to obtain access permit from the Institute to collect genetic resource or community knowledge in the discharge of their duties; provided, however, that they shall not transfer the genetic resources or community knowledge to third persons or export same out of Ethiopia unless they are given explicit permit by the Institute. While collecting genetic resources and community knowledge, employees of such institutions must carry with them a letter to this effect.

12. Basic Conditions of Access

- 1/ Access to genetic resources shall be subject to the prior informed consent of the Institute.
- 2/ Access to community knowledge shall be subject to the prior informed consent of the concerned local community.
- 3/ The state and the concerned local community shall obtain fair and equitable share from the benefits arising out of the utilization of genetic resources and community knowledge accessed.
- 4/ An access applicant who is a foreigner shall present a letter from the competent authority of his national state or that of his domicile assuring that it shall uphold and enforce the access obligations the applicant.
- 5/ In cases of access by foreigners, the collection of genetic resources and community knowledge shall be accompanied by the personnel of the Institute or the personnel of the relevant institution to be designated by the Institute.
- 6/ The research based on the genetic resources accessed shall be carried out in Ethiopia and with the participation of Ethiopian nationals designated by the Institute, unless where it is impossible.
- 7/ Where the research based on the genetic resources accessed is permitted to be carried out abroad, the institution sponsoring and/or hosting the research shall give a letter of assurance that they shall observe the access obligations attached thereto.

13. Conditions for Denial of Access

The Institute may deny access to genetic resources; where:

- 1/ the access requested is in relation to the genetic resource of an endangered species;
- 2/ the access may have adverse effects upon human health or the cultural values of the local community;
- 3/ the access may cause undesirable impact on the environment;
- 4/ the access may cause danger of loss of ecosystem;
- 5/ the access is intended to use genetic resources for purposes contrary to the national laws of Ethiopia or the international treaties to which Ethiopia is a party;
- 6/ the applicant has violated hitherto access conditions or access agreements.

14. Issuance of Access Permit

1. A person who wants to obtain permit to access genetic resources or community knowledge shall present an application in writing to the Institute. The conditions and procedure in accordance with which access applications shall be presented, examined and prior informed consent shall be given shall be specified by regulation.
2. Upon giving of prior informed consent, the Institute shall, based on the provisions of this proclamation, negotiate and conclude genetic resources access agreement.
3. Where the access application involves access to community knowledge, the Institute shall negotiate and conclude the access agreement based on the prior informed consent of the concerned local community to that effect.
4. The Institute shall not grant permit for exporting genetic resources out of Ethiopia unless the condition provided under Article 12 (6) of this Proclamation is met.

15. Special Access Permit

- 1/ The Institute may, without the need to strictly follow the access procedure provided for in this Proclamation, grant special access permit to Ethiopian national public research and higher learning institutions and intergovernmental institutions based in the country, so that they have facilitated access to genetic resources and community knowledge for purpose of development and academic research activities they undertake within the country. When the Institute grants special access permit to such institutions, it shall determine, as appropriate, the obligations they shall have while having access under such permit.
- 2/ An access to genetic resources under a multilateral system of access to which Ethiopia is a party shall be made in accordance with the conditions and procedure specified thereof. The condition and procedure in accordance with which access to genetic resources under multilateral systems shall be implemented shall be determined by regulation.

16. Contents of Access Agreement

An access agreement shall specify, among other things, the following issues:

- 1/ the identity of the parties to the agreement;
- 2/ the type and quantitative description of the genetic resource permitted to be accessed;
- 3/ the description of the community knowledge permitted to be accessed or associated with the genetic resource to be accessed;
- 4/ the locality where the genetic resource or community knowledge is to be collected or the person providing same;
- 5/ the institution with which the sample of the genetic resource and the description of community knowledge accessed shall be deposited;
- 6/ the intended use of genetic resource or community knowledge;
- 7/ the relationship of the access agreement with existing or future access agreements on the same genetic resource or community knowledge;

- 8/ the relevant institution designated by the Institute to participate in the collection of and/or the research based on the genetic resource to be accessed and be in charge of monitoring the implementation of the access agreement;
- 9/ the benefit the state shall get from the access to genetic resources;
- 10/ where the agreement involves access to community knowledge, the benefit the concerned local community shall obtain from the use thereof;
- 11/ the duration of the access agreement;
- 12/ dispute settlement mechanisms; and
- 13/ the obligations the access permit holder shall have under this Proclamation.

17. Obligations of Access Permit Holder

A person who shall be given an access permit shall have the following obligations:

- 1/ deposit the copy of the access permit granted to him with the relevant regional institution in the district where the genetic resource is to be collected and show the access permit up on request;
- 2/ not deplete population of farmers planting stock or wild species or to remove significant genetic variation from local gene pool during collection;
- 3/ Where the genetic resource is to be collected from protected areas, to observe the rules and regulations of the administration of the protected area;
- 4/ deposit the sample of the genetic resources collected and the collection data, and the description of community knowledge accessed with the Institute or the relevant institution the Institute may designate;
- 5/ observe the type and quantitative limits of the genetic resource permitted to access;
- 6/ upon request, supply to the Institute a sample from the genetic resource and copy of the description of the community knowledge accessed;
- 7/ submit to the Institute regular status reports of the research; and where genetic resource is collected repeatedly, follow up the environmental and socio-economic impact of the access and submit a report thereon;
- 8/ inform the Institute in writing of all the findings of the research and development based on the genetic resource and community knowledge accessed;
- 9/ not transfer the genetic resource and community knowledge accessed to any other third party or use same for any purpose other than that originally intended, without first notifying to and obtaining written authorization from the Institute;
- 10/ return any unused genetic material at the end of the planned research or upon termination of the access agreement;
- 11/ not transfer to third parties the access permit or the rights and obligations there under without obtaining the consent of the Institute to that effect;
- 12/ where he seeks to acquire intellectual property right over the genetic resources accessed or parts thereof, negotiate new agreement with the Institute based on the relevant laws of Ethiopia;
- 13/ not apply for a patent or any other intellectual property protection over the community knowledge accessed without first obtaining explicit written consent from the Institute;
- 14/ recognize the locality where the genetic resource or community knowledge accessed from as origin in the application for commercial property protection of the product developed there from;
- 15/ share the benefit that may be obtained from the utilization of the genetic resource or community knowledge accessed to the state and the concerned local communities;
- 16/ respect the laws of the country, particularly those relating to sanitary control, biosafety and protection of the environment;
- 17/ respect the cultural practices, traditional, values and customs of local communities;
- 18/ observe the terms and conditions of the access agreement.

18. Benefit Sharing

- 1/ The kind and the amount of the benefit to be shared by the state and local communities from access to genetic resources or community knowledge shall be determined case by case in each specific access agreements to be signed.
- 2/ The remaining portion of the monetary benefit from access to genetic resources, after deducting the share of the local community as determined pursuant to Article 9(1) of this Proclamation, shall be allocated for conservation of biodiversity and the promotion of community knowledge. The conditions how the money shall be put to such use shall be determined by regulation.
- 3/ The sharing of non-monetary benefits from access to genetic resources among the state and the concerned local community shall be specified in each specific access agreement taking into account the kinds of benefits agreed to share with the access permit holder.

19. Types of Benefits

The benefits to be shared from an access to genetic resources and community knowledge may include the following modes:

- 1/ License fee;
- 2/ upfront payment;
- 3/ milestone payment;
- 4/ royalty;
- 5/ research funding;
- 6/ joint ownership of intellectual property;
- 7/ employment opportunity;
- 8/ participation of Ethiopian nationals from the Institute or the relevant institutions in the research based on the genetic resources or community knowledge accessed;
- 9/ priority to supply the raw material of genetic resource required for producing products there form;
- 10/ access to products and technologies developed from the use of genetic resource or community knowledge accessed;
- 11/ training, both at institutional and local community levels, to enhance local skills in genetic resources conservation, evaluation, development, propagation and use;
- 12/ provision of equipment, infrastructure and technology support; and
- 13/ any other benefit as appropriate.

**PART FOUR
FOLLOW UP AND COMPLIANCE MEASURE**

20. Follow-up

- 1/ The Institute shall follow-up the execution of access agreements through the following mechanisms:
 - a) Inspection;
 - b) Periodic progress and status report by access permit holders and the relevant institutions designated to accompany the collection, participate in the research and monitor the implementation of access agreement;
 - c) A report by any other person or individual; and
 - d) Any other mechanism deemed appropriate.
- 2/ The access permit holder and the relevant institutions designated to take part in the collection of and the research based on the genetic resources accessed and to monitor the implementation of access agreements shall give periodic reports to the Institute on the collection conducted, the progress of the research and the findings there from.
- 3/ The Institute shall inform the concerned local communities of the progress of the research and the findings thereof, the utilization of community knowledge and the benefit shared there from.

21. Compliance Measure

- 1/ The Institute may alter an access agreement and limit the size of the genetic resource to access or put any other limitations as appropriate, where it is recognized that the access has posed threat of genetic erosion, degradation of the environment or violation of the cultural values of communities which can not be easily averted.
- 2/ Where the access permit holder has violated or failed to comply with the provisions of this Proclamation or the terms and conditions of the access agreement or where the access causes risk of damage to genetic resources or the environment or affects overriding public interest, the Institute shall suspend or terminate an access agreement and prohibit the access to genetic resources or community knowledge.
- 3/ Where the Institute decides to alter, suspend or terminate an access agreement, it shall communicate same to the concerned local community and the access permit holder.

**PART FIVE
EXPLORATION OF GENETIC RESOURCES**

22. Prohibition

- 1/ Without prejudice to the provisions of Article 4(2) of this Proclamation, no person may conduct exploration of genetic resources unless in possession of exploration permit from the Institute.
- 2/ Notwithstanding the provisions of Sub-Article (1) of this Article, organs of the state which are empowered by law to conserve genetic resources are not required to obtain exploration permit to conduct exploration of genetic resources in the discharge of their duties.

23. Application

- 1/ Any person who wants to obtain exploration permit shall present written application to the Institute.
- 2/ The application shall specify the purpose of the exploration, the types of the genetic resources to be explored, the locality where the exploration shall be conducted and the time schedule for the exploration.

24. Granting Exploration Permit

- 1/ Upon receiving a complete exploration application, the Institute shall, in consultation with the relevant institution where appropriate, grant an exploration permit to the applicant.
- 2/ The exploration permit shall specify the types of the genetic resources to be explored, the locality where the exploration shall take place, the time schedule of the exploration and any other condition which the Institute deems necessary.
- 3/ Where the Institute grants exploration permit to a foreigner, it shall assign its scientific personnel or designate other relevant institution to accompany the exploration mission.

25. Obligations of Explorers

Any holder of an exploration permit shall have the following obligations:

- 1/ deposit a copy of the exploration permit with the relevant institution in the district of the locality where the exploration will be conducted;
- 2/ strictly observe the terms and conditions specified in the exploration permit;
- 3/ present to the Institute a detailed and complete report of the exploration mission upon its completion;
- 4/ show, up on request, the exploration permit issued to him;
- 5/ respect local customs, traditions, values, property rights in the locality where the exploration shall be conducted and the laws of the country.

PART SIX
ADMINISTRATION OF ACCESS

26. Powers of Ministry of Agriculture and Rural Development

The implementation of the provisions of this proclamation that deal with genetic resources of wild animals shall be the responsibility of Ministry of Agriculture and Rural Development

27. Powers and Duties of the Institute

Without prejudice to the powers and duties entrusted to it in other provisions of this Proclamation, the Institute shall have the powers and duties to:

- 1/ Follow-up and ensure that access is carried out in accordance with this Proclamation as well as regulations and directives issued hereunder;
- 2/ collect the benefits to be obtained from access agreements and pass over to beneficiaries;
- 3/ prepare model access agreements;
- 4/ sensitize contents of this Proclamation;
- 5/ collect, analyze and as necessary disseminate to users information on access to genetic resources and community knowledge;
- 6/ cause that legal action be taken against offences committed in violations of this Proclamation;
- 7/ issue directives and perform such other activities necessary for the implementation of this Proclamation;
- 8/ delegate its powers and duties to other legally established bodies where deemed necessary and convenient to carry out its duties in a better way.

28. Responsibilities of Local Communities

Local communities shall have the responsibility to:

- 1/ prohibit any person, who does not belong to their communities, from collecting or taking genetic resources from their localities without having the necessary permit; and
- 2/ require any person, who does not belong to their communities and who is collecting or taking genetic resource from their localities, to show his access permit, and if he is without permit immediately notify or present him to the nearest kebele or wereda administration.

29. Responsibilities of Regional Bodies

Kebele administration and regional bodies at all levels responsible for the conservation of genetic resources shall:

- 1/ regulate that genetic resources is not accessed from their respective jurisdiction without permit by any person who does not belong to the communities thereof; and
- 2/ require access permit from any person, who does not belong to the communities thereof and who is collecting or taking genetic resources from their respective jurisdiction, and if he is without permit, seize the genetic resource and present him to the law and notify the Institute the detailed particulars of the genetic resource and the person found in possession of same.

30. Responsibility of Customs Officers

In accordance with directives to be given to them by the Institute, customs officers shall have the responsibilities to:

- 1/ inspect that any genetic resources being taken out of the country has been accompanied with an export permit given by the Institute;
- 2/ require any person leaving the country who is transporting or is in possession of genetic resource to produce the necessary permit to this effect from the Institute;

- 3/ seize genetic resource being transported out of the country and the person transporting same without permit from the Institute and immediately report same to the nearby relevant body and the Institute;
- 4/ Ensure that a statement is written on the package of a biological resource product to be exported indicating that the use of the genetic material contained in the product is prohibited and doing so would constitute a penal offence.

31. Responsibilities of Mail Service Institutions

Postal and other courier service institutions shall, before receiving and transporting genetic resources out of the country as mail, require their clients to produce permit from the Institute to export the genetic resources out of the country.

32. Responsibilities of Quarantine Control Institutions

Quarantine control institutions shall, ensure that the quarantine certificate they issue to biological resource products, contain a statement indicating that the certificate does not constitute a permit to use the product as genetic resource and that doing so is prohibited and would constitute an offence.

**PART SEVEN
MISCELLANEOUS PROVISIONS**

33. Transitory Provisions

- 1/ Access agreements made prior to the coming into force of this Proclamation shall be revised and harmonized with the provisions of this Proclamation.
- 2/ The access to genetic resources under agreements concluded prior to the coming into force of this Proclamation shall be suspended until they are revised and harmonized with the provisions of this Proclamation.

34. Duty to Cooperate

Any person shall have the duty to cooperate with the Institute, the relevant institutions, and local communities in the implementation of this Proclamation as well as regulations and directives issued hereunder.

35. Penalty

- 1/ Any person who:
 - a) Accesses genetic resources or community knowledge without obtaining an access permit from the Institute;
 - b) Provides false information in the access application or in the course of subsequent monitoring of access agreement;
 - c) Subsequently changes the purpose of access specified in the access agreement without obtaining permit from the Institute to the effect;
 - d) Explores genetic resources without obtaining exploration permit from the Institute or provides false information in the application for exploration permit;
shall, with out prejudice to the confiscation of the genetic resource accessed, the cancellation of the access permit granted, and the civil liability arising thereof, be punished, depending on the gravity of the circumstance, with rigorous imprisonment of not less than three years and a fine of not less than ten-thousand and not exceeding thirty-thousand birr.
- 2/ Where the offence committed is in relation to genetic resources endemic to Ethiopia:-
The punishment shall be, depending on the circumstance, rigorous imprisonment of not less than five years and not exceeding twelve-years and a fine ranging from fifty-thousand birr to hundred-thousand birr.

3/ Where the offences under this article are committed in negligence, the penalty shall be a fine of not less than five-thousand birr or, depending on the circumstance and the gravity of the offence, simple imprisonment of not less than three months.

36. Inapplicable Laws

No law, regulation, directive or practice shall, in so far as it is inconsistent with this Proclamation, have effect with respect to matter provided for by this Proclamation.

37. Power to Issue Regulations

The Council of Ministers may issue regulations necessary for the proper implementation of this Proclamation.

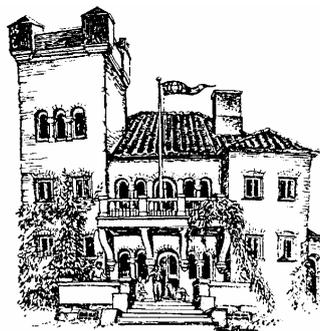
38. Effective Date

This Proclamation shall come into force upon publication in the Federal Negarit Gazeta.

Done at Addis Ababa, this 27th day of February , 2006

**GIRMA WOLDEGIORGIS
PRESIDENT OF THE FEDERAL DEMOCRATIC
REPUBLIC OF ETHIOPIA**

The Fridtjof Nansen Institute is a non-profit, independent research institute focusing on international environmental, energy, and resource management. The institute has a multi-disciplinary approach, with main emphasis on political science, economics, and international law. It collaborates extensively with other research institutions in Norway and abroad.



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