FROM NEGOTIATIONS TO IMPLEMENTATION

Global review of achievements, bottlenecks and opportunities for the Treaty in general and for the multilateral system in particular

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Introduction

Negotiations leading to the creation of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which had protracted over a period of seven years, were intense and at times frustrating. In fact, it was feared that, after many years of negotiations, with so much invested in terms of financial resources and time, the process was headed for collapse. However, governments and other stakeholders ultimately marshalled adequate political will to overcome all odds and adopt the final text of the ITPGRFA in November 2001 through the Food and Agriculture Organization’s (FAO) Conference Resolution 3/2001.

The implementation of the Treaty at the global level was signalled with the convening of the first session of the Governing Body in June 2006, two years following its coming into force. The desire on the part of the Governing Body to accelerate the ITPGRFA’s implementation process led to the decision to quickly follow up with the second session of the Governing Body in October the following year, which was considerably sooner than the official rules of procedure dictated. The third session was held in June 2009. Most of what the Governing Body did during these meetings was to put in place procedures and mechanisms to implement the Treaty, with an emphasis on the multilateral system on access and benefit sharing. While the Governing Body has made significant progress on some fronts, it has remained bogged down on others. Ultimately, I argue that this lack of progress can be attributed to the continuing differences of views among contracting parties concerning issues that were never fully resolved during the negotiations of the Treaty from 1994 to 2001.

As a prerequisite to the effective implementation of the ITPGRFA, one would expect the contracting parties and other stakeholders to be more focused on the implementation aspects in their subsequent engagements with the process, putting aside their pre-Treaty negotiation positions. Indeed, one could reasonably expect that
In adopting and ratifying the Treaty, countries have basically reconciled with respect to the fundamental issues and could approach the implementation of the Treaty in a more or less refreshed, unified manner. However, the tone and the focus of the discussions concerning implementation during the sessions of the Governing Body clearly show that major divisions and positions in terms of principle remain largely unchanged between developing and developed countries, and they continue to be frequently echoed and affect the pace of discussions related to the Treaty’s implementation. This problem was carried over from the negotiation process since there was a clear lack of balance between the topics that were discussed and advanced during the negotiations. For instance, there was financial support for several meetings to discuss the multilateral system (a topic of the utmost importance for developed countries), but there was no financial support for topics such as financial strategy or farmers’ rights (which were cornerstones for developing countries). Moreover, in the first session of the Governing Body, the multilateral system was agreed upon, but the financial strategy did not contain much substance and was far from being agreed upon.

It has become apparent that, despite signing on and becoming parties to the ITPGRFA, most countries have still remained skeptical about the potential for the Treaty to serve their interests. As a result, the contracting parties within the Governing Body are continuing to revisit and correct their perceptions of the shortcomings of the key provisions of the Treaty. Not surprisingly, these trends in behaviour are contributing to major bottlenecks in the Treaty’s implementation. Some commentators have written about the controversies and mistrust that have historically characterized discussions among these governments, going as far back as 1983 when the International Undertaking on Plant Genetic Resources was being debated (Chapter 6 by José Esquinas-Alcazar, Angela Hilmi and Isabel López Noriega in this volume; Bragdon, 2000).2

In the first part of this chapter, I highlight those issues that were unresolved in the ITPGRFA negotiations. In the second part, I analyse how these issues are impacting on the progress of actually implementing the Treaty. In the third part of the chapter, I will focus on future possibilities, highlighting the challenges and opportunities that are available to advance the effective implementation of the Treaty, taking into account the need to finally address some of the fundamental issues that were not resolved during the earlier negotiations.

Before proceeding, it is important to note that my focus in this chapter will be on global-level implementation, primarily involving the Governing Body of the ITPGRFA, and not so much on country-level implementation involving national governments. However, it must be appreciated that compliance in terms of national-level implementation is not possible if financial responsibility is left up to the countries, since developing countries are unlikely to have enough resources to effectively implement the Treaty. Other chapters in this book address the challenges of national-level implementation.

**Reflections on the negotiations of the ITPGRFA**

The negotiation of the ITPGRFA was to a large extent an act of balancing the interests of developed countries with respect to facilitated access to globally important
plant genetic resources for food and agriculture (PGRFA) with the interests of developing countries with respect to the equitable sharing of the benefits arising from the use of PGRFA. Although it was required that the Treaty be in harmony with the objectives of the Convention on Biological Diversity (CBD), governments involved in the negotiations recognized the special nature of PGRFA and used their sovereign rights to establish a multilateral system of access and benefit sharing for a selected number of crop and forage species (Annex 1).

Discussions on what crop species needed to be included in the multilateral system formed a critical part of the negotiations of the ITPGRFA. The two main criteria used to develop this list of crops were their importance for global food security and the interdependence of countries on each other for the genetic resources of these species. As a member of the African group involved in the Treaty negotiations, I recall that although the African region ultimately opted for the smallest number of crop species to be included in the final stages of negotiations for Annex 1, the group had originally preferred a wider inclusion covering as many crop species as possible, providing that no intellectual property rights would be applied. In the end, Africa and other developing countries took a more cautious approach and tended to favour a shorter list because developed countries would not agree to exclude intellectual property rights from the provisions. In contrast, developed countries favoured a more encompassing list. The European region, in particular, wanted to include all species that were relevant for food and agriculture, which is not a surprise since most advanced breeding institutions and programmes are located in developed countries.

It is clear that developing countries wanted to see a treaty and a multilateral system that was balanced between access and benefit sharing, which did not previously exist, and they therefore pushed to use the negotiations on Annex 1 to secure more concrete commitments from developed countries for the provision of funds in order to enhance benefit sharing under the ITPGRFA. Although the majority of countries participating in the negotiation process did adopt the Treaty in the end, individual countries and regions were often not satisfied with all of the aspects of the final text. As in any negotiations, the final text was somewhat of a compromise, which, it was hoped, would benefit all of the countries that would become party to the Treaty.

**General expectations**

The general expectations concerning the ITPGRFA’s implementation are clearly influenced by the positions that were maintained during the negotiations by both developing and developed countries as well as by the enthusiasm that each country has demonstrated for becoming a contracting party. Most countries, both developed and developing, became party to the Treaty on the understanding and appreciation that no country, including their own, had enough crop diversity within its own territories and, therefore, had to rely on diversity from other regions of the world to meet its crop development and improvement needs. It is for this reason that most developed countries, in particular, consider access to PGRFA under the multilateral system to be the major benefit of the Treaty. Although it may seem logical that other benefits,
especially monetary gain, would depend on prior grants of access and, therefore, that access needs to be provided before there can be benefit sharing, most developing countries did not share in this logic, tending to expect or favour a situation where access and benefit sharing would be implemented more or less in parallel.

The general feeling among developing countries is that developed countries have had access to PGRFA originating from developing countries for hundreds of years without providing any compensation in most cases and, even worse, have returned these resources to the developing countries as protected varieties for which huge amounts of money must be paid. Ethiopia, for instance, was very clear on this viewpoint in their second country report on the state of PGRFA to the FAO (Ethiopia, 2007, Chapter 4, Section 4.1), which was prepared for the Second Report on the State of World’s Plant Genetic Resources for Food and Agriculture (FAO, 2010). In this sense, the expectations of developing countries has been to prioritize the measures that will ensure that the benefit-sharing fund is quickly operationalized under the funding strategy of the ITPGRFA. Since it is expected to take a considerable amount of time (no less than ten years) before benefit sharing under the multilateral system could start yielding results, developing countries have also had to push for other measures that could serve this purpose.

Implementation arrangements for some provisions of the Treaty, such as those under Articles 5 and 6, were also not fully clarified in terms of funding sources, although it now seems that these provisions can be implemented using the funds provided under the benefit-sharing fund.

**ITPGRFA’s implementation experience**

**Role of the Treaty’s Governing Body**

It has generally been viewed that a lot has been done, in terms of global efforts, to put the implementation of the ITPGRFA into motion. Much of this effort has been made through meetings of the Governing Body. The initial efforts of this group tackled a number of key tasks aimed at putting in place a mechanism to facilitate the Treaty’s implementation as reflected in the report of the first session of the Governing Body (FAO, 2006). These tasks included finalizing the agreement and adoption of the Standard Material Transfer Agreement (SMTA), adopting its rules of procedure and developing the financial rules and funding strategy for the Treaty. Although the role of the Governing Body in the Treaty’s implementation seems to be clear from these mechanisms, there seems to be some feeling among developing country parties and civil society stakeholders that it is biased towards the implementation of the multilateral system. This feeling may have been reinforced by the positions that have been taken by some developed country parties regarding the role of the Governing Body in implementing Article 9 on farmers’ rights, for instance, in which it stated that discussions on this topic should not be brought into the Governing Body as it is the responsibility of national governments, as clearly stated in one of the provisions in the ITPGRFA. Developing country parties have, however, insisted that the Governing
Body has a role to play in the implementation of the Treaty as a whole, and they have managed to keep the farmers’ rights on the agenda of the meetings of the Governing Body.

**Significant achievements in Treaty implementation**

The adoption of the SMTA as well as the rules of procedures and the financial rules for the Governing Body during the first session of the Governing Body were seen as major breakthroughs that would facilitate the implementation of the ITPGRFA’s multilateral system and enable the Governing Body to discharge its functions and play its role in the implementation of the Treaty as a whole. The other achievements included signing agreements between the gene banks under the Consultative Group on International Agricultural Research (CGIAR), thereby bringing the Annex 1 crops in their collections under the multilateral system (Article 15) as well as the relationship agreement between the Governing Body and the Executive Board of the Global Crop Diversity Trust (GCDT).

One of the major steps taken by the Governing Body in fulfilling its functions under its rules of procedure was to establish the ITPGRFA’s Secretariat in 2007, replacing the interim secretariat that was provided by the Commission on Genetic Resources. The initial step that was taken was the recruitment of the secretary to the Treaty. The Governing Body mandated its bureau, which was elected for its second session, to undertake this task. By the time the second session was being held towards the end of 2007, a functional, though not complete, ITPGRFA Secretariat was in place and was working hard to prepare and organize this meeting. A major challenge for the Treaty’s implementation has related to the functioning of its Secretariat, which has been limited by financial resources, owing to the low level of contributions to the core administrative budget that it receives from its contracting parties.

**Implementation of the multilateral system and adoption and use of the SMTA**

The SMTA that was adopted at the first session of the Governing Body was seen as a key tool in the implementation of the multilateral system. More significant was the adoption of the SMTA by all of the CGIAR gene banks for use in facilitating transactions for both Annex 1 and non-Annex 1 germplasm collections. During the second session of the Governing Body, the operation of the SMTA, as part of the implementation of the multilateral system, was reviewed. This review also included the inclusion of PGRFA materials into the multilateral system by the contracting parties and by other natural and legal persons pursuant to the ITPGRFA. The positive feedback concerning the operation of the SMTA is to a large extent misleading because the participation of the contracting parties in these efforts is non-existent or insignificant. As could be expected, the CGIAR gene banks have played a leading role in taking clear and concrete steps to include PGRFA in the multilateral system and to distribute it using the SMTA, while the contracting parties have made limited or no progress. The
report of the second session of the Governing Body, which noted with appreciation that the collections of the CGIAR gene banks were already being distributed under the terms of the SMTA, testifies to this fact (FAO, 2007).

**Role of international organizations: agreements entered into by the Governing Body**

From a technical point of view, global-level implementation of the ITPGRFA’s provisions and the multilateral system, in particular, is associated with a number of international players. These include international organizations such as the International Agricultural Research Centres (IARCs) of the CGIAR, Bioversity International, the GCDT and the technical units of the FAO.

The PGRFA collections held by the genetic resources centres or gene banks run by the IARCs are considered to be an important global asset. These collections were in existence prior to the ITPGRFA coming into force and were held in-trust on behalf of the international community through agreements signed between these centres and the FAO. The Treaty itself has recognized the importance of these collections and has provided for their inclusion under the multilateral system through agreements signed between the Governing Body of the Treaty and each IARC holding *ex situ* collections of the crops covered by Annex 1 (Article 15 of the Treaty). Reports presented to the meetings of the Governing Body show that the IARCs have made good progress in implementing the multilateral system, particularly in terms of designating material under the multilateral system and actually making it available under the terms and conditions of the Treaty and the SMTA (ITPGRFA, 2007, 2009, 2011).

The IARC collections form by far the largest group of resources currently known to be in the multilateral system and being exchanged through the SMTA. The centres manage the collections under what are generally accepted to be international standards of management, which cover all key aspects of *ex situ* conservation, including procedures for distributing the germplasm materials to users. Since the PGRFA collections maintained by the IARCs are relatively well documented (information about the material is even publicly available through web-based systems), they have been easier to designate under the multilateral system. The IARCs have also been the first to adopt the use of the SMTA, thereby providing an early opportunity to demonstrate the practical operation of the multilateral system and some visibility for the Treaty’s implementation. Their experiences have provided a basis upon which the implementation of the multilateral system can be reviewed. The expertise available at these centres in the management of the PGRFA collections is of great value in supporting the provision of technical support in the implementation of the Treaty, in general, and of the multilateral system, in particular.

Another important event was the signing of a relationship agreement between the Governing Body and the GCDT. In this agreement, the Governing Body recognized the GCDT as an essential element of the funding strategy under the ITPGRFA and provided for the provision of overall policy guidance by the Governing Body to the Trust as well as the submission of the reports on its activities to the sessions of the
Governing Body. The GCDT was established almost at the same time the ITPGRFA came into force. The reports provided to the Governing Body indicate that the GCDT has made good progress in fulfilling its mandate of supporting the long-term conservation and availability of \textit{ex situ} collections important for global food security. The main component of the GCDT’s activities is the establishment of an endowment fund that will support in the long-term priority \textit{ex situ} collections. Although it has not yet reached its target, the successes scored by the GCDT in terms of fundraising both for endowment and project work have been acknowledged and appreciated by the Governing Body (FAO, 2009). The goal of supporting a number of key crop \textit{ex situ} collections, which will be maintained at various IARCs, has been a first priority for obvious reasons.

These events, together with a four-year project to regenerate global priority crop collections considered unique and threatened around the world, constitute a significant contribution to strengthening the global system of \textit{ex situ} collections and thereby facilitating the implementation of the ITPGRFA, in general, and the multilateral system, in particular. Initially, some contracting parties found it difficult to appreciate the role of the GCDT, viewing it more as a competitor to the benefit-sharing fund under the ITPGRFA’s Secretariat than as a complementary entity.

There seem to be mixed feelings among the contracting parties regarding the agreements signed by the Governing Body and the IARCs that hold \textit{ex situ} crop germplasm collections and the GCDT. While most developed countries consider these global instruments to be important for facilitating the implementation of the ITPGRFA, most developing countries are skeptical, viewing them as mechanisms designed to enhance facilitated access from the multilateral system while doing little for benefit sharing.

\textbf{Delayed issues in Treaty implementation}

Although the funding strategy was adopted at the first session of the Governing Body, a lot remained to be done in order to achieve an implementable strategy. Key decisions that accompanied the adoption of the funding strategy at the first session included the establishment of a trust account for receiving and utilizing financial resources that accrue to it for the implementation of the Treaty, in accordance with Article 19.3(f) of the Treaty. This same decision provided for the establishment of an Ad Hoc Advisory Committee, which would, among other things, draft priorities, eligibility criteria and operational procedures for the allocation of funds. The delay in finalizing the funding strategy created a lot of anxiety among developing countries, which saw it as being key to the ITPGRFA’s implementation. This anxiety was also amplified by the lack of progress in the implementation of Article 18 – in particular, Article 18.4(a) and (b), which states: ‘Contracting Parties shall take the necessary and appropriate measures within the Governing Bodies of relevant international mechanisms, funds and bodies to ensure due priority and attention to the effective allocation of predictable and agreed resources for the implementation of plans and programmes under this Treaty’ and calls contracting parties to accord due priority in their own plans and programmes to building capacity in PGRFA.
The Ad Hoc Advisory Committee was later established, according to the recommendations of the Governing Body, and it worked to complete the tasks assigned to it. These efforts led to the development of a strategic action plan, which specified the funding target of US $116 million over a ten-year period. The implementation of this plan in terms of fund mobilization began in 2010 with a target of US $10 million, which has since been achieved and surpassed. The fact that the fund has achieved what it set out to do has brought relief to most contracting parties from the developing world, which had been worried about the lack of financial resources for the implementation of the ITPGRFA. It is hoped that the majority of this money will be contributed by developed country contracting parties pursuant to the expectations of the strategic plan. Although progress has been made in the implementation of the financial strategy, it is still far from reaching its goal as stated in the strategic plan.

The other elements that are considered key in terms of implementing the ITPGRFA, which has been delayed in terms of agreement and adoption by the Governing Body, are the procedures and mechanisms to promote compliance and deal with issues of non-compliance. Substantive discussions on this topic have been postponed since the first session of the Governing Body. Developed country contracting parties consider these procedures and mechanisms to be more or less a prerequisite for the Treaty’s effective implementation by the contracting parties. However, the progress anticipated in moving towards an agreed procedure and mechanism was not forthcoming due to the fact that the developing country delegations did not prioritize this agenda item during either of the sessions of the Governing Body since they wanted to invest more time on the funding strategy. This delay frustrated most of the contracting parties from the developed countries who saw this element as being critical in ensuring the effective implementation of the Treaty, in general, and the multilateral system, in particular. It is hoped that this issue will now get additional attention since work on the funding strategy has been finalized. Once full agreement is reached and the procedures and operational mechanism on compliance has been adopted, a Compliance Committee, established pursuant to Articles 19.3(e) and 21 of the ITPGRFA, is expected to begin its work. According to a decision of the Governing Body, a contracting party is allowed to raise any matter concerning its compliance with the Treaty, including potential non-compliance, before the actual procedures and operational mechanisms are finalized.

Concerns, mainly from developing countries, brought the issue of the third party beneficiary into the negotiations of the ITPGRFA – in particular, the operation of the multilateral system. Although it had been emphasized that access to PGRFA under the multilateral system should be provided expeditiously, without the necessity of tracking individual accessions, it was strongly felt that there was a need for some kind of monitoring system that would safeguard the interests of the beneficiaries of the multilateral system in terms of securing benefits. From the point of view of developing countries, the critical element was the need to ensure that the system would deliver benefits at the end of the day. Discussions were protracted, and agreement mainly centred on who should play this role and what it should entail. In the end, it was agreed that the FAO would take the role, which would be limited to basic monitoring and mediation.
There were some delays in making the third party beneficiary functional due to a lack of operational procedures. The second session of the Governing Body acknowledged the director-general’s acceptance, in principle, of its invitation for the FAO to carry out, as the third party beneficiary, the roles and responsibilities, as identified and prescribed in the SMTA, subject to formal approval upon review of the procedures to be established by the Governing Body. From the perspective of the developing country contracting parties, therefore, the delay in making the third party beneficiary operational was seen as a bottleneck in the full implementation of the multilateral system. The developed countries are to some extent still skeptical about the relevance of the third party beneficiary and would like its role to be as simple as possible and avoid the tendency for it to develop into a bureaucratic entity.

**Major challenges and opportunities**

There is no doubt that implementation of the ITPGRFA, in general, and the multilateral system, in particular, has faced some challenges. Most of these stem from the negotiation process and are inherent in some of its provisions. There are also developments, both actual and still in the works, that present opportunities to enhance the Treaty’s implementation. Some of these challenges and opportunities are discussed in the following sections.

**Challenges**

**Balancing Treaty implementation**

The first major challenge confronting the Governing Body is how to deal with the desire, mainly by developing country contracting parties, for a balanced approach in implementing the ITPGRFA. The adoption of the SMTA, the signing of agreements between the Governing Body and the CGIAR gene banks and the creation of the GCDT were all actions that were seen to be biased towards facilitating access to PGRFA in the multilateral system. Delays in reaching agreement and adopting the funding strategy, through which financial resources would be provided for a benefit-sharing fund, were seen as a sign of reluctance on the part of developed country contracting parties to prioritize the implementation of benefit sharing under the multilateral system and other parts of the ITPGRFA. The rationale behind the thoughts of the developing countries was that although the multilateral system encompassed both facilitated access and benefit sharing, the former was not new and was already taking place, while the latter was new and there were no mechanism in place to regulate it. In terms of prioritizing between these two processes, developing countries felt it made sense to prioritize benefit sharing in order to move towards a balanced scenario in terms of the Treaty’s implementation. The argument for balancing the implementation of the multilateral system, and in particular for putting into place mechanisms to guarantee the flow of monetary benefits, stems from the understanding that access to PGRFA has been provided in the past, and continues to be provided, without corresponding
benefit sharing from the commercial use of PGRFA accruing to the providers. It is generally expected that the contracting parties would view facilitated access as a major benefit of the multilateral system, as reflected in Article 13.1 of the Treaty, since it would lead to a better realization of benefit sharing. Such arguments were echoed in the discussions of the Governing Body.

Under the ITPGRFA, monetary benefits are derived from a royalty payment triggered by the commercialization of products incorporating material received from the multilateral system. It is generally appreciated that the process of developing a variety, which may then be commercialized, takes a long time. A related challenge to realizing such monetary benefits within the multilateral system is knowing when the materials have actually been developed. Can the stakeholders within the multilateral system, who are often a considerable distance away, depend on the honesty and good will of the recipients and users of the accessed PGRFA material to inform them when the materials have been created? It is for this reason, perhaps, that these parties are proposing a mechanism – the third party beneficiary – which would attempt to play the role of a monitoring and mediation mechanism for the multilateral system in order to, among other things, ensure that benefits flow to the multilateral system.

Balancing the implementation of the ITPGRFA is also considered from the point of view of enabling the contracting parties from developing countries to meet their obligations in terms of facilitating the implementation not only of the multilateral system but also of the other parts of the Treaty. There are, for instance, several measures that the contracting parties are required to take under Articles 5 and 6, which deal with conservation and sustainable use. Although access under the multilateral system is important, most developing country contracting parties, particularly the African countries, consider it to be even more important. The expectations are that, through the Treaty, additional financial resources would become available to implement these measures, which would enable these countries to build their national capacity for conservation and sustainable use of PGRFA and, ultimately, help them to tackle problems of food security at the farming, community and national levels.

In pushing for a balanced Treaty implementation, the contracting parties from developing countries were united and consistent in their emphasis on the need to have a funding strategy that delivers the required results, including, among others, the mobilization of financial resources under the direct control of the ITPGRFA’s Governing Body. In the opinion of most developing countries, this is the only way that the Treaty can be effectively implemented. While the Governing Body has made progress in finalizing the funding strategy, including the preparation of a strategic action plan and the development of funding targets, one remaining challenge in developing the fund is whether or not there will be adequate incentives or attraction for donors to buy in and contribute the necessary funds. One of the disincentives for donors may be that the administration of such funds would be less efficient since it will be under the FAO, which is considered to be fairly bureaucratic. Furthermore, it is an organization to which they are already contributing funds. Although nobody seems to be overly optimistic about solving this issue, most of the contracting parties from developing countries, a few from developed countries, and several non-governmental organizations are
continuing to lobby to mobilize the fund and are hoping that it will be successful. Proponents of a fund that would be under the direct control of the Governing Body cite the FAO’s poor implementation of programmes and activities under the Global Plan of Action for the Conservation and Sustainable Use of PGRFA. They fear that these setbacks may also occur with the funding mechanism. Most developed countries, however, are of the opinion that financial resources under existing arrangements, which are not necessarily under the direct control of the Governing Body, could be made available for the Treaty’s implementation.

The funding strategy under the ITPGRFA requires that countries prioritize their PGRFA programmes and activities and provide funds for them as an important counterpart to the Treaty’s implementation (Article 18.4). The realization of such arrangements, however, faces a considerable number of challenges. If these issues are not addressed, implementation of the Treaty at the national level in most developing countries will be very difficult.

**Increasing availability and visibility of PGRFA materials under the multilateral system**

The other major challenge in my view, which I think is shared by many stakeholders with interest in the ITPGRFA’s implementation process, is how to clearly define what material is included in the multilateral system and is actually available for exchange under the terms and conditions of the SMTA. From what has been reported to date, it is clear that much effort needs to be made in order to provide documentation on the material available in the multilateral system. The Treaty is clear about what material should be included. The difficulty arises from the fact that there is no actual central gene bank identified under the multilateral system into which the contracting parties and other legal and natural persons should deposit their eligible collections. In a sense, the multilateral system is a virtual gene bank from the point of view of germplasm material that is available for exchange. In practice, the PGRFA materials identified under the multilateral system are held by different entities in different countries.

Another related problem concerns knowing and being able to communicate what is actually held in the collections under the multilateral system. Relevant information needs to be provided including passport data, characterization and other descriptive information. Most developing countries do not have proper documentation on their PGRFA collections. It is therefore no wonder that most of the material that has been exchanged in the multilateral system involves collections of the CGIAR gene banks. There is no doubt that in order to facilitate the exchange of materials in the multilateral system some sort of global information system, as envisaged by Article 17 of the Treaty, will need to be developed.

**Expanding the crop coverage of the multilateral system**

There are a number of stakeholders, including contracting parties from developing countries, who would want to see an expansion of Annex 1 in terms of number of
crops that are included in the multilateral system. Some people find it difficult to understand the logic behind the limited number of crops included under Annex 1, especially if one recalls the aspirations of the key stakeholders in the early stages of the Treaty’s negotiations. The African group, for instance, originally advocated a more comprehensive list of crops than that currently included under Annex 1, but it changed its position to a much smaller list since the developed countries were insisting on the use of intellectual property rights on PGRFA within the multilateral system.

Despite the fact that developing countries, for the most part, have appreciated the principle of being interdependent for the PGRFA of most crop species and have recognized the importance of such varieties for global food security, developing countries chose to act cautiously on including a broader list of crops into the multilateral system due largely to their disappointment with the lack of a clear commitment from developed countries to provide financial resources to implement the Treaty and, therefore, their uncertainty over the functionality of the benefit-sharing system under the multilateral system. Those parties that would like to see more crop species included under Annex 1 hope that the Governing Body will review it in the future. To some extent, the ex situ collections of crop species that are not contained in Annex 1 and therefore are not under the multilateral system are being left out due to a lack of funding support from some of the funding initiatives, such as those under the GCDT. To some extent, such a shortfall highlights the need to have more crop species included so that they will not be left without financial support. It can be expected that if good progress is not made with respect to the mobilization of financial resources and the functionality of the benefit-sharing arrangements, the prospects for reaching an agreement on the expansion of Annex 1, if it comes up for review, may be bleak.

**Opportunities**

**Regional plant genetic resources (PGR) networks**

PGR networks have been instrumental in strengthening national programmes and international collaboration in many parts of the world. These networks also facilitate increased cooperation between developed and developing countries. A number of existing regional and sub-regional PGR networks have many similar objectives, which include enhancing the national capacity for managing PGRFA by providing platforms for the development of common policies, harmonizing regional approaches, promoting the exchange of germplasm and sharing information and technologies. It is therefore envisaged that these networks would provide opportunities to enhance the implementation of the ITPGRFA. In return, the Treaty recognizes the potential that these networks have and calls for them to be strengthened and further established.

Such networks are in existence, or in the process of being established, in all regions of the world. In Africa, they include the Southern Africa Development Community Plant Genetic Resources Programme (SPGRC), which was started in 1989, the East African Plant Genetic Resources Network and the Genetic Resources Network for West and Central Africa (GRENEWECA).
During a workshop organized under the Joint Programme on Capacity Building for Treaty Implementation in Lusaka, Zambia, in 2009, strategies that would enable the SPGRC to enhance its role within the region in implementing the ITPGRFA were discussed. It was felt that these strategies should include capacity building, including policy and legal capacity as well as technical capacity for plant breeding and seed production; the regional harmonization of policies and legislations; and the exchange of information, awareness raising and reporting under the multilateral system. GRENEWEC, which is in the process of being established, is seeking to create a regional system of *ex situ* conservation for priority PGRFA in West and Central Africa and to enhance sub-regional cooperation. Its strategies would incorporate elements that are supportive of the Treaty’s implementation, including encouraging member countries to be contracting parties to the Treaty and to use the SMTA for the exchange of Annex 1 and non-Annex 1 crop species.

In the Americas, there are six networks, each consisting of groups of several countries. These are the Caribbean Plant Genetic Resources Network, the Andean Network on Plant Genetic Resources, the Plant Genetic Resource Network for South American Tropics, the Mesoamerican Network of Plant Genetic Resources, the Plant Genetic Resources Network of the Southern Cone Countries and the Plant Genetic Resources Network for North America.

Countries of western Asia and northern Africa are establishing a new network for this combined region within the framework of the Association of Agricultural Research Institutes in the Near East and North Africa. The network would be country driven and would be primarily concerned with the conservation and sustainable use of PGRFA, in line with the ITPGRFA. The regional strategy would also emphasize the harmonization of national legislation and procedures, including legislation necessary for the implementation of the Treaty.

In Asia and the Pacific, there are three main networks. These are the South Asia Network on Plant Genetic Resources, the Regional Co-operation Network in Southeast Asia for Plant Genetic Resources and the Pacific Agricultural Genetic Resources Network.

The European Cooperation on Plant Genetic Resources has established a European Gene Bank Integrated System (AEGIS), which is a European collection consisting of selected accessions designated by the individual countries, through which it hopes to more effectively contribute to the Treaty’s implementation. Material designated as part of the European collection would continue to be conserved in the various individual gene banks, but they would be maintained in accordance with the agreed quality standards and they would be made freely available, both within Europe and beyond, in accordance with the terms and conditions set out in the ITPGRFA.5

**Existing information systems**

The various existing information systems provide the necessary documentation tools to facilitate implementation of the multilateral system. These tools include the information systems of the CGIAR’s gene banks, both individually and collectively, such as the
System-Wide Information Network for Genetic Resources. Others include the Germplasm Information Network under the Agricultural Research Services of the US Department of Agriculture, DBGEMRO, which is a software developed by the Instituto Nacional de Tecnologia Agropecuaria in Argentina and used in several Latin American countries and regional institutions, such as the Tropical Agricultural Research and Higher Education Centre and EURISCO, a web-based catalogue that provides information about ex situ plant collections in Europe and is hosted and maintained by Bioversity International on behalf of the European Cooperative Programmes on Plant Genetic Resources. Efforts to develop one-stop global information systems to enhance the accessibility of information about existing ex situ collections within the framework of the Treaty’s implementation are being undertaken and are drawing upon the progress and experiences of these earlier systems.

Improved documentation and information systems will positively impact on the availability and accessibility of germplasm collections in the multilateral system. Major international collections and those of developed countries usually have web-based documentation and information systems that provide such information. Many smaller developing countries, on the other hand, face substantial financial, technical and institutional problems in providing online information to the public on their germplasm collections.

**Increased media publicity**

There has been a dramatic increase in media publicity regarding the conservation and use of PGRFA over the last two years, chiefly due to the establishment of the Global Seed Vault in Svalbard, Norway. The facility has been built by the Norwegian government to serve as safety backup of last resort for the world’s unique PGRFA ex situ seed sample collections and is acknowledged and appreciated by the Governing Body of the Treaty as a worthwhile contribution towards the implementation of the Treaty and security of the global system of ex situ conservation. Its official launch in February 2008 attracted unprecedented worldwide media attention, which was expected to significantly increase the level of awareness of the ITPGRFA and the value of PGRFA and, therefore, the need for concerted efforts to support its long-term conservation and sustainable use. The attention that the seed vault has attracted provides a unique opportunity to raise the status of the Treaty and enlist high-level policy support and increase options for fundraising.

**Increased training in PGRFA**

Globally, the increased existence of learning institutions and materials related to PGRFA provide greater opportunity for upgrading human resource capacity that may be required in the implementation of the Treaty, in general, and of the multilateral system, in particular. Formal Bachelor of Science, Master of Science and Doctorate of Philosophy degree programmes that have a special emphasis on biodiversity and genetic resources have been established in several countries as a response to calls for
action under the CBD. Support directed at special training programmes designed to
cater to the needs of the ITPGRFA, and of PGRFA in general, could serve to accel-
erate the implementation of the Treaty. In my view, the Treaty’s implementation
process requires a critical mass of technically trained personnel.

**Focus on climate change**

The challenges posed by climate change and the role that can be played by using
PGRFA to adapt to a changing climate or to play a mitigating role provide an
opportunity to further highlight the importance of PGRFA and therefore of the
ITPGRFA itself. There has been increased debate and awareness regarding climate
change and its actual and potential adverse impact on agriculture and the livelihoods of
people living especially in developing countries. Efforts that are being made to demon-
strate the role of agriculture and PGRFA in mitigating climate change challenges and
preparing farmers to adapt their production systems present a great opportunity to
improve or broaden the means for fundraising for the Treaty’s implementation.

Policy makers in national governments and the international community need to
be convinced that without crop diversity, agriculture, and crop production in particular,
cannot adapt to climate change. It should also be emphasized that bringing this infor-
mation to the public requires that there is a functioning international system (provided
by the Treaty) for sharing crop genetic material.

Climate models have predicted dramatic changes in climate in most parts of the
world. Most countries in the northern and southern parts of the African continent,
for instance, are expected to experience increased warming and drying, which is
likely to substantially reduce the yields of staple food crops such as maize (Bellagio
Meeting, 2007). One feasible approach to reduce the impact of these shifts in climate
will require the promotion of substantial breeding e
fforts, which will depend on the
collection, conservation and distribution of appropriate crop genetic material among
plant breeders. Traits of interest for this purpose will include abiotic stress tolerance
(drought, salinity and so on) as well as pest and disease resistance.

The implications of climate change on plant genetic resources include the genetic
erosion of crop wild relatives *in situ*. To mitigate the possible impact on PGRFA
existing *in situ*, including crop wild relatives, priority actions now and in the near future
have to include further collection, regeneration, safety duplication and conservation.

**Conclusion**

The lack of funding and commitment by the contracting parties has slowed the pace
of implementing the ITPGRFA, which has led to skepticism among the stakeholders
about whether the Treaty can serve their interests or provide them with benefits. For
the multilateral system to be fully functional, it has to deliver both of these goals in terms
of providing facilitated access to the globally important PGRFA and realizing the flow of
both monetary and non-monetary benefits, especially to developing countries and
countries with economies in transition. Judging from the Treaty’s slow progress as well
as the challenges that it is facing, it is unlikely that a review of Annex 1 will be undertaken soon and that agreement on expanding the list will be easy. Unless funding is provided to the contracting parties of developing countries, it is unlikely that the role of developing country parties in the Treaty’s implementation, particularly in the exchange of PGRFA under the multilateral system, will change in any significant way in the near future.

Although the funds that have been mobilized and made available through the ITPGRFA’s benefit-sharing fund could be seen to be critical in making the benefit-sharing mechanism functional, it is necessary to look at the Treaty’s funding strategy more broadly and recognize that other sources of funds, such as those under the GCDT, are contributors to the Treaty’s implementation and the realization of benefit sharing.

In addition, there is a need for renewed efforts to strengthen regional PGR networks as platforms to enhance and promote the Treaty’s implementation. Currently, support for some of these networks is not encouraging, and unless the trend is reversed it could have adverse implications for implementation, especially among developing country parties. There is need to take advantage of the advances in information technology to develop robust global information systems that enhance the sharing of information and knowledge and that will positively impact on the availability and accessibility of germplasm collections in the multilateral system.

Finally, there is no doubt that the dramatic increase in media publicity regarding the conservation and use of PGRFA over the last few years has increased awareness among policy makers, donors and the general public of the importance of PGRFA and the need for its conservation, especially in view of the anticipated negative impacts of climate change. Linking the challenge posed by climate change and the role that can be played by using PGRFA collections to adapt agriculture to cope with the new conditions created by these changes and to sustain production has the potential of attracting increased political attention at all levels to provide financial resources required to support PGRFA conservation and to implement the Treaty.

Notes

5 For more information on the European Gene Bank Integrated System, see www.aegis.cgiar.org (last accessed 8 June 2010).

References


