

Chapter 20

General Conclusions

Summary of Stakeholders' Views and Suggestions to Cope with the Challenges in the Implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture

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The purpose of this chapter is to provide a general analysis of the comments made by the authors of the book chapters in the ongoing implementation of the Treaty. The reader will have noticed that, on the one hand, many authors remain fairly optimistic about the Treaty and note that considerable progress has been achieved in a very short period of time, even beyond their initial expectation. On the other hand, some authors, while recognizing that the Treaty is a useful and flexible instrument, point at the risk that the lack of appropriate and quick decisions and actions to speed up the implementation process may lead to a decreased level of confidence in the general framework set up by the Treaty. Most of them recognize that it is now the moment to advance on its implementation.

In order to analyse most of the appraisals and concerns provided by authors on the implementation of the Treaty in a systematic way, these concerns have been grouped in several sections in line with the structure of the Treaty (Part I of this chapter). The editors, have tried to go one step further by sharing thoughts on possible ways and means to address these concerns (Part II).

Part I – Appraisals and concerns raised by the authors on the Treaty and on the implementation of its provisions

Following as much as possible the structure of the Treaty, this first part is divided into eight sections: General Considerations, Conservation and Sustainable Use, Farmers' Rights, the Multilateral System of Access and Benefit-sharing, Instruments for International Cooperation, and Financial Provisions. For the benefit of those readers not familiar with all the details of each Treaty provision, the editors decided to add a short explanatory note under the title 'Thematic content' for the most complex issues addressed. Then, appraisals and concerns made by the authors are summarized.

General considerations: Public awareness, policy coherence, legal certainty and trust created by the Treaty

Many authors have made general comments on the Treaty and many of them have said that public awareness and policy coherence as well as legal certainty and trust are important factors contributing to an efficient implementation of the Treaty.

Regarding public awareness and policy coherence, there is a belief that the mere existence of the Treaty as a legally binding instrument is crucial for three reasons. First, the recognition of the importance of plant genetic resources in the national political arena has significant value in itself as it puts agriculture at the forefront (e.g. Chapters 5, 8, 9 and 18). Second, authors acknowledge that the Treaty provides for a renewed belief that protecting PGRFA is an urgent matter (e.g. Chapters 6 Appendix, 7, 13 and 16). Finally, authors also note that the adoption of the Treaty, its rapid entry into force and implementation have significantly contributed to put the agricultural sector in the limelight within the constellation of international fora and associated UN institutions (e.g. Chapters 6, 7, 10, 12 and 14). However, some authors also point to a number of general shortcomings, in particular, the insufficient coordination and coherence at different levels (e.g. Chapters 3 and 7). Some authors pledge in favour of stronger coordination and synergy in the development of policies, legislation and regulations among related international instruments (such as the Treaty, the CBD and TRIPs), and among the various competent ministries, governments and other institutions with responsibility for different aspects of PGRFA (e.g. Chapters 3 and 4). Some authors also feel that awareness of the Treaty at the national level is too low (e.g. Chapters 3, 7 and 17). In certain cases, the limited capacity, funds and training make it hard to organize wide national consultations (e.g. Chapters 9 and 13).

Regarding legal certainty and trust, many authors tend to agree that the Treaty constitutes a framework providing legal certainty and clarity in the exchange of PGRFA. They recognize that the Treaty has fostered trust among stakeholders and also between developed and developing countries (e.g. Chapters 2, 5, 6 and 8). Nevertheless, many authors point to the lack of clarity of some specific Treaty

provisions (e.g. Chapters 2, 4, 5, 6 Appendix and 15), such as Article 12.3(d), or Article 11.2 (see below section 4). Some authors have signalled a possible decrease in the trust they confer to the instrument since its entry into force, as a result of these ambiguities (e.g. Chapter 3).

Conservation and sustainable use (Articles 5 and 6 of the Treaty)

Thematic content

Article 5 and 6 of the Treaty deal with 'Conservation, Exploration, Collection, Characterization, Evaluation and Documentation of Plant Genetic Resources for Food and Agriculture' and with 'Sustainable Use of Plant Genetic Resources'. These provisions constitute obligations of contracting parties.

Some authors recognize that in their national implementation the conservation obligations have attracted more attention than the sustainable utilization ones (e.g. Chapters 6 and 7). Other authors request more clarity as to what should be understood under the obligation of sustainable use of PGRFA (e.g. Chapter 17). Many authors consider that these two articles are non-separable and argue for a stronger and faster implementation of both conservation and sustainable use provisions at the domestic level (e.g. Chapters 6 Appendix and 7). Authors stress that the main constraints for the implementation of these provisions relate to technical and scientific limitations regarding the maintenance and management of genetic diversity and the sustainable use of genetic resources, such as poor safety and storage conditions, lack of financial and human resources (e.g. Chapters 7 and 16).

Some authors favour the promotion of in situ conservation and use of wild crop relatives and wild plants, going as far as proposing the establishment of regional research sites (e.g. Chapter 7). Moreover, some authors stress that more information on genetic erosion should be generated (e.g. Chapter 7, 8).

Farmers' Rights (Article 9 of the Treaty)

Thematic content

Part III of the Treaty is entirely devoted to Farmers' Rights and to contracting parties' responsibility for their realization. Article 9 reiterates the broad rationale for Farmers' Rights in the first paragraph (Art. 9.1). In the second paragraph, specific rights are identified (Art. 9.2). However the weight of this second paragraph in terms of an international obligation is limited since the main responsibility for their realization rests with national governments. The Preamble also refers to Farmers' Rights and to the importance to promote them at both national and international levels (Treaty Preamble § 7 and 8). The last part of the article (Art. 9.3) deals specifically with the rights of farmers to save, sell and exchange seeds, and remains neutral on the status of these rights.

Many authors consider that the Treaty provides incentives for stakeholders, in particular, farmers, to conserve and use PGRFA in a sustainable manner, through the recognition of Farmers' Rights and the benefit-sharing mechanism of the MLS (e.g. Chapters 2, 3, 7 and 17). Nevertheless, some authors point out that for them Farmers' Rights was not a primary concept during the negotiations of the Treaty (e.g. Chapters 5 and 8). For others, the inclusion of a provision for Farmers' Rights in the Treaty is seen as an important first step (e.g. Chapters 3 and 13). They state that the Treaty has allowed for the recognition of farmers' movement and for more coherent and larger organization of farmers' communities (e.g. Chapters 10 and 13). The establishment of a Global Fund for Farmers, similarly as the Global Crop Diversity Trust, to support farmers' work on on-farm conservation and crop development is also proposed (e.g. Chapter 13).

Several authors sustain that there is a lack of sufficient international recognition¹ and national implementation of Farmers' Rights (e.g. Chapters 3 and 13). Difficulties in implementing Farmers' Rights at the national level are attributed to a lack of legal expertise and prior experience in the field (e.g. Chapter 3). Moreover, the authors from the chapter on farmers' communities consider that Farmers' Rights should encompass many other rights (e.g. Chapter 13). They argue that Farmers' Rights are a bundle of rights, which should characterize the interrelationships of seeds with land, water, energy, culture, social fabric, household and individual well-being. Authors from the seed industry chapter believe that Article 9.3 does not provide any legitimacy to save, use and sell farm saved seed, and they interpret Article 9 in a limited manner (e.g. Chapter 12). Finally, some authors have stressed the fact that the provisions of the Treaty and their implications for smallholder farmers are yet to be substantially 'processed' by farmers and their communities. A large number of farmers and their organizations have yet to identify themselves within this 'social construct' (e.g. Chapter 13). Still, while some authors stress that it is strictly a domestic issue (e.g. Chapter 8), other authors contend that there is some lack of clarity and no common interpretation of this Treaty provision, which contributes to misunderstandings and requires clarifications (e.g. Chapter 3). Up to now, only a few countries, such as for instance India, have implemented legislation on Farmers' Rights (e.g. Chapter 14).²

The multilateral system of access and benefit-sharing (Articles 10–13 of the Treaty)

Thematic content

Part IV of the Treaty is devoted to the Multilateral System (MLS) of Access and Benefit-Sharing. Article 10 recognizes the sovereign rights of countries over their own PGRFA. It states that Contracting Parties establish the MLS in the exercise of these sovereign rights. Article 11 limits the scope of the MLS to PGRFAs listed in Annex I to the Treaty, while Article 12 defines its facilitated access mechanism and Article 13 deals with benefit-sharing.

Many authors consider the MLS as the core of the Treaty. The MLS is generally regarded as a unique instrument because it ensures multilateralism (e.g. Chapters 2, 5 and 6). Most authors recognize that the success of the Treaty will depend on the effective implementation of its MLS (e.g. Chapters 3, 6 and 19). Several authors recall that the MLS creates a balance between access and benefit-sharing (e.g. Chapters 5, 18, and Annex 4). Some of them express their conviction that a balanced implementation of the MLS, equally fostering access and benefit-sharing, is the only manner in which to implement the Treaty in a sustainable way (e.g. Chapter 18).

Coverage of the MLS

Thematic content

The negotiations of the coverage of the MLS were difficult and often caused considerable tensions. While some Parties initially wanted to apply the MLS to all PGRFA (similar to the other Treaty provisions), others strongly opposed this wide scope of application. Negotiators used the criteria of 'interdependency' and 'food security' to determine which crop should be covered by the MLS. The compromise resulted in the Annex I list of 64 crops and forages.

While stories and strategies regarding the design of the scope of application of the MLS differ significantly, most authors contend that the criteria of 'interdependency' and 'food security' led to the designation of a fairly wide list of crops and forages in Annex I to the Treaty (e.g. Chapters 5, 6 and 8). While a few authors indicate that in their opinion the list is too broad (e.g. Chapter 4), a few others propose that the MLS should apply to all PGRFA (e.g. Chapter 12). However, many authors suggest that Annex I should eventually be modified, especially because very important crops, such as tomatoes, soybeans or peanuts are not included in the Annex, and because climate change impacts on the interdependency and relative importance of the crop for food security (e.g. Chapters 5, 7, 8, 15, and Annex 4). Other authors, do not reject the idea of a modification of the list, or even its expansion to all PGRFAs, but they do not support such a development before it is clear that the MLS functions efficiently, in particular, with respect to its benefit-sharing provisions (e.g. Chapters 3 and 6). Some authors, wishing a much broader coverage, emphasize that several countries as well as the CGIAR already use the SMTA to distribute both Annex I and non-Annex I materials acquired before the Treaty came into force, thereby *de facto* widening the scope of the MLS (e.g. Chapters 5 and 11). Several authors claim that the identification of the material covered by Annex I of the Treaty, which should be included in the MLS (as per Article 11.2), is difficult and remains a challenge (e.g. Chapters 7 and 14).

Facilitated access to genetic resources (Article 12)

Authors welcome the adoption of the SMTA at the first meeting of the Governing Body and many consider it as an essential element to implement the MLS. Some

authors recognize its facilitative purpose in accessing PGRFA through a standard contract (e.g. Chapters 5 and 12). Only a few authors actually report on the use of the SMTA (e.g. Chapters 8, 11), because of the early stage of the implementation process at the domestic level. Yet, a faster implementation of the SMTA is recommended, urging governments to take the necessary policy and regulatory measures to this end (e.g. Chapter 5). The CGIAR Centres notice that they have been the main providers of materials using the SMTA in the first years of operation of the Treaty's multilateral system (e.g. Chapter 11).

As for non-Annex I material, few authors recognize the importance of the decision taken by the Governing Body for the CGIAR Centres to use the same SMTA for both Annex I and non-Annex I material (e.g. Chapter 11). Some authors mention that a few countries, such as The Netherlands and Germany, de facto expand the use of the SMTA to non-Annex I crops and forages under their management and control (e.g. Chapter 5). The seed industry considers that the breeders' exemption embedded in the SMTA is positive and strongly defends a wide use of the SMTA for non-Annex I material (e.g. Chapter 12). Moreover, plant breeders stress for instance that they encounter difficulties in gaining access to genetic resources that are not part of the list in the daily breeding practice (e.g. Chapter 15).

Some authors express concern about the difficulties in accessing material because of restrictions due to Intellectual Property Rights (IPRs) (e.g. Chapters 3 and 15). The lack of clarity, especially regarding Article 12.3(d) on the interpretation of the terms 'parts and components' and 'in the form received from the Multilateral System', (e.g. Chapters 2, 3, 4 and 15), and the lack of guidance as to the practical use of the SMTA (e.g. Chapters 12 and 14) are identified as a significant constraint in the implementation of the facilitated access obligation. Other authors mention that some countries have delayed the implementation of the MLS due to the negotiations on the International Regime on ABS under the CBD (Nagoya Protocol), in order to implement both instruments in a coherent way (e.g. Chapters 4, 6, 7 and 14).

Finally, some authors mention that traceability and control of the transfer of MLS material remains a challenge and that the increasing number of SMTAs might create an administrative burden in particular for providers (e.g. information that needs to be provided to the Third Party Beneficiary) (e.g. Chapters 5 and 19). This may lead to a limited distribution of samples of genetic material within the scope of the MLS (e.g. Chapters 12 and 15). Finally, some authors claim that providing material to the recipient under prompt and free access conditions for all PGRFA might sometimes be dependent on multiplication or regeneration or genetic resources costs and time efforts in the gene bank (e.g. Chapters 11 and 14).

*Benefit-sharing in the MLS (Article 13 of the Treaty)***Thematic content**

The negotiations on the benefit-sharing provisions of the MLS were closely related to those on facilitated access. The Treaty provides that benefits should be fairly and equitably shared by way of the exchange of information (Article 13.2(a)); access to and transfer of technology (13.2(b)); capacity-building (13.2(c)); and the sharing of monetary and other benefits of commercialization (13.2(d)). Moreover, voluntary benefit-sharing strategies are also sought to be considered as a contribution from food-processing industries (Article 13.6).

It is generally agreed by authors that the MLS creates a unique and innovative benefit-sharing mechanism by sharing monetary and non-monetary benefits derived from the use of PGRFA (e.g. Chapters 2, 3, 5, 6, 8, 10 and 18). Some authors mention that the Benefit-sharing Fund is the most important instrument for benefit sharing (e.g. Chapters 3 and 6). Other authors also consider the Global Crop Diversity Trust (GCDT) an important instrument (e.g. Chapters 5 and 16). Many authors foresee the availability of genetic resources as a major benefit of the MLS in itself (e.g. Chapters 5, 7, 9, 11, 15, 16, and Annex 4), while others do not consider access to PGRFA as a major benefit of the MLS, particularly because some countries have limited financial and technological capacity to utilize PGRFA, either conserved in their own gene banks or accessed elsewhere (e.g. Chapter 3). What these authors consider more important is to ensure that benefits derived from the use of genetic resources reach those who need them most and that capacity-building and transfer of technology and information is effectively implemented as a benefit-sharing instrument. It is commonly acknowledged that the exchange of information and results of technical, scientific, and socio-economic research on PGRFA constitute important benefits which should be shared. The same can be said for the access to and transfer of technology related to PGRFA. An example of technology transfer and capacity building projects is provided in Annex 4 of this book. However, some authors emphasize that concrete realization of non monetary benefits such as information sharing, access to and transfer of technologies and capacity building has not occurred yet. Similarly, some authors think that so far the benefit sharing, both monetary and non-monetary has been too limited (e.g. Chapters 3, 6 and 7). For example, the authors of the African Regional Group (e.g. Chapter 3) consider that the apparent delays in expanding the Benefit-sharing Fund under the Funding Strategy create a major obstacle in the implementation of the ITPGRFA.

Instruments for international cooperation (Articles 14–17 of the Treaty)

Thematic content

The instruments for international cooperation (Part V of the Treaty), include the rolling GPA, ex situ Collections of PGRFA held by the IARCs of the CGIAR and other International Institutions, International Plant Genetic Resources Networks and the Global Information System on PGRFA.

Few comments on these instruments and processes were received. General comments are made by some authors as to the lack of sufficient means devoted to international cooperation, and the limited implementation and results of these Treaty provisions at the national level. Some authors state that a common implementation framework would be useful to help assist countries, especially developing countries, with the effective implementation of the Treaty (e.g. Chapter 7).

Global plan of action (Article 14 of the Treaty)

Thematic content

The development of the GPA is one of the two major outcomes of the FAO Global System on Plant Genetic Resources, which was initiated by the establishment of the Commission on Genetic Resources in 1983 (see the structure of the global system in appendix I of Annex I of this book). The GPA provides an operational framework for the development of national programmes on PGRFA, and for regional and international cooperation. The GPA contains a set of recommendations and priority activities as a response to the needs, gaps and challenges identified in the first report of *The State of the World's Plant Genetic Resources for Food and Agriculture* (SoW) in 1996. The 20 priority activity areas of the GPA were recognized by the Governing Body of the Treaty as the reference for the establishment of initial priorities of its Funding Strategy. Some of these were grouped in three sets of priorities to guide the first and second benefit-sharing project cycles (information exchange, technology transfer and capacity-building; managing and conserving plant genetic resources on farm; and the sustainable use of plant genetic resources).

Some authors mention that the rolling GPA has not received sufficient attention since the entry into force of the Treaty (e.g. Chapter 3) and that the review of the GPA could contribute significantly to implement Treaty provisions that are not implemented yet in an effective way (e.g. Chapters 7 and 8). They point that the publishing of the second report on the 2010 SoW should allow for the update of the rolling GPA (e.g. Chapter 7).

Ex situ collection held by the IARCs of the CGIAR and other international institutions (Article 15 of the Treaty)

Thematic content

Under Article 15, the IARCs and other international institutions holding PGRFA collections in trust and which signed an agreement with the GB distribute Annex I PGRFA following the MLS provisions (in particular, using the SMTA). The centres are subject to policy guidance of the Governing Body for the ex situ collections held by them.

Some authors mention that, on the whole, the experience of the centres with the implementation of the Treaty has been quite positive, as the Treaty considerably simplifies the task of the centres in making PGRFA available and notably reduces the administrative costs involved (e.g. Chapter 11). Even more so since the Governing Body at its second meeting took note of the preferences of the centres and endorsed the option to use the same SMTA for both Annex I and non-Annex I material with an interpretative footnote, thus avoiding the need for two versions of the SMTA.³ Other authors recall that – up to now – the majority of the materials distributed through the MLS are those of the CGIAR centres (e.g. Chapter 5).

International plant genetic resources networks (Article 16 of the Treaty)

Thematic content

The Treaty provisions on International Plant Genetic Resources (PGR) Networks (Article 16) are grouped in three categories (i.e. crop-based networks, regional networks and thematic networks).

Some authors argue that networks are very important to the conservation, sustainable use and exchange of PGRFA, including through their role in raising public awareness, and that they should be developed and promoted in to the framework of Treaty initiatives (e.g. Chapters 2 and 9). They state that regional and national PGRFA networks are important instruments for the GPA implementation (e.g. Chapter 7), in particular, for PGRFA exchange, information sharing and technology transfer (e.g. Chapters 3, 4). Authors stress that the implementation of the GPA at the national level strengthens national networks which have also a direct positive effect on regional and global networks (e.g. Chapter 7). Some authors provide examples of national or regional networks active in their country (e.g. Chapters 9 and 14).

The Global Information System (GIS) on PGRFA (Article 17 of the Treaty)**Thematic content**

Article 17 states that Contracting Parties shall cooperate to develop and strengthen a GIS to facilitate the exchange of information, based on existing information systems, on scientific, technical and environmental matters related to PGRFA. Several types of existing information systems could be relevant to its development, such as the World Information and Early Warning System on Plant Genetic Resources for Food and Agriculture (WIEWS) in FAO, the System-wide Information Network for Genetic Resources (SINGER) for the CGIAR, the National Plant Germplasm System and the European Plant Genetic Resources Search Catalogue (EURISCO), and more recently Genesys.⁴

Only a few references are made to information systems, with little specific comment: SINGER is mentioned a couple of times (e.g. Chapters 11, 14) and Genesys is named once (Annex 4 of this book), (see below Part II for more details on the GIS).

Financial provisions (Article 18 of the Treaty)**Thematic content**

Through Article 18 of the Treaty the contracting parties undertake to implement a Funding Strategy for the implementation of the Treaty. The objectives of this Funding Strategy shall be to enhance the availability, transparency, efficiency and effectiveness of the provision of financial resources to implement activities under the Treaty. Several measures are listed, enabling contracting parties to reach these objectives and a funding target has to be periodically established. Funding for priority activities, plans and programmes are focused, in particular, on projects in developing countries and countries with economies in transition taking into account the GPA. Article 18.4(b) states that the extent to which the latter Contracting Parties will effectively implement their commitments under the Treaty will depend on the effective allocation, particularly by developed country Parties, of the resources referred to in this article.

Contracting Parties have developed this Funding Strategy between 2006 and 2009. In 2006, the GB adopted its relationship agreement with the Global Crop Diversity Trust (GCDDT),⁵ recognizing that 'FAO and the Future Harvest Centres of the CGIAR have promoted the establishment of a GCDDT, in the form of an endowment with the objective of providing a permanent source of funds to support the long-term conservation of the ex situ germplasm on which the world depends for food security, to operate as an essential element of the Funding Strategy of the International Treaty, with overall policy guidance from the Governing Body of the International Treaty, and within the framework of the International Treaty' (ITPGRFA, 2006). Up to March 2010, the GCDDT has raised US\$136 million. In 2008, the Benefit-sharing Fund became operative with voluntary contributions from Contracting Parties (Spain, Italy, Norway and Switzerland), and in 2009 Contracting Parties established a target of US\$116 million to be raised for the period 2009–2014.

Some authors believe that the Funding Strategy functions as a strategy to primarily mobilize money from existing sources and channels, including the monetary benefits of the MLS (e.g. Chapter 2). Many authors point to the lack of sufficient funds (e.g. Chapters 2, 3, 7, 13, 19). Several authors state that the ITPGRFA will have great difficulty in generating new and additional financial resources to support programmes to conserve and utilize PGRFA in a sustainable way at the regional, national and local community level. Some add that although at the third meeting of the Governing Body in 2009 a target of US\$ 116 million was agreed to be raised within the next 5 years (implementation of Article 18.3), much of these funds are not available yet and might be difficult to obtain (e.g. Chapter 3). Authors from the European Regional Group Chapter recall that some European countries have contributed to the Benefit-sharing Fund as a response to queries from developing countries for more money. They also note the pledge for benefit-sharing from Norway, which adopted a national policy where the equivalent of 0.1 per cent of all annual seed sales is transferred to the Fund.

Besides the clear concerns about the lack of funds, authors explain that the GCDT, although an independent institution separate from the Treaty, operates within the framework of the Treaty as it constitutes an essential element of its Funding Strategy (e.g. Chapter 16) and receives policy guidance from the Governing Body (e.g. Chapters 5 and 16). Some authors consider that the GCDT also contributes to an efficient implementation of the Treaty by supporting the benefit-sharing and conservation provisions of the Treaty (e.g. Chapter 7). However, other authors consider the GCDT useful but not central to the efficient implementation of the Treaty provisions, since it focuses mainly on ex situ conservation activities (e.g. Chapter 8).

Part II – Editors’ analysis of shortcomings and suggestions to cope with present and future challenges

This second Part of the conclusion aims at processing the appraisals and concerns regarding the implementation of the Treaty as described by the various authors. In doing so, the editors wish to share possible ways forward to facilitate the further implementation of the Treaty. The purpose is not to be exhaustive but to put forward a preliminary analysis of some of the major constraints on the implementation of the Treaty. While recognizing that many actions could be taken at the local, national or regional level, the editors, following the proposals made by the authors throughout the book, will stay within the limits of actions that can be taken at the Governing Body level. Part Two of this concluding chapter is divided into four sections, as summarized and illustrated in columns 1 to 4 of Table 20.1 below. Section 1 deals with the constraints identified by authors related to the implementation of the Treaty (Table 20.1, column 1). The editors have attempted in Section 2 to categorize these constraints into four types of needs (Table 20.1, column 2). Then, a selection of tools is discussed as possible ways to mitigate the identified

constraints and needs (Section 3, Table 20.1, column 3). Finally, the editors point to some of the Treaty articles which have received little attention until now and which implementation or further implementation could contribute to mitigate some of these constraints (Section 4, Table 20.1, column 4). Throughout the analysis, concise and concrete examples are given.

In the following text, the editors do not try to be prescriptive neither comprehensive but just to provide an input to promote discussion.

Section 1: Constraints identified by authors of the book (cf. Table 20.1, column 1)

The editors have selected some of the major constraints raised by authors of this volume, which are mentioned in Part I of this chapter. The constraints are based on the authors' experience with the implementation of the Treaty. They are very diverse and deal with scientific and technical, legal, political, and/or economic aspects of the Treaty implementation. Many constraints cover several aspects at the same time. This makes it even harder to tackle them. The editors make an attempt to categorize the needs associated with these constraints in order to discuss potential solutions to address them in the following Sections 2 and 3.

Section 2: Categories of needs associated with the identified constraints (cf. Table 20.1, column 2)

In an attempt to facilitate the analysis of all the constraints identified, the editors propose to categorize and qualify these constraints into four types of needs: the need for more clarity; the need for review and update; the need for further development; and the need for more coherence and coordination. These four categories of constraints are not exhaustive, and respond to the following four questions.

Is there a need for clarification of Treaty provisions?

Many authors indicate the need for clarification of various Treaty provisions to guide the implementation, in particular, of Article 11.2 and Article 12.3 (d). A clear example of ambiguity concerns the scope of the following expression 'PGRFA [...] that are under the management and control of the Contracting Parties and in the public domain' (see Article 11.2). The need to provide guidance in the interpretation of this and other ambiguities related to the MLS has led to the establishment of an Ad Hoc Technical Advisory Committee by the Governing Body to provide inter alia some guidance regarding the identification of plant genetic resources for food and agriculture under the control and management of Contracting Parties, and in the public domain.⁶ Another example relates to Article 12.3(d), where different interpretations can be given to the terms 'parts and components' and 'in the form received' and therefore to the definition of the material that can be protected by IPRs or not.

Is there a need for further development of Treaty mechanisms and strategies?

Authors plead in favour of rapid action by the Governing Body to develop further mechanisms and strategies in various aspects. A major example concerns the non-monetary benefit-sharing obligations (Article 13.2 (a), (b) and (c)), which is poorly taking place, according to many authors.

A second example relates to the need to further develop financial mechanisms helping countries to implement the GPA priority area activities, and especially the priorities that are not directly covered by funds already established (the GCDT or the Benefit-sharing Fund). Indeed, many priorities of the GPA do not foresee an appropriate and specific financing mechanism to implement them yet. This could perhaps be done taking advantage of the experience of other existing fundraising mechanisms and funding organizations active in the agricultural sector (such as the Global Environmental Facility (GEF), the United Nations Development Programme (UNDP) or the International Fund for Agricultural Development (IFAD)).

A third example where further development is needed relates to the Global Information System.

Is there a need for review or update of Treaty mechanisms and strategies?

The text of the Treaty and its implementation mechanisms and strategies request, in certain cases, such review and update processes. Several examples can be mentioned, such as the review of the levels of payment in the SMTA by the GB (Article 13.2(d)(ii); or the periodic establishment of a funding target (Article 18.3). Another example concerns Article 17.3 of the Treaty, which requires Contracting Parties to collaborate with the Commission on Genetic Resources for Food and Agriculture to periodic reassess the State of the World's plant genetic resources for food and agriculture in order to update the GPA. A last example is constituted by the priorities set for the Benefit-sharing Fund, where Annex 1 of the Funding Strategy sets out eligibility, selection criteria and additional requirements, that can be updated regularly by the Governing Body.

In addition, the editors further consider the possibility to modify and review Treaty mechanisms and strategies in reaction to external circumstances, which were not foreseen at the moment of the Treaty negotiations and which may have a substantial impact on its implementation. A good example would be the updating of Annex I list as a consequence of external factors. Indeed, the identification of the list of crops and forages were negotiated according to the double criteria of interdependency and food security, which are currently being affected by climate change and technological developments.

Is there a need for a stronger coordination in order to facilitate the implementation of this Treaty provision?

Many authors have stressed the limited coordination and coherence at three levels, resulting sometimes in numerous competing and/or conflicting international obligations: (1) between governing bodies and secretariats of international institutions; (2) between national representatives attending different but co-related

international fora such as the WTO, the CBD and the ITPGRFA; and (3) between different sectors and people at the national level responsible for the implementation of these different international obligations. (1) At the secretariat and governing body level, periodic meetings between Secretaries and joint meetings between Governing Bodies of different international organizations could be two options leading to the development of common programmes and activities, mitigating the limited coordination and coherence problems. An example of successful inter-sectorial cooperation in the negotiating process is provided by the mutual recognition and support between the Treaty and the Nagoya Protocol on Access and Benefit-Sharing. The new Protocol expressly refers to the Treaty as a complementary instrument of the international ABS regime⁷ (2) At the national delegation level, common preparatory meetings and inter-sectorial composition of delegations could be envisaged to prepare for international meetings. (3) At the national level, coordination by national inter-sectorial committees could contribute to favour coherence and coordination when implementing international obligations at the national level.

Section 3: Specific legal tools to improve the implementation of the Treaty (cf. Table 20.I, column 3)

The aforementioned needs for clarification, review, further development and coordination require Contracting Parties and the Governing Body to take action to further implement the Treaty. Following directions proposed by authors, the editors limit the discussion to possible actions to be taken at the Governing Body level. Article 19 of the Treaty and its Rules of Procedures empower the Governing Body to take actions to promote the full implementation of the Treaty. In the following section, four possible tools are suggested – each having a different level of obligation – to mitigate the identified constraints and needs. These tools are: to design common implementation frameworks, to develop soft law tools such as guidelines, to adopt agreed interpretations on specific Treaty articles, and to reopen the negotiation of some Treaty provisions. For each constraint, these tools have been classified using numbers from 1 to 3 according to their level of suitability. Where no numbers are mentioned, the tool is found not to be applicable to the specific constraint.

Should Contracting Parties design a Common Implementation Framework (CIF) in order to facilitate a harmonious and systematic implementation in all member countries?

Many countries, especially developing countries and countries with economies in transition, experience difficulties in implementing the Treaty due to the lack of legal, technical, economic or human resources. To mitigate this constraint, the Governing Body may establish comprehensive plans and programmes on specific subject matter (as per Article 19.3(b)) or by strengthening existing programmes, for scientific and technical education and training (Article 13.2(c)(i)). Furthermore, Article 14 promotes national actions and international cooperation to

provide a coherent implementation framework for the rolling GPA. However, these efforts might appear scattered and disconnected from one another. Therefore, proposing a CIF for the implementation of the Treaty at the domestic level might be a useful tool, in particular, for developing countries. This is not to say that the Treaty would develop a 'one-size-fits-all' tool. On the contrary, such CIF should provide sufficient flexibility to countries to be able to fit their specificities and particularities. The commonality of the framework would lay in the common objectives and principles set out by the GB to help countries implementing the Treaty obligations, through a wide range of diverse information, administrative, legal, scientific and technical systems, instruments, toolboxes etc. This should be accompanied by a roadmap with specific and quantifiable targets (percentage), periodically reviewed, in order to facilitate the development and funding of national strategies in line with international priorities. This approach would avoid the omission of a priority from any funding mechanism. The GPA may partly cover such a CIF for the Treaty with respect to the conservation and sustainable use of PGRFA obligations falling under the 20 GPA activity area priorities. The editors believe there are two options at this point in time. Either the GPA is broadened to become the CIF for all Treaty obligations, or a new other CIF is developed to integrate and complement the GPA. In both cases, this CIF could be broader, taking into account informal networks, or even obligations deriving from other related international instruments. As a matter of fact, these instruments, such as the CBD, the Cartagena Biosafety Protocol and the Nagoya ABS Protocol, TRIPS, WIPO, or the Kyoto Protocol, may compete or overlap with some Treaty provisions. Further coherence and coordination could be reached by way of common programmes and activities aimed at ensuring cooperation and coordination, avoiding duplication, gaining synergies and effectiveness in the use of limited funds, within the ambit of a CIF.

Should Member States develop soft law tools such as codes of conduct and guidelines to lead Parties in their implementation efforts?

It is unlikely that in the short-term, new binding text will be negotiated as a solution for Treaty provisions that need further clarification or development in view of the need for rapid and effective implementation of the Treaty. However, soft law tools, such as guidelines, codes of conducts or standards, might be more adequate to provide prompt guidance. According to Article 19.3(a) the Governing Body as well as the subsidiary bodies established by the Governing Body should provide policy directions. This could be done through GB resolutions, but also through the design of guidelines, standards or codes of conduct to facilitate countries' implementation of the Treaty. Such tools have been used widely in the past and have proven to be effective. The Treaty specifically states that, in the absence of national legislation dealing with access to in situ PGRFA, the Governing Body may set standards (Art. 12.3(h)). Guidelines are a commonly used tool in many different fora. Without entering into the details of the different types of guidelines, the editors would like to stress the fact that there are very useful instruments to raise awareness, promote public participation and training and allow for the

necessary flexibility Contracting Parties often need in order to implement international obligations at the domestic level according to their specificities and needs. A successful example is provided with the Voluntary Guidelines for the Implementation of the Right to Food. These Voluntary Guidelines were developed in the framework of the Committee on World Food Security (CFS)⁸. However, collaboration and coordination between existing national or regional guidelines and the Treaty is important.

Such tools might be useful for several constraints identified by authors. The first one to be highlighted regards the national implementation of Farmers' Rights. In this case, voluntary guidelines might be designed. A second example could be the development of guidelines or a code of conduct to help countries and their gene banks in the identification process of designing the material covered by the MLS.

Should Contracting Parties seek to adopt agreed interpretations on specific articles?

In 1983, the FAO Conference adopted the non-binding International Undertaking (IU) by Resolution 8/83. To overcome the reservation of certain countries on the IU, the FAO Conference later adopted further resolutions, which were annexed to the IU as agreed interpretations. Although the Treaty is a binding agreement, and therefore different from the IU, Contracting Parties might envisage developing agreed interpretations through the adoption of a GB decision (on Articles 11.2, or 12.3(d), for example) in order to provide clarity on or review specific obligations. This is consistent with the mandate of the Governing Body, which may take all decisions, by consensus, in order to promote the full implementation of the Treaty. It would be less burdensome to adopt a resolution which would be annexed to the Treaty than to reopen negotiations, however, it might be a risky tool, as it might facilitate attempts to rewrite the Treaty through interpretations. Therefore, this option should very cautiously be envisaged, and surely only to very well defined and limited provisions, with very strict rules of procedures to be applied.

Should there be a reopening of the negotiation to modify the text of the Treaty to address the limitations in its implementation?

Although is not recommended as primary solution for any of the constraints identified by authors, clarification and further development needs could eventually come about through new negotiations aimed at 'improving' or 'complementing' a very specific provision of the Treaty. Indeed, the Treaty provides for the possibility to amend its text (Articles 19.3 (h, i); 23; 24). Article 23 states that 'Amendments to this Treaty may be proposed by any Contracting Party [and] shall be adopted at a session of the Governing Body'. Amendment can be made only by consensus of the Contracting Parties present at the Governing Body, and will enter into force following the same procedure used for the Treaty. However, unless this tool is used under very strict conditions, with the understanding that a failure to adopt such amendment would automatically bring Contracting Parties back to the *status quo ante*, this approach might put at risk the climate of cooperation that exists today, and might facilitate attempts to rewrite the Treaty through interpretations.

Moreover, this approach would be quite costly, time-consuming and complex, as the whole national process of ratification, acceptance or approval should again be pursued by each Contracting Party (i.e. be discussed and adopted at National Parliaments).

Section 4: Treaty Articles, which further implementation could contribute to mitigate some identified constraints (cf. Table 20.1, column 4)

Finally, the editors believe that implementing further Treaty and SMTA obligations that have received little or no attention in the implementation process until now, could actually significantly contribute to solving some constraints identified by authors. The editors will concentrate on three provisions: Article 6.11 of the SMTA; Article 13.6 of the Treaty; and Article 17 of the Treaty. However, other provisions should require more attention some of which are currently under developed, such as inter alia PGR Networks (Article 16), compliance (Article 21) or sustainable use of PGRFA (Article 6).

The crop-based alternative payment scheme (Article 6.11 of the SMTA)

Some authors stress that promoting the use of the crop-based alternative payment scheme could at least partially mitigate some of the identified constraints (see Chapter 19 for details). Until now, it has received little attention, but it could provide very practical solutions for the funding of the Benefit-sharing Fund within the MLS. In fact, this scheme offers a more general and less bureaucratic approach for dealing with SMTAs, thereby decreasing significantly the administrative burden and increasing transparency. Mandatory monetary benefits would be immediate, thereby providing funds quickly to the Benefit-sharing Fund. The provision allowing the Governing Body to predict contributions and to review periodically the levels of payment in order to achieve fair and equitable sharing of benefits (Article 13.2) could be an opportunity to match the priorities with the monetary benefits to be transferred to the Benefit-sharing Fund. Chapter 5 explains why this alternative payment scheme has not received more attention from users of PGRFA up to now. One of the reasons put forward is that the discounted rate of 0.5 per cent of the sales is too close to the rate in the Article 6.7 (SMTA) payment scheme (of 1.1 per cent less 30 per cent). Perhaps, if the difference between the two rates was bigger, it would render the alternative payment scheme more attractive, thereby answering several of the constraints identified by authors. Implementing further this obligation could therefore mitigate at least two major constraints: the technical and administrative constraints related to the daily use of the SMTA, and the lack of predictability of funds for the Benefit-sharing Fund.

Contribution by the food-processing industries to the MLS (Article 13.6 of the Treaty)

Another provision, which has barely received any attention up to now, but which further development and implementation could lead to new and additional monetary benefit-sharing, as well as raising awareness to the wider public, can be found in Article 13.6 of the Treaty. This Article deals with voluntary contributions

of the food-processing industries to the MLS. Process and commercialization of wider diversity of crops and crop varieties increases the number of options for consumers and food industry. However, up to now, neither consumers nor the food industry have been much included in the international discussions between the various stakeholders. This is surprising if one considers that we are all consumers, whereas, in developed countries, for instance, farmers represent only 3 per cent of the population (see Chapter 17). Therefore, it is vital to raise awareness amongst consumers and consumer organizations to identify and motivate the food industry to contribute to the MLS and to design mechanisms for this purpose. Strong incentives for the food industry to contribute to the Benefit-sharing Fund are required. An example could be to create a 'green tag' for products coming from these industries contributing to the Fund or for industries agreeing to contribute to the MLS. With this green tag label consumers would be able to decide to buy products that contribute to the conservation and sustainable use of PGRFA. But for this to happen, consumers should be conscious that their choices regarding food products provide them with considerable leverage to influence the food industry's economic and policy decisions. Contracting Parties should therefore target consumers as well as farmers' organizations in their public awareness programmes.

The Global Information System on PGRFA (Article 17 of the Treaty)

The GIS is still at a very early stage of implementation. Contracting Parties requested the Secretariat to develop a vision paper presented at the fourth meeting of the Governing Body (ITPGRFA, 2011). This vision paper takes stock of existing information systems and outlines a process for the development of the GIS. The galaxy of information systems makes it difficult to have a clear vision of the current situation.⁹ It is believed that a mere catalogue of existing databases is not enough. It is important to identify the gaps in current information systems and the needs for information of providers and users. The editors are convinced that the GIS should constitute the general and interactive database for all Treaty information, facilitating the implementation of all its provisions, including an information Clearinghouse.¹⁰ The GIS should include online updated information relevant to every Treaty provisions and its implementation, including inter alia scientific and technical information (e.g. genetic diversity, erosion and vulnerability; scientific and technical developments; PGRFA conservation and use; and other areas covered by the GPA), legal and policy information (e.g. policies, laws and regulation relevant to PGRFA and related technologies, including on IPR regulation and traditional knowledge protection; disputes under the Treaty); financial information (e.g. financial contributions, financial disbursement; projects financed through the Treaty; funds availability), as well as the state of implementation the Treaty (e.g. Farmers' Rights; MLS and its SMTA; national and regional reports and inputs being received for the updating process of the SoW and GPA).

Table 20.1 *Constraints, needs and implementation tools*

To facilitate understanding, the following table (on page 276) summarizing and illustrating the findings of the analysis is provided. It contains four columns: 1) Specific implementation constraints identified by authors of the book; 2) Categories of needs associated with the identified constraints; 3) Specific legal tools to improve the implementation of the Treaty; 4) Treaty Articles weakly implemented up to now, which implementation could mitigate some identified constraints. Under the specific tools column, the tools are classified using numbers from 1 to 3 according to their level of suitability; 1 is the option the editors find most appropriate to deal with the concern, 3 is the option found to be the least appropriate to deal with the constraint. Where no numbers are mentioned, the tool is not applicable to the constraint.

Treaty Part	Column 1	Column 2			
	Specific implementation challenges and constraints identified by authors	Clarification	Further development	Review/ update	Coordination/ coherence
Part I and General constraints					
	Policy coherence between the ITPGRFA and other international instruments (CBD, TRIPS, UPOV)		X	X	X
	Public awareness & capacities at the national level		X	X	X
	Trust between Contracting Parties	X	X		X
	Clarity of Treaty provisions (e.g. Art. 6, 9, 11.2, and 12.3(d))	X	X		X
Part II Conservation and sustainable use of PGRFA					
	Financial, technical & scientific constraints		X		X
	Weak implementation of in situ conservation obligation		X		
Part III Farmers' Rights					
	Recognition & national implementation	X	X		X
	Participation of farmers' organizations		X		X
Part IV The multilateral system of access and benefit-sharing					
	Modification of Annex I list to face new challenges		X	X	
	Limitations in access to PGRFA	X	X	X	
	Notification of inclusion of material in the multilateral system	X			X
	Limited realization of benefit sharing		X	X	X
	Limited realization of non-monetary benefit sharing		X		X
Part V Supporting components					
	Limited implementation of the GPA		X	X	X
	Little use of existing formal and informal networks		X		X
	Limited implementation of the GIS		X		X
Part VI Financial provisions					
	Limited and unpredictable funding		X	X	X

Column 3				Column 4
Specific tools to tackle the constraint				Provisions, which implementation or further implementation could contribute to mitigate the identified constraint
Common implementation framework	Soft law (codes of conducts, guidelines)	Agreed interpretations	Reopen negotiations	
I	I			Cooperation with other international organizations (Article 19.3(g))
I	I			Non-monetary benefit-sharing (Art. 13.2 (a,b,c), 14)
I	2	3		
2	I	3		
I	I	2		Compliance (Article 21) & third party beneficiary (SMTA 4.4; 4.5; 8.3)
I	2			In situ conservation (Article 5.1 (d))
I	I	3		
I	I			Articles 6, 9.1, 9.2(c), 13.2 (a, b, c) & 14
I	I	2	3	
I	I	3		Compliance & third party beneficiary
I	I	3		Compliance & third party beneficiary
I	I	3		Article 13.6, compliance & third party beneficiary
I	I			Articles 13.2 (a, b, c) & 14
I	I			Articles 14, & 17.3
I	I			Article 16
I	I			Article 17
I	2			Article 6.11 SMTA; Articles 13.6, 18 & 19.3(f)

Notes

- * This chapter only represents the opinions of its authors. Christine Frison conducts a PhD research as junior affiliated researcher at the Université catholique de Louvain and at the Katholieke Universiteit Leuven (Belgium) on international law and governance of plant genetic resources for food and agriculture. Francisco López is Treaty Support Officer for the International Treaty on Plant Genetic Resources for Food and Agriculture and is based at the Food and Agriculture Organization (FAO) of the United Nations, Rome, Italy. José Esquinas-Alcázar is Director of the 'Catedra' of Studies on Hunger and Poverty at the University of Cordoba in Spain. Professor at the Politechnical University of Madrid, José Esquinas has worked as Secretary of the FAOs intergovernmental Commission on Genetic Resources for Food and Agriculture, and *interim* Secretary of the Treaty for 30 years. E-mail: jose.esquinas@upm.es

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- 1 It is argued that Article 9 of the Treaty contains weaker obligations than what the Treaty Preamble states in its §7 and 8 'Affirming that the past, present and future contributions of farmers in all regions of the world, particularly those in centres of origin and diversity, in conserving, improving and making available these resources, is the basis of Farmers' Rights;
'Affirming also that the rights recognized in this Treaty to save, use, exchange and sell farm-saved seed and other propagating material, and to participate in decision-making regarding, and in the fair and equitable sharing of the benefits arising from, the use of plant genetic resources for food and agriculture, are fundamental to the realization of Farmers' Rights, as well as the promotion of Farmers' Rights at national and international levels.'
- 2 It should be noted that during the publication process of this book, success stories in the implementation of Farmers' Rights have been reported at the 'Global Consultations on Farmers' Rights in 2010', which took place in Ethiopia in 2010, under the umbrella of the Fridtjof Nansen Institute of Norway. See the 'Note by the Secretary' document IT/GB-4/11/Circ.1.
- 3 See Second Session of the Governing Body, decision IT/GB-2/07/Report at § 66–68.
- 4 Genesys is a newly developed PGR portal that gives breeders and researchers a single access point to information of about a third of the world's gene bank accessions. It is an initiative by Bioversity International in partnership with the Secretariat of the Treaty on Plant Genetic Resources for Food and Agriculture and the Global Crop Diversity Trust.
- 5 It is an endowment fund, which provides funds in perpetuity to support long-term conservation of PGRFA and ensure the conservation and availability of PGRFA which are most relevant for food security and sustainable agriculture. See the Relationship Agreement between the Governing Body and the GCDT in particular Preamble §5, approved at the First Session of the Governing Body, in Madrid in June 2006, document IT/GB-1/06/Report §35–40.
- 6 See IT/AC-SMTA-MLS1/10/4.
- 7 See Convention on Biological Diversity, COP Decision X/1, § 6 and 11 of the preamble.

- 8 Besides, it should be noted that the newly reformed CFS provides a pioneer way to facilitate the active participation of civil society organizations to the Committee's activities: the Civil Society Mechanism (CSM).
- 9 In addition to the few information systems mentioned by authors, we would like to point to the Global Biodiversity Information Facility (GBIF). GBIF is a multilateral initiative established by intergovernmental agreement (initially 17 countries) and based on a non-binding Memorandum of Understanding. It aims to make the world's biodiversity data freely and universally available via the internet.
- 10 Coordination between the different existing systems (such as WIEWS, and SINGER, for example) should focus on avoiding duplication. To overcome this duplication problem a database of databases could be created, to be eventually operated through the Genesys initiative. The further development of this Treaty obligation would contribute to partially mitigate many identified constraints, such as the lack of public awareness and policy coherence, or the limited implementation of capacity-building and non-monetary obligations.

References

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