CHAPTER 4

The International Treaty on Plant Genetic Resources for Food and Agriculture

Introduction

In this chapter an overview of the Treaty and its provisions is provided. As many issues relating to germplasm storage, access and conservation and valuation of genetic resources has been discussed they are not discussed in detail in this chapter. The aim is to analyze the Treaty and explore its provisions in the context of the emerging global regime on plant genetic resources. The Treaty comes in to force in June 2004 as the requisite number of countries have signed and ratified the same.[1]

Making ITPGR: An Overview

On November 3, 2001 The International Treaty on Plant Genetic Resources for Food and Agriculture was adopted after protracted negotiations over more than a decade.[2] The adoption of this Treaty (hereinafter Treaty) could be viewed as the beginning of a new multilateral regime on access, benefit sharing, conservation and sustainable use of PGFRA. This treaty is also relevant for global food security, agriculture and protection o biodiversity and Farmers' Rights.

The original International Undertaken was a non-binding agreement adopted at a FAO Conference in 1983. Much had happened between 1983 and 2001 and the negotiations for this Treaty were also influenced by developments in other fora, signing of CBD in 1992, the WTO TRIPS Agreement. In 1983 the Undertaking was based on the Common Heritage of Mankind perspective on PGFRA but by 2001 that perspective has been discarded or has not been supported by the national governments, i.e. parties to the Treaty. In 1993 the need to harmonize the Undertaking with CBD necessitated the establishing of Commission on Genetic Resources for Food and Agriculture and after negotiations that almost broke down

more than once the Treaty was adopted in 2001. The Treaty should be seen as a compromise and the subject matter of this Treaty is also the subject matter of other Treaties/Agreements as well. As a result this Treaty has to be read with both CBD and WTO TRIPS and its implementation is also linked to how nations implement the provisions of CBD and TRIPS Agreement. Moreover even while adopting the Treaty some provisions have been interpreted differently by different nations and how such differences in interpretation would be reconciled is an important question.

While the very fact that such a Treaty could be adopted, although after protracted negotiations and controversies, indicates the willingness of the nations to create a multilateral framework on PGFRA and support global conservation efforts and the objectives of the Global Plan of Action to what extent the objectives of the Treaty would be fulfilled or whether all countries would be equally committed to the provisions of the Treaty is not yet clear? The Treaty has been ratified by the requisite number of countries but it is too early to comment on its performance. This Treaty is a significant step forward, at the same time, this Treaty as of now has very limited potential to accelerate the funding of conservation of PGFRA or a source of funds for Farmers' Rights or to promote sustainable agriculture or to enhance the global food security. It is not the solution for all problems relating to PGFRA but it could provide a basis for many initiatives that would go a long way in linking access, benefit sharing and provide a multilateral framework for access which could be fair and equitable to all the parties concerned. Further it could result in revitalizing multilateral and international initiatives in conservation of PGFRA. But as indicated earlier ultimately what matters is how nations respond to the Treaty. If some nations view the Treaty as an option that is beneficial than entering into bilateral agreements for access and benefit sharing then they might contribute to the multilateral regime as envisaged by the Treaty. But if some nations have reservations about the IPR implications of the Treaty and hence opt for other

methods of acquiring /transfer of PGFRA then such efforts will have a negative impact on the Treaty and its implementation. Nations may view PGFRA as a matter of national sovergenity and national food security and hence may be apprehensive about providing access on liberal terms and so may prefer restricted or no access to other countries.[3]

The key element of this Treaty is the Multilateral System for Access and Benefit Sharing as specified in Articles 10, 11, 12, 13 of Part IV. This system provides for access to genetic resources and forage species. The system covers major food crops but again this coverage is not for all food crops. Access to germplasm is essential for developing new crop varieties, improving the present ones, and for increasing food production and access to food. The demand for germplasm could be from a wide variety of actors and agencies, from farmers and small seed companies to national agricultural research systems and IARCS. A regime that discriminates some users against others or that provides a very restrictive access will be inimical to conservation and sustainable use of PGFRA. At the same time the idea of treating PGFRA as a public good with free access facility for all is no longer fashionable. Rather access to PGFRA is linked with benefit sharing and or paying for PGFRA. The Treaty tries to balance the two extreme views on PGFRA – treating it as a purely private good with monopoly rights or as a public good that is literally free for all for all purposes.

According to Article 1 the objectives of the treaty are "the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security".

While this article makes the objectives very broad the Treaty should be read with CBD and the Global Plan of Action to get an idea about its objectives and scope. It is a comprehensive agreement with an agenda that goes beyond mere conservation of PGFRA. It has close linkages with CBD. But it is more specific when it comes to PGFRA than CBD and

although it was negotiated with the view to harmonize the Undertaking with CBD it has an agenda of its own and it is FAO and not the Secretariat of CBD which would oversee its implementation. To a great extent it is consistent with CBD.[4]

Drawing upon the Global Plan of Action for PGFRA which was adopted at the Leipzig Conference in 1996 this Treaty pays attention to conservation of diversity at three levels- genetic, species and ecosystem. This views a broader understanding of biodiversity and the importance of ecosystems for conservation and sustainable use of PGFRA. Article 5 of the Treaty thus speaks of in situ conservation, makes specific references to on farm conservation by farmers and advocates an integrated approach for exploration, conservation and sustainable use of PGFRA. These matters have also been discussed at the Conference of Parties to CBD and at various fora/meetings organized under CBD. Thus both the Global Plan of Action and CBD have many common objectives. But the Global Plan of Action and Treaty are dealing with more specific aspects relating to PGFRA and this focused approach is a must .Thus the Article 5 should be read as a reflection of the objectives and priorities set out in GPA. This article speaks of the need to support measures undertaken by indigenous and local communities in conserving wild PGFRA. The Article 6 emphasizes on developing and maintaining legal measures and policies for promoting sustainable use of PGFRA. Article 7 speaks about integrating the activities in Article 6 with those relating to agricultural and rural development.

Article 9 recognizes Farmers' Rights and states that parties are to:

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

Since the initial resolution in the 1989 Conference and the subsequent developments relating to Farmers' Rights have been discussed elsewhere they will not be examined in this chapter. A reading of Article 9(2) shows that the following are the major elements of Farmers' Rights under the Treaty:

(i) the farmers' right relating to participation, benefit sharing with respecting to benefits arising out of using PGFRA

(ii) protecting the traditional knowledge as appropriate to PGFRA

(iii) participation in decision making (at national levels)

The Treaty is an improvement over what has been stated in Article 8(j) of CBD and the emphasis is on 'the right to participate equitably '. The right to participate at decision making at national levels is a right which should be seen as a symbolic gesture, to reflect the need to involve farmers as stakeholders. Because despite the good intentions neither the Treaty nor FAO can enforce this nor devise a mechanism to ensure that such a right is put to practice in all countries. In this context it is worth pointing out that right to participate in decision making is related to right to know and right to be consulted[5]. In decision making relating to environment attempts have been made to make public hearing mandatory or broaden the scope of EIA to take into account aspects other than economic or to go beyond traditional cost-benefit analysis[6]. But decision making at national levels is subject to deliberations at parliaments and other similar fora and the right as mentioned in the Treaty is vague.

The responsibility to implement Farmers' Rights is with the national governments and the shift from the international community holding the rights as Trustees to the responsibility of national governments has been discussed elsewhere. Thus despite the mention of promotion Farmers' Rights at both national and international levels in the preamble the reality is that it is left to the discretion of national governments. Although it is possible that national

measures could be reviewed by the international body there is no way to determine as to whether the Rights have been implemented in full or whether the provisions in the national laws are adequate. Hence only an analysis of the relevant national legislations will indicate how national governments have put this into practice.

The national law again finds a place in Article 9(3) which states "nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national laws and as appropriate. ".

But an earlier text agreed informally spoke of the right to use and exchange in a broader perspective, including varieties that are no longer registered and marketing farm saved seed. Thus the Article 9(3) is a compromise text[7]. Articles 13(3) and 18(5) also speak of benefit sharing and financing and programs for farmers but these deal with international aspects than with specific farmers or farming communities.

As discussed elsewhere both the Treaty and the negotiating process have been influenced by the debates over Farmers' Rights, its nature and components ever since the idea of Farmers' Rights was articulated and found a place in the Undertaking. The Farmers' Rights as provided under this Treaty are to be realized at the national level and they may not be implemented by all countries. This Treaty thus has affirmed the international character of Farmers' Rights but left it to the will and pleasure of the national governments when it comes to implementation. In contrast the article in TRIPS on protection for plant varieties is more specific and ensures that the protection is mandatory either by patents or by sui generis systems or by both. Thus Farmers' Rights are not affirmed as a practice or as an enforceable right by this Treaty.

The FAO Conference Resolution 4/89 acknowledged that Plant Breeders Rights are not incompatible with the objectives of the International Undertaking and the Resolution 5/89 defined Farmers' Rights and gave a definition of it. In 1983 International Undertaking

acknowledged the plant genetic resources as 'Common Heritage of Humanity'. But over the years that approach had undergone changes and the Treaty is not hostile to Intellectual Property Rights. According to one commentator Article 12.3 (f) and (g) of the Treaty do not prohibit obtaining IPRs on modifications of plant genetic resources or plant genetic resources as received or accessed under CBD as long as the resources were legally obtained.[8]

The Nuts and Bolts of a Multilateral System

If one thing can be mentioned as the major achievement of this Treaty it is the multilateral system as envisaged by the Treaty for access and benefit sharing. This system covers only some categories of PGFRA as summarized in the table below.[9]

MULTILATERAL ACCESS SYSTEM COVERAGE OF PGRFA

	Annex 1 Crop Species in Public Domain	Non Annex 1 Species
In Situ	Access within Multilateral System (Art. 11.2), will be provided under national legislation (Art. 12.3(h))	Not covered within Multilateral System
Ex situ/Pre-PGR Treaty (mostly pre-CBD)	Access within Multilateral System (Art. 11.2), pursuant to Part IV (Art. 15.1(a))	Access to IARC collections using new MTAs (Art. 15.1(b)), and other willing collections (Art. 15.5)
Ex situ/Post-PGR Treaty	Access within Multilateral System (Art. 15.2), pursuant to Part IV (Art. 15.1(a))	Access on terms agreed between IARCs and countries of origin (Art. 15.3), consistent with CBD

The reasons for having a system are many. Although countries may be self sufficient in food and have a well established agricultural research and development system the need for germplasm from other countries continues and no country can claim that it has never needed germplasm from elsewhere. The data on international germplasm transfer indicates

that nations depend on the collections elsewhere, both CGIAR and non CGIAR to meet their needs.[10]

Countries need access to PGFRA on a continuing basis for many reasons ranging from plant breeding to scientific research. Such an access is impossible if there are many restrictions or unreasonable demands for access. The global transfer of germplasm has resulted in building genebanks and various ex situ measures and this distribution has been uneven. For example many developing countries which are germplasm rich do not have adequate facilities for ex situ conservation but most of the industrialized nations have well established ex situ conservation systems and almost all such transfer took place without the developing nations getting any monetary reward or rights over such germplasm. This unequal exchange or transfer has been the reason for what has been called as 'seed wars'. And although the seed wars have subsided, it has made the developing nations being wary of such transfers.

But developing nations also need access to germplasm and not all developing nations are self sufficient in food or in germplasm. Hence a multilateral system that facilitates both access and benefit sharing or a system that guarantees access at a cost is necessary. But under CBD nations have sovereign rights over natural resources and CBD also states that access is subject to the rules and regulations as established by national governments and brings in the notion of Prior Informed Consent and Benefit Sharing. The Multilateral System under the Treaty is not a System that undermines the letter and spirit of CBD. Rather it affirms CBD but also provides for a system that is easy to operate and that is efficient.

The sovereign rights of the nations (Parties to the Treaty) is affirmed by Article 10 and Article 10(2) mentions that establishing a multilateral system is done in exercise of the sovereign rights of the Parties. The Multilateral System is for a category of biodiversity – PGFRA and instead of insisting on Prior Informed Consent each and every time when access

is provided the nations agree to establish a system that includes a mutually agreed terms determined multilaterally.

This is specified in Articles 12, 13. At the same time Article 12(3) states that materials provided through the multilateral system are for some specific purposes only and it says that they are 'provided solely for the purpose of utilization and conservation for research, breeding, and training' but this is again related to food and agriculture. Thus it prohibits some uses (chemical, pharmaceuticals and/or other industrial uses) except for food and animal use.)

Scope and Coverage

The Annex 1 of the Treaty specifies 35 crops. What is included and what is excluded is interesting. And the list was drawn after much protracted negotiations. Moreover it also reflects what crops nations consider to be too important when it comes to providing gerplasm or giving access to other nations.[11]

In reality however much countries decide to restrict access or withhold from multilateral system the global interdependence for PGFRA is a fact that nations have to reckon with. Moreover conservation and access to PGFRA are to be dealt with separately. In case of some crops quite a significant portion of PGFRA which is highly valuable is available at IARCS or at similar institutes. And hence whether they are in the list or not access has little to do with the Treaty. Apart from all this there is no precise estimate about the global market for PGFRA or for the value of PGFRA of individual plant species. History has proved again and again that smuggling valuable germplasm is always possible and restrictions on germplasm transfer are often unworkable. Moreover not all countries have the technical capacity to make the optimum utilization of germplasm available within their territory and hence it makes no sense in just denying access .The international politics on germplasm is reflected in the List. But there is every possibility that the List may undergo changes in the

future. Articles 11(2) and 11(5) specify what categories of PGFRA are covered under the Multilateral System.

Article 12 and the various provisions under that describe the conditions of access and facilitated access. According to the Treaty under Facilitated Access Intellectual Property Rights and other rights are to be honored. A reading of the various provisions indicate that access is subject to national laws relating to access to PGFRA, and intellectual property rights wherever applicable will have to be respected. In case of PGFRA the most common modes of protection are patents and plant breeders' rights and these have to be taken into account. It is likely that national laws may impose additional restrictions or conditions and as long as these restrictions are compatible or in accordance with the Treaty they are permissible. But both CBD and the Treaty are against conditions that hinder access and the Parties can be expected use Article 15(2) of CBD which states that:

> "Shall endeavor to create conditions to facilitate access to genetic resources for environmentally sound use by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention as the guiding principle. However to what extent Parties can impose conditions which pertain to Intellectual Property Rights on the materials accessed or the products derived from them are an important question. It is one thing to state that all parties should respect Intellectual Property Rights as a condition for access for it is quite different to state that there could be restrictions on claiming Intellectual Property Rights by the receiving Party".

Under Article 12(3)(d)

> "... recipients shall not claim any intellectual property or other rights that limit the facilitated access to the plant genetic resources for food and agriculture , or their genetic components , in the form received from the Multilateral System'.

During the final negotiations Developing nations agreed to the view that intellectual property rights over the derivatives of PGFRA obtained through the Multilateral System but objected to patents on parts and components of PGFRA received or accessed through the Multilateral System. This response should be understood in the context of accusations relating to biopiracy and the variance in the national legislations on the Intellectual property rights for plants and plant varieties. Not all countries recognize patent as a protection for plants but in both USA and EC patents on plants is permissible, apart from Plant Breeders' Rights. On the other hand some countries had reservations about this Article as they considered that this 'could impinge on their IPR laws and policies'.[12]

Further 'in the form received from Multilateral System' is a clause that has little practical value as most developed countries do not have any rules that forbid patents on parts and components of PGFRA received from any other countries, nor the rules stipulate that origin of the parts and components be described. Thus it is possible to get a patent on the genetically modified parts or components or on the parts and components themselves. The attempts to obtain patents on PGFRA received from CGIAR Centers have been discussed elsewhere.

Thus the article 12(3)(d) is a compromise between developing nations and other Parties to the Treaty. The apprehensions of the developing nations are based on the fact that provisions of the Treaty might counter balance any national law or provisions based on CBD and so Treaty also should provide for a provision that places restrictions on Intellectual Property Rights for PGFRA received through the Multilateral System. The disputed article has been interpreted differently by various Parties and how such different interpretations would be reconciled is a matter that is left to the Governing Body. Nevertheless the crux of the matter is whether parts and components could be objects of intellectual property rights, if so under what circumstances. If the national laws of some Parties permit granting patents on them, how that would affect the rights of other Parties who have also accessed the same germplasm

through Multilateral System? Again the question of using Intellectual Property Rights to block innovations also arises as countries could grant patents on DNA sequences and genes etc., which would be essential for research and development. Such patents on parts and components would be violations of the Treaty although they may be perfectly valid under TRIPS and the relevant national laws. Technically such a patent may not affect accessing germplasm through Multilateral System but it would be difficult for other Parties to use that for their genuine research and development.

With reference to this Article CIPR observes:

"This wording is inevitably a diplomatic compromise, reflecting a desire on the part of many developing countries to avoid a limitation on access being imposed by the grant of IP rights, and of some developed countries to allow patenting of genetic material according to existing criteria applied nationally. The crucial words 'in the form received mean that materials received cannot be patented *as such*, but they do allow patents to be taken out on modifications (however defined) to that material".[13]

The status of germplasm in CGIAR Centers is an issue that is relevant to this Treaty. The Centers hold the PGFRA in trust and the IARCs are not expected to claim any IPR over such PGFRA.[14] They are also expected to ensure that parties who receive germplasm from them do not claim any intellectual property rights on the PGFRA. Yet there have been instances in which IPRs have been claimed on such material. Patents have been obtained using germplasm obtained from CGIAR centers and after many such instances rules were amended in Australia to ensure that plant breeders rights to varieties derived from germplasm obtained from CGIAR centers were given if only such applications were supported by or acceptable to the relevant center. Part of the problem relating to germplasm from CGIAR centers is due to lack of clarity on the nature of the ownership of the collections and whether they are kept in trust without having ownership. Again the controversy over the patent issued

to University of California for 'Nucleic acids, from Oryza sativa, which encode leucine-rich repeat polypeptides and enhance Xanthomonas resistance in plants' raised many questions about benefit sharing, ownership over genetic resources. In this case a strain of rice obtained from Mali was found to have resistance to bacterial blight. The initial part of this research was done at Cuttack, in India and subsequent research was done at International Rice Research Institute Los Banos in Philippines. Research was done by researchers who were not from IRRI and they mapped, sequenced and cloned the relevant gene and IRRI helped them in this. But when a patent was filed in the name of Regents of University of California it became a controversial issue. Finally a compromise was arrived at with UC Davis providing for a mechanism for benefit sharing and allowing non-commercial researchers to access the gene, as long as they did not provide products derived on that gene. IRRI's rights in developing varieties using that cloned gene and the right to distribute the clone and the material to developing nations was also acknowledged.[15]

Hence all that can be said at this juncture is that unless IARCs develop strict rules and enforce them irrespective of this Treaty such instances will recur. One way to ensure that such conditions are met is to incorporate them in Material Transfer Agreements (MTAs). MTA specifies the rights and obligations of both the provider and recipient and also indicate the rights of the subsequent recipients and restrictions on them, if any (Barton 1998).[16] Many institutes have standard MTAs. Wherever there is scope for benefit sharing it would be ideal to incorporate that in the MTA. According to Article 12(5), 'obligations arising under such MTAs rest exclusively with parties to those MTAs'. Thus MTA should be read as an agreement facilitating access and should be read with Article 12(2) of the Treaty. However there are many unresolved issues on MTAs and the Treaty. For example a MTA may have restrictions on giving access to other parties or can have conditions on first access and right to withdraw from accessing .In the real world germplasm transfers take under less than ideal

conditions and are based more on factors not mentioned in MTAs. Thus it is likely that Parties might resort to MTAs wherever necessary if they view that MTA is a better mechanism than having an open access regime as envisaged by the Treaty. MTAs are agreed upon in good faith and with hope that they would be adhered to. However once the PGFRA is accessed there is little that the provider can do, irrespective of MTA or no MTA, on the how the PGFRA is used. Since it is very difficult if not impossible to prove that a particular component of PGFRA originated from a particular country or IARC the recipient is in a advantageous position. If (s)he obtains Intellectual Property Rights on PGFRA despite MTA it is the onus of the provider to prove that such an IPR is not valid. In case of modern plant varieties breeders use breeders lines and germplasm received from many countries and sources and it is difficult to identify the providers or origin. Hence MTAs would be helpful only to some extent. So although the Treaty recognizes MTAs this itself does not increase or diminish the relevance of MTAs. The Treaty does not lay down any specific condition relating to MTA except, those specified in Article 12(4).

According to one scholar the term 'in the form received' can be interpreted using the legal norms for treaty interpretations and patent laws.[17]

Benefit Sharing

The Article 13 and various provisions under Article 13 deal with benefit sharing, technology transfer, capacity building, sharing of benefits on account of commercialization. Articles 16 and 19 of CBD have similar provisions and objectives.

Article 13 of the Treaty stipulates that access and transfer are subject to respect for intellectual property rights. Article 13(2)(b)(i) states that

(i) The Contracting Parties undertake to provide and/or facilitate access to technologies for the conservation, characterization, evaluation and use of plant genetic resources for food and agriculture which are under the Multilateral System. Recognizing that some technologies can

only be transferred through genetic material, the Contracting Parties shall provide and/or facilitate access to such technologies and genetic material which is under the Multilateral System and to improved varieties and genetic material developed through the use of plant genetic resources for food and agriculture under the Multilateral System, inconformity with the provisions of Article 12. Access to these technologies, improved varieties and genetic material shall be provided and/or facilitated, while respecting applicable property rights and access laws, and in accordance with national capabilities.

Thus facilitated access is applicable to improved varieties and to other genetic materials and to technologies under multilateral system. Regarding benefit sharing according to Article 13(2)(d)(ii)

"The Contracting Parties agree that the standard Material Transfer Agreement referred to in Article 12.4 shall include a requirement that a recipient who commercializes a product that is a plant genetic resource for food and agriculture and that incorporates material accessed from the Multilateral System, shall pay to the mechanism referred to in Article 19.3f, an equitable share of the benefits arising from the commercialization of that product, except whenever such a product is available without restriction to others for further research and breeding, in which case the recipient who commercializes shall be encouraged to make such payment."

Patents obviously do not have research and breeding exemptions, where as Plant Breeders Rights might provide for both. But what is not clear from the text is what happens if both a patent and a Plant Breeders Right or a similar right is granted on a variety that is based on material acquired through multilateral system. Unless the material was obtained from multilateral system is disclosed by the breeder or one who seeks such a protection (patent/plant breeders rights) it is difficult to prove that it was so. In developing a variety a breeder often uses plant genetic resources obtained from various sources, and also uses his/her own breeder lines. So it is very difficult to assess the value of or contribution of individual sources to the variety. In some cases where the primary advantage or trait (e.g

resistance to a pest, drought resistance) could be traced to the genetic makeup of a particular plant genetic materials then it is possible to conclude that as this is the major trait, its economic value could be estimated. But still there are many unresolved questions. Acess and benefit sharing are also being discussed in other fora like CBD.

But it can also be argued that Plant Breeders' Rights can and in many cases do not cases provide for research and breeding exemption, a payment will be triggered when there is a commercialization that results in a variety even if it is covered by Plant Breeders' Rights only. This flows from the fact that under UPOV 1991 the scope of Plant Breeders' Rights is broad and under Article 14 of UPOV 1991 'essentially derived varieties' are also covered by the same. However it has been argued that plant breeders' rights probably may not result in benefit sharing mechanism.[18] The term 'product' cannot be interpreted broadly. Hence it is not necessary that payments will become an option only if patents are obtained.

The word 'shall be encouraged to make such a payment' can be interpreted that this is a voluntary option and the recipient who commercializes need not make such a payment or can be compelled to do so. But elsewhere in the Treaty it is stated that the Governing Body '"may also assess, within a period of five years from the entry into force of this Treaty, whether the mandatory payment requirement in the MTA shall apply also in cases where such commercialized products are available without restriction to others for further research and breeding." Thus anytime the Governing Body can mandate that payment requirement in MTA is a condition for access and it is not a voluntary option.

Interestingly benefit sharing under the Treaty is a term that includes exchange of information, access and transfer of technology - capacity-building - and the sharing of monetary and other benefits arising from commercialization. Thus the payments to the Trust Fund under Article 13.9f need not be the only mode of benefit sharing. Thus benefit sharing

need not be restricted to monetary element alone. This interpretation is supported by Article 13 which states that facilitated access itself is a major benefit.[19]

But the terms 'fair and equitable' are not defined. The term 'fair and equitable benefit sharing' figures in the Bonn Guidelines also. In fact ever since CBD was signed it has become one of the oft repeated words. In the context of the Treaty the words fair and equitable are not always used together as Article 13.2d (ii) uses the term equitable only. However the term 'fair and equitable' can be interpreted in many ways. Based on the discussion of this term in the context of CBD and Bonn Guidelines it is suggested that mechanism that fulfills or facilitates fulfilling the objectives of the Treaty can be considered as a 'fair and equitable mechanism.

And although the Treaty speaks of benefit sharing it is not likely to result in flow of financial resources for many reasons including the one cited above. The Treaty thus should be seen as a mechanism to encourage benefit sharing and transfer of technology. How these are put to practice depends more on how the Parties use the Treaty for access and benefit sharing and use the Multilateral System. If some parties prefer to negotiate better deals among themselves than using the Multilateral System then there is no way to protect it. The Treaty is linked to the Global Plan of Action and how are implemented depends on the commitment of the Parties to both. Unfortunately the controversy on Intellectual Property Rights may make many countries to make less use of the multilateral system and prefer individual contracts in which they recognize the Intellectual Property Rights and in return get a better deal for the access provided to germplasm. But as the Treaty has left many important terms undefined or vaguely defined it will be difficult to interpret and apply the provisions of the Treaty, particularly with respect to Multilateral System of Exchange.[20] Hence only when parties use the System and provide their interpretations the functioning of the System will be

clear. As the figure given below shows there are many linkages between the Global Plan of Action and the Treaty.[21]

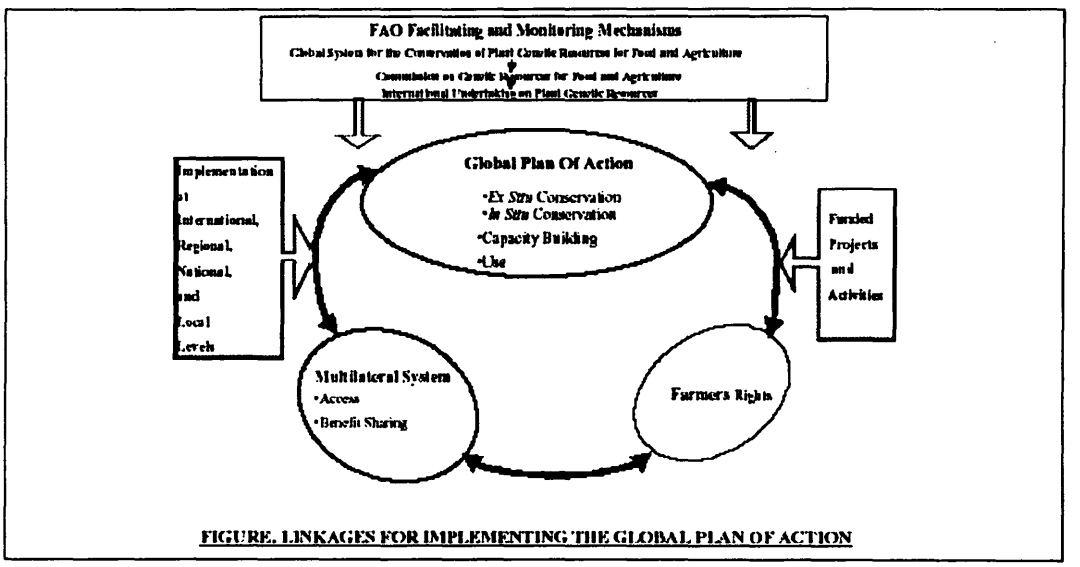

FIGURE: LINKAGES FOR IMPLEMENTING THE GLOBAL PLAN OF ACTION

Conclusions

This Treaty is closely related to CBD and could be read as a Treaty that complements CBD in many way. The Commission on Crop Genetic Resources for Agriculture and FAO will be the two bodies that would be involved in implementing the Treaty. However what direction the Treaty will take depends more upon the contributions of the Parties to the letter and spirit of the Treaty than mere ratifications. Given the fact that the Treaty is also linked with Global Plan of Action, only if Parties agree to commit more resources for the latter the former will also benefit from them. But what is more important is the Treaty's relationship with WTO – the TRIPS and Agreement on Agriculture. Whether they will be supportive of each other or not depends on how countries enact laws besides implementing the various agreements. But irrespective of that this Treaty provides lot of scope for countries to put both CBD and Treaty together and promote conservation and sustainable use of PGFRA.

Notes and References

[1] http://www.grain.org/bio-ipr/?id=393

[2] See Mekoaur, Ali (2002) for an overview of the process.

"On Saturday, 3 November 2001, the draft treaty was submitted to the FAO Conference, where it was adopted by a vote of 116 in favor, zero against and two abstentions."

Earth Negotiations Bulletin Negotiations on the International Treaty on Plant Genetic Resources for Food and Agriculture: 30 October - 3 November 2001, Vol. 9, No. 213, 5 November 2001 http://www.iisd.ca/vol09/enb09213e.html

[3] Kloppenburg. J (Ed) (1987)

[4] To a great extent because although there are many overlapping issues the CBD is a convention with a broad scope whereas the Treaty is restricted to PGFRA and not all PGFRA is covered by it. The CBD and Treaty are consistent in some aspects but the Treaty is not a subset of CBD or is subordinate to CBD.

[5] For example The Aarhus Convention

[6] See Karin, Bäckstrand (2003)

[7] This can be inferred from the issues of Earth Negotiations Bulletin that covered the negotiations on the Treaty available at www.iisd.ca

[8] Carvalho (2003)

[9] Rose, Gregory (2003)

[10] For example see Smale, M. & Day-Rubenstein, K (2002), Fowler, Cary et al (2001)

[11] According to Falcon and Fowler

> 'The list of crops covered by the multilateral system, which is ostensibly constructed on the basis of importance to food security, includes 35 crops and in the case of Brassicas, crop complexes) and approximately 80 (of 30,000) species used as forages. Most major crops are covered, including rice, wheat, maize, potato, banana, and common beans. Some very important crops, however, are missing: soybeans, groundnuts, tomatoes, tropical orages, onions, sugarcane, melons, grapes, cocoa, coffee, and most industrial crops such s oil palm and rubber. In many cases, individual countries or regions concluded that they might gain more from withholding these resources from multilateral system and then seeking to sell them bilaterally. China, the center of diversity for soybeans, insisted that soybeans be excluded and when this was done, Latin America withdrew groundnuts. Not to be outdone, Africa took forages off the table. This process may help the reader understand the irony of how a list of crops crucial to world food security contains

asparagus and strawberries, but is missing soybeans, groundnuts, tropical forages and most "poor people's crops" Falcon, W. P, Fowler, C. (2002)

[12] "Article 12.3-d, stating that recipients "shall not claim any intellectual property or other rights that limit the facilitated access to plant genetic resources for food and agriculture, or their genetic parts or components, in the form received from the Multilateral System", involved one of the most contentious issues during the negotiations. Some countries, including Australia, Canada, Japan, and USA, were concerned that this provision could impinge on their IPR laws and policies. However, the EU viewed Article 12.3-d as consistent with IPRs (Verbatim Record, Thirty-first Session, Fourth Plenary Meeting, 3 November 2001, C 2001/PV/4, at: http://internal.fao.org/bodies/conf/C2001/conf.htm)."

Mekoaur, Ali (2002) at P7

[13] Commission on Intellectual Property Rights Final Report 2002 See also Bragdon (2003).

[14] The idea of Trust and Trusteeship has not helped in preventing biopiracy. One reason is that IARCs do not seem to have mechanisms to prevent biopiracy or to ensure that all clauses in MTAs are followed. It has been observed that in practice holding the germplasm in trust has only obsfucated the real issues.

See Grain(2002) 'Biopiracy by Another Name: A Review of the FAO-CGIAR Trusteeship system" Seedling (Oct 2002) http://www.grain.org/seedling/?id=207

See also the interview with Correa in Seedling (Jan 2003) http://www.grain.org/seedling/?id=223

[15]Ravi Srinivas. K (2003).

[16] Barton, John (1998).

[17] "The Convention on the Law of Treaties stresses the ordinary meaning of words in the context of the treaty and its objectives. It also provides for some additional means of interpretation: for instance, the history of negotiations of a provision and the state practice. There might be different views, of course, about what the implications of this provision are. In my view, it doesn't say that there is only protection against appropriation of a material in the form in which it has been "exactly" received. I think there is room for such a definition to embrace minor, trivial changes, or modifications which do not alter the essence of a material.

Under patent law, there is the so-called doctrine of equivalents which provides the basis for a judge or a patent office to decide when there is a conflict between two patent claims or between a patent claim and an infringement. Depending on the scope and breadth of the doctrine of equivalents, we find some room to decide when you may consider that a certain material is or is not covered by this "in the form received" provision" Correa. C

Seedling Jan 2003 http://www.grain.org/seedling/?id=223

[18] "Benefit sharing in the form of a payment into an international fund at FAO will be mandatory when genetic material from the MLS is used to produce a "product that is a PGRFA" (e.g., a line or cultivar) that is commercialised, unless this product is made available without restriction for further research and development. In effect, patenting will likely trigger the benefit-sharing mechanism, plant breeders' rights probably will not."

Bragdon, Susan (2003).

[19] Parties "recognize that facilitated access to plant genetic resources for food and agriculture which are included in the Multilateral System constitutes itself a major benefit of the Multilateral System and agree that benefits accruing there from shall be shared fairly and equitably in accordance with the provisions of this Article." (emphasis added).

[20] Bragdon, Susan (2003).

[21] Ken Riley (2000).