Bioversity, working through the System-wide Genetic Resources Programme, helped to secure a global system for the conservation and exchange of crop diversity. An impact study completed in 2007 confirms a pivotal role for Bioversity and the SGRP in setting the stage for multilateral exchange of plant genetic resources and for sharing the benefits from them.

Policy paves the way to a global system

At its second meeting, in November 2007, the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture took several decisions that will help the world community to fight poverty and hunger. One of the most important was to extend the range of crops that the CGIAR (Consultative Group on International Agricultural Research) centres will distribute under the Standard Material Transfer Agreement (SMTA)—the legal instrument that governs exchange of material and information under the Treaty.

"This is a major step that bodes well for the future of the Treaty and the multilateral system it supports," said Michael Halewood, Head of the Policy Unit at Bioversity International. "Distributing crop diversity under the SMTA ensures that material and information remain freely available and subject to the benefit-sharing provisions of the Treaty."

The CGIAR centres have been using the SMTA for transfers of Annex 1 crops—a list of important food and forage crops that are covered by the terms of the International Treaty—since 1 January 2007. Now, they are using it also for the transfer of plant genetic resources that are not in Annex 1 of the Treaty but that are nevertheless important to countless small farmers in the developing world and that are conserved in the CGIAR collections. This makes those species available on the same terms as the crops within the scope of the multilateral system of the International Treaty, at least so far as transfers from the centres are concerned.

The CGIAR collections are among the largest in the world, containing more than 650 000 samples of crops vital for food security, including species of such globally important staples as wheat, rice and maize. The collections are also home to samples of crop wild relatives and traditional varieties, valuable resources for helping farmers and breeders to develop new varieties that are able to withstand the effects of climate change (see *Adapting agriculture to climate change*, page 2).

Photo courtesy of IISD/Earth Negotiations Bulletin

Michael Halewood (right), Head of Bioversity's policy unit, and Gerald Moore, Honorary Fellow at Bioversity, confer during the second meeting of the Governing Body of the International Treaty.

Delegates took the decision to extend the use of the SMTA to non-Annex 1 crops following discussion of a report that described the centres' experiences with distributing material under the SMTA. The centres distributed almost 100 000 samples of crops to farmers and breeders around the world in the first seven months of 2007 (see table). In the same period, they received 3988 samples of new genetic material from collections around the world to safeguard in-trust for the global community. The report was prepared by the SGRP, which is hosted by Bioversity and which coordinates the work of the centres in this area. The Centres were unanimous in asking the Governing Body to allow them to use the SMTA when transferring non-Annex 1 materials.

A look at figures from 2004, the most recent full year for which data are available, underlines the significance of the report. In the whole of that year, the centres sent out 90 504 samples and received 5033 new accessions. "The figures for the first seven months of 2007 show a clear increase in distributions," noted Gerald Moore, Honorary Fellow at Bioversity and one of the authors of the report.

The report also showed that a high proportion of the samples distributed by the CGIAR genebanks were of improved lines that centre breeders are releasing for further work and assessment by others; access to such lines is vitally important for the further improvement of crop varieties. Using the SMTA to do this ties the material and any products derived from it to the access and benefit-sharing system of the Treaty and means that these lines will always be available for others to make use of.

Following the report, delegates approved the centres' proposal to use the SMTA for distributing material that falls outside the crops listed in Annex 1 of the International Treaty. Bioversity is now leading an effort to develop guidelines that will help the centres implement this decision. "Footnotes will be included in the SMTA for those provisions that refer to Annex 1 materials or the multilateral system, indicating that these should not be interpreted as precluding the use of the SMTA for transfers of non-Annex 1 materials," Moore explained. The issue will be reviewed by the Governing Body at its next session.

Although the centres' experiences with distributing material under the SMTA were mostly positive, the report also identified areas where the operation of the system could be eased. One of the most important was the need to educate potential users about the Treaty. "The lack of awareness and understanding seems almost universal," commented one centre. "We receive frequent requests for specific information or for training courses." In this regard, many delegations at the second meeting of the Governing Body welcomed news of a joint programme being set up by Bioversity and FAO to provide technical assistance to developing countries to help them implement the Treaty and its multilateral system.

"Overall, the meeting was a great success," commented Halewood, adding that the number of countries that had ratified the Treaty had grown from 104 to 116 in just over a year. "Positive messages have been coming from the USA regarding the process of their ratification," he said. If the USA, which has not signed the Convention on Biological Diversity, were to ratify the Treaty this would send a strong signal to other countries that have not yet ratified.

The session also approved requests from the International Cocoa Genebank of Trinidad and Tobago and the Secretariat of the Pacific Community to enter into agreements with the Governing Body, placing their collections within the purview of the Treaty. The next step will be to work with the Pacific Community to help it implement its new commitments under the

Experience of the CGIAR centres with the SMTA

The table covers material distributed and acquired during the first seven months of 2007, when the SMTA came into use. Some centres reported only total transfers without distinguishing normal PGRFA[1] from PGRFA under development.

Centre	Acquisitions	Transfers of normal PGRFA1	Transfers of PGRFA under development	Total transfers
Bioversity	36	85	0	85
CIAT	0			747
CIMMYT	1890[2]	5 585	20 957	26 542
CIP	23[3]	1 324	63	1 387
ICARDA	0	6 554	–[4]	6 554
ICRAF	No Annex 1 material			
ICRISAT	0	1 178	15 662	16 840
IITA	0			5 423
ILRI	0			406
IRRI	2039	23 484	12 166	35 650
WARDA	0			4 035
TOTAL				**97 669**

1 *Plant genetic resources for food and agriculture.*
2 *Samples developed by CIMMYT's breeding programmes and acquired by the genebank.*
3 *SMTA not yet signed.*
4 *14 442 samples were transferred using the old Material Transfer Agreement, since the material was not designated material in the in-trust collection. ICARDA will now be using the SMTA for transfers of improved material.*

Treaty. "Bioversity will continue working together with the Treaty Secretariat to help countries implement the Treaty and the multilateral system it supports," said Moore.

Helping countries implement the Treaty will be a key responsibility for Bioversity in the future, but a look at past efforts demonstrates the organization's long-standing commitment to building a multilateral system for the exchange of crop diversity.

An impact assessment conducted by Bioversity in collaboration with the University of Reading in the UK and the University of Naples in Italy looked at the impact of the in-trust agreements, adopted by the CGIAR centres in 1994, on the multilateral exchange of plant genetic resources. Under these agreements, the material conserved in the CGIAR genebanks is held in trust for humanity under the auspices of FAO. The study also looked at the role of Bioversity in developing these agreements, in particular through its policy-oriented research work.

To fully understand the significance of the in-trust agreements and their impact, it is necessary to take a step back in time. Since the beginning of agriculture, people have been exchanging plant genetic resources to develop crops that better meet their needs. By combining and selecting from the best performers in their harvests, farmers and breeders created a vast range of crop diversity. For a long time, these plant genetic resources were considered to be a common heritage of humanity.

In 1992 the Convention on Biological Diversity enshrined a different concept: sovereign rights over plant genetic resources. Under this system the use of plant genetic resources was to be regulated by agreements between the country owning the resources and the people who wished to use them. This system was developed in a climate of distrust, at a time when allegations of biopiracy were becoming more strident. It was in this context that questions of ownership regarding the material conserved in the CGIAR collections began to surface. Bioversity collaborated with a wide range of stakeholders to develop a common understanding of the special nature of plant genetic resources for food and agriculture and contributed to policy negotiations that succeeded in keeping this material easily accessible for the benefit of all.

"Bioversity played a central role in the negotiations that led to the adoption of the in-trust agreements," explained Elisabetta Gotor, an Italian Associate Expert at Bioversity and one of the authors of the impact study.

Results of the study indicated that Bioversity had provided a bridge between the CGIAR and the member countries of FAO, helping to bring together different stakeholders and to build a common understanding of the key issues. Through its policy research work, the organization helped to develop the idea of trusteeship and to establish mechanisms for applying the concept to the CGIAR collections, including placing them under the auspices of FAO.

According to the impact study, the key contribution of the in-trust agreements is that they paved the way for an internationally recognized accord for the multilateral exchange of plant genetic resources. "In this sense, Bioversity played a vital role in shaping the concept of a 'multilateral system', which in turn helped hasten negotiations for major legal instruments like the International Treaty, promoting the multilateral exchange of crop diversity," concluded Gotor.

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The Governing Body of the International Treaty took several important steps during its second session, including approving the use of the SMTA by the CGIAR centres to distribute material not included in Annex 1 of the Treaty.