MINUTES OF THE GENETIC RESOURCES POLICY COMMITTEE (GRPC)

19th Session, CIMMYT, Mexico City, 22-24 February, 2006

Members present:	Carlos Correa (Chair) Emile Frison (Secretary) Mike Gale Tony Gregson Masa Iwanaga Leonardo Montemayor Maria José Sampaio Carl-Gustaf Thornström
Excused absence:	Juan Lucas Restrepo, Orlando de Ponti, José Esquinas-Alcázar (FAO Observer)
Members of Secretariat:	Victoria Henson-Apollonio, Michael Halewood
Additional participants:	Clive Stannard (FAO), Maria Ines Mendoza (CAS)
Invited speakers:	Tom Payne (CIMMYT), Monica Mezzalama (CIMMYT)

Wednesday 22 February 2006

Carlos Correa and Masa Iwanaga provided welcoming messages and appreciation to the Secretariat for its work preparing the meeting. Regrets were expressed on behalf of Juan Lucas Restrepo, Orlando de Ponti, and José Esquinas-Alcázar who could not attend the meeting. CIMMYT (Centro Internacional de Mejoramiento de Maiz y Trigo) was thanked for hosting the meeting.

Update on follow-up regarding the "Guiding principles for the development of Future Harvest Centres' policies to address the possibility of unintentional presence of transgenes in *ex situ* collections"

Emile Frison reported that follow-up activities regarding the implementation of the Guiding Principles was discussed by the Alliance Executive (AE). The AE has requested the System-wide Genetic Resources Program (SGRP) to coordinate a) the meeting of experts; b) improving the database on the state of development/testing/release of genetically modified (GM) technologies; and c) the development of crop-specific guidelines. The importance of obtaining financial resources to support these activities was noted, and to that end, the importance of having them firmly embedded in the work plan of the SGRP over the upcoming years. The Inter-Centre Working Group – Genetic Resources (ICWG-GR) will meet March 6-11, 2006, at CIAT (Centro Internacional de Agricultura Tropical). Integrating activities to implement the Guiding Principles is included in the meeting's agenda.

The GRPC recommended that each Centre should include their policy on GMOs, very visibly, on their website The Committee further recommended that the database on GM technology development, testing and commercial release should be routinely updated and prominently displayed on the SGRP website. The database is included in **Appendix 1**.

Updates on the Open-ended Working Group on the Rules of Procedure and the Financial Rules of the Governing Body, Compliance, and the Funding Strategy, 14-17 December 2005; informal Swiss meeting, February 9-10, and preparations for the 2nd meeting of the Contact Group on the Standard Material Transfer Agreement for the International Treaty, 24-28 April 2006

Clive Stannard reported on the informal meeting hosted by the Swiss government, February 9-10, 2006. The atmosphere was very positive. The meeting considered issues related to the mandatory benefit sharing under the Treaty, on the basis of the current negotiating text. It discussed, in particular, definitions of "sales income", "to incorporate", "product", the level, form and manner of payments to be made, and how to incorporate the concept of "the development cycles" that had been the outcome of the previous informal meeting hosted by Norway; it also discussed creating/recognizing "The Third Party Beneficiary", as a legal persona able to defend the interests of the Multilateral System, as well as dispute settlement through international arbitration. All of these issues will probably be addressed at the 2nd meeting of the Contact Group for the Drafting of the SMTA, April 24-28, 2006, in Sweden.

In the context of the development cycle, it was noted that developers would have the right to transfer products under development to others, provided that subsequent recipients (until the commercialization of a final product) are bound by a chain of SMTAs. As part of their discretionary power, they may impose (outside the SMTA) other obligations deriving from their development input upon the subsequent receivers. The Centres of the Consultative Group on International Agricultural Research (CGIAR) releasing the products of their research are in this position. In support of the International Treaty, it would therefore be possible for them to require that the voluntary payments foreseen in the Treaty's Article 13.2d(ii) are in fact paid. It was suggested that the Centres develop, adopt, and announce such a policy with respect to the products of their research released to the private sector. This contractual condition would complement and build upon the policy that the Alliance Executive has already adopted to incorporate the benefit-sharing provisions of the SMTA in MTAs for the products of Centres' research.

To guide its further work in developing this policy, the GRPC commenced an exercise to identify guiding principles.[1] Those principles are included in **Appendix 2**.

It was decided that the GRPC secretariat would coordinate follow-up exercises to further develop the policy. Ideally, the policy could be adopted System-wide before the signing of agreements with the Governing Body, and could be announced at that time. In the

[1] It was noted that a gap at the System-wide level still exists in terms of common understandings or rules for Centres' engagement with the private sector. A few studies have been commissioned by the Science Council and GRPC which will contribute to closing the gap, but the gap still remains. Therefore consideration of these principles was a necessary step in the development of the policy.

meantime, it would be useful to informally consult with the regional representatives at the Second meeting of the Contact Group about the Future Harvest (FH) Centres plans to develop such a policy.

Update on the Centres' draft agreement with the Governing Body
Emile Frison introduced the draft text of the statement to be issued by the Centres upon their signing agreements with the Governing Body (GB) pursuant to Article 15 of the International Treaty. The GRPC revised the draft statement, which is included in **Appendix 3**.

It may be necessary to further revise the statement once the SMTA is finalized. Consideration should also be given to other issues that may need to be included, such as products of Centres' research.

CGIAR positions with respect to the implementation of the Biosafety Protocol and the Third Meeting of the Conference of the Parties Serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety (COP/MOP 3) in particular
Emile Frison described the process that the GRPC Secretariat has followed to build agreement across the Centres about those issues which are most important in the ongoing international negotiations concerning the implementation of the Cartagena Protocol on Biosafety (CPB). In this context he introduced four documents for discussion: minutes of a teleconference involving five Centres; a travel report by a representative of the Future Harvest Centres to the Second Coordination Meeting for Governments and Organizations Implementing or Funding Biosafety Capacity-Building Projects/Initiatives, Tromso, Norway, 18-20 January 2006, a copy of that representative's submission to the meeting, and a draft position paper developed by the Public Research and Regulation Initiative (PRRI).

The GRPC is concerned that models being developed for the implementation of the CPB may have a negative impact on the ability of public sector organizations to engage in biotech research and the delivery of global public goods.

It was noted that it would be worthwhile continuing to explore, on an informal basis, potential synergies between the Future Harvest Centres and PRRI.

It was noted that there is a need for synthesized information concerning Centres' research activities with living modified organisms (LMOs), with particular emphasis on a) what technologies are being developed; b) where they are being tested and released, and c) under what regulatory frameworks. It was noted that much of this information should be included in the database being developed as part of the implementation of the Guiding Principles concerning introgression of transgenes, discussed in the first agenda item above. It was further noted that additional data on the regulatory frameworks would need to be obtained as it is not a field of information that will be included in the database.

Several Centres have considerable experience to draw from in relation to the implementation of the CPB. In this context, CIMMYT shared its "Guiding Principles for Developing and Deploying Genetically Engineered Maize and Wheat Varieties." It was noted that a compilation of instruments developed by Centres would complement

information already gathered together in the recent Science Council Biosafety Report entitled "Report of the Biosafety panel to the CGIAR Science Council on Biosafety Policy and Practices of the CGIAR". The information and analysis could be both appended to that report and considered at the 20th Session of the GRPC.

The GRPC recommended that the various instruments and policies developed by Centres concerning compliance with the CPB should be compiled and examined. In view of the ongoing work on this subject, the GRPC requests the Science Council to consider carrying out the compilation and analysis.
The GRPC also recommended that the Future Harvest Centres work with the Food and Agriculture Organization (FAO) of the United Nations to ensure that the Codex Alimentarius and the International Plant Protection Convention (which are standard-setting bodies under the World Trade Organization's Sanitary and Phytosanitary Standards Agreement) are taken into consideration in the context of international meetings concerning the implementation of the CPB and other policies affecting LMOs.

'Repatriating' materials to non-parties to the Treaty
With respect to the issues dealt with under paragraph 8 of the Minutes of the GRPC's 18th Session, the GRPC clarified that as long as the 1994 FAO-CGIAR In Trust Agreements are in force, the Future Harvest Centres will continue to repatriate material (i.e., provide samples) without an MTA to countries from which that material was originally collected from *in situ* conditions.

Presentation of report "Genebanks and Public Goods: Political and Legal Challenges", and discussion of recommendations on a) declining rates of acquisition by Centres' gene banks, b) experiences requesting materials from states, c) Centres' priorities for future acquisitions and, d) Centre activities with respect to non-Annex 1 materials.
Michael Halewood presented the report "Genebanks and Public Goods: Political and Legal Challenges" and a range of actions that the Future Harvest Centres may want to take to address political challenges they are facing with respect to declining rates of acquisition of accessions. The PowerPoint presentation is included as **Appendix 5**. The GRPC recommended a number of issues to address in a final revision of the paper, including additional data to be collected and reflected in tables; a global map displaying which countries have been making materials available to the Centres; clearer recommendations; and specific legal instruments and policy-making processes that have played a causal or supportive role in the development of the political problems Centres have encountered.

The GRPC expressed its appreciation for the contributions of the genebank managers to the study.

The GRPC recommended that the Future Harvest Centres should:

- *Engage in more collecting activities, with special emphasis on wild relatives of crops, within the context of a global rational system of genebanks as envisaged in the Global Plan of Action and the International Treaty*

- *adopt a System-wide policy to acquire additional Annex 1 materials only if they can be distributed using the SMTA*
- *adopt a System-wide policy to seek to acquire non-Annex 1 materials under the least restrictive conditions affecting subsequent distributions by the Centres through SGRP, should engage in awareness raising/training for national and regional partners to be able to trace materials in and out of Centres' collections. This work would involve introducing partners to The System-wide Information Network for Genetic Resources (SINGER) and other relevant data bases operated by the Centres.*
- *partner with FAO and regional agricultural organizations and networks to provide technical assistance/training for countries to be able to take advantage of the multilateral system on access and benefit sharing (MLS)*
- *support policy dialogue, and training within their regions concerning laws and policies affecting plant genetic resources for food and agriculture (PGRFA)*
- *engage in final round of designations of eligible materials in timely and transparent manner in lead-up to agreements with the Governing Body*
- *make regular reports to the Governing Body through IPGRI highlighting the Centres' acquisitions and distributions, benefits derived from their work, capacity building with NARS to take advantage of the MLS, etc*

Microbial genetic resources: consideration of paper by John Howieson

Michael Halewood presented "Technical Issues Relating to Agricultural Microbial Genetic Resources (AMGRs), Including Their Characteristics, Utilization, Preservation and Distribution", a draft paper written by Prof John Howieson, commissioned by the GRPC. The GRPC expressed its appreciation for the high quality of the paper and its contribution to the work of the Committee. The PowerPoint presentation is included in **Appendix 6**. The GRPC noted that additional research and analysis would be necessary to deepen some of the more policy-relevant aspects of the paper. The lack of consideration of microbial resources used in fisheries was noted. The GRPC agreed that Professor Howieson and a policy specialist with knowledge of the CGIAR should be requested to work together to address those issues. Once revised, the paper will be circulated for comment to colleagues within FAO, the CGIAR and other interested organizations.

Thursday 23 February 2006

Question and Answer session regarding update papers

- *Update on the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC), under the aegis of the World Intellectual Property Organization (WIPO)*

Regarding possible certificates of provenance/origin/source in relation to patent applications, it was noted that the Future Harvest Centres should promote the position that the provenance/origin/source of materials from the Multilateral System should be the Multilateral System itself. Either a) material under the MLS should not be the subject of a certificate, or b) the SMTA should be considered the Certificate for material in the MLS. In situations where the origin of Annex 1 materials used in a patent is unknown, we

should work to have that recognized as coming from the MLS with benefits flowing back to the International Treaty. This would prevent "free-loading"

- *Update on ethics for food and agriculture*

The GRPC took note of FAO's work in the area of Ethics and Agriculture. The GRPC does not feel there is a need for any other initiative within the CGIAR. It was noted, however, that efforts should be made to further distribute FAO publications throughout the CG Centres. *The GRPC recommended that once the revision of the CGIAR Statement of Ethics concerning traditional knowledge is approved, the World Intellectual Property Organization's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (WIPO-IGC) should be informed.*

- *Update on Ad Hoc Open-ended Working Group on Access and Benefit Sharing*

The GRPC is concerned about the possible implications for public research of the ongoing negotiations at the Convention on Biological Diversity (CBD) on access and benefit sharing. The importance of facilitating the participation of National Agricultural Research Systems' (NARS) partners to provide their perspectives was noted. In this context, working through the Challenge Programmes is a possible way forward. .*The GRPC recommended that the Centres, through IPGRI, should continue to have an active role in that process, in consultation with NARS and delegates on an ongoing basis]*

- *Update on the Global Crop Diversity Trust (GCDT)*

The GRPC noted the importance of developing a process to help identify high profile people as potential nominees, by the Governing Body of the International Treaty and the GCTD Donor Council to the Executive Board of the Global Crop Diversity Trust. The GRPC also noted the importance of the Trust's contribution to stimulating the development of strategies for the conservation of genetic resources in the context of an effective and efficient global system of genebanks, and encourages the Trust to continue supporting this work.

- *Update on the Svalbard Arctic Seed Depository*

The GRPC noted with satisfaction the ongoing progress of the establishment of the Svaalbard Arctic Seed Depository.

- *Update on use of Centre IPR guidelines*

Victoria Henson-Apollonio reported that the templates developed by the Central Advisory Service on Intellectual Property (CAS) and IP managers and focal points (approved at the 18th session of the GRPC) have been used by 5 Centres in reviewing their Centre IP statements. *The GRPC reiterates its earlier recommendation (18th session) that Centres should use the templates in the context of revising/harmonizing their IP statements.*

- *Regarding efforts by the FH Centres to get their innovations included in patent offices' prior art searches*

Victoria Henson-Apollonio reported that the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) has made significant progress in providing their publications and notes to the European Patent Office (EPO) for use in prior art searches. The EPO shares its search data bases with the USA and Japanese patent offices. It was

noted that it would be a good strategy to also provide the same information to independent patent searchers, as prior art searches are increasingly being contracted out to independent contractors. ICRISAT and CAS will develop a practice note based on their experience for System-wide circulation. The GRPC noted the importance of making links between such initiatives across the CG system and an evolving Science Council initiative to obtain and synthesize data on outputs from all the Centres.

Presentation of "Strategies for the CGIAR to Conduct Research and Deliver Technological Information that Benefit the Poor in a Context of Intellectual Property Rights, Part 1: The CGIAR Centre Level, and Part 2: the CGIAR System Level"

Victoria Henson-Apollonio introduced the paper; her PowerPoint presentation is included as **Appendix 7**. The GRPC noted that the paper based on the presentation and research by CAS should include consideration of additional issues such as segmentation of markets and information to explain references. It should have a title that reflects the critical stance the Future Harvest Centres need to take vis-à-vis managing intellectual property rights (IPRs) to ensure they are able to deliver public goods. It was noted that the paper will be part of a larger Science Council publication which includes two other papers by Jan Chojecki, and Gary Toenniessen and Debbie Delmer, with an introduction/summary by Mike Gale, Carl-Gustaf Thornström and Stephen Smith.

The members of the GRPC will send Victoria comments by March 7. Victoria will develop a revision of the paper by the end of March.

The GRPC recommended that taking existing guides and codes of conduct into account, some form of guidelines should be developed for the Centres to assist them when obtaining information from and collaborating with indigenous and local peoples, and farmers.

The GRPC noted that the Science Council's publication referred to above will address critical issues related to stewardship of proprietary technologies acquired from other organizations.

Transgenic detection

Monica Mezzalama made a presentation of CIMMYT's efforts to screen materials held by the genebank to address the risk of unintended introgression of transgenes into their collections and to be able to provide assurances to recipients that to the best of their knowledge, following the testing procedures adopted, there is no presence of transgenes in the samples distributed. CIMMYT reports that to date, they have not yet had a positive test result for the presence of transgenes in the materials they have tested. Monica's PowerPoint presentation is included as **Appendix 8**.

Composite germplasm collections exchange

Maria José Sampaio made a presentation describing difficulties of getting permission within Brazil to make materials available for use in the Generation Challenge Programme and Harvest Plus Challenge Programme. Maria José's PowerPoint presentation is included as **Appendix 9.**

Germplasm acquisition agreements
Tom Payne made a presentation describing the legal complexities of obtaining wheat accessions from the United States Department of Agriculture (USDA) for designation under the 1994 FAO-CGIAR In Trust Agreements. His PowerPoint presentation is included in **Appendix 10**.

CDC/CAS report on Centres' technology transfers as benefit sharing, and Centres' contributions to Farmers' rights
Maria Ines Mendoza introduced the Terms of Reference that have been developed to date for the study. Maria's PowerPoint presentation is included in **Appendix 11**. Comments were provided by the participants at the meeting for updating and revising the terms of reference for the paper. A draft of the terms of reference was subsequently distributed. It was agreed that committee members could provide additional comments to Maria. It was further agreed that the first full draft of the paper will be presented to the 20th session of the GRPC.

The GRPC noted with satisfaction the fact that the Executive Council of the CGIAR is planning to create a seat for farmers' organizations. The GRPC discussed the desirability of having farmers as members of Centres' Boards and will further consider the issue at future meetings after the presentation of this paper.

Role of Future Harvest Centres in a global, rational system of genebank management
Carl-Gustaf Thornström led a discussion of two issues: 1. what should be done with companies' breeding materials when they would otherwise be lost through corporate mergers or the termination of activities; and 2. the need to secure funding for the coordination of the activities of the Future Harvest Centres under the International Treaty. The presentation is included as **Appendix 12**.

Regarding companies' breeding materials, *the GRPC recommends that Centres should publicize their willingness to conserve PGRFA accessions and related information that is at risk in order to be made available for distribution by the Centres.*

The GRPC noted that the Future Harvest Centres' support for genetic resources conservation and use is a major contribution to the global rational system of genebank management and that this constitutes a major part of the mandate of the Centres that needs to be supported in a stable fashion. In this context, the GRPC welcomed the priorities set by the Science Council that give high priority to conservation and use of genetic resources.

Update on Enola bean case
Victoria Henson-Apollonio provided an update on the case. The claims were finally rejected (at first instance) in January 2006, however the last date for filing new material is June 21. Victoria's PowerPoint presentation is included in **Appendix 13**.

The GRPC recommends:

- *CIAT should make the outcome of the case known, emphasizing the costs and delays of pursuing the case, and the fact that the claims should have been rejected from the very beginning*
- *that a report should be written about the case, possibly by CIAT and CAS together*
- *that the Future Harvest Centres, through IPGRI, should provide a report of the case to the FAO Commission on GRFA at its next meeting.*

Update on Monsanto v. Argentina

Carlos Correa provided an update on the legal actions of Monsanto to prohibit the importation of Argentine flour from GM soybean into Europe. Monsanto does not have a patent on roundup ready soybean in Argentina. Argentina is exporting processed soybean flour to European countries. In Argentina, the original Monsanto materials have been used in breeding for 9 years, with almost 200 local varieties produced containing the gene, which are protected by Plant Variety Protection in Argentina. Monsanto did not protest during those 9 years. Monsanto has filed claims to demand that several European countries (where they do have patent protection for GM soybean) stop importing the flour. The countries concerned are not stopping imports, but require the importers to post bonds. This represents a significant attempt to expand the scope of control of patent holders. This could have some effect on the Future Harvest Centres and their national partners if the Future Harvest Centres were to transfer materials to developing countries with genes patent protected in developed countries, and products from those materials were exported to the developed countries where those genes are patented.

Friday 24 February 2006

Review/update of the GRPC workplan

The Committee reviewed its rolling work plan based on the previous two days' discussions. The revised work plan is included in **Appendix 4** to these minutes.

AOB and next meeting

The GRPC noted the importance of raising awareness about its own existence and the issues it addresses within the CGIAR. To that end, the GRPC recommended that a public awareness booklet should be developed. The GRPC further recommended that the GRPC and a few key issues it is currently addressing should be included on the agenda of the business meeting of the next Annual General Meeting.

The GRPC discussed areas of genetic resources policy-making and implementation that would be particularly important for the Future Harvest Centres in upcoming years. It was noted that continued, and perhaps increased, support for the effective implementation of the International Treaty will be critically important. Other areas identified by the GRPC members were 'clustered' under three main headings:

- negative incentives created by the CBD and CPB vis-à-vis public sector research and the development and dissemination of public goods;

- relationships with the private sector vis-à-vis FH Centres' engagement in genomics, use of biotechnology, and creation and use of genetically modified organisms;
- relationships with civil society organizations

The 20th session of the GRPC will be held at IPGRI, in Italy, 29-31 August 2006. The 21st session of the GRPC will be held during the week of Feb 26- March 3, 2007. It was agreed that efforts should be made to hold the 21st meeting back-to-back with the annual meeting of the ICWG-GR as a means of generating synergies between the two bodies.

Appendix 1

Table 1: Status of transgenic work, crop-by-crop

	Breeding system	**Sexually compatible species if relevant**	**State of development of GM technology.** **Options re releases:** **- laboratory** **- field trials** **- commercial** **- don't know**	**CG Centre and country**	**Likely sources of AP in GB accessions**	**Recommended management practices**
Maize*	cross pollinated, wind pollinated	teosinte – Central America Tripsacum	-commercial (15.5 million hectares): USA, Can., Honduras, Argentina, Uruguay, South Africa, Philippines, Bulgaria, Germany, Spain) -field trials: many countries in both North & South	CIMMYT, Mexico; IITA Nigeria	Admixture Pollen flow from farmers' fields and permitted GM field trials . Newly acquired materials	Standard isolation distance, rotation, refugia, etc. Investigate source country/agency. Screen when in doubt Best practices need to be spread on priority basis given distribution
Rice*	Self pollinated	Oryza complex: Asia, Africa America	Not commercial Extensive laboratory: Extensive field trials: China, India, Philippines, Iran, USA, Argentina, Costa Rica, Colombia, and others	IRRI, Philippines WARDA, Cote D'Ivoire CIAT, Colombia	Admixture, permitted GM field trials	Standard isolation distance, rotation

Wheat*	Self pollinated	No close wild relatives	Not commercial Extensive laboratory: Extensive field trials: USA, Argentina, UK, Mexico, Canada Don't know exactly which others	CIMMYT, Mexico; ICARDA, Syria	Admixture, permitted GM field trials	Standard isolation distance, rotation
Oats*	Self pollinated	??	Not commercial Field trial (USA) Some lab work	No CG Gene bank	n/a	n/a
Barley*	Self pollinated	Some close wild relatives	Not commercial Some laboratory: US, UK Some field trials: USA	ICARDA, Syria, CIMMYT	Admixture, permitted GM trials	Standard isolation distance, rotation
Rye*	Self incompatible Wind pollinated	??	Not commercial No field trials Some lab. work ??	CIMMYT Mexico ; ICARDA	n/a	n/a
Finger millet*	Open pollinated Wind	Some ??	Not commercial No field trials No lab. Work	ICRISAT, India	n/a	n/a
Pearl millet*	Open Pollinated Wind	Some wild relatives	Not commercial No field trials Some lab. work (India, ?)	ICRISAT, India	n/a	n/a
Sorghum*	Open Pollinated Wind	Wild Relatives (Johnsson Grass)	Not commercial Field trials (USA)	ICRISAT, India	Admixture, permitted GM trials	Standard isolation distance, rotation

Triticale*	Open pollinated Wind	Relatives	Not commercial No field trials Lab. work (Poland)	CIMMYT, Mexico ?	n/a	n/a
Banana/Plantain*	Cross pollinated Mostly vegetative propagation ?	Relatives ??	Not commercial Some filed trials (Cuba, USA) Lab. work (Belgium, France, USA, BR, UK, Cuba, Australia, Uganda, Nigeria) GM plants are sterile	IPGRI INIBAP	Clone admixture	Standard isolation distance, rotation
Soybean	Self pollinated, insects	Wild relatives	Commercial (42 million ha) – USA, Canada, Romania, South Africa, Brazil, Uruguay, Argentina, Mexico) Many field trials Lab. work	IITA, Nigeria	Admixture, commercial and permitted GM trials, Insects pollination	Standard isolation and rotation
Beta vulgaris and related species	Open pollinated	Wild relatives (e.g. B. maritime)	Work in progress to produce herbicide resistance	No CG	n/a	n/a
Bambara nut	Self Pollinated	??	No GM work	IITA, Nigeria	n/a	n/a
Vegetables						
Solanaceous Tomato and pepper	Self Pollinated Insect-pollinated	Wild relatives	Has been commercial (USA) Many field trials Lab. work	No CG ??	n/a	n/a

Cucurbits* (melons, squash, Cucumbers)	Cross-pollinated Insect-pollinated	??	Commercial - (squash - USA) Many field trials La. Work	No CG	n/a	n/a
Crucifers cabbages,	Cross Pollinated Insect-pollinated Wind	Wild relatives	Not commercial Many field trials Lab. work	No CG	n/a	n/a
Asparagus	Cross-pollinated Vegetative multiplication		Not commercial No field trials Previous lab. Work	No CG	N/A	N/A
Strawberry*	Cross-pollinated Vegetative multiplication	Wild relatives	Not commercial Many field trials (USA) Lab. Work	No CG	n/a	n/a
Sunflower	Cross-pollinated Insect-pollinated	Wild relatives	Not commercial Field trials (USA, Argentina ??, Serbia and Montenegro)	No CG	n/a	n/a
Forage grasses	Cross-pollinated,Wind pollinated	Wild relatives\(depends upon the species)	Not commercial release Field trials: USA, others? Lab work	ILRI, Ethiopia, CIAT	Pollen flow, admixture from permitted GM trials	Isolation, rotation
Alfalfa	Cross- pollinated, Insect- pollinated (perennial)	Wild relatives?	Not commercial Many field trials: Canada, USA, Belgium and others? Labwork:	ICARDA?	Pollen flow, admixture from permitted GM trials	Isolation, rotation
Food legumes						

Beans (Vulgaris)	Self-pollinated	Wild relatives ??	Not commercial No field trials Some Lab. work	CIAT, Colombia ICARDA, Syria	n/a	n/a
Phaseolus	Self pollinated	Wild Relatives America	Not commercial Field trials (BR) Lab. Work	CIAT, Colombia	No	??
Cowpea	Self-pollinated ??	Wild Relatives	Not commercial No field trials Lab. work	IITA, Nigeria	n/a	n/a
Chickpea	Self-pollinated	??	Not commercial No field trials Lab. work (watch list)	ICRISAT, India ICARDA, Syria	n/a	n/a
Pigeon pea	Cross-pollinated Insect-pollinated	Wild relatives	Not commercial Contained Field trials (cage isolation) Lab. Work	ICRISAT, India	n/a	Pollen flow Isolation, Admixture Refugia
Groundnut	Self-pollinated	Wild relatives	Not commercial Field trial Lab. work	ICRISAT, India	(ground keepers volunteers??)	Rotation Isolation
Root and tuber crops						
Potato	Cross-pollinated Insect-pollinated Vegetative multiplication TPS multiplication	Wild relatives	Commercial (USA, Netherlands) Field trials in many countries Lab. work	CIP, Peru	Mixing of clones in lab	Isolation Rotation Use of male sterile transgenes in centres of diversity

Sweet potato	Cross-pollinated Insect pollinated Vegetative multiplication TSPS Multiplication	Wild relatives	Not commercial Field trials (Peru, Kenya, South Korea, USA) Lab. Work	CIP, Peru	Admixture, Pollen, true potato seed, Volunteers	Isolation Rotation Use of male sterile transgenes in centres of diversity
Cassava	Cross pollination Vegetative multiplication	Wild relatives	Not commercial Some field trials (USA, Colombia) Lab. Work	CIAT Colombia IITA, Nigeria	Admixture of vegetative propagules	Isolation, Rotation
Yams	Vegetative multiplication	??	Not commercial No field trials Lab work: Brazil	IITA, Nigeria	N/A	N/A
Cotton	Often cross pollinated, mostly self pollinating?	Wild relatives in Central America and Northern South America,, South Asia, north Australia,	Commercial: (7.2 million hectares) USA, India, China, South Africa, Colombia, Argentina, Australia, Indonesia, Many field trials Labwork	No CG	Pollen flow from commercial fields, admixture from permitted GM trials	Isolation, rotation, refugia maintenance; mechanical closing of flowers in maintenance growing
Oilseed rape complex: (Canola, Indian mustard, rape, Brassica juncea)	Cross-pollinated	Many wild relatives, e.g. cabbage, Swedes, wild and weedy turnip rape and the cultivated Turnips B. rapa	Commercial: (3.6 million hectares) Canada, USA Many field trials Lab work	No CG	Pollen flow from commercial fields, admixture from permitted GM trials	Isolation, rotation, refugia maintenance

* crops in Annex 1 of ITPGRFA

Footnotes for Table 1:

- General point: Genebanks must also consider unofficial (unregulated?) releases of GM materials as well as source of potential AP.
- We have considered some non-CG crops, i.e., those for which the CG Centres have limited collections: bambara nut, soybean, cotton, oilseed rape complex
- A complete list would also include treatment of other crops, such as tree crops or ornamental crops, which require inputs from experts not available during this exercise.
- A list of general management tools would include caging and hand pollination of regeneration of gene bank acquisitions

Appendix 2

The GRPC agreed on the following draft principles to guide work for developing a policy to encourage 'voluntary' benefit sharing when Centres release products of their research to the private sector:

- Collaboration with companies should be consistent with the mission of the Centre concerned
- Such collaboration must be consistent with the International Treaty, the CGIAR Statement of Ethical Principles and the Guiding Principles for IP Management
- Agreements with companies should include two clauses concerning monetary benefit sharing: one that reproduces the clause from the SMTA and a second requiring the first and subsequent recipients who commercialize a product to make the 'voluntary' contributions foreseen in Article 13.2.d
- The recovery of relevant expenditures by Centres needs to be taken into consideration on a case-by-case basis and is justified by the Centre being an actor in the development cycle

Appendix 3

DRAFT

STATEMENT OF THE CGIAR CENTRES REGARDING IMPLEMENTATION OF THE AGREEMENTS BETWEEN THE CENTRES AND THE GOVERNING BODY OF THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The Centres of the Consultative Group on International Agricultural Research warmly welcome the signing of Agreements with the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture in regard to the *ex situ* collections described in Article 15 of the Treaty. With the signing of these Agreements, the Centres commit themselves to supporting and implementing the Treaty and to working with the international community to build a strong and effective Multilateral System of access and benefit sharing. The Centres encourage all recipients to abide by the conditions set out in the International Treaty and in the material transfer agreements approved by the Governing Body.

This statement is meant to clarify the Centres' common understanding of certain provisions of the Agreement.

With respect to Article 2 of the Agreements: It is understood that nothing in Article 2 of the Agreement will prevent the Centre from making available PGRFA held by it to non-Contracting Parties. The Centre will use the same SMTA in distributions to non-Contracting Parties.

With respect to Article 2.(b)(iv) of the Agreements: While Centres will distribute germplasm through the Standard Material Transfer Agreement, recipients may not always abide by its terms. When Centres have a reasonable grounds to suspect that a recipient has violated a SMTA it will undertake the following actions in response to the perceived violation, in addition to any dispute resolution mechanisms set up under the standard MTA:

1. The Centres will request an explanation. Upon failure to receive a satisfactory and timely explanation from the recipient, the Centre will notify the recipient that a violation is thought to have occurred and request the recipient to conform to the requirements set out in the MTA.

2. When the Centre has reasonable grounds to believe that a violation of a SMTA has occurred, it will notify the [multilateral system/third party beneficiary] and IPGRI of the possibility that the SMTA has been violated.

3. The Centres will promptly inform the Governing Body of cases of non-compliance.

4. Periodic reports from the Centres will be presented to the Governing Body through IPGRI on the actions taken in accordance with 1 and 2 above.

5. The procedures described above will also be applied in respect of violations or perceived violations of SMTAs relating to PGRFA listed in Annex 1 of the Treaty.

With respect to Article 2 (a) and (b) of the Agreements:

Under the terms of this provision, the Centres "undertake to make plant genetic resources for food and agriculture available for the purpose of utilization and conservation for research, breeding and training for food and agriculture". The undertaking of the Centres in this regard would not, as under their previous agreements with FAO, extend to the fulfilment of unreasonable requests.

For example, sound management practices as well as practical or even biological constraints (such as seed availability or the health status of a sample) may at times limit the ability of centres to provide plant genetic resources for food and agriculture for the purposes spelled out above. It is understood that Centres will have to use some discretion in determining the size and number of samples to be provided at any given time to a particular recipient. Centres may not be able to distribute seed or other designated materials immediately when such distributions would reduce stocks below accepted levels for conservation purposes, or when the request is for such a number of samples or quantity of a particular accession as to make it financially or technically impossible for the Centre to meet the request in full, or make it impossible for the Centre to meet requests from others. In such cases, the Centre may ask that the recipient cover the actual costs of multiplying the relevant accessions. In cases of limited supplies, immediate availability of materials cannot be guaranteed. Such availability will follow a process of multiplication. Recipients might be advised that they may need to undertake their own seed multiplication when existing sample sizes are small (such as in the case with many accessions of wild relatives) or when demand for a particular sample exceeds supply.

In cases when a Centre cannot fully or immediately meet a request, the Centre will enter into a discussion with the requesting entity to develop and agree upon a plan and schedule for the supply of materials. This process might establish an agreed list of accessions to which priority would be given.

Multiplying woody species accessions and supplying materials of vegetatively propagated species can involve very time-consuming and expensive procedures. While Centres endeavour to supply materials free of cost, in such circumstances it would be unreasonable to expect that Centres could guarantee unlimited quantities or immediate availability of all germplasm. At their discretion, Centres may request that users cover all or part of the costs involved in multiplication.

Centres cannot distribute samples that do not meet health or quarantine standards, or whose transfer could pose the danger of a spread of pests or disease. In distributing samples, the Centres will comply with all relevant international and national legislation

and regulations regarding phytosanitary, biosafety and other relevant standards and procedures.

With respect to Article 2 (b)(ii) of the Agreement:

Centres will also apply the conditions of Article 2(b)(ii) to the return of samples of plant genetic resources to non-Contracting Parties

Centro Internacional de Agricultura Tropical (CIAT)
Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT)
Centro Internacional de la Papa (CIP)
International Centre for Agricultural Research in the Dry Areas (ICARDA)
International Centre for Research in Agroforestry (ICRAF)
International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
International Institute for Tropical Agriculture (IITA)
International Livestock Research Institute (ILRI)
International Plant Genetic Resources Institute (IPGRI)/International Network for the Improvement of Banana and Plantain (INIBAP)
International Rice Research Institute (IRRI)
West Africa Rice Development Association (WARDA)
Centre for International Forestry Research (CIFOR)

Appendix 4: GRPC Work plan

Issue	Activity/Input	Outputs	Timetable
Guiding principles for the development of Future Harvest Centres' policies to address the possibility of unintentional presence of transgenes in *ex situ* collections	Secretariat will encourage all FH Centres to mount the Guiding Principles and their own GMO policies prominently on their websites Emile will discuss how the initiatives can be integrated into SGRP's annual work plan during the ICWG-GR meeting. Emphasis will be placed on: a) convening the group of technical experts; b) coordinating the development of crop-specific guidelines; c) coordinating the updating of the GMO database; d) establishing a feed back mechanism to give progress reports to the GRPC, including its 20th session e) strategies for obtaining necessary financial support GRPC Secretariat will support SGRP to get these processes underway	Message from Secretariat to Centres Presentation by Emile to ICWG-GR, March 2006 Report to GRPC by SGRP	April 2006 20th session of GRPC – August 2006
Implementation of the International Treaty	GRPC will monitor developments including the Contact Group meetings, and informal meetings,	Update to GRPC by Secretariat	20th session of GRPC – August 2006

Issue	Activity/Input	Outputs	Timetable
Agreement between Centres and Governing Body of the IT (and statement to be issued by Centres upon signing)	Secretariat will continue to monitor processes of approvals by Centre Boards Secretariat will coordinate revisions of the Centres statement upon finalization of the SMTA Circulate to GRPC members for comment Circulate to Centres for approval Clarification on position regarding repatriation of materials to non parties to the Treaty sent to Ex Co and Centres	 Revised statement E-mail from Chair of GRPC	Ongoing After Contact Group and or Governing Body meetings April 2006
MTA for products of Centre research	Monitor developments of negotiation of the standard MTA for Annex 1 materials with respect to the text of the mandatory benefit sharing under 13.2.d.ii Develop draft policy and legal text for clause to be inserted in MTAs for voluntary contributions under article 13.2.d circulated to GRPC for comment Comments from GRPC members [additional steps for endorsement System-wide]	Emile presents the concept of voluntary benefit sharing clause to ICWG Approved policy and contractual clause Update to GRPC by Secretariat	March 2006 20th session of GRPC – August 2006
Svaalbard long term storage facility	GRPC will monitor developments	Update to GRPC by Secretariat	20th session of GRPC – August 2006

Issue	Activity/Input	Outputs	Timetable
Operationalization of Article 15.4 of IT	Gather additional data on Centres' non-Annex 1 related activities, collect comments, revise paper Present final draft of "Genebanks and Public Goods" to GRPC	 Report to GRPC	March – June 2006 20th session of GRPC – August 2006
CAS paper on IPR strategy for the CGIAR	CAS will make revisions to paper Collecting and synthesizing protocols, guidelines for working with Indigenous and local peoples and using information they provide Producing draft guidelines for Centres and presenting them to GRPC	Revised paper Collection of instruments Draft guidelines	End of March 2006 20th session of GRPC – August 2006 20th Session of GRPC – August 2006
Assessment of Centres' impact concerning: 1. technology transfers as benefit-sharing, and 2. contributions to Farmers' Rights	Members of the GRPC will send Maria Ines Mendoza additional comments on the Terms of Reference for the paper First full draft of paper presented to the GRPC	Comments 20th session of GRPC	April 15, 2006
Agricultural microorganisms and exchange policies	Secretariat will coordinate follow up research and revision of paper by Professor Howieson and additional policy expert Revised draft circulated for comments Paper reconsidered by GRPC	Revised TORs Revised draft Penultimate draft presented to GRPC	March/April 2006 July 2006 20th session of GRPC

Issue	Activity/Input	Outputs	Timetable
Statements on ethics and agriculture	Secretariat will send amended CGIAR Ethical Principles to WIPO's IGC	Revised Ethical Principles	When approved
Demand driven GRPC agenda setting process	Secretariat will continue to monitor across the FH Centres for demands	Update GRPC by Secretariat	20th Session of GRPC – August 2006
Decline in rates of acquisition of new materials by gene banks	Gather additional data on Centres' rates of acquisition from original collections from in situ sources, designations every two years Finalize paper "Genebanks and Public Goods" Emile will present recommendations from GRPC to ICWG Secretariat coordinates of writing draft policy statement concerning acquisitions Circulation to GRPC for comment Additional steps for endorsement System-wide	 Present final draft to GRPC Draft policy statement Approved policy on acquisitions	March – June 2006 20th session of GRPC March 2006 July 2006 July 2006 September 2006
Developments at CBD, WIPO, WTO, other bodies	Secretariat will prepare short update paper(s) summarizing relevant developments Future Harvest Centres will be represented as observers as these meetings	Information paper for GRPC	20th Session of GRPC – August 2006
Animals, fisheries & forestry	Secretariat will prepare short update paper(s) summarizing relevant developments The Secretariat will explore collaboration with FAO on these issues, particularly with respect to the development of the CGRFA MYPOW (Multi Year Programme of Work)	Information paper for the GRPC	20th Session of GRPC – August 2006

Issue	Activity/Input	Outputs	Timetable
Prior Art	CAS and the Secretariat will provide a paper describing most up-to-date efforts of the FH Centres to getting their innovations included in patent offices' prior art searches. The paper will include recommendations for further action.	Report to the GRPC	20th Session of GRPC – August 2006
Biosafety	IPGRI will continue its efforts to coordinate system-wide effort to define positions that the Centres should take vis-à-vis international negotiations and domestic implementation IPGRI will attend weekend meeting of PRRI and COP/MOP on behalf of the FH Centres The Secretariat will explore collaboration with FAO's Biosecurity programme	 Update to the GRPC by Secretariat	Ongoing March 2006 20th Session of GRPC – August 2006
Global Crop Diversity Trust	GRPC will monitor progress	Update to the GRPC by the Secretariat	20th Session of GRPC – August 2006
Develop awareness raising booklet about GRPC	Secretariat will develop TORs and circulate them to GRPC members for comment Secretariat will contract with writer to draft booklet Presentation of draft booklet to GRPC	TORs Draft booklet presented to GRPC by Secretariat	April 2006 20th Session of GRPC – August 2006
MYPOW of the CGRFA	FAO Secretariat will prepare a short information paper summarizing relevant developments	Information paper for 20th session of the GRPC	2006

Issue	Activity/Input	Outputs	Timetable
Patents	Secretariat or Chair will write message to CIAT recommending publicizing the outcome and offering to assist (and CAS's assistance in particular) in developing reports to drive home lessons learned from the experience	Message Chair or Secretary of GRPC	April 2006

Appendices 5 – 13 are being sent as separate documents

Appendix 5
(PowerPoint presentation of Michael Halewood (genebanks and acquisitions))

Appendix 6
(PowerPoint presentation of Michael Halewood (AMGR))

Appendix 7
(PowerPoint presentation of Victoria Henson-Apollonio)

Appendix 8
(PowerPoint presentation of Monica Mezzalama)

Appendix 9
(PowerPoint presentation of Maria José Sampaio)

Appendix 10
(PowerPoint presentation of Tom Payne)

Appendix 11
(PowerPoint presentation of Maria Ines Mendoza)

Appendix 12
(Presentation of Carl-Gustaf Thornström converted into PowerPoint presentation)

Appendix 13
(PowerPoint presentation of Victoria Henson-Apollonio (enola))