

Governing the Global Crop Commons

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Manchester

Michael Halewood

Introduction

Crop commons – secures inputs for research and plant breeding, direct use.

PGRFA – historically collectively pooled and managed

Countries highly interdependent

Kenya and Uganda

- In 2001 CGIAR genebanks held some 4,000 accessions originating in Kenya or Uganda
- During the period 1974-2001 CGIAR genebanks sent some 12,000 unique accessions originating in other countries to Kenya or Uganda

(Source: Halewood, Gaiji and Upadhyaya, 2005)

Kenya and Uganda

ICRISAT: Germplasm distribution
to Kenya and Uganda during 1974-2001

	Originated in Kenya/Uganda	Originated in other countries
Beans	4%	96%
Finger Millet ¹	20%	80%
Forages GR ILRI	2%	98%
Groundnut ²	18%	82%
Pigeon Pea	15%	85%
Sorghum	3%	97%
Trop. Forages CIAT	20%	80%

¹East-Africa is centre of diversity, ²Non Annex-1

(Source: Halewood, Gaiji and Upadhyaya, 2005)

Morocco

- Currently the ICARDA genebank holds **3,564** accessions originating in Morocco
- Since 1984 the ICARDA genebank sent **16,134** accessions to Morocco
- Of the accessions sent **3,722** (=23%) originated in Morocco (repatriation)

(Source: ICARDA, 2009)

Philippines

- Currently the IRRI genebank holds **4,718** rice accessions originating in the Philippines
- During the period 1986-2008 the IRRI genebank sent **13,283** rice accessions to the Philippines

(Source: IRRI, 2009)

Summary of international flows: Regional perspective...

<u>Region</u>	<u>Holding</u>	<u>Received</u>	<u>(borrowed)</u>
South Asia	128,679	448,288	54%
Sub Saharian Africa	124,168	134,233	57%
South America	62,303	43,423	61%
Southwest Asia	58,574	47,168	46%
Europe	32,711	82,396	92%
Meso America	29,944	39,312	67%
East Asia	20,996	45,804	87%
North Africa	18,313	37,720	75%
North America	13,965	57,872	95%
Oceania-Pacific	1,671	14,592	100%

(2005 data)

Table 1. Summary of international flows of rice ancestors in selected countries*

Country	Total landrace progenitors in all released varieties	Own landraces Borrowed landraces	
		Own landraces	Borrowed landraces
• Bangladesh	233	4	229
• Brazil	460	80	380
• Burma	442	31	411
• China	888	157	731
• India	3917	1559	2358
• Indonesia	463	43	420
• Nepal	142	2	140
• Nigeria	195	15	180
• Pakistan	195	0	195
• Philippines	518	34	484
• Sri Lanka	386	64	322
• Taiwan	20	3	17
• Thailand	154	27	127
• United States	325	219	106
• Vietnam	517	20	497

* Fowler, C. and Hodgkin, T. 2004. Plant Genetic Resources for Food and Agriculture: Assessing global availability. Annual Review of Environmental Resources 29: 10.1–10.37, based on a table originally included in Gollin, D. 1998. Valuing farmers' rights. In Agricultural Values of Plant Genetic Resources (Evenson, R.E. Gollin, D. and Santaniello, V. eds.). CAB International, Wallingford, UK.

International governance of pooled PGRFA

- Pre-1983 – public domain
- 1983 – ‘universal principle’ of common heritage of human kind ... almost
- 1989 – resolutions on PBR, farmers rights
- 1991 – resolution on national sovereignty
- 1992 – text of CBD adopted in Nairobi Final Act
- 1994 – WTO/TRIPS comes into force

CBD, Art 15

- Sovereign right of countries to regulate access to GRs in their borders, subject to PIC, MAT
- Approach to implementation then & now antithetical to commons
- Also uncertainties how to implement, who has authority to approve access, has lead to 'access freeze'
 - E.g. Genebanks declining rates of acquisition, frustrated research

Nairobi Final Act

- Recognized the need to address situation of PGRFA in ex situ collections before 1993, and farmers rights ... which provided the context for revision of the IU to take into consideration the CBD.
- Good news: possibly another, more appropriate, ABS arrangement would be available for PGRFA. Created opportunity for renegotiation of the IU to address status of PGRFA collections
- Bad news: legal vacuum during a period when the CG collections were getting a lot of attention.

International Treaty on Plant Genetic Resources for Food and Agriculture

- 2001 text adopted
- 2004 came into force
- 2006 standard material transfer agreement adopted
- 2009 funding strategy adopted, rules for the 3rd party beneficiary
- 2010 onwards – no more excuses

Treaty's multilateral system of access and benefit sharing

- Creates internationally shared pool of PGRFA
 - Contracting parties, international orgs, natural and legal person
 - Ex situ and in situ
- For the purposes of research, training and breeding (and direct use?)
- CPs: what's in their management and control and in the public domain

Multilateral system

- Applies to list of 35 crops and 29 forages annexed to the Treaty
 - Food security and interdependence
- Must supply for free or minimal admin costs
- No saying no unless you don't have it (but no obligation to conserve it either)

Multilateral system

- Must also send available passport and other non confidential information
- “The **Recipient** shall not claim any intellectual property or other rights that limit the facilitated access to the **Material** provided under **this Agreement**, or its genetic parts or components, in the form received from the **Multilateral System**.” -- ??
- PIC and MTA built in – already established in the standard material transfer agreement

Mandatory monetary benefit sharing clauses (‘compensatory liability’)

- Option 1 (default)
 - commercialization
 - any incorporation of MLS material, and
 - technical or legal restriction so that not available for further research or breeding (i.e., not triggered by PVP; penalizes patentors)
 - 1.1% sales
- Option 2
 - 0.5% gross sales on all commercial sales, whether or not there is restriction on downstream research or breeding (triggered by PVP)
 - Crop or forage specific

The options chosen must be passed on to subsequent recipients

Monetary benefit sharing

- Originally, negotiators had something less complicated, more general, in mind. Like a payment to the system based on yearly sales of companies, or the volume of business within a country generally
- Tying quantum of benefits shared to profits derived on case-by-case basis got introduced after negotiations got under way. Requires infrastructure.
- May be possible to revisit this in the future

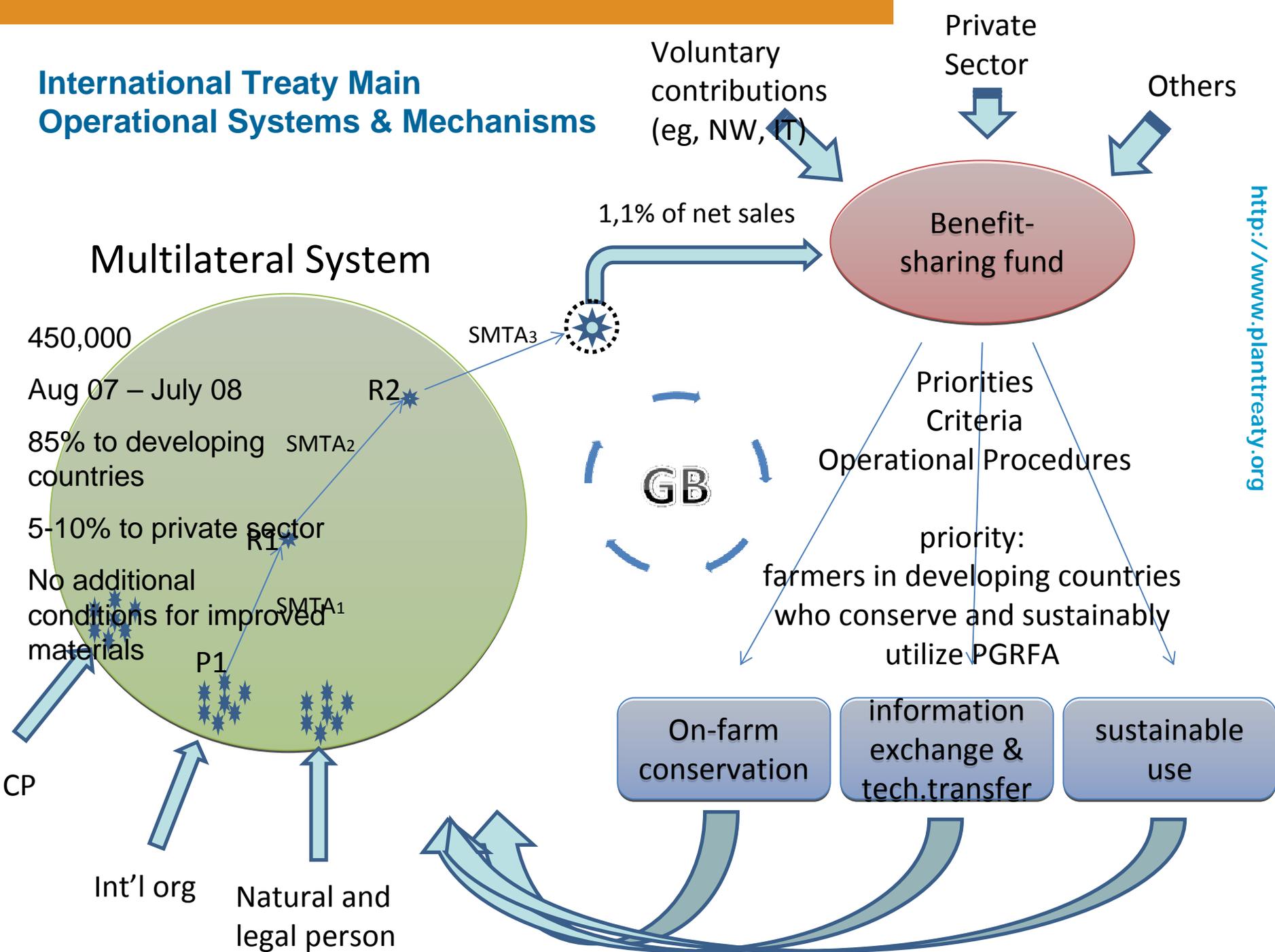
Multilateral system

- To accommodate innovation chains, recognized PGRFA under Development, which can be transferred, for consideration, without triggering the benefit sharing provisions
- Only for PGRFA under Development is it possible to add additional terms and conditions to those in the SMTA

MLS

- Delinks benefit sharing from countries of origin. Monetary benefits go to the MLS itself.
- Incentive problem for enforcement
- Enter the MLS as 3rd party beneficiary
- Providers have reporting obligations, in part to facilitate work of 3rd PB
- Dispute resolution, international arbitration

International Treaty Main Operational Systems & Mechanisms



De facto partial expansion of scope

- 2007, Governing Body decided that the IARCs should use the SMTA for non annex 1 materials
- European strategy to implement the Treaty will voluntarily do the same
- Nothing to stop countries making materials available under the SMTA if they have the legal right to provide access in the first place

Bridging the 1993 Divide

- NB: the formula for contracting parties to decide 'what's in' the MLS cuts across the CBD's coming into force
 - Exceeds the original Nairobi Final Act mandate

Challenges within the Treaty

- Re: BS formula, industry does not like incorporation threshold, infection-like spread of obligation to most breeding program products. (USA, if it ratifies, will work to change these terms.)
- D'ing countries don't like formula because it takes so long to realize benefits
- Contracting parties, natural & legal persons not effectively 'putting materials in' the MLS

Challenges

- Benefit sharing funds to support sustainable use, in situ cons. extremely limited. Funding strategy.
- Trust
- Need to encourage developed countries and companies to make sustained, voluntary contributions to the Treaty,
 - Norway, .1% of national seed sales. Can other countries or industry follow suit?
 - Revised SMTA formula to realize bigger benefits sooner

Challenges

- Global information system
- Address technical Qs: e.g. 'Borderline PGRFA,' technical restrictions, what's in/what's out, etc
- Technical support for countries implementing the Treaty.
 - "Experience has shown the Treaty is not a self-executing instrument"

Challenges

- Technology transfer of IP protected technologies for use in conservation or of benefit to farmers 'on fair and most favorable terms' 'consistent with adequate and effective protection of IPRs'
 - Can this be made to mean something?

PGRFA beyond the Treaty

- Non-food/non-feed uses of Annex 1 crops
- Non annex 1 crops

Beyond PGRFA

- Other GRFA commons?
 - Commission on Genetic Resources for Food and Agriculture's consideration of sector-specific access and benefit sharing
 - International Regime on access and benefit sharing being negotiated under CBD
- Beyond F&A?
 - Microbial commons?
 - Non-commercial research?
 - Links to climate change framework agreement?
WHO?

- Thank you