

A GLOBAL TREATY FOR FOOD SECURITY
AND SUSTAINABLE AGRICULTURE

THE INTERNATIONAL
TREATY ON PLANT
GENETIC RESOURCES
FOR FOOD
AND AGRICULTURE



The Habsburg Emperor Rudolf II as Verminus,
by Giuseppe Arcimboldo, 1591.
Skokloster Castle, Sweden

. . . as a concrete ABS mechanism; the role of
CGIAR Centres as implementors of the Treaty

D.G. Debouck

Ad Hoc Working Group Meeting on ABS, ABS 9, CBD
Cali, COLOMBIA



Menu

Appetizer

Empanadas

Aji de mani

Tamales

Main course

Sancocho de cola

Dessert

Arroz con Leche

Wine

Cabernet-Sauvignon



Made of; where from?

chili pepper (Colombia?)

peanut (Bolivia?)

maize (Mexico)

rice (SE Asia)

chicken (SE Asia)

plantain (SE Asia)

cassava (Brazil)

maize (Mexico)

rice (SE Asia)

squash (Colombia?)

beef (Mesopotamia)

onion (Spain)

coriander (Greece)

rice (SE Asia)

sugarcane (India)

grape (Caucasus)

Elements of the Treaty

reticulate origin of most varieties of cultivated plants shows :
the interdependence of countries and
the need to implement an agile system of access

Convention on Biological Diversity (1993)

Sovereign rights of the countries

Establishment of national authority

Genetic resources of national environment

Regulated access by the national law

Prior informed consent, mutually agreed terms

International Treaty PGRFA (2001)

Sovereign rights of the countries
(123)

Creation of the Multilateral System
of Access and Benefit-Sharing

Crops of Annex 1

Facilitated access, use of SMTA

Distribution of benefits, \$\$\$

The creation of the Multilateral System (by 123 countries)

over 6,000,000 samples in collections kept in public institutions

over 1,400 repositories

11 IARCs

over 650,000 samples for 40-50 crops



CGIAR

• viable, increased, available

• unique

• evaluated, documented

access :

for purposes of food and agriculture

under approval of the SMTA written by the countries

no IPR on the material in the form received from the Multilateral System

if further distributed, under the SMTA, and reporting obligation

Benefits considered by the Treaty (art. 13.2)

- facilitated access to the PGRFA included in the Multilateral System
(ex. access to the collections in public domain ; CGIAR 10% world holdings)
- access to information on evaluation, scientific research
(ex. access to CGIAR crop data bases, products such as SoFT)
- access to/ and transfer of technology
(ex. development of selection assisted by markers, and its transfer)
- training
(ex. courses on conservation of PGRFA, on participatory research)
- distribution of monetary benefits
(ex. when a material exits the MLS through plant breeding)

Agreement between individual IARC and Gov. Body of October 16, 2006

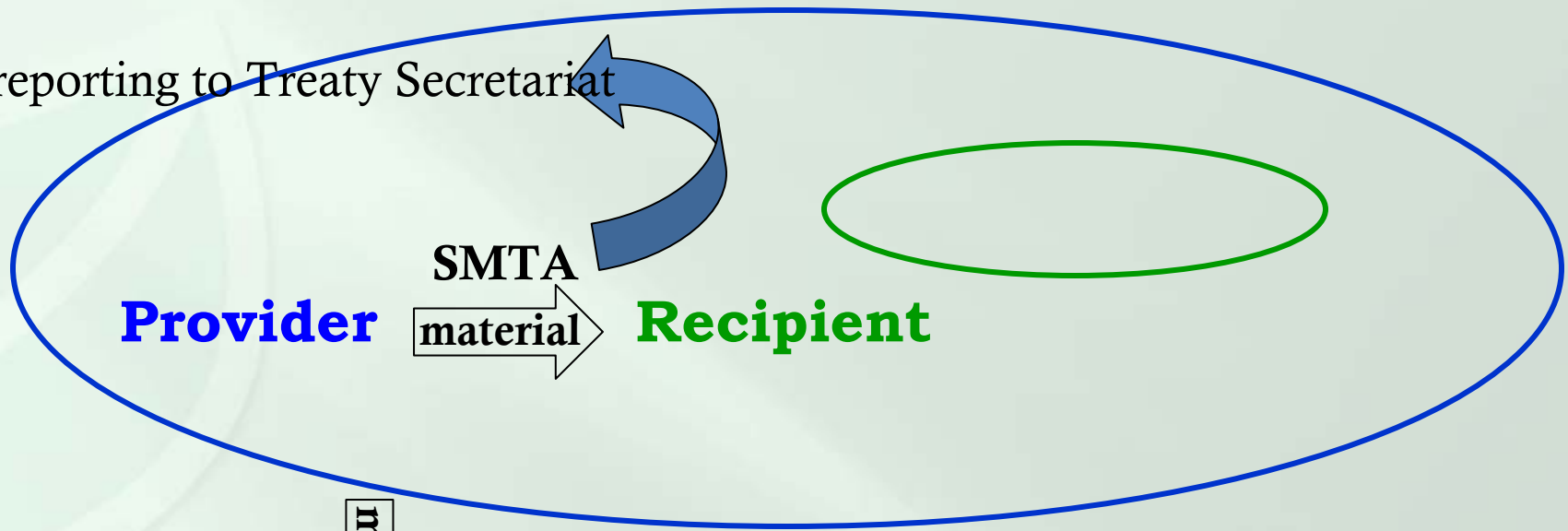
- designation process: the IARCs act as curators of listed materials
- continuation of designation process, permanence of materials in MLS
- no IPR on material as received (also applies to IARCs)
- use of SMTA, Gov. Body approved, for any distributed material
- annual reporting back to Treaty Secretariat on SMTAs
- liability limited to 1st rank
- SMTAs used for PGR FA and breeding materials
- IARC must disclose descriptive information associated with material
- IARC can protect material of its own invention, or put conditions

Training and diffusion of results

Year	Courses	Specialized training	Supervised thesis	Publications	Conferences
1988	0	3	2	5	1
1989	0	5	1	11	1
1990	0	2	2	14	4
1991	2	3	7	21	4
1992	3	15	4	20	5
1993	0	3	2	10	9
1994	9	24	5	15	14
1995	5	4	4	12	12
1996	3	7	6	9	10
1997	4	26	5	7	3
1998	2	9	4	9	3
1999	5	11	1	16	8
2000	2	27	4	14	16
2001	2	9	3	9	4
2002	5	16	2	16	11
2003	5	12	2	12	10
2004	4	9	3	20	18
2005	3	35	2	15	15
2006	1	10	2	11	7
2007	0	20	2	14	15
2008	0	17	0	20	10
2009	0	17	1	10	8
Total	55	284	64	290	188

Exiting the Multilateral System because of plant breeding

reporting to Treaty Secretariat



the material is an **improved** PGRFA, different from the original

The Recipient, associates, contractors, licenciates and tenants pay 1.1 % of the gross sales less 30 % (0.77 %).

these \$\$\$ go to a trust fund for the support of PGR work in the countries

- obligation to pay if the improved material is not available (e.g. utility patent)
- invitation to pay if the improved material is available (e.g. plant breeder rights)

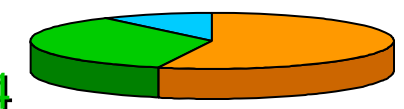
from the countries to the genebank to the countries

contents : 65,712; from 141 countries

for the period 1973-2009

cassava 6,592; 28

forages 23,140; 74

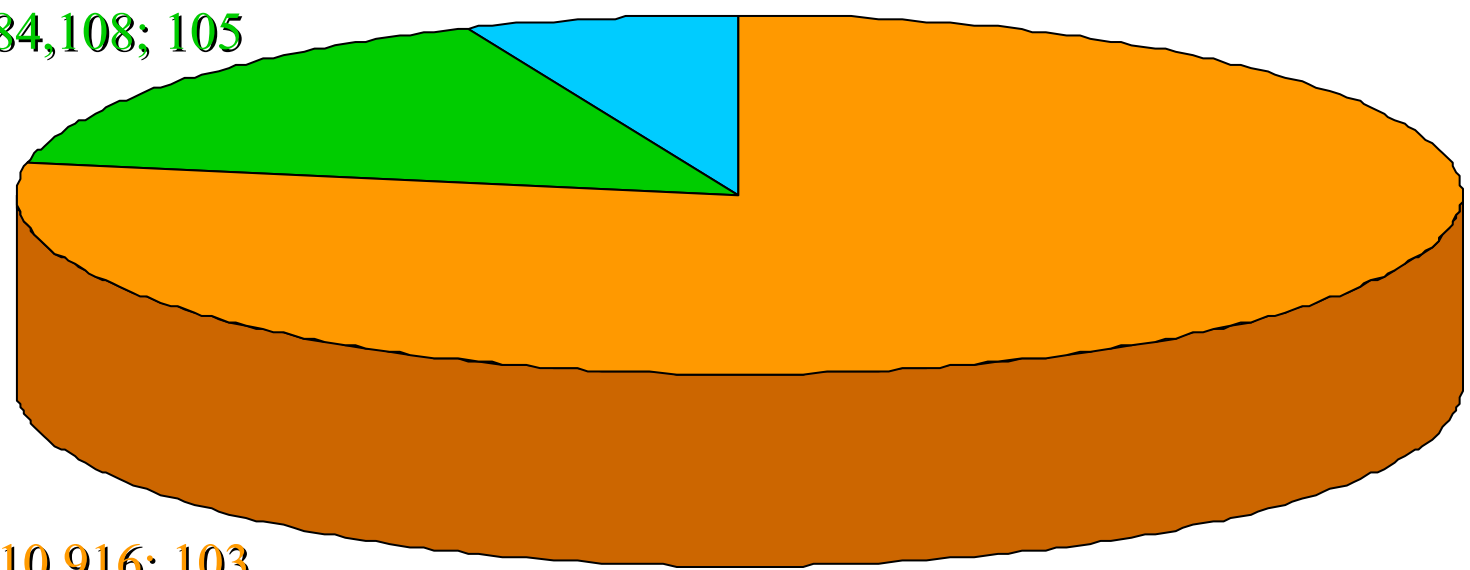


beans 35,980; 109

distribution : 527,640; to 135 countries

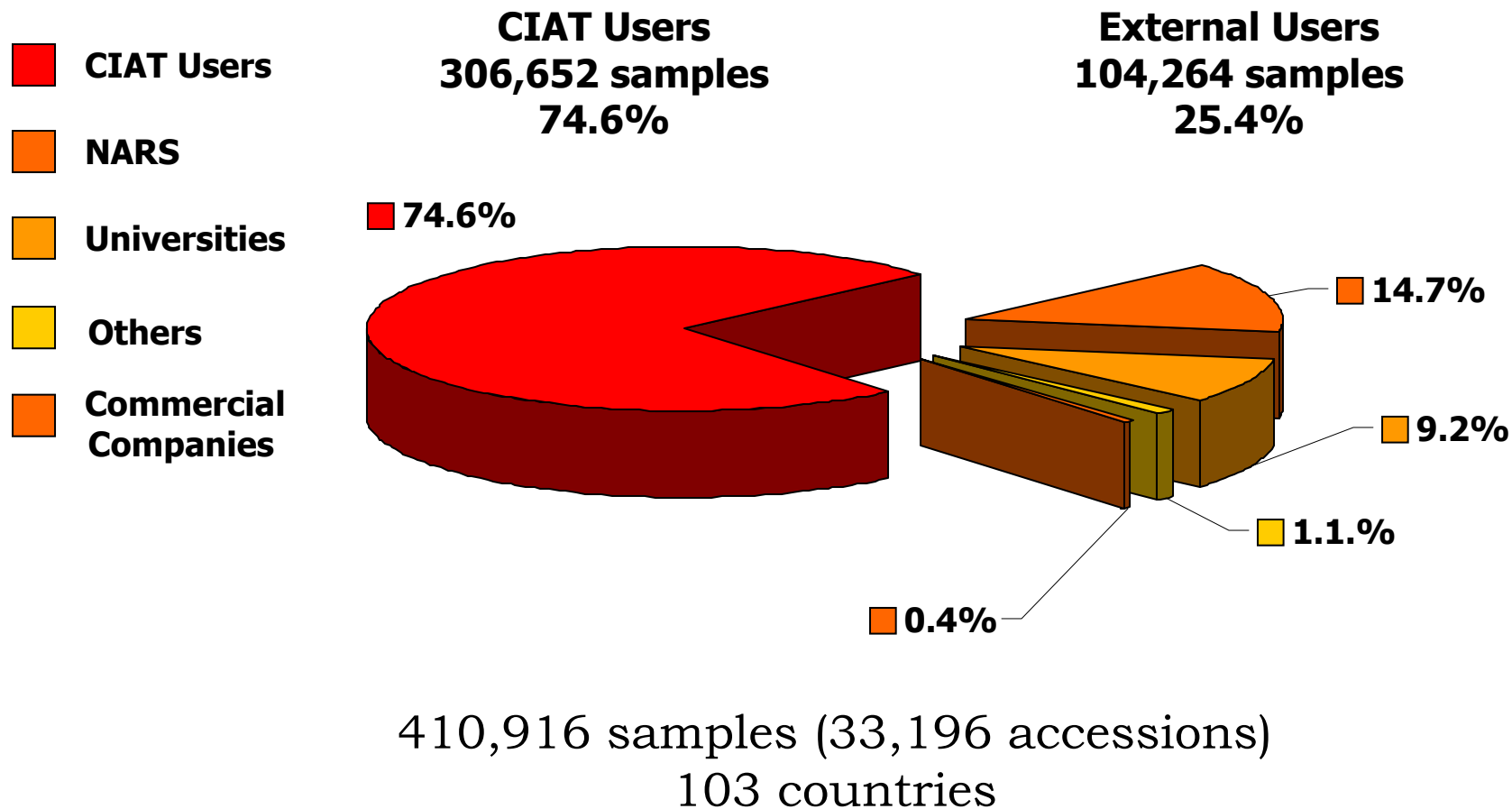
cassava 32,616; 67

forages 84,108; 105

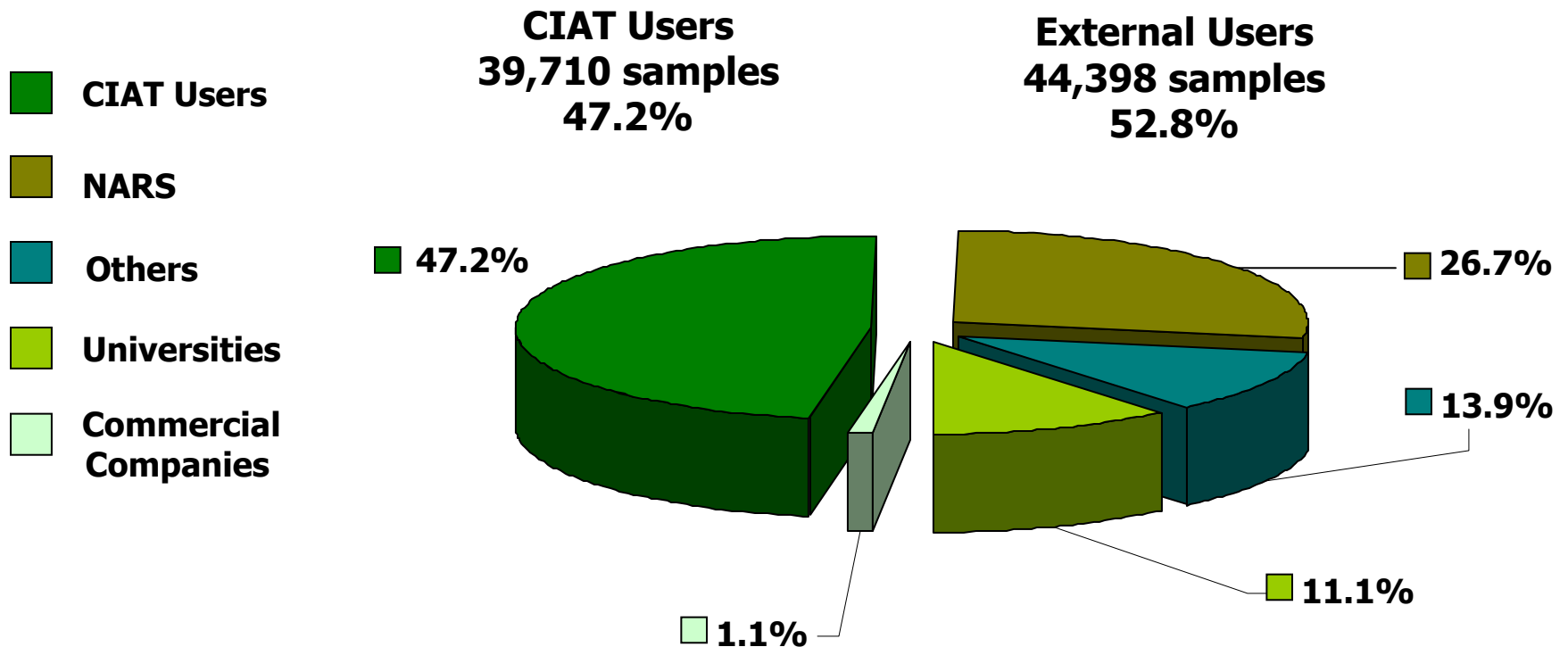


beans 410,916; 103

Distribution of Bean Germplasm from CIAT genebank in 1973-2009

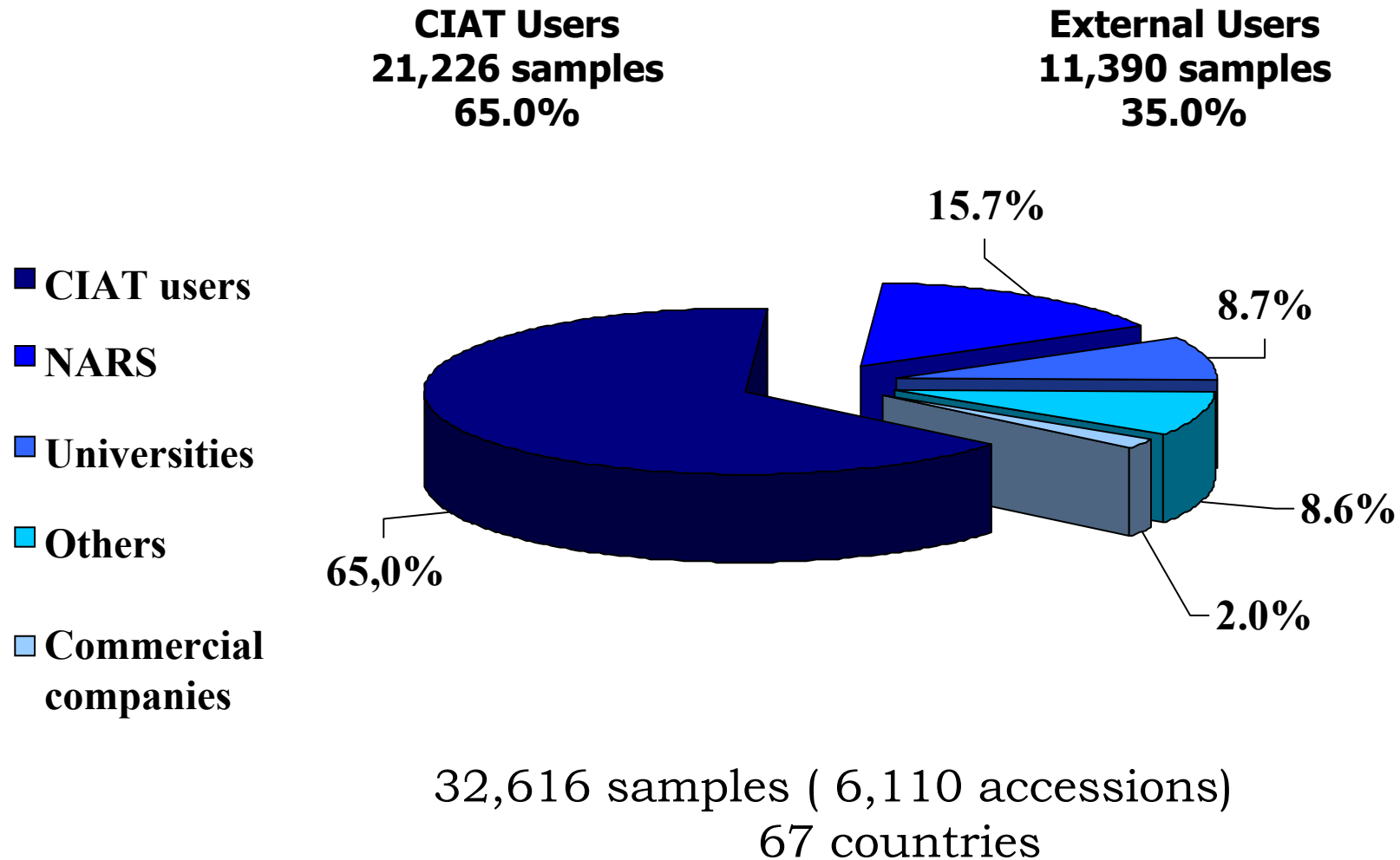


Distribution of Forage Germplasm from CIAT genebank in 1980-2009



84,108 samples (13,190 accessions)
105 countries

Distribution of Cassava Germplasm from CIAT genebank in 1979-2009



Countries of “origin” benefit from the Multilateral System of the Treaty

Bean accessions with origin = Mexico in CIAT genebank	6,059	}	5,046
Bean accessions from Mexico shipped to Mexican institutions	1,163		
Bean accessions from 81 countries (not Mexico) shipped to Mexico	3,883		

Cassava accessions with origin = Brazil in CIAT genebank	1,281	}	827
Cassava accessions from Brazil shipped to Brazilian institutions	121		
Cassava accessions from 15 countries (not Brazil) shipped to Brazil	706		

Forage accessions with origin = Ethiopia in CIAT genebank	273	}	1,165
Forage accessions from Ethiopian shipped to Ethiopian institutions	0		
Forage accessions from 33 countries (not Ethiopia) shipped to Ethiopia	1,165		

source: CIAT, 2010

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

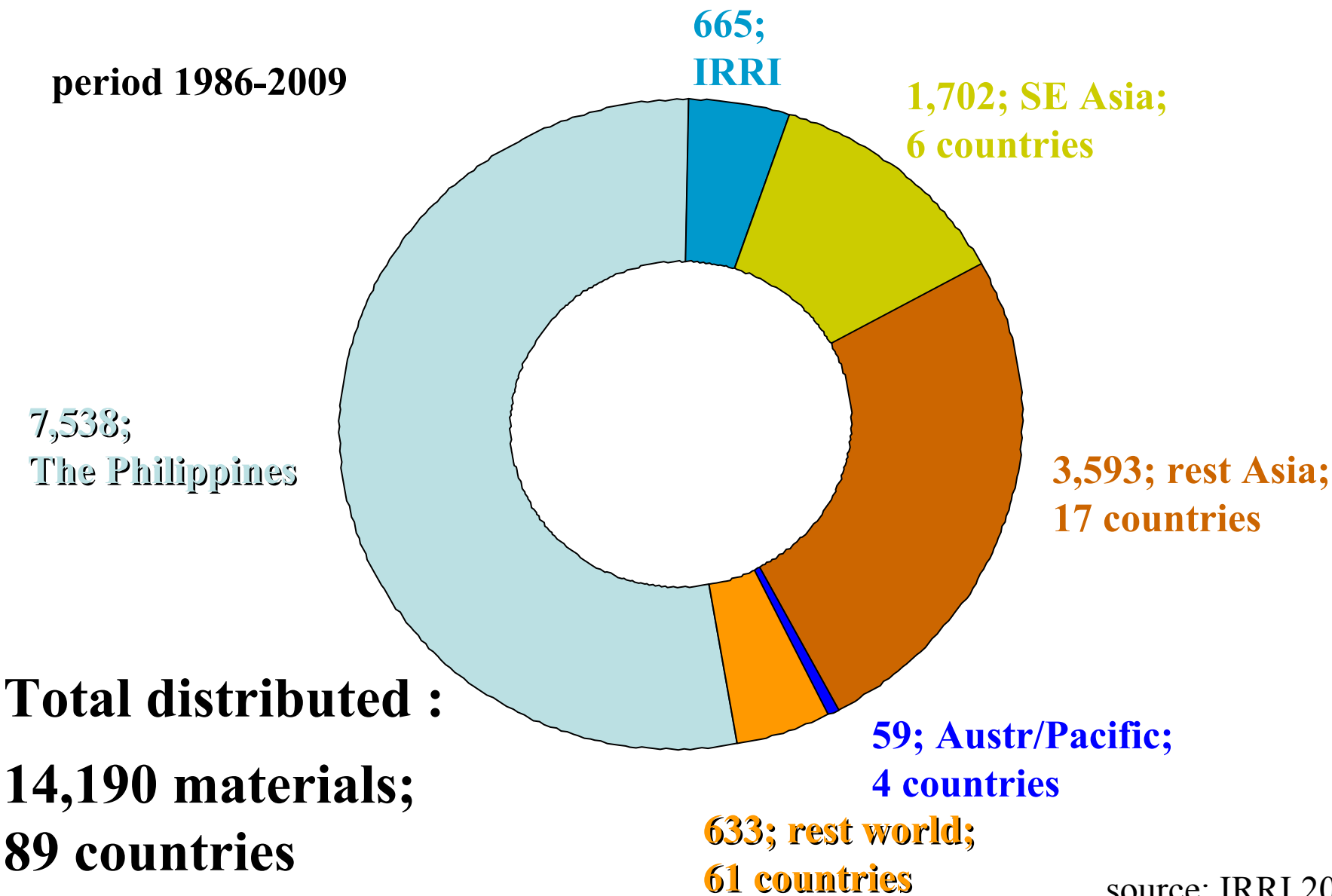


(Source: Halewood, Gaiji and Upadhyaya, 2005)



Rice materials sent by IRRI to institutions/ individuals of The Philippines

period 1986-2009



Case study : Peru

(collections of beans and cassava kept in-trust at CIAT)

Period 1998-2008	Beans	Cassava
Accessions that CIAT PGR has received from Peru	3,666	421
Materials * that CIAT PGR has sent to Peru	1,341	322
Materials * with origin = Peru, sent back to Peru	693	255
Materials * with origin = NOT Peru sent to Peru	648	67
Number of countries contributing to shipments to Peru (e.g. Mexico, Brazil, Colombia, USA, Nigeria)	38	8

* = materials sent documented, characterized, cleaned, at no cost to recipients

Case study : Peru

(collections of potato and sweet potato kept in-trust at CIP)



Period 1988-2008	Potato	Sweet potato
Accessions that CIP has received from Peru	2,694	2,118
Materials * that CIP has sent to Peru	4,195	1,066
Materials * with origin = Peru, sent back to Peru	1,571	141
Materials * with origin = NOT Peru sent to Peru	2,624	925
Number of countries contributing to shipments to Peru (e.g. Ecuador, Philippines, Chile, UK, India; Taiwan, Cuba, Nigeria, Kenya, Uganda)	44	36

* = materials sent documented, characterized, cleaned, at no cost to recipients

source: CIP, 2010

Final Remarks

Why it worked ?

- access on specific items, for specific purposes
- transparency and accountability by IARCs
- monitoring mechanism and role of Secretariat
- concrete benefits (and continuity of)
- countries benefit more as compared to original investment
- most countries benefiting did not pay conservation costs