

Reaping the benefits of multilateral exchange

The CGIAR Centres: Case Studies on the Implementation of International Treaty on Plant Genetic Resources

Convention on Biological Diversity

Resumed 9th Meeting of the Ad Hoc Open-ended Working Group on Access and Benefit Sharing

Montreal, 12 July 2010



Germplasm management in the CGIAR

11 Genebanks: 20 major crops

Holdings: > 650,000 accession (*~12% of world holdings*)

Diversity: very rich material (*landraces and wild relatives*)

Information: well documented

SINGER

<http://singer.cgiar.org>

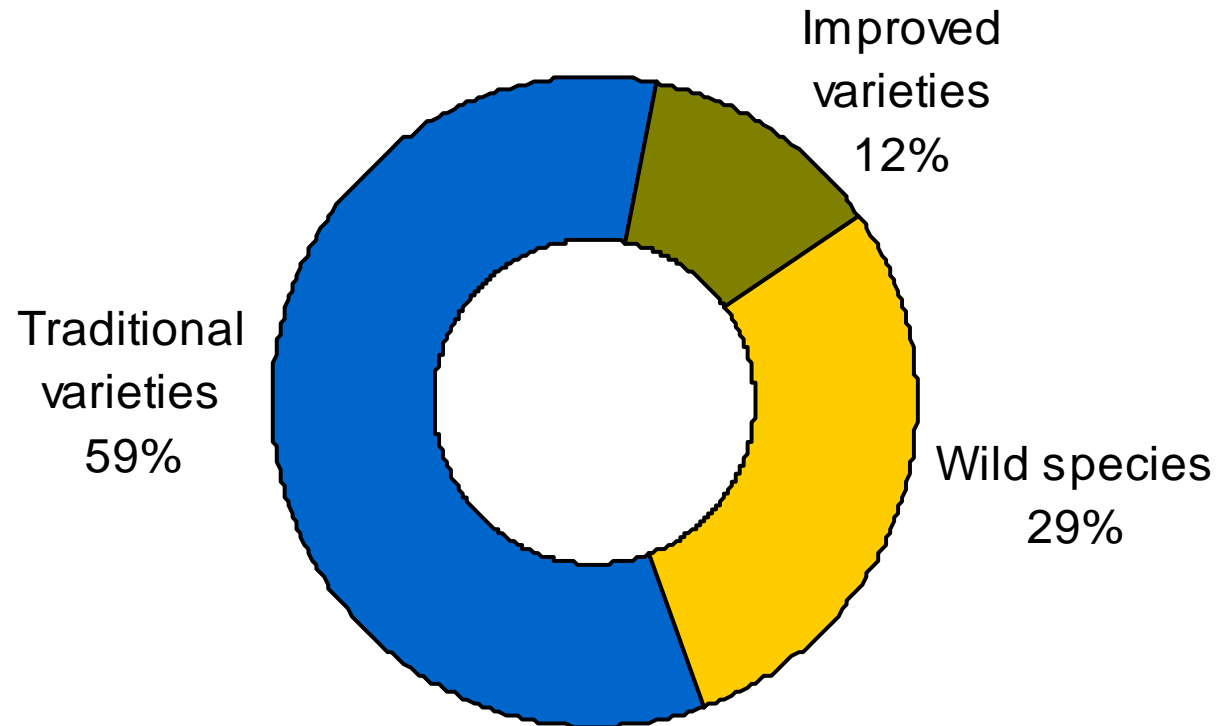
Availability: as Global Public Goods:

– collections are held *in-trust*

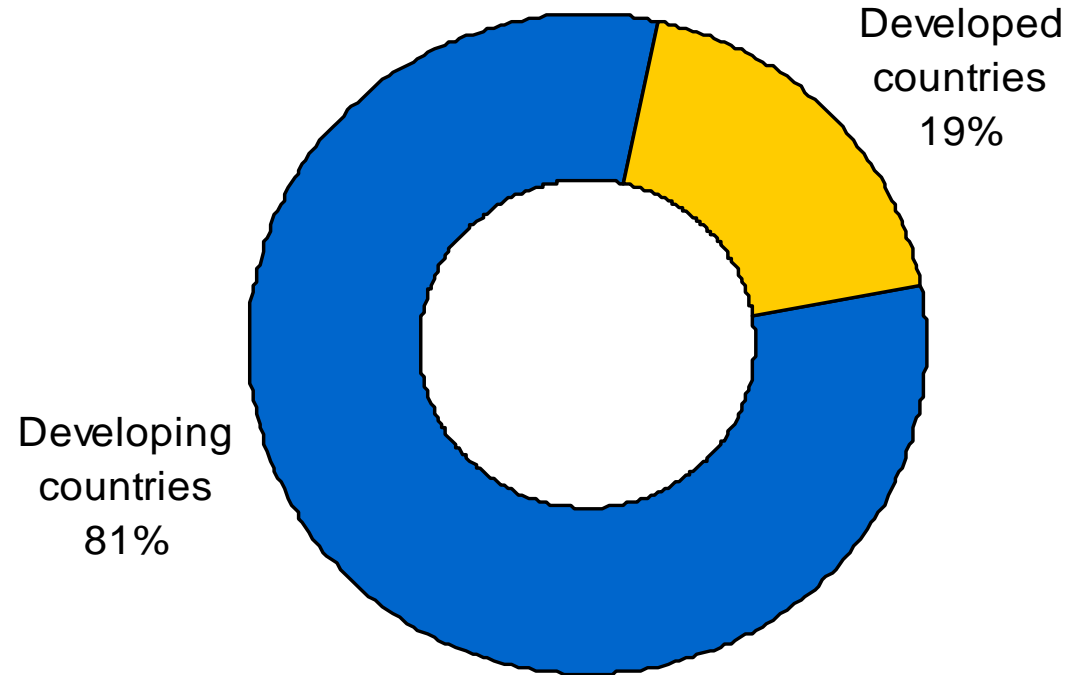
Distribution: vast majority of materials are sent
to developing countries (*81% since 1995*)



What's in the CGIAR Genebanks?

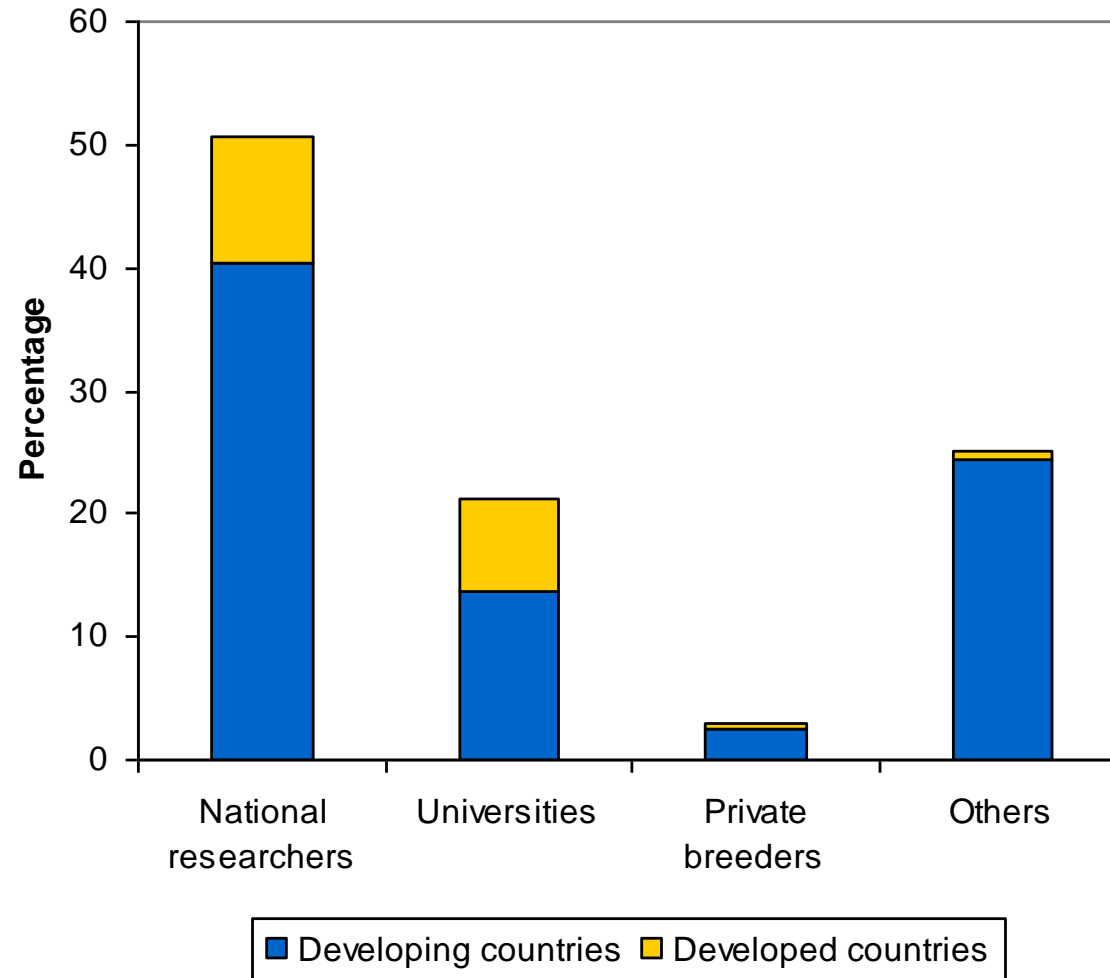


Who Benefits from the CGIAR Collections?





Who Benefits from the CGIAR Collections? (cont.)



Country Case Studies

Kenya and Uganda

Morocco

Philippines



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 Millet¹	20%	80%
Forages GR ILRI	2%	98%
Groundnut²	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)

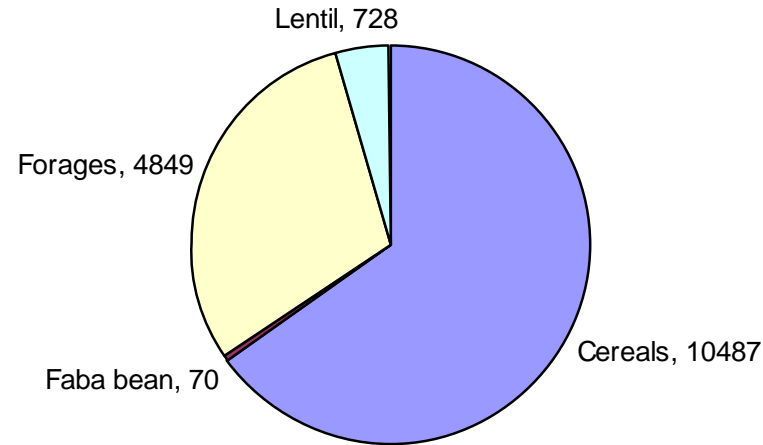


(Source: ICARDA, 2009)



Morocco

ICARDA: Distribution of germplasm to Morocco since 1984



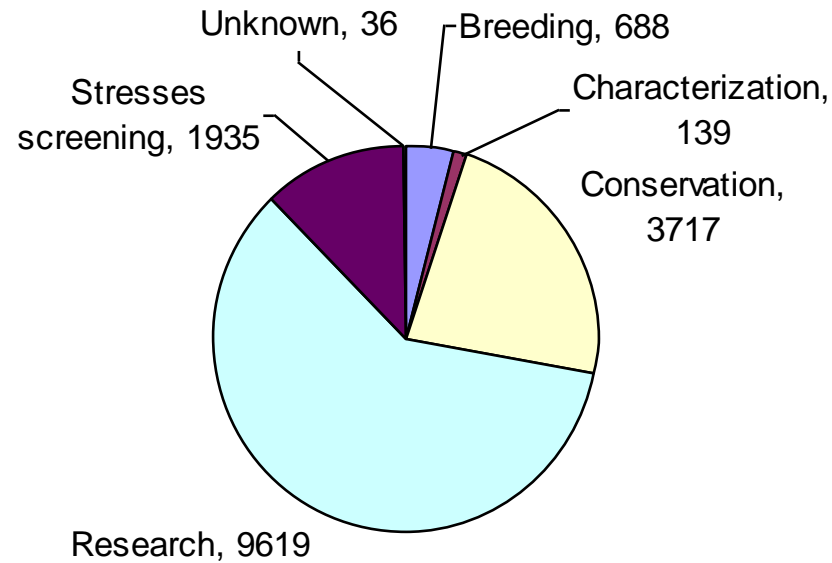
Total 16,134

(Source: ICARDA, 2009)



Morocco

ICARDA: Germplasm distribution by purpose



Total 16,134

(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

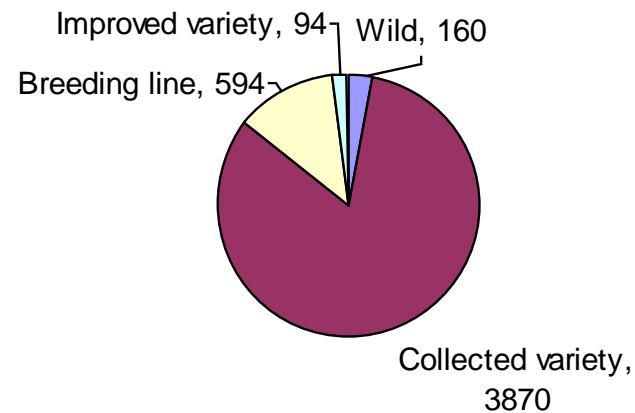


(Source: IRRI, 2009)



Philippines

IRRI: Genebank accessions originating from the Philippines



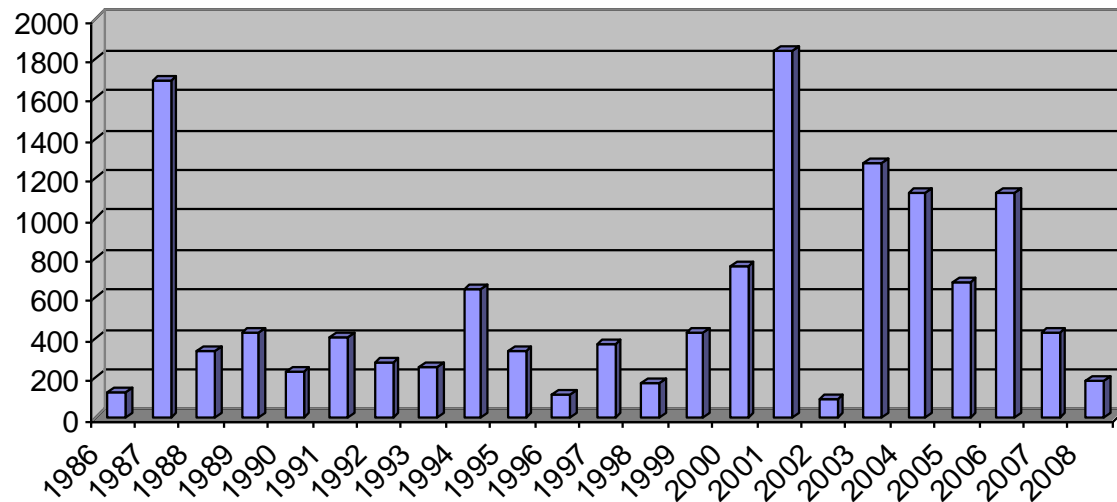
Total 4,718

(Source: IRRI, 2009)



Philippines

IRRI: Distribution of rice germplasm to the Philippines since 1986



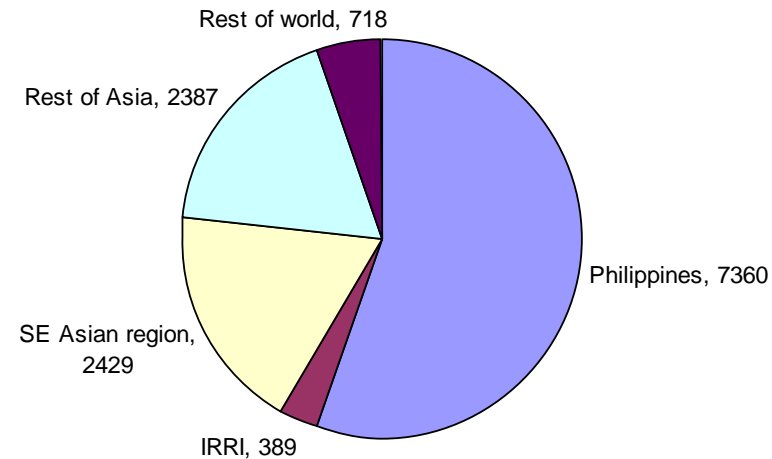
Total 13,283

(Source: IRRI, 2009)



Philippines

IRRI: Origin of distributed germplasm to Philippines

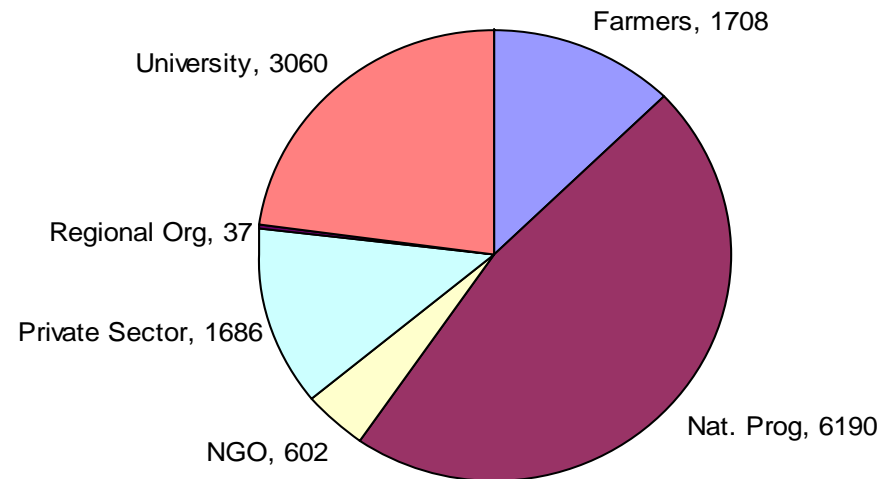


Total 13,283
(Source: IRRI, 2009)



Philippines

IRRI: Distribution of rice germplasm to the Philippines by recipient type



Total 13,283

(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)



Plant Genetic Resources for Food and Agriculture Commons

- In the absence of active human management, most crop varieties would cease to exist.
- All countries are interdependent in their reliance on PGRFA.
- No region or country is self-sufficient.



Thank you.

