



GIPB GLOBAL PARTNERSHIP INITIATIVE FOR
PLANT BREEDING CAPACITY BUILDING
harnessing plant genetic resources for development

Building capacity for plant breeding in developing countries

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<http://km.fao.org/gipb>





Content

National plant breeding capacity

GIPB

Regional consultations

Factors limiting success

Strategies to build national capacity

Conclusions

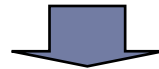
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Plant Breeding

- ▶ **Science responsible for the creation of new varieties**
 - ▶ **Productivity increase**
 - ▶ **Resistance to biotic stresses**
 - ▶ **Tolerance to abiotic stresses**
 - ▶ **Adaptation & Mitigation climate change effects**
 - ▶ **Response to new market demands**



food security – sustainable economic development

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Plant Breeding Capacity

- ▶ **World-wide assessment (>80 developing countries)**
 - ▶ **Decreasing or stable**
 - ▶ **Limited education level**
 - ▶ **Focus on major crops**
 - ▶ **Efforts of private sector concentrated on economic crops**

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▶ Plant breeding and associated biotechnology capacity assessment (PBBC)



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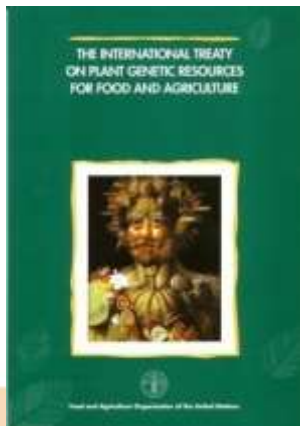
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Creating a Foundation for GIPB

- ▶ **FAO Survey to assess the plant breeding and related biotechnology capacity in developing countries**
 - ▶ **Plant breeding capacity is inadequate**
- ▶ **The International Treaty on Plant Genetic Resources for Food and Agriculture and its Global Plan of Action**



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Global Partnership Initiative for Plant Breeding Capacity Building (GIPB)

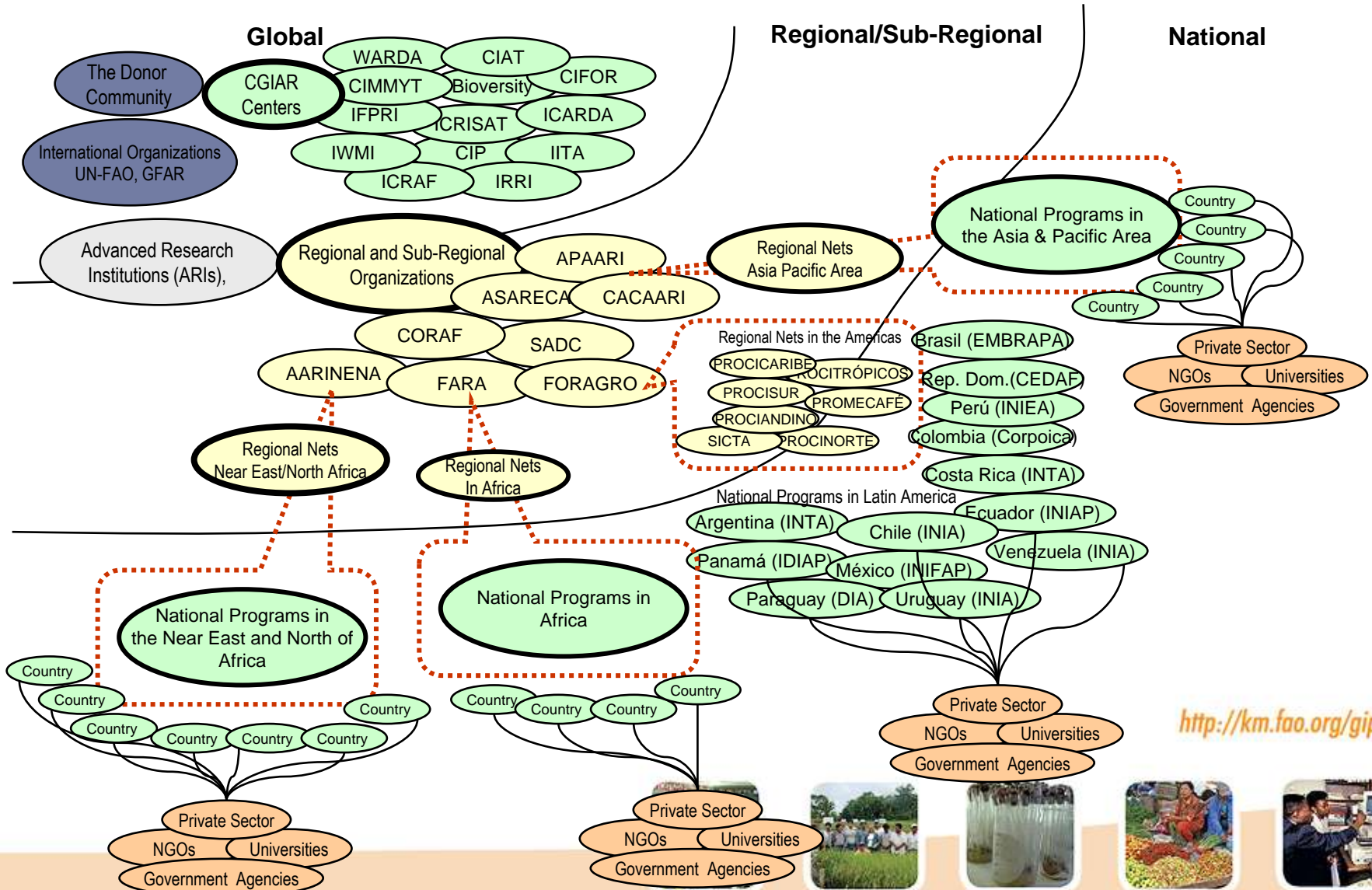
- ▶ **A global partnership platform dedicated to increasing plant breeding capacity building, mainly in developing countries**

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GIPB international partnership platform





GIPB Objectives

- ▶ **Policy dialogue and development**
- ▶ **Education and training**
- ▶ **Access to technology**
- ▶ **Exchange of PGR**
- ▶ **Sharing information**

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Regional Consultations

South and Southeast Asia
Sub-Saharan Africa
Western Asia and North Africa
Latin America and the Caribbean

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Regional Consultations

- ▶ **Decline in plant breeding capacity**
- ▶ **Integrate molecular tools into PB**
- ▶ **Train plant breeders**
- ▶ **Facilitate cooperation among institutes**
- ▶ **Long-term investments**
- ▶ **Rewarding system**
- ▶ **Motivate participation of the private sector**

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Factors limiting success

- ▶ **Inadequate experimental fields conditions**
- ▶ **Inadequate # breeders/crop**
- ▶ **Inadequate access to the literature**
- ▶ **Inadequate knowledge of the plant breeding strategies**
- ▶ **Limited access to genetic resources**
- ▶ **Inadequate investment-friendly legislation and lack of public/private partnership**

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Strategies to build national capacity

- ▶ **National PGR strategy**
- ▶ **Public awareness about the importance of PGR**
- ▶ **Harmony among the goals of PB and biotechnology tools**
- ▶ **Link PGR, PB and seed delivery systems**
- ▶ **Instruments to stimulate private investments and public/private partnerships**

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Conclusions

- ▶ **Capacities in PB in most developing countries are not sufficient**
- ▶ **The lack of long-term support for national breeding strategies**
- ▶ **Trained personnel and institutional weaknesses, within the PB sector and in its links with seed systems, are key elements that prevent the potential contribution of PB**

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Conclusions

- ▶ **Lack of mechanisms to promote public and private partnerships**
- ▶ **This leads to under-developed seed systems and to poor transfer of improved germplasm to rural producers**

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*A global platform dedicated
to mobilize education, policy,
technology and information
resources to help unlock
the value of plant genetic
resources for all*

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