



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

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

## Facing global challenges

The expansion of global population and other socio-economic changes are expected to double the current food demand by 2050. It is estimated that 80 percent of the increase in global food production must come from growth in crop yields, in particular, through a 40 percent increase in cereal yields. At the same time, there is a gradual decrease in availability of land and water resources, loss of plant genetic diversity and increasing threat from climate change.

A sustainable intensification of agricultural production through effective management of plant genetic resources for food and agriculture (PGRFA) and associated

resources, however, offers

the potential to address the challenges of global food security, particularly amongst the developing countries. It is also essential to face and prevent the recurrence of crises such as that of the soaring food prices and to respond to the increasing demands for crop based sources of energy.



## Why plant breeding?

Sustainable intensification of agricultural production by better use of plant genetic diversity through effective PLANT BREEDING strategies is one of the best approaches to tackle the challenge of increasing production and ensuring sustainable use of PGRFA. Plant breeding is a well recognized science capable of widening the genetic and adaptability base of cropping systems, by combining conventional selection techniques and modern technologies. It requires long term commitment and resources at national, regional and international levels that are essential for the development of improved cultivars with increased yields, improved quality and better adaptation to the changing environmental conditions.

## Placing plant breeding in the international agenda

Although the role of plant breeding in agricultural development is well recognized, in the past decades, there has been a sharp decline in the national capacities, infrastructure, and resources for plant breeding and sustainable use of PGRFA in most developing countries. If the policy, science and donor communities –from both public and private sector– are not brought together urgently to face the challenge of declining plant breeding capacity for the future, the ability of agricultural systems to contribute to global food security and development will certainly be limited. Clearly, increasing capacity building for plant breeding in developing countries is critical for the achievement of meaningful results in poverty and hunger reduction and to reverse the current worrisome trends.

## GIPB partners

GIPB is a platform open to all stakeholders involved in sustainable use of plant genetic resources through plant breeding. GIPB combines the complementary facilitation role of FAO in connecting with other partners such as: CGIAR, GFAR, CIRAD, regional/sub-regional organizations, foundations such as the Rockefeller, Gatsby and B&M Gates Foundation, as well as NGOs, universities, civil society and individual scientists.



## GIPB Strategic directions

GIPB functions through interactions with a wide range of stakeholders. It prioritizes five objectives synergistically aligned towards plant breeding capacity building. Knowledge and information sharing holds the key to allow GIPB to deliver efficiently at all levels.



### Objective 1

Support to **policy dialogue and development** to strengthen and sustain developing countries' capacity to use plant genetic resources for food and agriculture;



### Objective 2

Support to **education and training** in plant breeding and related scientific capacities relevant to utilization of plant genetic resources;



### Objective 3

Facilitate **access to technologies** in the form of tools, methodologies, know how and facilities for finding genetic solutions to crop constraints;



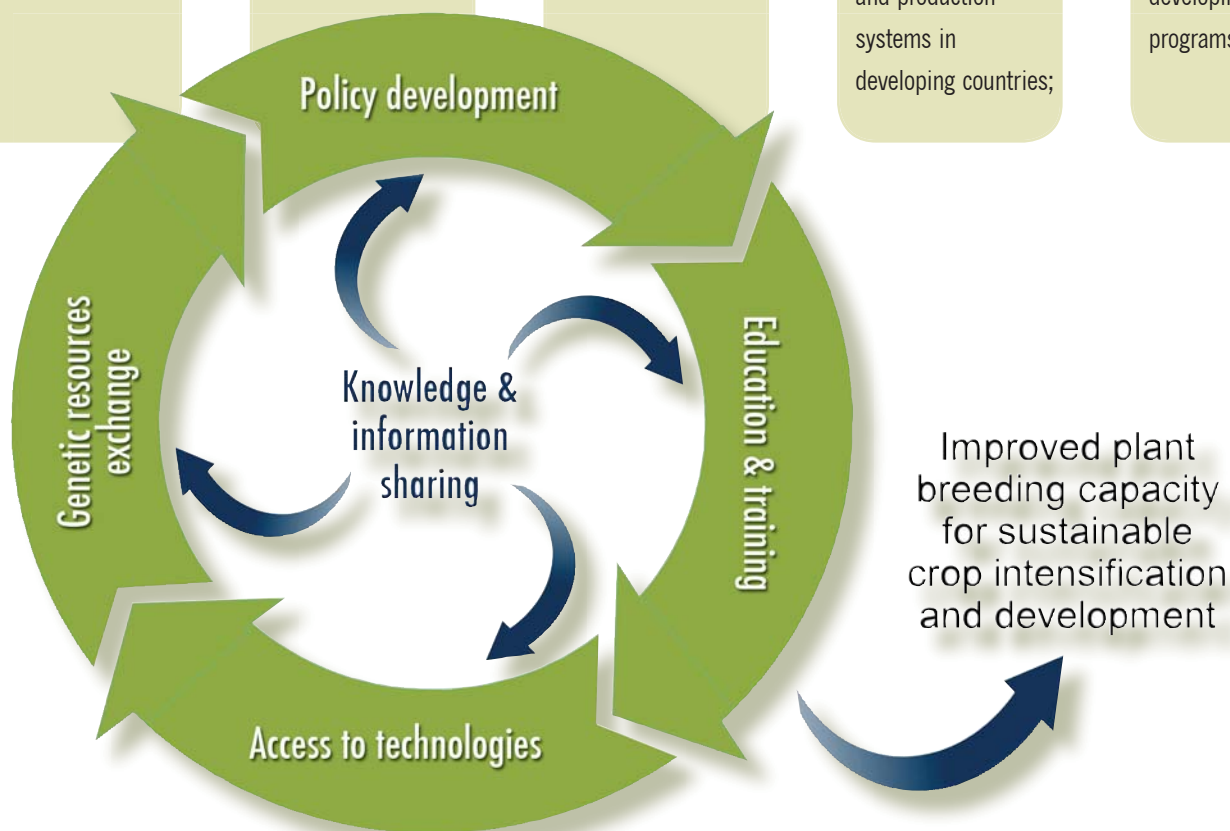
### Objective 4

Facilitate **exchange of plant genetic resources**, from public and private breeding programs, that can enhance the genetic and adaptability base of improved cultivars and production systems in developing countries;



### Objective 5

**Sharing of information** focused on plant breeding capacity building to deliver newly available knowledge to policy makers, managers, leaders and breeders in developing country programs.



GIPB is a global platform facilitated by the Food and Agriculture Organization of the United Nations  
 FAO Agriculture and Consumer Protection Department - Plant Production and Protection Division – Rome, Italy  
 Visit the GIPB Knowledge Resource Center at <http://km.fao.org/gipb/> - Contact GIPB at [gipb@fao.org](mailto:gipb@fao.org)  
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