Public-Private Investments in Crop Biotechnology for the Developing World



Larry R. Beach USAID



Crop Biotechnology for the Developing World

- Crops Improved via Biotechnology = Increased incomes and improved livelihood for resource poor farmers
- Enhanced capacity for science-based regulation of biotechnology = Safe access to technology and enhanced trade

Enhanced capacity to regulate biotechnology

- Access to biotechnology
- Address concerns about the safety & trade impacts of biotechnology
- Field tests and market approvals of new crop varieties are subject to efficient, sciencebased regulatory guidelines
- Program for Biosafety Systems www.ifpri.org/pbs/pbs.asp
- AGBIOS South Asia Biosafety Program www.agbios.com/main.php

Crops Improved via Biotechnology/Africa

- Virus Resistant Cassava
- Disease and Insect Resistant East African Highland Banana
- Maize with higher levels of Vitamin A, Iron and Zinc
- Insect Resistant Cowpea

Crops Improved via Biotechnology / S. Asia and The Philippines

- Insect Resistant Eggplant
- Late Blight Resistant Potato
- Drought and Salt Tolerant Rice
- Virus Resistant Papaya

Public – Private Development of Products for Developing Countries

- Human Capacity and S&T infrastructure limitations in developing world
- Limited experience in the public sector developing transgenic products
- Companies want to limit risk
- Limited public sector funds

Insect Resistant Cowpea

- Managed by African Agricultural Technology Foundation
- Use of Bt gene donated by Monsanto Co. for cowpea in Africa
- Development of transgenic cowpea in Australia by Commonwealth Scientific and Industrial Research Organization (CSIRO)
- Breeding and seed distribution by African National Agricultural Research organizations.
 - Regulatory/Biosafety support by Program for Biosafety Systems
- Scientific support among members of Network for the Genetic Improvement of Cowpea for Africa – NGICA