

The International Service for the Acquisition of Agri-biotech Applications (ISAAA)

Partnerships for Biotechnology Development and Commercialization

Agricultural Biotechnology

- *Some Features and Challenges*

- Increasing proprietary nature
- Significant research undertaken by the private sector
- Initial investments high
- New regulatory and public acceptance issues



ISAAA's Establishment and History

1989 - Conference sponsored by World Bank concluded that a new institution is needed to forge public-private partnerships allowing the private sector to share proprietary science with small-scale and resource-poor farmers

1990/91 - Feasibility study to analyze service and planned organization
1991 - ISAAA was incorporated in the USA

March 1992 - ISAAA formally launched

1992 onwards - establishment of ISAAA centers ; project development and implementation

1989 > present

What is ISAAA?



- Not-for-profit, public charity organization
- Established in 1991
- Facilitates transfer of proprietary agri-biotechnologies to developing countries
- Assists in building capacity of partner countries to effectively, responsibly, and equitably use the new technologies
- Facilitates sharing of experiences and knowledge N-S and S-S
- Co-sponsored by public and private institutions

ISAAA's Mission



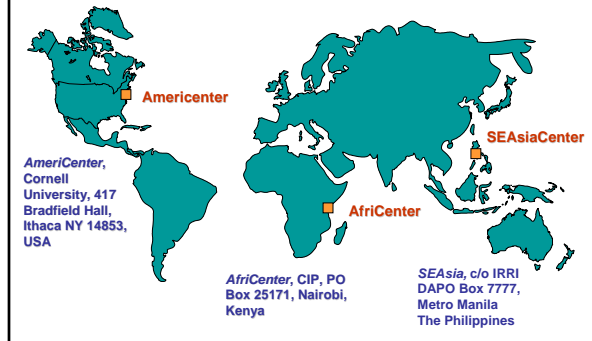
Contribute to poverty alleviation, by increasing crop productivity and income generation, particularly for resource-poor farmers, and to help bring about a safer environment and more sustainable agricultural development

ISAAA's Initiatives – Building Biotech Understanding and Acceptance



- Technology Transfer Projects
 - Strategic Public-Private Sector Partnerships
 - Capacity Building
 - Enabling Environment
 - Knowledge Center on Crop Biotechnology and Network of Biotech Information Centers
- Biotech Benefits**

ISAAA Centers



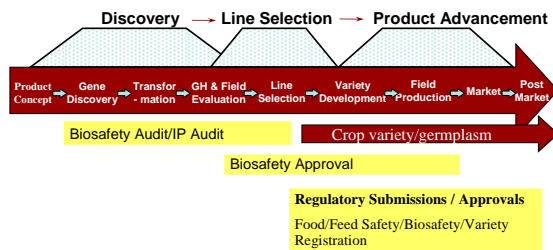
Agri-biotech in SE Asia

-Some common needs

- Need to address policy issues – technical, legal, regulatory, social aspects and the overall enabling environment – to ensure the efficient transfer, delivery, and use of agri-biotech applications and products
- Need for established and operational regulatory systems that will allow the development, timely testing, and adoption of biotech crops
- Need to enhance cooperation on biotech R&D and on biosafety and related regulations for agri-biotech
- Need to increase and strengthen national and regional capacity on biotech R and D to develop local priority products

Ag Biotechnology Product Path

- ◆ Genetically modified crops have many technical and performance hurdles and continuous regulatory oversight



Adapted from Teng, 2000

The Projects

Southeast Asia

Papaya: Resistance to PRSV in Indonesia, Malaysia, Thailand, Philippines, and Vietnam. Monsanto and Univ. of Hawaii are collaborating on this project.



Delayed ripening in Indonesia, Malaysia, Thailand, Philippines, and Vietnam. Syngenta and Univ. of Nottingham are collaborating on this project

National Institutes

- **Malaysia** - Malaysian Agricultural Research Institute (MARDI)
- **Philippines** - Institute of Plant Breeding (IPB); Philippine Council for Agriculture, Forestry, and Natural Resources Research and Development (PCARRD)
- **Thailand** - Kasetsart University; Plant Genetic Engineering Unit (PGEU), National Centre for Genetic Engineering and Biotechnology (BIOTEC)
- **Vietnam** - Institute of Biotechnology (IBT), National Centre for Natural Science and Technology
- **Indonesia** - Indonesian Agricultural Biotechnology and Genetic Resources Research Institute (IABIOGRI), Agency for Agricultural Research and Development (AARD)

International Collaborators

- **Monsanto**
- **Syngenta Seeds**
- **University of Nottingham**
- **Scientists from the University of Hawaii**
- **USDA/APHIS**



Capacity Building Activities

Training/fellowships, workshops, study visits



- Papaya transformation, molecular virology, molecular biology
- Biosafety protocols and regulatory systems
- Food safety assessment
- IP/TT management
- Breeding and agronomy
- Impact assessment
- Risk communication

Research Internships and Study Visits



National and Regional Workshops

Biosafety



Food Safety



Breeding and Agronomy



Technical Workshops



IP/TT Management



Impact Assessment

The Global Knowledge Center on Crop Biotechnology

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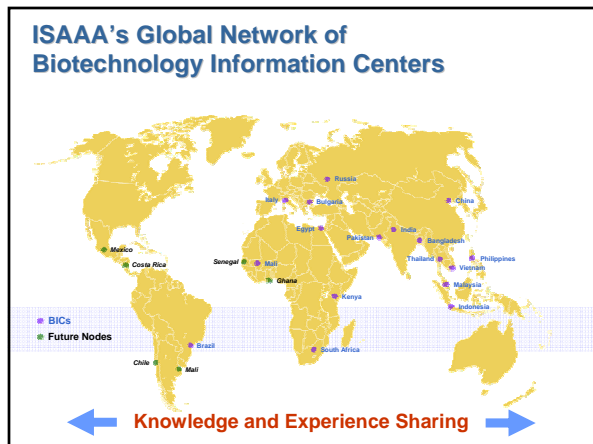
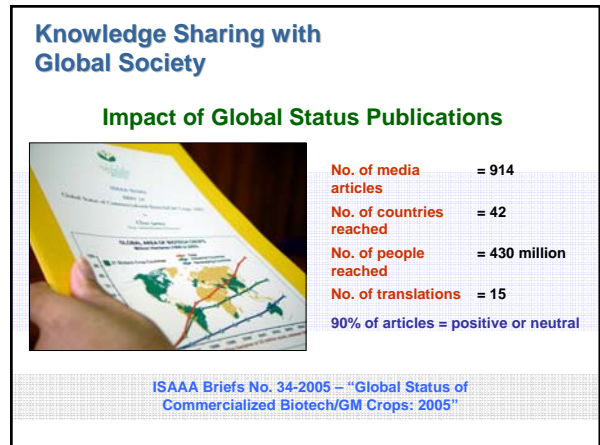
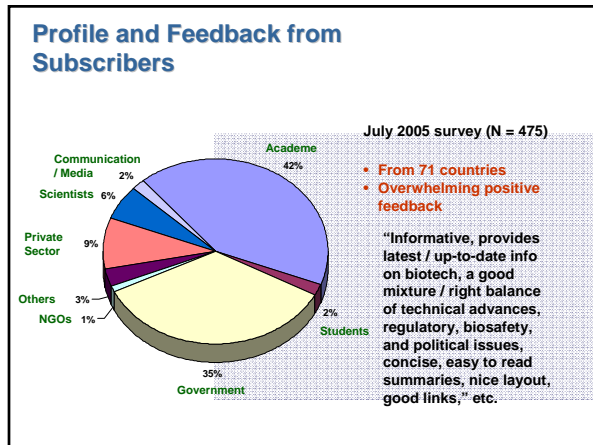
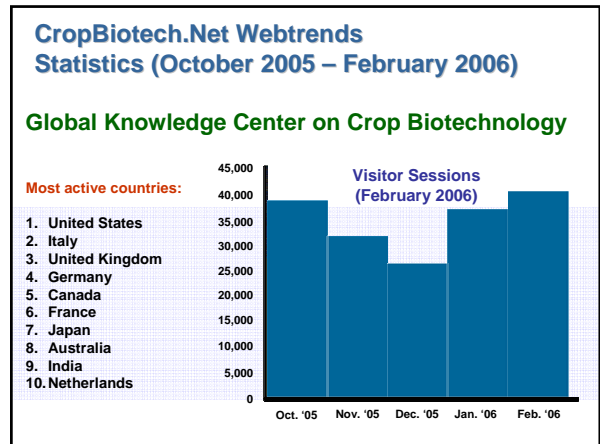
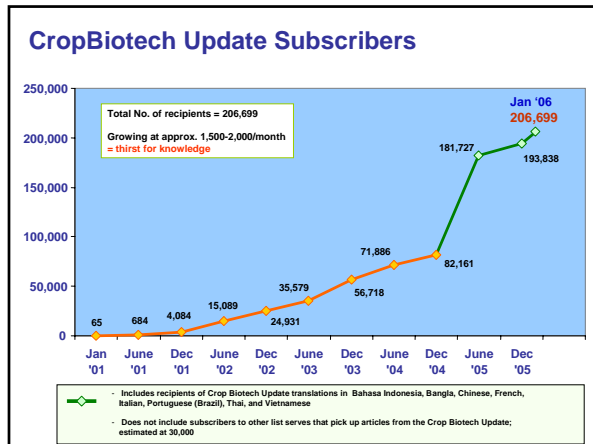


“...lack of readily available and authoritative info about crop biotech: hindering decision-making about GM crops in the developing world.”

Objectives

- Serve as a global network for current science-based knowledge on crop biotech
- Assist national biotech programs in creating enabling environment for safe use of crop biotech
- Facilitate sharing of information / knowledge among various stakeholders
- Develop and validate appropriate science communication modalities



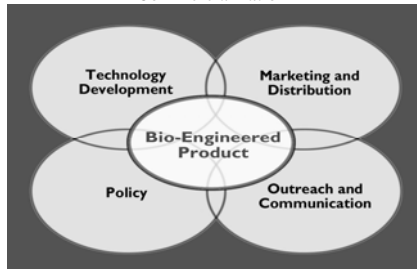


ISAAA's Global Network of BICs / Nodes

Country	Date Established	Country	Date Established
Philippines	July 2000	Mali	June 2003
Thailand	July 2000	Bulgaria	January 2004
Malaysia	December 2000	Russia	January 2004
South Africa node	January 2001	India	August 2004
Kenya	July 2001	Bangladesh	February 2005
Vietnam node	November 2001	Brazil node	March 2005
Indonesia	October 2002	China	July 2005
Egypt	March 2003	(Pakistan and Sri Lanka)	

Product Platform Focus

An Integrated Approach to Product Development and Commercialization



Adapted from ABSP II, 2002



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