



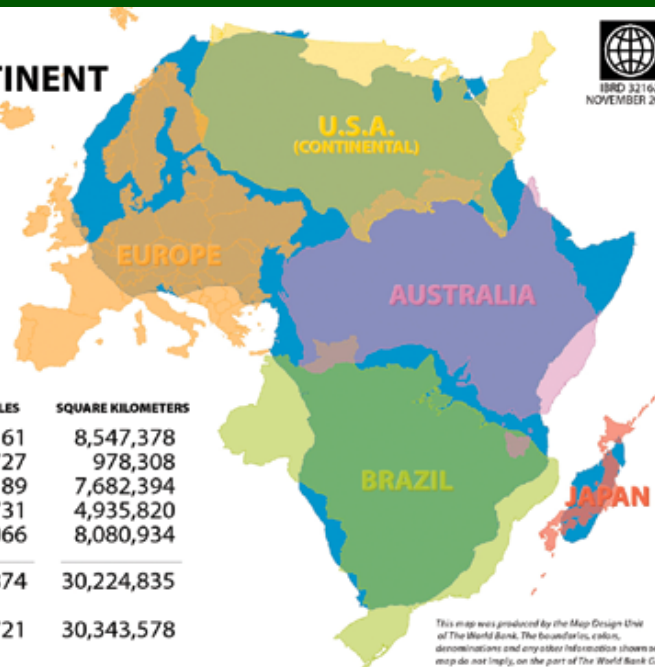
Overview of Crop Biotechnology Development in Africa

Updates on Policy and Public Acceptance

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SIZE OF THE AFRICAN CONTINENT COMPARED TO OTHER LAND MASSES



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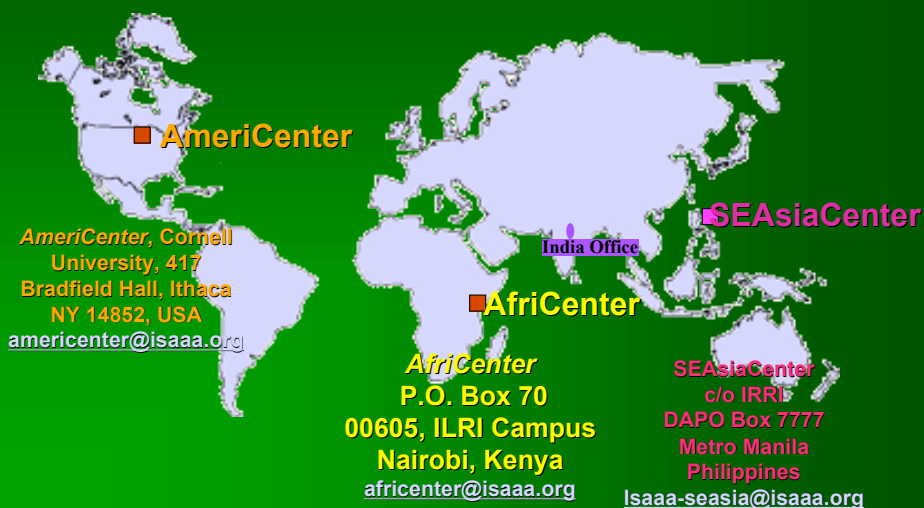


Presentation Outline



- ✓ Overview of Africa Agricultural scene
- ✓ Policy Initiatives
- ✓ Outreach and Communication Activities
- ✓ Acceptance Issues
- ✓ Way Forward

The ISAAA Network Centers



ISAAA: International Service for the Acquisition of Agri-biotech Applications

>60% of population are Small-holder Farmers



- < 5 hectares of land, intercrops
- Little capital to invest
- Motivated by family needs
- Maintains cultural practices
- **Appreciates new technologies**

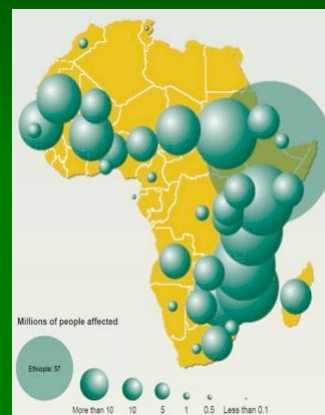


- Rich indigenous knowledge
- Most affected by environmental degradation
- Not directly supported by government policy infrastructure

Africa is drought-prone



- In 2003 WFP spent \$0.57b on food emergency due to drought in Africa
- Risk of drought prevents investment in best management practices
- Yield stability is key to unlocking the value of basic inputs



Recorded droughts between 1971 and 2000, and the number of people affected

High Dependency on Food Aid

• In 2007, sub-Saharan Africa accounted for 67% of global emergency food aid deliveries

• *SSA- 2.5 Million tons*

• *Asia- 0.9 Million tons*

• *M. East & N.Africa- 0.2M tons*

• *Eastern Europe- 53, 000*



Africa in need of Technology Intervention



“Responsible biotechnology is not the enemy, but starvation is the enemy”

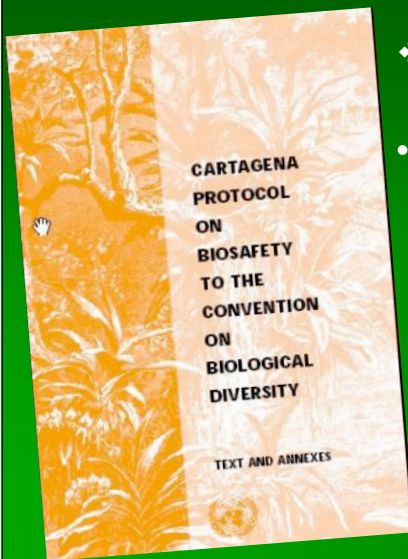
Late Norman Borlaug

• Interventions from science and biotechnology tools are key to increased productivity & enhanced food security – it is URGENT!



Some policy Initiatives

Drivers at International Level

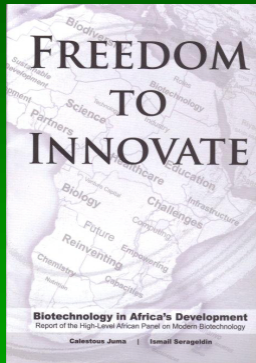


❖ Biosafety Protocol

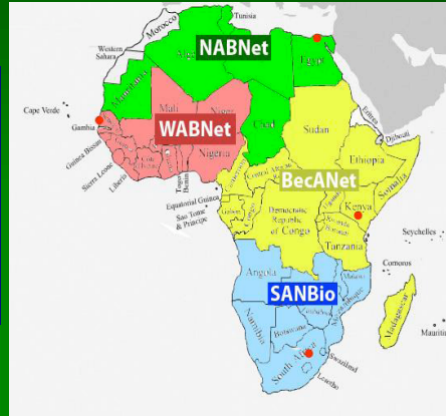
- Article 14: Countries may enter into bilateral, regional and multilateral agreements and arrangements to manage transboundary movement of LMOs

*United Nations Environment
Programme/Global Environment
Facility (UNEP/GEF),
Majority African countries recipients*

Continental Level - Africa Union Africa Biosciences Initiative



In 2005, AU Heads of State set up a **High-Level African Panel on Modern Biotech**



Key Message

"Regional economic integration is important for mobilizing, sharing and using existing scientific and technological capacities for biotechnology R&D and innovation"

Trends in regional collaboration in biosafety



Africa RECs have placed emphasis on harmonization of biosafety policies

3 main RECs

- ❖ **COMESA**: Eastern and Southern Africa
- ❖ **SADC**: Southern Africa
- ❖ **ECOWAS**: Western Africa States

Rationale for regional harmonization



- Biosafety issues transcend national borders
{Can a country sustain a GM-free stance?}
- Sharing regional expertise and infrastructure
- Efficiency in decision making-reduced costs and time taken to make approvals
- Enhanced information sharing and coordination on transboundary movement of GMOs

*RABESA project under COMESA

Africa's largest trading bloc



- 19 member states
- Population > 389 million
- Annual import bill of around US\$ 32Bn
- Export bill of US\$ 82Bn

RABESA: Regional Approach to Biotechnology and Biosafety Policies in Eastern and Southern Africa

Identified priority areas for harmonization



1. Commercial planting of GM crops
2. Commercial trade policy in GM produce
3. Access to GM emergency food aid

RABESA project milestones



1. Drafting of regional biosafety policies and guidelines on the 3 priority areas
2. Development of a Communication strategy
3. Development of a Biosafety roadmap
4. National consultations on the guidelines on-going

Progress in West Africa

ECOWAS-15 states



Harmonization process started in 2002 after the summit of Heads of State in Banjul

Goal - to create a regional framework for biosafety harmonizing rules and procedures

PROGRESS TO DATE

- ✓ **DRAFTED**-technical regulations, including applications for CFTs, open trials and environmental release
- ✓ The West Africa Biosafety Committee (**WABCo**)

Progress in Southern Africa

SADC – 15 member states



- ✓ SADC Advisory Committee on Biotechnology and Biosafety formed in August 2003

Guides the SADC region on issues relating to biotechnology and biosafety

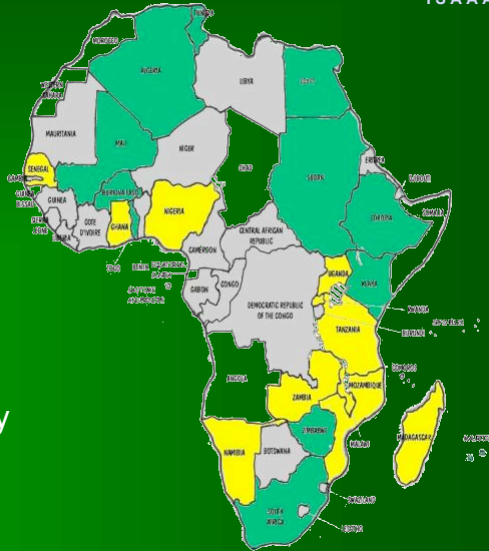
- ✓ **Progress to date:** Developed policies and guidelines on handling of GM food Aid; harmonized policies and regulations; capacity building and public awareness

Africa Biosafety Status



4 Categories of countries

1. Developed NBFs: **12**
2. With interim NBFs: **11**
3. Work in progress and
4. Countries with no Biosafety frameworks: **30**



Some Outreach and Communication Activities



Key Players



- **ISAAA AFRICENTER-**
Regional mandate

Africenter@isaaa.org

Southern Africa

- Public Understanding of Biotechnology (PUB) - South Africa www.pub.ac.za
- AfricaBio - South Africa and the African region. www.africabio.com
- Biotechnology-Ecology Research and Outreach Consortium (BioEROC)
- bioeroc@sdnp.org.mw

Eastern Africa

- ✓ African Biotechnology Stakeholders Forum (ABSF) – Kenya, EA www.absfafrica.org
- ✓ Africa Harvest www.ahbf.org
- ✓ National Biotechnology Awareness Strategy (BioAWARE-Kenya)
- ✓ Open Forum on Agricultural Biotech (OFAB) www.ofabafrica.org

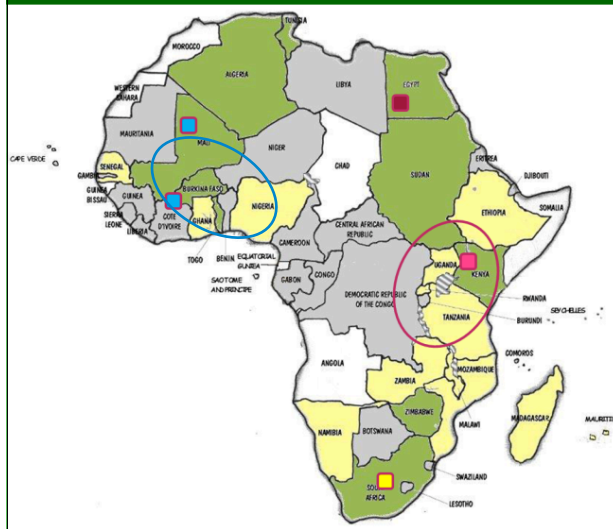
West Africa

- ✓ Network of both Francophone and Anglophone West African journalists (RECOAB) cyrpayim@hotmail.com
- ✓ Burkina Biotech Association (BBA) bba@fasonet.bf



ISAAA Africenter Experiences and contributions to enhancing enabling policies and public acceptance

ISAAA Africenter regional coverage

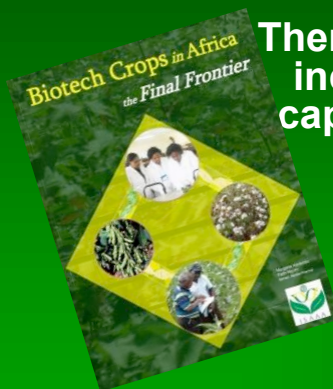


Eastern and Central Africa

West Africa

North Africa

Southern Africa (thro' partnerships) with Africa Bio



There is growing awareness and increased effort to develop the capacity for safe use of modern biotechnology in Africa's agriculture



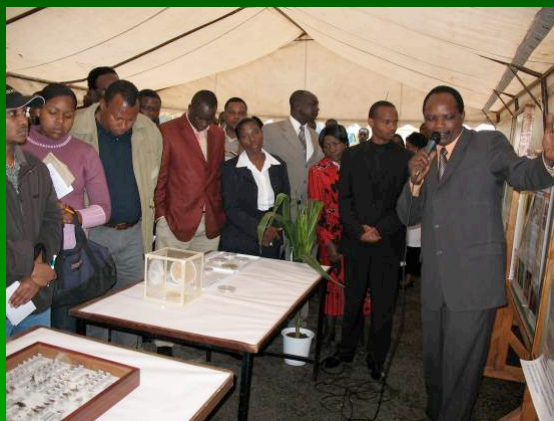
1. Media-Scientists Linkages



•Training in:
Science communication
Reporting biotechnology
Risk communication

Lesson 1: Build capacity and invest in good relations with credible journalists for increased and balanced reporting

2. Scientific live shows



Lesson 2: Demystify biotechnology issues by exposing stakeholders to biotech processes & products

3. Study tours - traveling workshops



Stakeholders visit Bt cotton
Confined Field Trials in Kenya



Members of
Parliament,
Journalists,
Farmer
leaders
visit
biotech
facilities in
the country



Farmer-to-farmer
visits to S. Africa, Burkina



Lesson 3: Invest in seeing-is-believing study tours to enhance appreciation of research efforts & confidence with local expertise

4. Politicians and Scientists Workshops



Lesson 4: Politicians are very strong opinion shapers. For policy influence, scientists and parliamentarians must engage!

5. Monthly stakeholder dialogue - OFAB



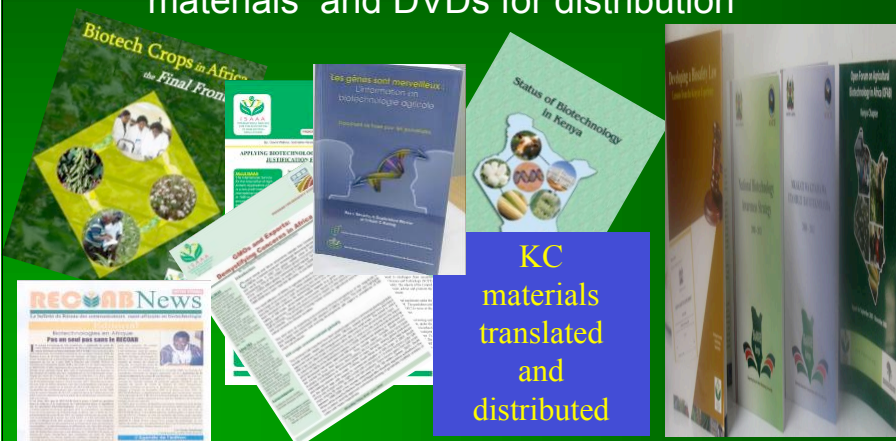
Open Forum on Agricultural Biotechnology – OFAB
2-hour session every last Thursday of the month: scientists, specialists, policy makers and the media have a platform to network and share knowledge

Lesson 5. Interpersonal communication very effective in building trust and strengthening inter-institutional networking

6. IEC Materials and Translations

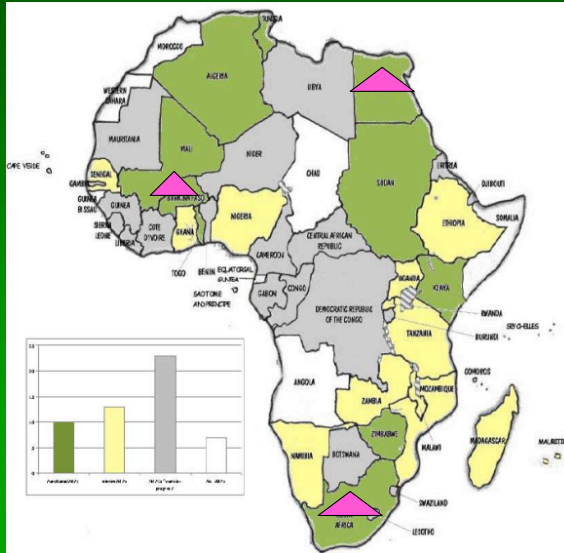


Africa BICs have authored and printed IEC materials and DVDs for distribution



Lesson 6: Improve stakeholders understanding of biotech/biosafety issues and trends with simple, localized IEC materials - consistency

Africa Overview Biotech Crops planting 2010



South Africa - Maize, cotton, soybean

Egypt - Maize

Burkina Faso - Cotton

Biotech crops on trial

RSA - potatoes, sugarcane,

WEMA – RSA

Kenya – cotton, maize, SP

Egypt – cotton, potato, wheat, cucumber, melon

Uganda - banana, cotton, cassava

Nigeria - cowpea, cassava

Factors determining future of biotechnology in Africa



- ❖ Proactive policy - Africa deciding for Africa
- ❖ Efficient and cost-effective Biosafety systems
 - Ability to assess the technology
- ❖ Scientific capacity building
 - ❖ Ability to develop and adapt appropriately
- ❖ IPR regimes to encourage private investment
- ❖ Public awareness and acceptance
 - ❖ Credible and evidence-based communication

**NEW TECHNOLOGY BRINGS NEW
RESPONSIBILITIES and maybe some
possible problems?**



Credible and balanced Communication key!



ISAAA
INTERNATIONAL SERVICE
FOR THE ACQUISITION
OF AGRI-BIOTECH
APPLICATIONS