

Forum for Agricultural Research in Africa (FARA)

DONATA—Dissemination of New Agricultural Technologies in Africa

**Africa Agriculture Science Week and FARA General
Assembly
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DONATA

Why a DONATA program

- To promote the adoption and impact of successful islands of agricultural technologies including farmer innovations in areas where they are suited but are yet to be utilized

DONATA will

- Analyze the value chains by linking originators of new agricultural technologies to potential adopters in Africa and thereby address constraints to accelerated adoption of new agricultural technologies
- Develop a toolkit for disseminators that facilitates the targeting of technologies to where they best fit the prevailing social, environmental, and market conditions of potential adopters

DONATA linkages to other FARA initiatives and programs

- FAAP, SSA CP, SCARDA/BASIC, RAILS, ABBI

DONATA Implementation:

- SROs and NARS in partnership with CG Centers, FAO, Foundations

DONATA portfolio: A NEPAD flagship technology

Includes:

- ❑ NERICA rice www.warda.org
- ❑ Tissue culture banana www.ahbfi.org & www.kari.org
- ❑ Improved cassava www.iita.org
- ❑ IR-Maize for striga infested areas www.cimmyt.org & www.aftechfound.org
- ❑ High-beta carotene sweet potato www.cip.org
- ❑ TC Sweet Potato
- ❑ Pigeon Pea
- ❑ INRM Tools
- ❑ Dry land pitting (African farmer–innovations that have not had enough attention)



Analysis of stakeholder priority commodities / sector

African Union

- The **Food Security Summit** in 2006 requested the **African Union Commission (AUC)** to take oversight for the promotion and protection of;
- **rice, legumes, maize, cotton, oil palm, beef, dairy, poultry and fisheries products as strategic commodities at the continental level,**
- while ***cassava, sorghum*** and ***millet*** were classified as ***sub-regional commodities***.
- Focused attention will also be given to **products of particular national importance**

Analysis of stakeholder priority commodities / sector

ASARECA

- **Milk** emerged as the **most important commodity sub-sector for growth-inducing investment in R&D** based on simulated cumulative contributions to overall GDP to 2015.
- **Beans, groundnuts, sweet potatoes, cassava, banana, citrus, tomatoes, onion**, also ranked highly.
- **Maize and sorghum** sub-sectors result in the **largest GDP gains**.
- **Fruits and vegetables, beef, oilseeds**, and **maize** emerge as commodity sub-sectors in which growth would **yield gains that were both large and widespread**.
- **Coffee** is the key hot beverage although **tea** was viewed as important.
- **Traditional cattle** dominate all other ruminants, as do **pigs** and indigenous non-ruminants and **poultry**.

Analysis of stakeholder priority commodities / sector

- CORAF/WECARD
- Technology investment in rice, groundnut and cotton **deserve to be a priority.**
- **Rice appear to be a strategic commodity** in the CORAF region and joint investments in rice research and development at that level can provide even higher returns given its potential for transferability across borders.
- The **producer gains** in rice and cassava **production are the highest.**
- Maize, millet and sorghum; yam; and groundnuts, would also generate **huge gains to farmers.**
- Livestock is an important **strategic option for generating growth**, especially for the **Sahelian zone.**
- In the Coastal and Central zones, the contribution from growth in root crops seems to be relatively important in many countries.
- Traditional export crops, such as cocoa continue to play important role in West Africa's agricultural growth.
- The **top crops for each zone** are;
 - Sahel: rice, groundnut, oil palm, beans, millet
 - Coastal zone: rice, groundnut, beans, coffee, millet, cotton
 - Central zone: rice, bean, cotton, maize, groundnut.
 - **Poor households seem to spend more on coarse grains and root crops.**

Analysis of stakeholder priority commodities / sector

- **SADC-FANR:**
- RISDP is the policy/strategic document that defined the approach to agriculture development.
- Focuses research on;
 - soil fertility improvements, soil and water management, development of irrigation, promotion of integrated livestock/wildlife/crop production systems, development of drought mitigation options
 - sustainable livestock production through the co-ordination of animal disease control strategies and utilization of livestock products in order to create employment.
 - Optimal sustainable rangeland utilization and animal feed flow, especially across borders was another intervention area, as well as information on marketing of livestock and livestock products.
- No agriculture sector analysis study by SADC-FANR comparable to what was undertaken by ASARECA and CORAF/WE CARD, FARA consulted with colleagues at SADC-FANR and apparently, the region considers;
 - **maize, sorghum and millets; wheat, mixed beans, sweet potatoes and cassava** as the **important food security crops**.
 - **sunflower, soyabeans, sweet sorghum, sugar cane, jatropher** have high potential to contribute to **producer income and poverty alleviation**

Selected Commodities and Countries

ASARECA sub-region

- ***Commodity-based technologies selected: QPM-maize and orange fleshed sweet potato (OFSP)***
- ***1st Phase Target Countries (TCSs) for Maize***
 - Uganda, Kenya, Ethiopia, DRC
- ***2nd Phase target countries for Maize***
 - Tanzania, Burundi, Rwanda, Sudan
- ***1st Phase Target Countries (TCSs) for OFSP***
 - Rwanda, Uganda, Tanzania, Kenya, Burundi
- ***2nd Phase target country (TCS) for OFSP***
 - Ethiopia
- **8 countries** selected representing **72.7%**

Selected Commodities and Countries cont'd

CORAF/WECARD sub-region

- Commodity-based technologies: **cassava and maize**

 - **1st Phase target countries (TCSs)**
 - Coastal zone - Sierra Leone, Cote d'Ivoire, Liberia
 - Central Africa zone – Congo Brazzaville, Cameroon
 - Sahel zone - Burkina Faso, Senegal, Mali

 - **2nd Phase target countries (TCSs)**
 - Coastal zone - Guinea Conakry, Guinea Bissau, Gambia, Benin
 - Central Africa zone - Central Africa Republic, Tchad, Gabon
 - Sahel zone – Niger, Mauritania
-
- **17 countries** selected representing **80.9%**

Selected Commodities and Countries cont'd

- SADC-FANR sub-region
- Few participants from that sub-region
- Participants recommended *Commodity-based technologies*: sorghum and OPV maize???
- *Participant's proposed Target Country Sites (TCSs) in Angola, Tanzania, Zambia???*
- Need for further work and validation by SADC-FANR Directorate

Proposed Strategy cont'd

Intervention in the field

- ***Innovation Platforms for Technology Adoption—IPTAs***
 - researchers, extension or advisory services, policy makers, civil society organizations (CSOs) in agriculture ie farmer organizations, private sector or agric-business, NGOs (**active involvement of relevant stakeholders**)
- **Technology Dissemination Pathways**
 - Farmer-to-farmer learning
 - Farmer collective action (FCA)
 - Market led Technology adoption (MTA)
 - Participatory Market Chain approach
- **Participatory approaches and Learning tools**
 - *Participatory Development Approach (PDA)*
 - *Participatory Development Management (PDM)*
 - *Participatory Extension Management (PEA)*
 - *Participatory Varietal Selection/Participatory Gender User Analysis (PVS/PRIGA)*
 - *Participatory Learning and Action Research (PLAR)*
 - *Participatory Agro-ecosystem Management (PAM)*
 - *Farmer Field Schools*
 - *Demonstration plots (limited participatory opportunities)*

Proposed Strategy cont'd



Capacity strengthening/Training

- 40 MSc at University of Pretoria and Kwazulu Natal both in South Africa; and Hassan II Institute in Morocco. Target of 25-50% women ARD stakeholders
- Short-term training of NARI scientists by IARCs, ARIs, Universities
- Short-term training of extension/advisory service by NARIs
- Special effort on private sector/agric-business involvement
- Attention to processing, value addition and markets
- Planning and Reviews, monitoring and evaluation and impact assessment

Institutional arrangements

- FARA coordinates
- SROs Manage
- NARS and partners implement
- Thus, **SROs assign SRO Focal Points**
- **SROs/NARS assign NARI Focal institutions and Focal Points in each target country**
- Quarterly and annual reports
- Monitoring and Evaluation (M&E) integrated in the overall FARA M&E

Complementary DONATA Initiatives

- **Research Into Use Program**

- DFID funded program 2006-2011

Target countries:

- Malawi
- Tanzania
- Rwanda
- Nigeria
- Sierra Leone
- *Bangladesh – Asia*

- **AGRA/ProGRA**

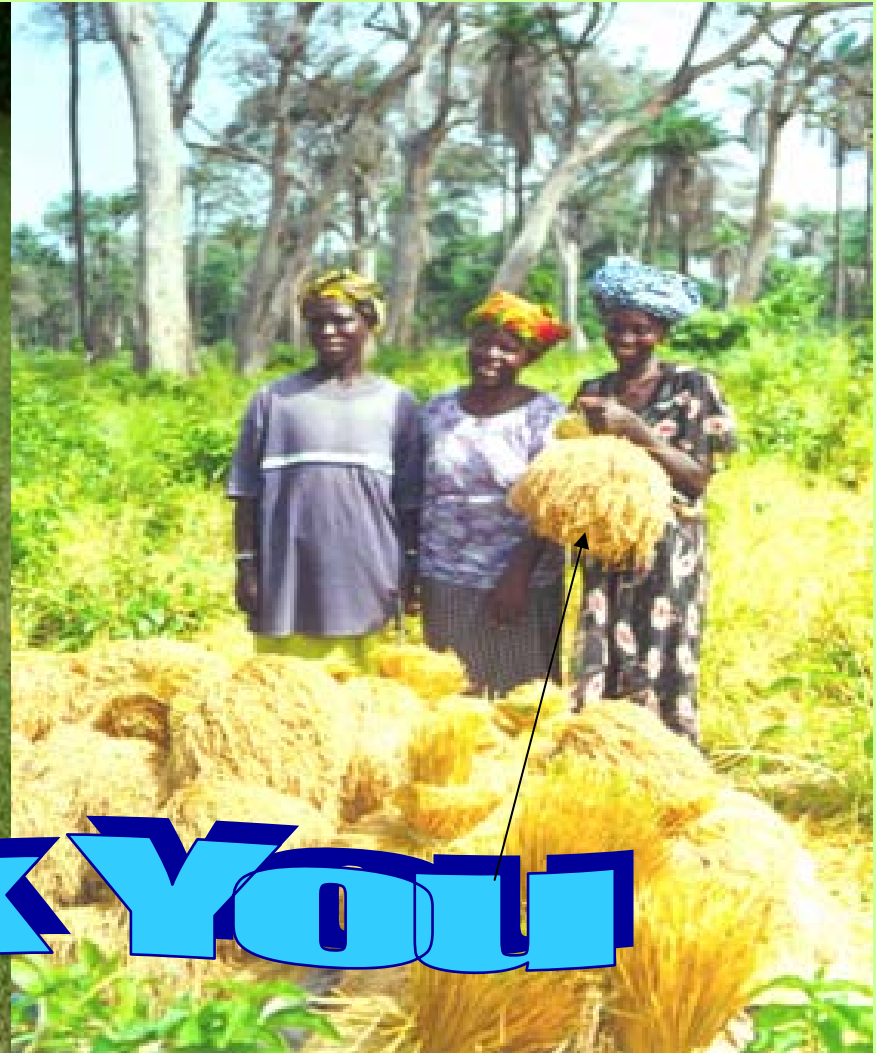
- Rockefeller Foundation and Bill and Melinda Gates Foundation

- **Millennium Village Project**

- UNDP

Conclusion

Scaling-up and out 'islands of successful agricultural technologies' in Africa requires **innovation platforms in technology adoption (IPTAs)** along the **value chain**.



Thank You