



Extending Seed Without Boarder to Africa

**A science diplomacy to accelerate food,
nutrition and income security in Africa**

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IRRI's Global Presence

- 1000 staff, 42 nationalities
- 600 research partners
- Offices in 40 countries



Brief History in Africa

1965: IRRI transferred varieties to Tanzania; Training

2004: Physical presence in Nigeria (through AfricaRice)

2007: Included Malawi, Brdi and Rwanda in ESA program

2013: IRRI BOT in Burundi, inauguration of ESA Regional Off

1984: Physical presence in Madagascar

2006: Research Programs in ESA (MZQ, KN, TZ, UG)

2012: Restructuring: Burundi chosen as a "Hub"

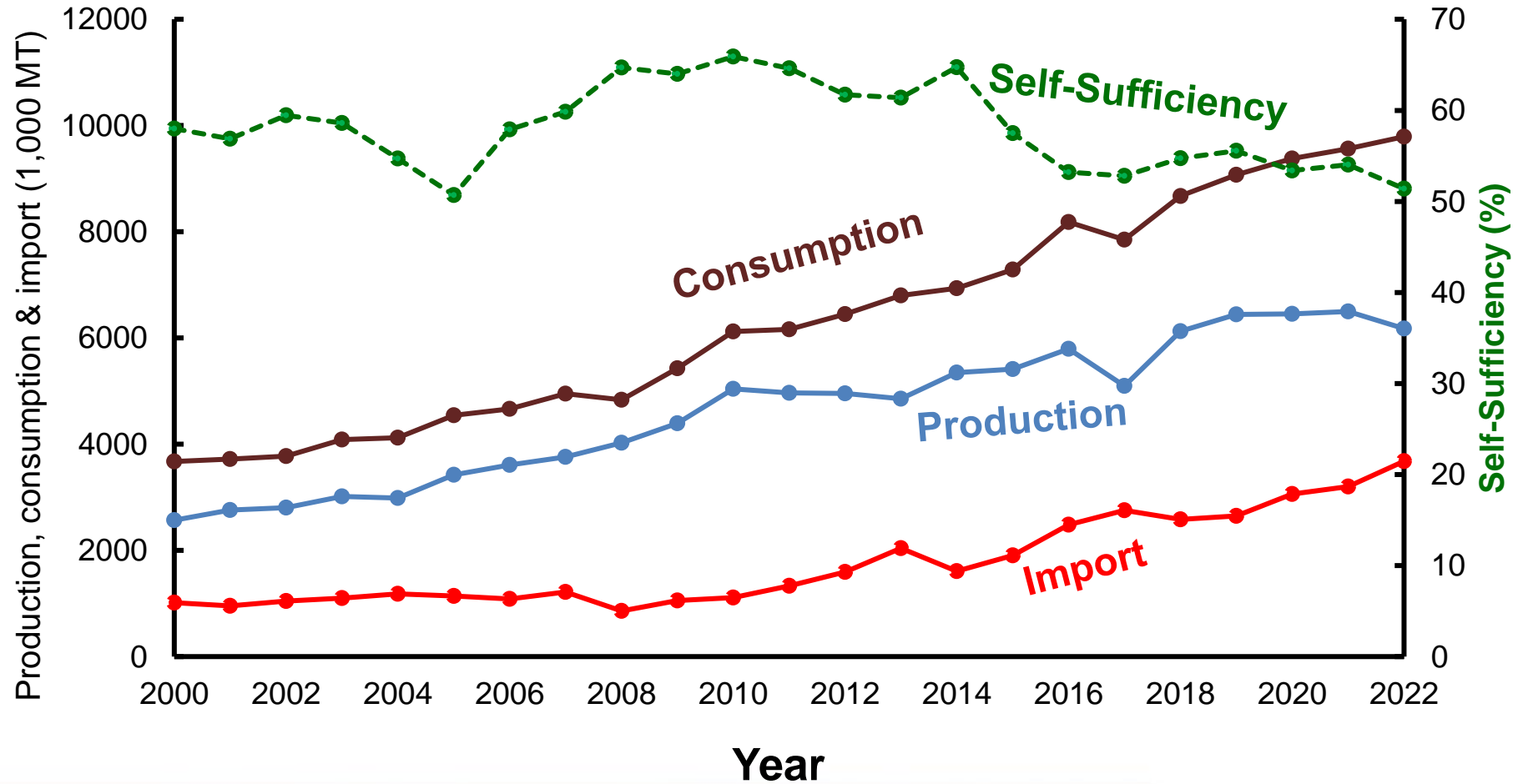
2018: IRRI opened Regional Office in Kenya

Offices: Burundi, Kenya, Tanzania, Mozambique, Uganda, "DRC"

Others: Ethiopia, Zambia, Zimbabwe, Malawi, Rwanda, Madagascar, , Angola, Botswana, Somalia, South Sudan, Sudan



Trends in rice production, consumption, imports and self sufficiency in ESA – 2000 -2022



Source: USAID-PDS



Research Priorities for Africa – Current focus

- Deliver high yielding, nutritious and climate resilient varieties to replace old ones via effective seed systems
- Modernize production technologies to replace traditional systems
- Improve capacity of partners' infrastructure, networks and value chains for competitive products and better income
- Capacity building of partners to sustain delivery
- Gender and youth empowerment, equity & business opportunities
- Catalyze policy reforms through cross-learning and SSC/SSTC to speed progress and impacts



Facts: Seed Policies and Regional Cooperation

- Developing a new variety to seed multiplication takes 12-16 years
- Numerous varieties developed in one country are dominating in other countries, e.g. India, Nepal, Bangladesh and Myanmar.
- Several Asian varieties are widely grown in Africa
- Common policies for varietal testing, release and dissemination across countries
- Similar regulations for seed import and export



Policy reforms to facilitate cross-border trade

- Streamline adoption of modern varieties
 - Faster release and notification
 - Faster varietal replacement to cope with CC and markets
- Proper quality control and certification systems
 - help engage seed producers
- Policies to support and empower private sector – PPP
- Cross border agreements to speed access to varieties, knowledge, inputs and output markets
 - Awareness for transformative changes
 - Reduce restrictions – tariff and non-tariff
 - Joint training and forums for scientific exchange



Dhaka Agreement (Feb. 2013)

- Joint varietal evaluation and release.
- Reciprocal recognition of evaluation data for varietal release.
- Reduce time for the evaluation of varieties released in neighbouring countries for similar agro-ecologies.
- Reduce time for evaluation for MAS generated varieties
- Pre-release seed multiplication & promotion.
- Encouraging private sector by providing level playing field.
- Harmonize seed systems



Kathmandu Agreement (Oct. 2014)

- Endorsed Dhaka agreement provisions – extending them to Nepal
- Share the evaluation data
- Varieties released in one country can immediately be released in the other two countries in similar agro-ecologies.



L to R : Secretary of Agriculture, Bangladesh, DG, IRRI; Sec. Agriculture, Nepal, Sec. Agriculture, India.

Siem Reap Agreement (June, 2017)

- Signed by Bangladesh, India, Nepal, Cambodia, Sri Lanka, Myanmar, Bhutan and IRRI in Cambodia.
- Extended beyond rice to include other cereals, pulses, oil seeds, vegetables, sugarcane and fibre crops.
- Recognition of each others seed certification system.



L to R : Additional Secretary Agriculture, Bangladesh; Sec. Agriculture, Cambodia; Sec. Agriculture, India; DG, IRRI; Sec. Agriculture, Nepal and Sec. Agriculture, Sri Lanka.



Bhutan Agreement (Nov. 2022)

- Develop a database of varieties of different crops from signatory countries
- Expand scope to strengthen seed system, varietal improvement, and capacity building to support progress in member countries
- Nodal cell for each country and regular follow-up meetings to review the progress and take action when necessary
- Extensive capacity building to bring the seed system of all signatory countries to the same level for maximum benefits



Implementation of the agreements

- India notified 10 rice varieties from Bangladesh & two from Nepal. Saving 5 to 6 years. Some like Binadhan 11, 12 & 17 and BRRI dhan 69, are being adopted on large scale
- Nepal released 3 Indian rice varieties, spreading fast among farmers
- India directly notified **one potato variety** (*Yusi Maap*) from Bhutan in 2019 saving 8 to 10 years. India also imported 10 q of breeder seed from Bhutan
- Bangladesh is importing jute varieties from India. Fiji introducing pearl millet and sorghum varieties from India.
- Several provisions of seed agreements are now part of Nepal, Bangladesh & Cambodia seed policies



Areas of benefit for Africa

- Harmonize seed systems and policies
 - Joint varietal evaluation and release
 - Recognition of evaluation data from similar agro-ecologies to shorten time for release
 - Shorter evaluation time for varieties, especially those developed via MABC
 - Acceptance of PVS data for varietal release
 - Pre-release seed multiplication & promotion
- Varieties released in one country should be released in other countries:
 - Immediately in areas with similar ecology
 - After one year of testing in other areas



SWD: benefits for partner countries in Africa...

- Strengthen SSC for knowledge exchange
 - Private sector engagement – supply of seed, agrochemicals, mechanization and services.
 - Encourage formal seed systems
 - Open opportunities for capacity strengthening
 - Build trust and enable cross border trade
 - Sustaining food & nutrition security & provide buffer in disastrous incidence
- Facilitate resource mobilization for faster progress and impact





Coordination and linkages for impact at scale

- Bilateral and regional engagements of countries within SSA and between Africa and Asia
- Networks with initiatives for regional seed exchange in SSA
 - ECOWAS –through Rice Observatory – and “Rice Offensive” program
 - East Africa Community (EAC) – Regional Rice Development Strategy
 - CARD –National Strategy Network (NRDS II) for rice producing counties in SSA
 - AGRA – development of seed systems in 12 countries in SSA
 - Other networks - ECCAS, COMESA, SADC, IGAD, CORAF, ASARECA, CCARDESA, AFTSA, APBA, etc..
- African Union Commission – CAAPD, African Seed Biotechnology Partnership Platform (ASBPP)



Thank You



	<p>CONGRATS Abdelbagi M. Ismail <i>for the</i> AAAS DAVID AND BETTY HAMBURG AWARD FOR SCIENCE DIPLOMACY</p>		<p>CONGRATS Uma Shankar Singh <i>for the</i> AAAS DAVID AND BETTY HAMBURG AWARD FOR SCIENCE DIPLOMACY</p>
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AAAS David and Betty Hamburg
Award for Science Diplomacy - 2023

