

AGRILINKS



ICTforAg: Unpacking Sustainability Journeys

Speakers: *Josh Woodard, USAID Bureau for Resilience and Food Security*
Parasto Hamed, AgResults
Jean Michel Voisard, RTI International
Casey Harrison, Nuru International

Moderator: *Zachary Baquet, USAID Bureau for Resilience and Food Security*

Date: February 3rd, 2021

Josh Woodard, Senior Digital Advisor, USAID Bureau for Resilience and Food Security



Josh is a Senior Digital Advisor with USAID's Bureau for Resilience and Food Security. He has extensive experience in digital agriculture and resilience, particularly in Asia and Africa. Prior to joining USAID, he ran a technology for development consulting firm, during which he led the development of the digital agriculture strategies for several international donors and organizations. Before that, he worked at FHI 360 for over a decade. During that time, he oversaw USAID-funded efforts in Bangladesh, India, and Myanmar to help expand uptake of digital financial services in agricultural value chains. He has also served as a primary author of the FAO and ITU's National e-Agriculture Strategy guide, which he helped the governments of Sri Lanka and Bhutan to implement. From 2009-2013, he led USAID's FACET project, which focused on promoting the uptake of ICT in agriculture projects across sub-Saharan Africa.

Parasto Hamed, Field Coordinator, AgResults



Parasto Hamed has 12 years of experience in international development program design and implementation, specializing in agricultural development, including 5 years with Deloitte as a project management specialist master. Ms. Hamed currently serves as the Field Coordinator for AgResults, a multi-donor initiative that designs and implements innovative Pay-for-Results prize competitions that engage the private sector to overcome agricultural challenges and improve livelihoods in developing countries. Before joining Deloitte, she worked as a Project Manager at CNFA and Chemonics International, managing USAID projects in East and Southern Africa as well as the Middle East. Ms. Hamed holds a Masters of Professional Studies in International Agriculture and Rural Development from Cornell University and a Master of Science in International Development from the London School Economics and Political Science.

Jean Michel Voisard, Director Market Systems, RTI International



Jean-Michel Voisard is Director Market Systems at RTI International's Food Security and Agriculture Division. For over 20 years, he has worked throughout West Africa to link private sector and banks with grassroots rural organizations to build sustainable market systems that benefit small farmers. Early in his career, as financial systems specialist in the food distribution sector, he was part of the North American transition to integrated supply chain platforms and personal computer networks. Moving on to development work, he has promoted since 2005 the mainstreaming of an array of digital technologies such as GIS, remote data transmission, cloud computing, supply chain management, and smallholder managed data analytics to support inclusive agriculture value chains. His work with Senegalese farmer organizations is documented by a Feed the Future best practice note, Finding the best fit - Naatal Mbay, and other publications.

Casey Harrison, Livelihoods and Agribusiness Director, Nuru International



Casey joined Nuru International in 2016 and guides agribusiness and livelihoods impact programming across a network of Nuru local organizations in Kenya, Ethiopia, and Nigeria with a focus on scaling in the Sahel region of West Africa. As a member of the Agribusiness Market Ecosystem Alliance (AMEA) he leads the Agricultural Technology working group that aims to accelerate the development of rural SMEs and farmer organizations globally. Casey received a dual M.A. in Natural Resource Management and International Development from American University in Washington D.C and the University for Peace in Costa Rica. Prior to Nuru, he served as a Peace Corps Volunteer in Zambia as an agricultural extension agent, and worked with World Wildlife Fund (WWF-US) for 4 years developing inclusive value chain approaches to conservation and development challenges.



#ICTforAg: Leveraging a Pay-for-Results Prize Model to Create a Journey to Sustainability

Parasto Hamed
February 3, 2021

\$152 million multi-donor initiative that uses Pay-for-Results (PfR) prize competitions to incentivize the private sector to invest in high-impact agricultural innovations that help achieve the following goals:



Reducing Food
Insecurity



Improving Household
Nutrition and Health



Increasing Livestock
Productivity

AgResults' **theory of change** rests on the idea that, if appropriately incentivized, the private sector will respond by creating and/or scaling new technologies to benefit smallholder farmers:



Identify or source
new technology



Incentivize the
private sector to
overcome market
barriers



Achieve wide-scale
adoption and
scaling



Create sustainable
markets



Australian Government

Department of Foreign Affairs and Trade

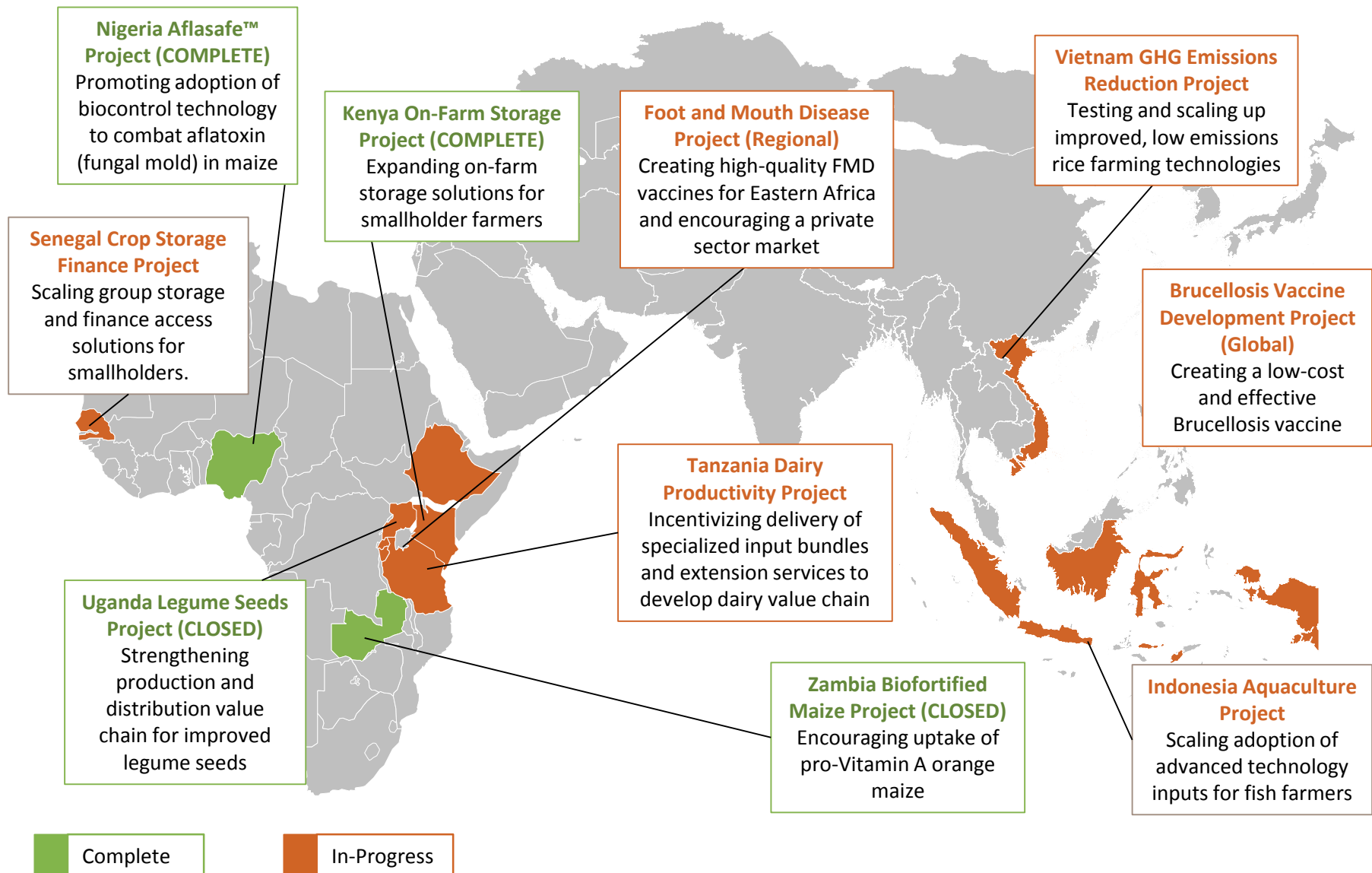
BILL & MELINDA
GATES foundation

Canada



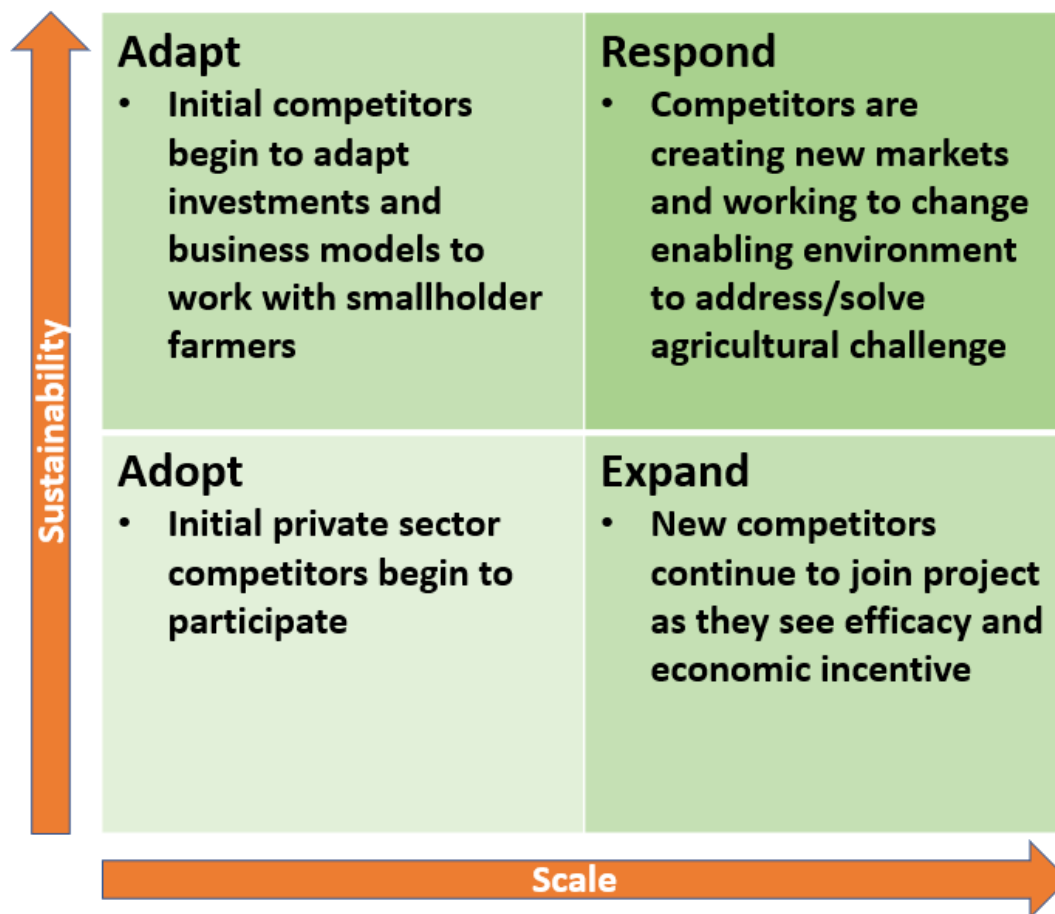
THE WORLD BANK

AgResults in Action around the World



How AgResults' Prize Competitions Engage the Private Sector

1. **Demonstrate the economic potential** of expanding into untapped offerings and/or investing in underserved markets
2. **Leverage prize incentives** while remaining solution-agnostic to encourage private sector risk taking and investment
3. **Strengthen value chains and markets** by encouraging new and inclusive relationships between smallholder farmers and private sector



Adapted from Nippard, Hitchens and Elliott, "Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes." The Springfield Centre, March 2014.

The Tanzania Dairy Productivity Challenge Project encourages input suppliers to deliver input bundles to smallholder farmers to boost productivity and strengthen the dairy value chain.



Problem:

Struggling dairy sector: 97% of cattle are low-yield breeds, prevalence of poor forage management, feed supply fluctuates, and farmers with limited access to inputs or extension services.

Solution:

The project aims to increase dairy productivity and smallholder incomes as well as strengthen value chain relationships between smallholder producers and the formal dairy sector



Incentive:

Each competing input supplier will receive a prize for delivering different productivity-increasing input bundles to a minimum of 200 smallholder dairy farmers, along with required extension services.



Anticipated Impact:

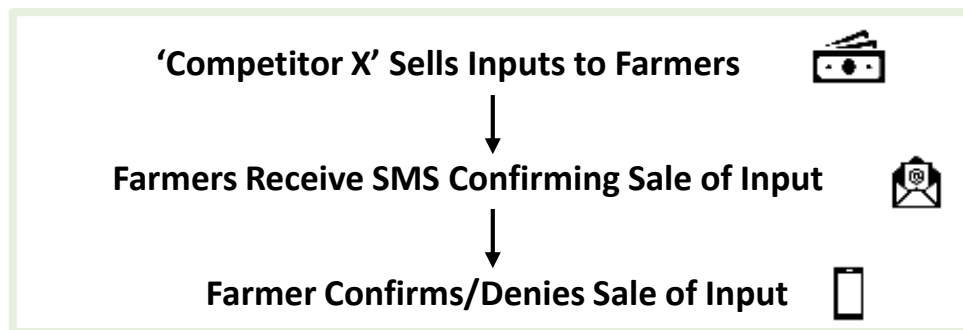
The project hopes to produce 23 million additional liters of quality milk; increase farmer revenue by \$9.4 million; and reach 22% of dairy farmers in the target regions.

A Digital Platform to Track Input Sales and Delivery: The Dairy Inputs Data Collection and Tracking System (DCTS)

With the DCTS, private sector input providers can collect farmer information and track sales of productivity-enhancing inputs. With the four capabilities listed below, the DCTS gathers critical data that helps AgResults determine which competitors qualify for prizes.

System Capabilities

- 1 Farmer Profiling:** The system tracks farmer information including name, gender, contact information, number of cows, and location.
- 2 Transaction Logging:** Competitors must register all transactions and advisory services with farmers. The system tracks and attributes each transaction to a registered smallholder farmer, recording each input sale by type and quantity.
- 3 Farmer Notification:** The system sends an SMS notification after each transaction or advisory service, and then it logs farmer responses confirming receipt.
- 4 Real-Time Verifier Access:** The system tracks competitor sales data and runs reports in real time, which enables the competition sales verifier to monitor the sales of inputs and advisory services and identify any sales abnormalities on a rolling basis.



DCTS: Inclusion via Stronger Links and Better Access to Information

Beyond verifying competition results, the DCTS is positioning the Tanzanian private sector to build inclusive relationships with farmers that will continue ... *even after the project ends.*



Stronger Input Supplier-Farmer Linkages

- **Competitors:** Use data from the DCTS to send automated SMS about new inputs and extension services to more farmers – even in remote areas – and increase sales
- **Farmers:** Receive information via phones to improve general animal husbandry, feed and waste management, udder health and hygiene, vaccination scheduling, and proper use and storage of inputs

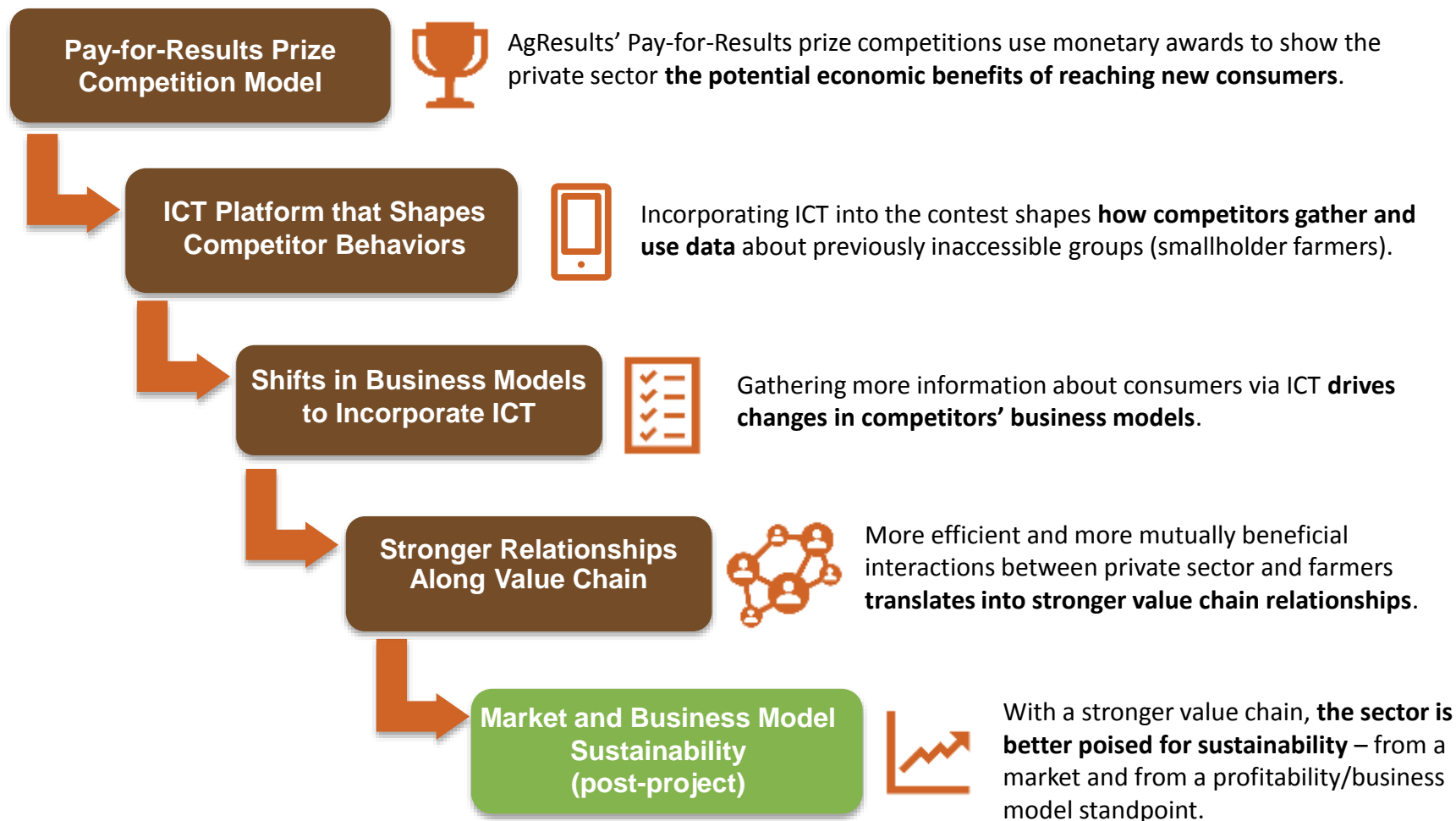


Better Access to Information

- **Competitors:** Use the DCTS to track their inventory and sales and draw from that information to improve their business models
- **Farmers:** Have better access to information on milk prices and other market data, providing an entry point to formalized markets, especially among those who were previously marginalized

Through the Lens of #ICTforAg: AgResults' Journey to Sustainability

As the example of the Tanzania DCTS shows, AgResults provides one type of journey to sustainability that engages the private sector to drive deeper changes in local markets:





Thank you!

For more information and resources, visit the AgResults website: <https://agresults.org/>



ICTforAg: Unpacking Sustainability Journeys

Senegal - When Farmers Own Their Data

February 3, 2021

Jean-Michel Voisard, Director Market Systems

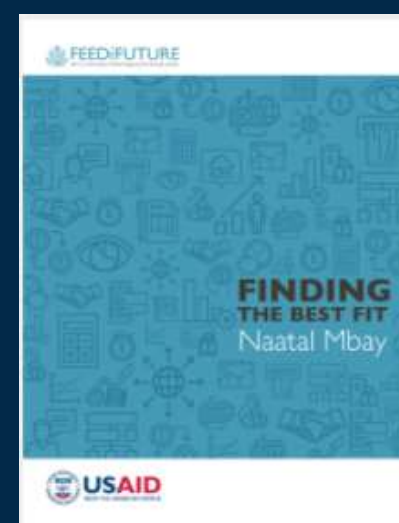


Photo: Xaume Olleros/RTI International

During Feed the Future's Senegal Naatal Mbay project, farmer-led value chain networks self-managed data-driven decision tools, supported by digital technologies

- Excel spreadsheet databases and analytics
- Electronic data interchange with clients, suppliers, banks, insurance company and Government
- GPS-enabled field mapping
- Frontline digital data collection
- Same-day rainfall and weather data collection and reporting
- Real-time grain commodity stock monitoring linked to bank tracking systems

Two seasons after project closeout, data systems have survived & evolved – and helped manage COVID-19 response efforts



Documentation is available on Agrilinks, www.ipar.sn, dec.usaid.gov, and the US Global Development lab

A resilient entry-level digital package

Excel, Garmin, Dropbox, Gmail, Whatsapp, Orange...



Photo: Xaume Olleros/RTI International

GETTING YOUTH ON BOARD

- Beyond Digital Literacy: **Digital SKILLS**
- Three spreadsheets, no frills
- Focus on accuracy, timeliness, agility, analytics and progressively...pivot tables
- Paper and cloud backups

A SYSTEM ROOTED IN SHARED VALUE

- Data-driven Extension and Advisory Services (EAS) contracted delivery
- **Data for trade:** Aggregated commercial contracts, procurements, loans and insurance that require precise forecasts and tracking
- Periodic data reporting to the project, tested by M&E Data Quality Assessments
- Data stored on the network's Dropbox account, used with permission

Growth creates the need to graduate to mobile solutions by repurposing existing platforms

- From Dimagi's CommCare to CommAgri
- From Mlouma (price discovery) to Meteo Mbay (real time local climate data)
- From SIS'TEC's single farm rice management modules to a bank-led stock monitoring system
- Time and volume stress-tested algorithms, file structures, interfaces and safe cloud infrastructure
- Open and flexible design allows to redefine labels and adjust interfaces
- Streamlined upload/download/interface mechanisms
- Need to modify entity access/separation rules and billing methods
- Creation of trained local service providers



Photo: Xaume Olleros/RTI International

*The Retrospective Development Cost of CommCare is estimated between 12 and **22 million \$**
(USAID Global Health Center for Innovation and Impact, 2019)*

Public-domain access policies established by social-enterprises like Dimagi encourage spinoffs and use of technology by other programs.

In Senegal, CommAgri becomes...

- **Commango** (sponsor IFC)
- **Combanane** (sponsor UNCDF)
- **DOLIMA** (urban yogurt distribution)
- and more...

All systems piggy-back on Dimagi's core Health Care application

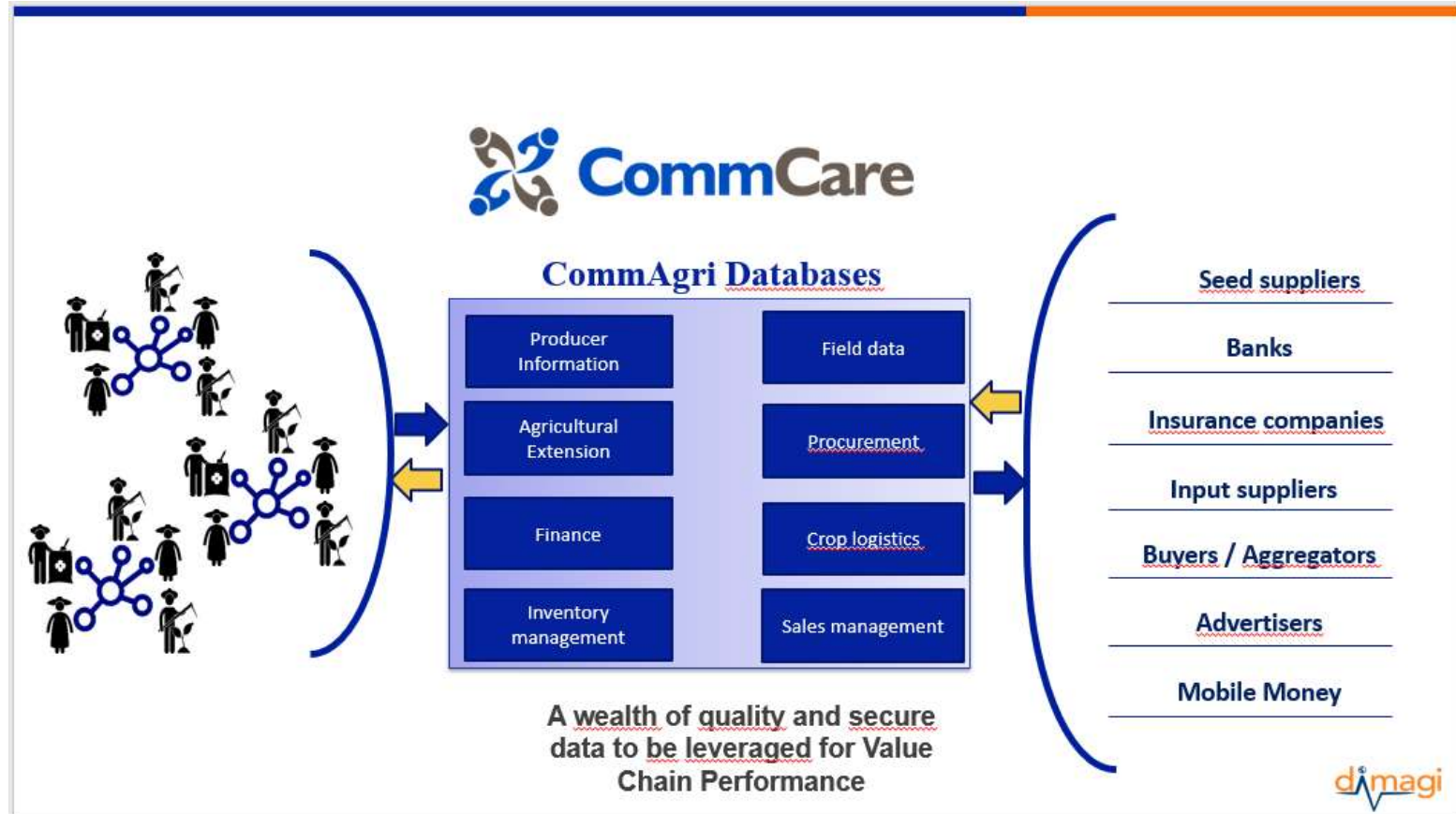


Moving platforms toward integrated cloud-based Ag Value-Chain ERPs will open multiple monetizing pathways...

ERP: Enterprise Resource Planning,
(business process management software that integrates financials, supply chain, operations, reporting, manufacturing, and human resource activities)

... no need for farmer fees, just farmer data.

But will farmer networks agree to move from their trusted Excel spreadsheets to a cloud-based system managed by a third party?



A man in a blue and white striped polo shirt and dark trousers stands in front of a large wall of stacked white sacks. He is looking down at a tablet computer he is holding with both hands. The scene is dimly lit, with a blue tint. The title 'Takeaways' is overlaid on the left side of the image.

Takeaways

- Farmer networks, helped by their youth, demonstrate a strong capacity to bridge the data collection challenge. This is a sizeable contribution to the emergence of sustainable trading ERPs that are attractive to the private sector.
- To be adopted by farmers, solutions need to preserve networks' market agency and facilitate an open trading environment, protect data ownership, allow for portability of datasets and autonomous storage, and provide control on data sharing.



Photo: Xaume Olleros/RTI International

Thank you

Contact: Jean-Michel Voisard | email: jmvoisard@rti.org





Nuru International & AMEA

Focusing on the User

Nuru Locally Led Development

Cultivate **lasting meaningful choices** in the most vulnerable and marginalized communities in the world

Nuru Kenya

- Pauline Wambeti, Managing Director
- Established 2008 in Migori county



Nuru Ethiopia

- Abiy Meshesha, Managing Director
- Established 2013 in SNNPR



Nuru Nigeria

- Amy Gaman, Executive Director
- Established 2018 in Northeast



Agribusiness Market Ecosystem Alliance (AMEA)

“Innovation through collaboration”

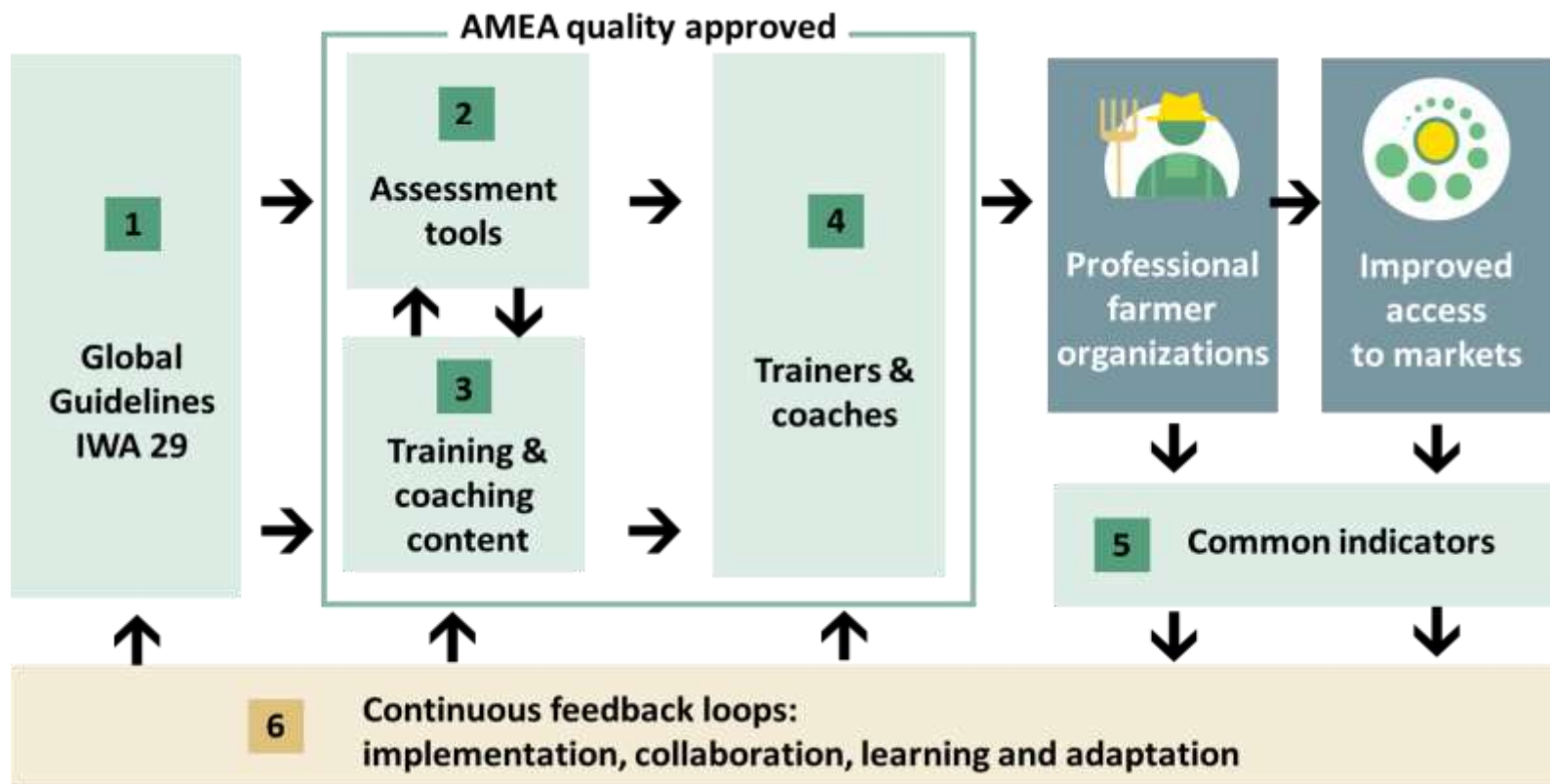
Agribusiness Market Ecosystem Alliance (AMEA) Network

A **22 member network & 7 Strategic Partners** with a shared vision to support millions of professional farmer organizations that have access to finance and markets, which enables them to deliver significant benefits to their members.



The AMEA Framework

AMEA works toward a system that **accelerates farmer organization professionalization** and incentivizes service quality improvement: the AMEA Framework.



The AMEA AgTech Criteria

“Focusing on the Users Needs”



AGRICULTURAL
TECHNOLOGY GUIDE
FOR ADVANCING
PROFESSIONAL FARMER
ORGANIZATIONS



*Six Criteria for **Disruptive** and **Appropriate** AgTech:*

1. AMEA Member Endorsed
2. Demand
3. Benefits/Value Addition
4. Limited Added Costs
5. Transcending Inefficiencies
6. Interoperability

[Find the AMEA AgTech Guide and AgTech Exchange Webinars here](#)

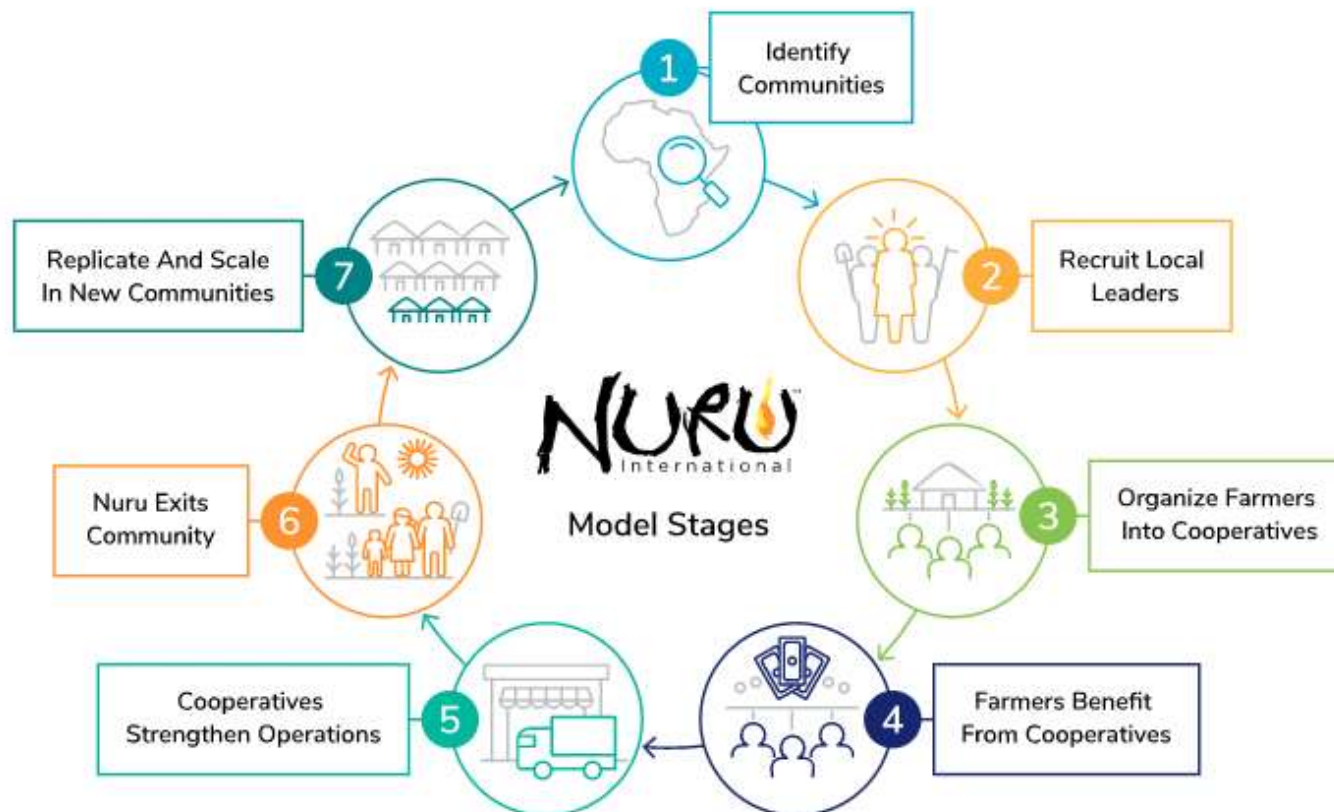
Digital Development at Nuru

“Local users need locally relevant digital solutions”

The Nuru Model

Nuru's Digital Development Goal:

Mainstreaming and embedding appropriate and disruptive technologies into the farmer organizations we serve.

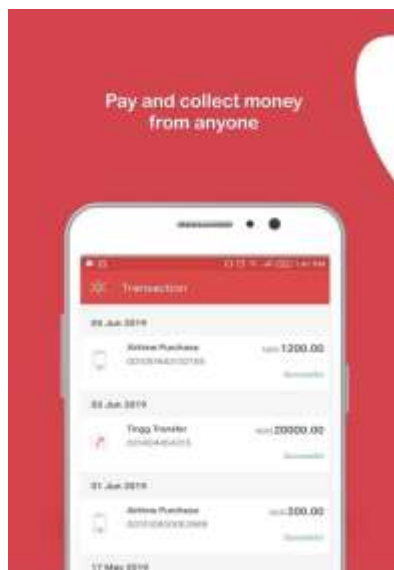
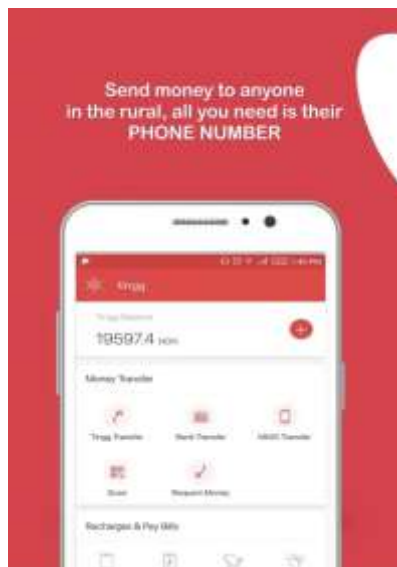


Nuru Nigeria Farmers (Profile)

- Supporting Women First
- Organizing farmers into Associations and Cooperatives
- Low levels of literacy
 - Nationally, 68% of women literate; 75% total population (UNESCO)
 - Low digital literacy
- Limited access to feature phones and smart phones
 - Nationally mobile phone access in rural areas around 30% (GSMA)
- Inequitable HH decision-making
- High levels of insecurity



Digital Financial Inclusion



Benefits

- Digital wallet product
 - Electronic payment via SMS
 - Access via Web, USSD, IVR
 - Agent network
- Increases Resilience
 - Cashless payments
 - Shared HH management
 - Building credit through loans

Challenges

- Limited DFI platforms
 - Policy in Nigeria compared to M-Pesa in Kenya
- Agent insecurity
 - Conflict proximity (BH)

Unpacking Nuru's Experience

Demand Starts Locally – *building a foundation of users*

- Delivering **digital literacy** opportunities to vulnerable and underserved communities
- Supporting the preparation and **meaningful participation of women** in the adoption of digital services
- Building agency through farmer organizations so rural communities can make **meaningful digital choices**
- Developing farmer and MSMEs capacity to **leverage the digital ecosystem** to gain access to markets, information, and finance



Unpacking Nuru's Experience



Enabling Innovation through Collaboration

- Prioritizing new technologies through **shared learnings and trust** in partners experiences
- Elevating **local perspectives** through multi-stakeholder networks – globally & nationally
- Building an **enabling policy environment** that protects users and enables entrepreneurs