

# A Global Landscape of Digital Agriculture Technologies (DATs)



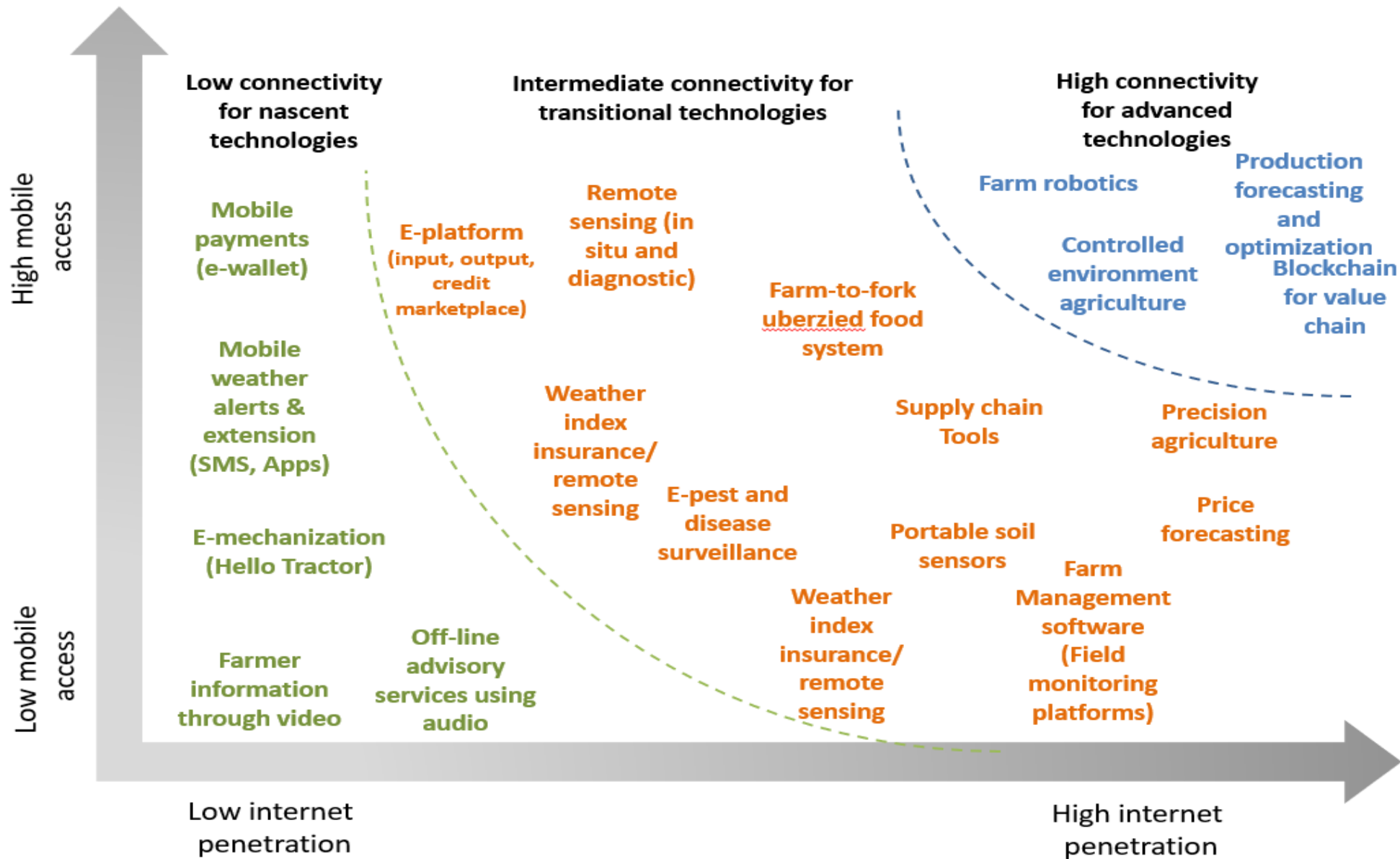
**Parmesh Shah**, Global Lead, Rural Livelihoods and Agriculture Employment,  
Agriculture Global Practice

The World Bank

Email: [pshah@worldbank.org](mailto:pshah@worldbank.org)

Twitter: @ShahParmesh

# Different stages of connectivity require different types of digital technologies (nascent, transitional & advanced)



# The AgTech Landscape is diverse and spans a wide array of technologies

## Satellite & Imagery



**SATELLIGENCE**  
Global/Ghana

**planet.**  
United States

## Data Management & E-commerce



**AgroStar** India

**Olam** Singapore

**Probioty Farris** Nigeria

**AGRO GO** Colombia

## Precision Agriculture & Predictive Analysis



**solinftec** Brazil

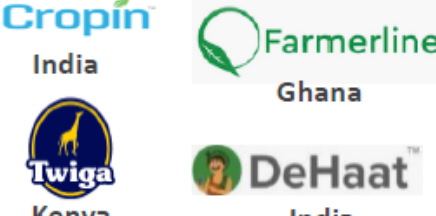
**ARABLE** Global

**SAIlog** Israel

**NETA FIM** Global

A growing number of global and local AgTech players coming up with solutions that have cross-regional applications

## Supply Chain Management



**Cropin** India

**Farmerline** Ghana

**Twiga** Kenya

**DeHaat** India



## Robotics, Sensors & Drones



**ACQUAHMEYER** Ghana

**See Tree** Israel

**ThirdEye** Mozambique

**Farm Friend** China

## Soil Management




**AGBIOME** Global

**indigo** Global

**PIVOT BIO** United States

## Plant & Animal Data/Analysis



**eSusFarm** South Africa

**bovcontrol** Brazil

**agrocared** Global

## Finance & Insurance



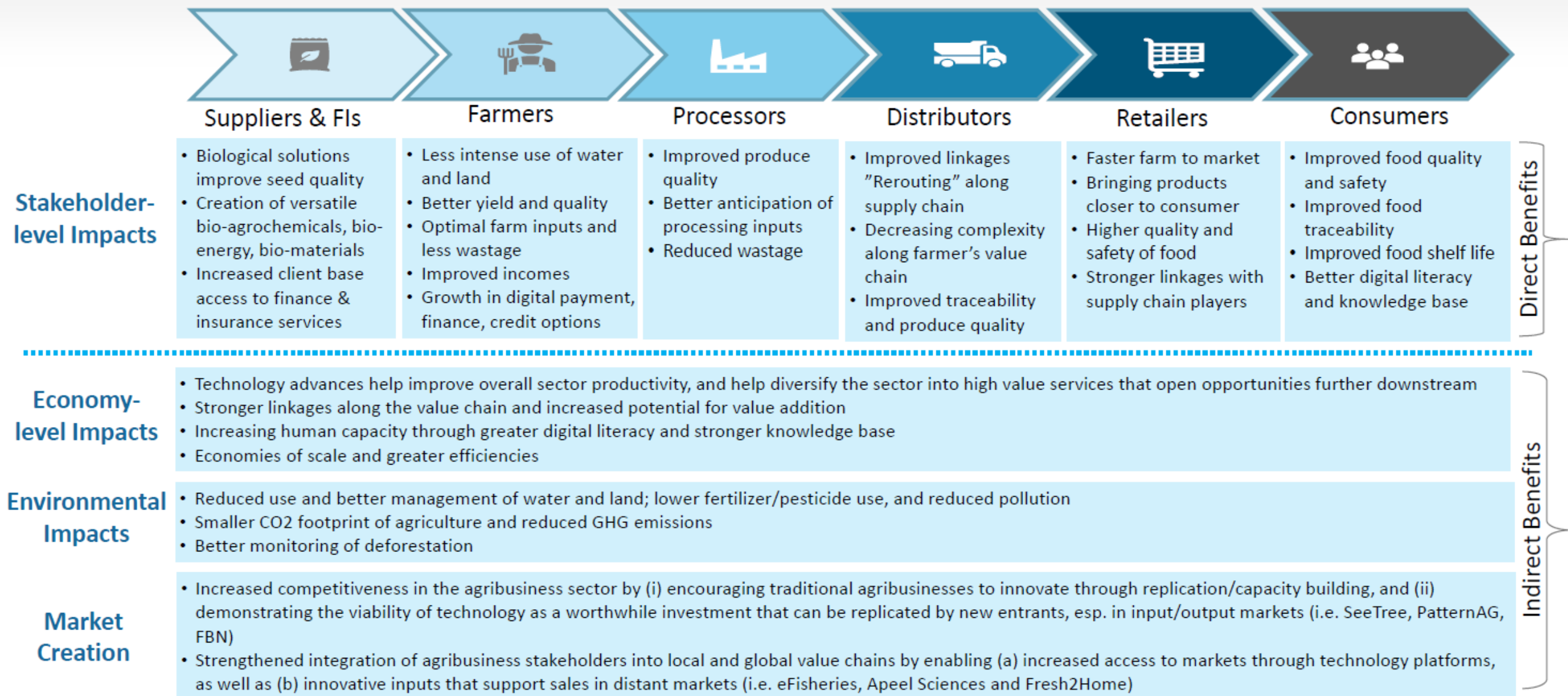
**APOLLO AGRICULTURE** Kenya

**S4** Argentina

**injini** South Africa

- ### Illustrative Categories of AgTech Solutions
- Data Management & E-Commerce:** Connecting farmers directly to suppliers or consumers without middlemen
  - Precision Agriculture & Predictive Data Analytics:** Enable farmers make better farm-related decisions in order to save energy, increase efficiency, optimize herbicide and pesticide, etc.
  - Supply Chain Management:** Software that enhances efficiency of Agribusinesses supply chain / logistics
  - Robotics, Sensors & Drones:** Drones and machines performing various farm functions more efficiently
  - Soil Management:** Bio and chemicals solutions that improve productivity and environmental benefits
  - Plant & Animal Data/Analysis:** Use data about plant composition to improve seed R&D and breeding
  - Finance & Insurance:** Solutions that improve access and quality of financial services for farmers
  - Satellite & Imagery:** Geospatial technologies that allow for extensive spatial mapping of farms/forestry

# AgTech Solutions have the potential to deliver significant benefits along the full length of the Agricultural Value Chain\*



# Going forward, IFC/WB's AgTech business plan will be built on 4 strategic pillars

Our vision for 2030 is to:

*To accelerate the adoption and expansion of technology with the aim of increasing the productivity, efficiency and resilience of the agricultural value chains and food systems in Emerging Markets*

To achieve this, IFC/WB will develop a multifaceted approach that incorporates...



## (1) Enhancing Agricultural Productivity

- A. Build Robust Ecosystems that foster entrepreneurship
- B. Expand availability of Productivity Solutions
- C. Support Digital Platforms and Public Goods
- D. Strengthen Strategic Partnerships with key players



## (2) Improving Supply Chain Linkages & Efficiencies

- A. Support Traceability Solutions that exploit efficiencies
- B. Increase adoption of Supply Chain Technologies in Agribusiness sector
- C. Support development of Digital Logistics Platforms
- D. Engage E-Commerce Solution providers



## (3) Expanding Access to Finance & Insurance

- A. Leverage Digital Payments to improve finance access
- B. Fund Innovative FinTech Providers
- C. Leverage Novel Approaches to Agri/Crop Insurance
- D. Develop Regulatory & Ecosystem frameworks



## (4) Improving Health, Environmental & Climate Impacts

- A. Promote Resource Efficiency Through Precision Technology
- B. Promote use of Climate Smart Practices
- C. Expand use of Healthier Biological Alternatives
- D. Boost innovations in Food Quality, Safety & Health

### Cross-cutting Themes:

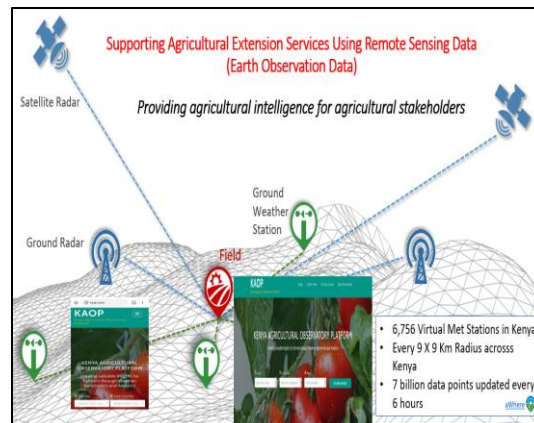
- Solutions for SHFs and BOP Producers in EMs, Gender, AgTech-focused VC funds & Accelerators, Covid-19 Impacts
  - Regulatory & Policy issues, Human & Institutional Capacity, Digital & Physical Infrastructure

# Key Data and Digital interventions

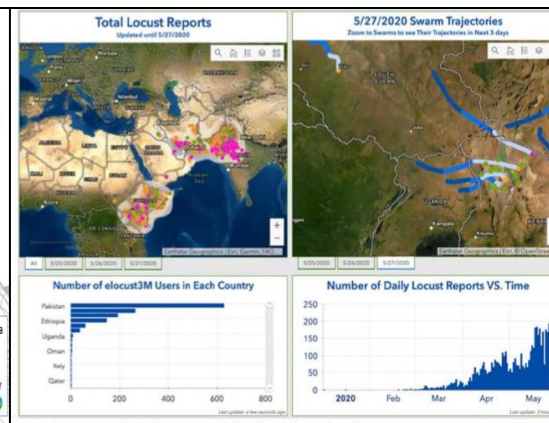
Kenya Big Data Center



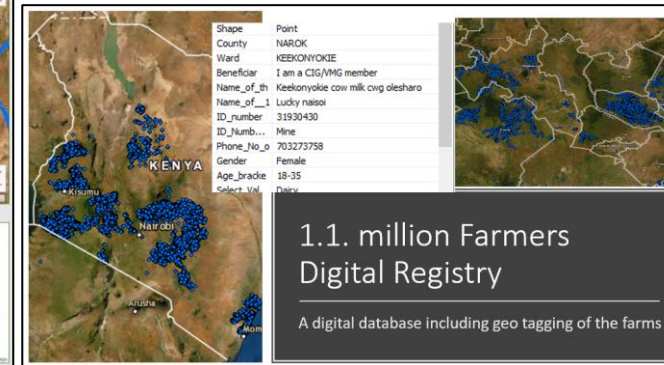
Micro Weather Observatory



Desert Locusts warning and response



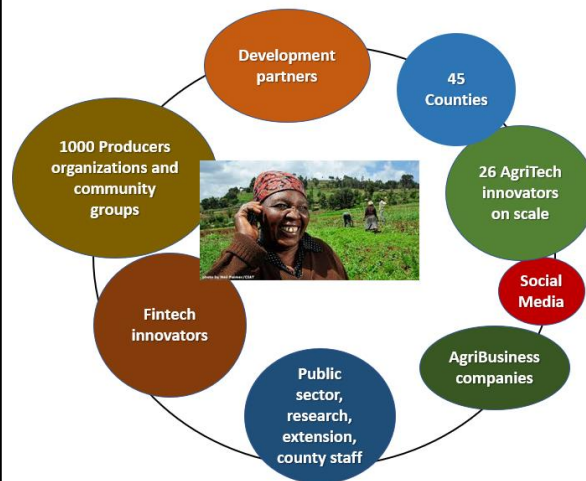
Farmers Digital Registry and Farm Geotagging



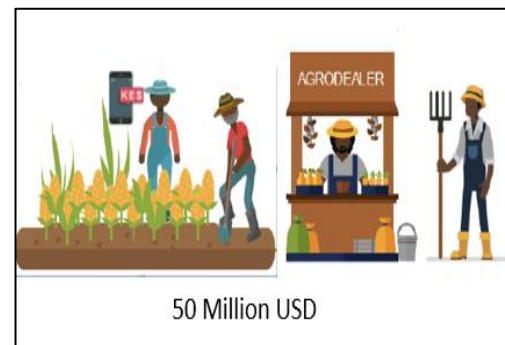
Digital Food Balance Sheet



One Million Farmers Platform



Digital e-voucher system



Digitizing Producer Organizations



# 26 AgTech start ups and innovators providing Data-driven Digital Agriculture solutions and services

One Million Farmers are expected to access digital solutions and innovations



**DigiCow:**  
Uber of Veterinary Services



**Hello Tractor:** Uberizing farm mechanization



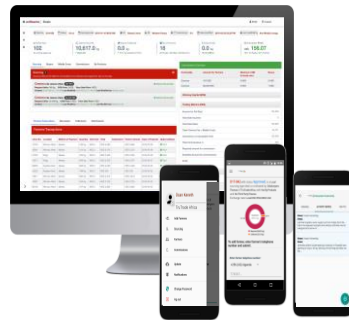
**Digital Green:** video-based extension service



**AgroCares:** IoT soil scanner



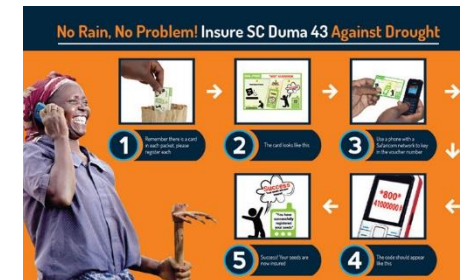
**SunCulture:**  
Solar powered irrigation



**TruTrade Africa:**  
Increasing Market access and price



**Digitally enabled supply chain finance: AgriWallet**



**Weather-index based Crop and Livestock insurance: ACRE Africa**

Sourcing Digital Solutions through Innovation Challenge

# Indian Ag-Techs are pursuing a variety of Paths to Scale

## Full-stack solutions



## Global B2B SaaS models



## Tech-enabled output supply chain solutions



## Freemium model



Note: These categorizations reflect ThinkAg's analysis of these Ag-Techs' operations





Write to us: [DDDAG@WORLDBANK.ORG](mailto:DDDAG@WORLDBANK.ORG)

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