AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE DE DÉVELOPPEMENT

Scaling of Agricultural Innovations through Commercialization

Keynote Presentation on behalf of
Dr. Martin FREGENE,
Director Agriculture & Agro-Industry AfDB at IITA-BMGF Webinar

Dr. Jonas N. CHIANU
Chief Agricultural Economist
African Development Bank, Abidjan, Cote d'Ivoire

Presentation Outline

- Background
- Agricultural innovations scaling in Africa – How occurring?
- Pre-requisites to scaling of ag. Innovations
- Policies/Incentives that drive scaling of ag. innovations
- Who plays a key role in scaling of ag. innovations in Africa
- Challenges to the scaling of ag. innovations in Africa
- Way forward and conclusion

Background…

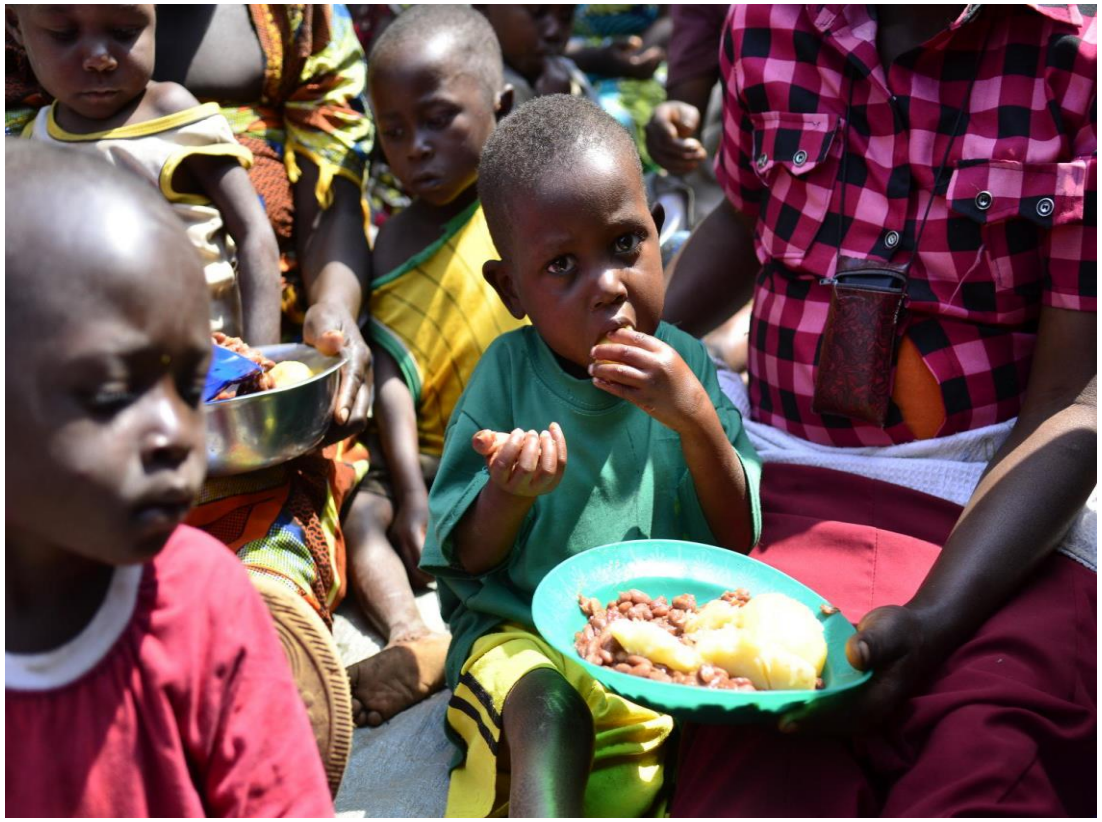
Why scaling of agricultural innovations is critical in Africa

❖If Africa will address the challenge of transforming its food and ag. systems to become more resilient, inclusive, etc.

❖ SSA is currently importing 50 billion tons of food (1 trillion tons by 2030)

❖Impact of COVID-19 on food systems SSA has been severe (Scaling will help Africa build back better)

❖ Reduce share of Africa's agriculture accounted for by smallholder farmers



Increase the share accounted for by medium-to-large-scale farmers

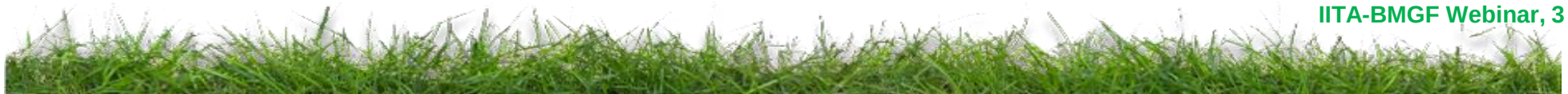
Trend urgently needed for African agriculture to satisfy the food and nutrition needs of its rapidly growing population.

Background…

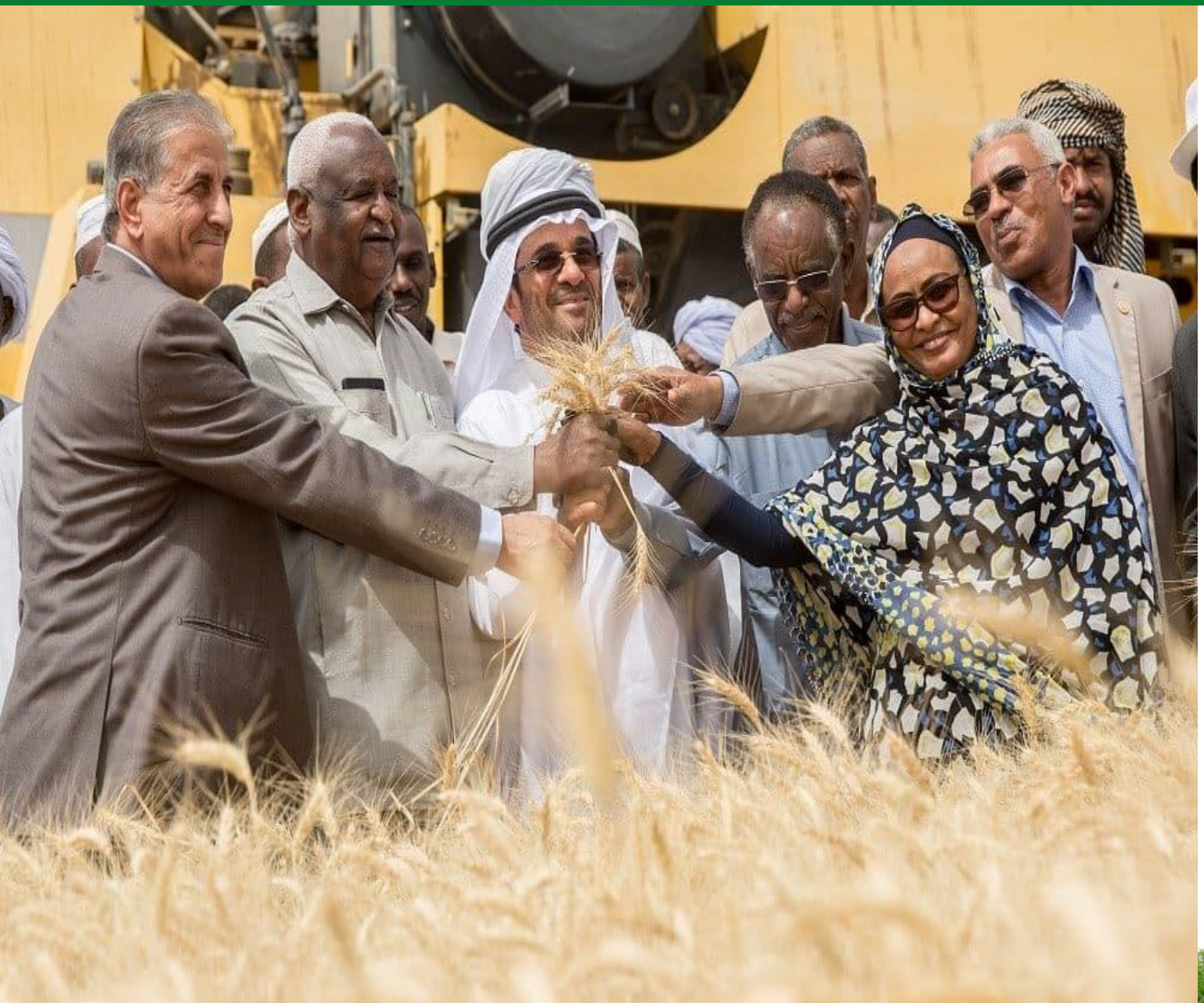
Technology and innovations reality

- Availability of many technologies and innovations in Africa
- Successful and sustainable scaling remains a challenge
- Most have not been widely adopted (Only 5% of all projects go to scale (**Larry Cooley**); most probably not designed for that
- Initial thin/informal markets seem to persist

A lack of knowledge about them
Their advantage over what was
Poor people tend to minimize risk (than maximize reward)
Scaling approach must not expose the poor to more risks



Background…



Some scaling successes

- University of Purdue PICs
- TAAT Wheat in Sudan & Ethiopia
- TAAT-S Maize and Soybean in Ghana
- TAAT Biofortified High Iron and Zinc Beans
- IITA Aflasafe
- AGRA efforts in some of its target countries
- WAAPP/EAAPP efforts

Background…

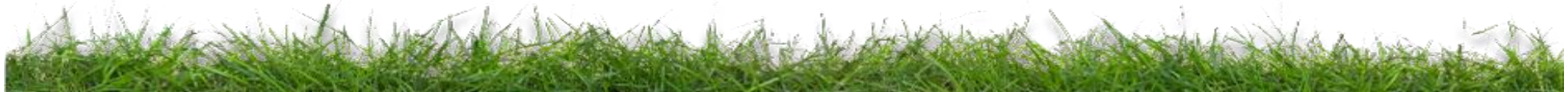
Farmers being reached in agricultural innovations scaling efforts in Africa…

By broad crop type

➔ **Cash crops farmers** more than **food crops farmers**

By size of farm operations

➔ Large & medium scale farmers more than smallholder farmers

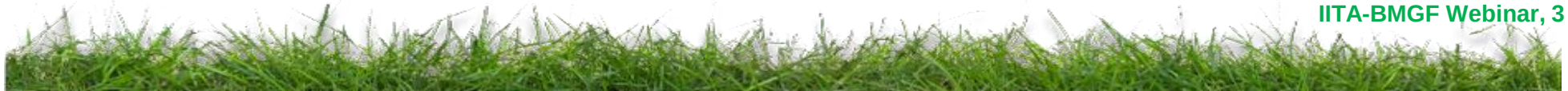


Background…

Farmers being reached in agricultural innovations scaling efforts in Africa…

- Smallholder farmers are disadvantaged in so many ways (e.g., access to finance, other inputs, and output markets); Pay higher prices for inputs and high transaction costs.

- Large-scale farmers are advantaged: access to good roads and markets; understand agricultural innovations better and faster, explains their higher rate of adoption (AATF).

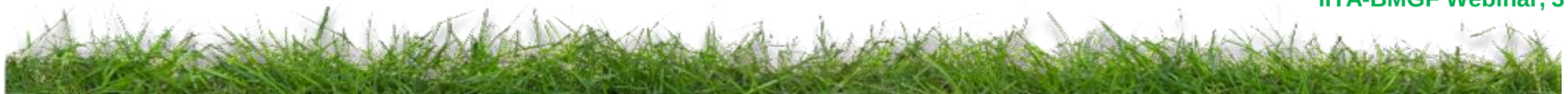


Agricultural innovations scaling in Africa – How occurring?...

- **Lingering**: lack of the critical factors stall the reach; many innovations remain on the shelf

- This **has remained the case in many African countries** especially those experiencing **fragile situations**.

- The **extent of progress** and the **speed** depend on **coordination/effective partnerships**, **resourcing**, **promotional efforts**, **effective demand**, **enabling environment in place**, other **supportive infrastructure** required to bolster commercialization.



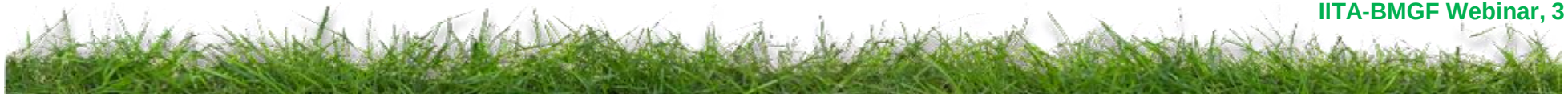
Agricultural innovations scaling in Africa – How is it occurring?...

- Projects & case studies
- Formal & Informal extension
- Not-for-profit organizations
- Private sector (of recent)
- Farmer-to-farmer diffusion
- Community-based organizations
- NGOs

- **Through commercialization** (financial gain as the driver) **is the goal**. Will lead to adequate innovation supply to the demand. Food imports will reduce. Food and nutrition security will improve.

- However, **there is no such thing yet as a purely "commercial" pathway to scale**.

➔ Moving forward, attention and focus must be given to the **private sector**; Critical for coverage for desired impact (on food/nutrition security)



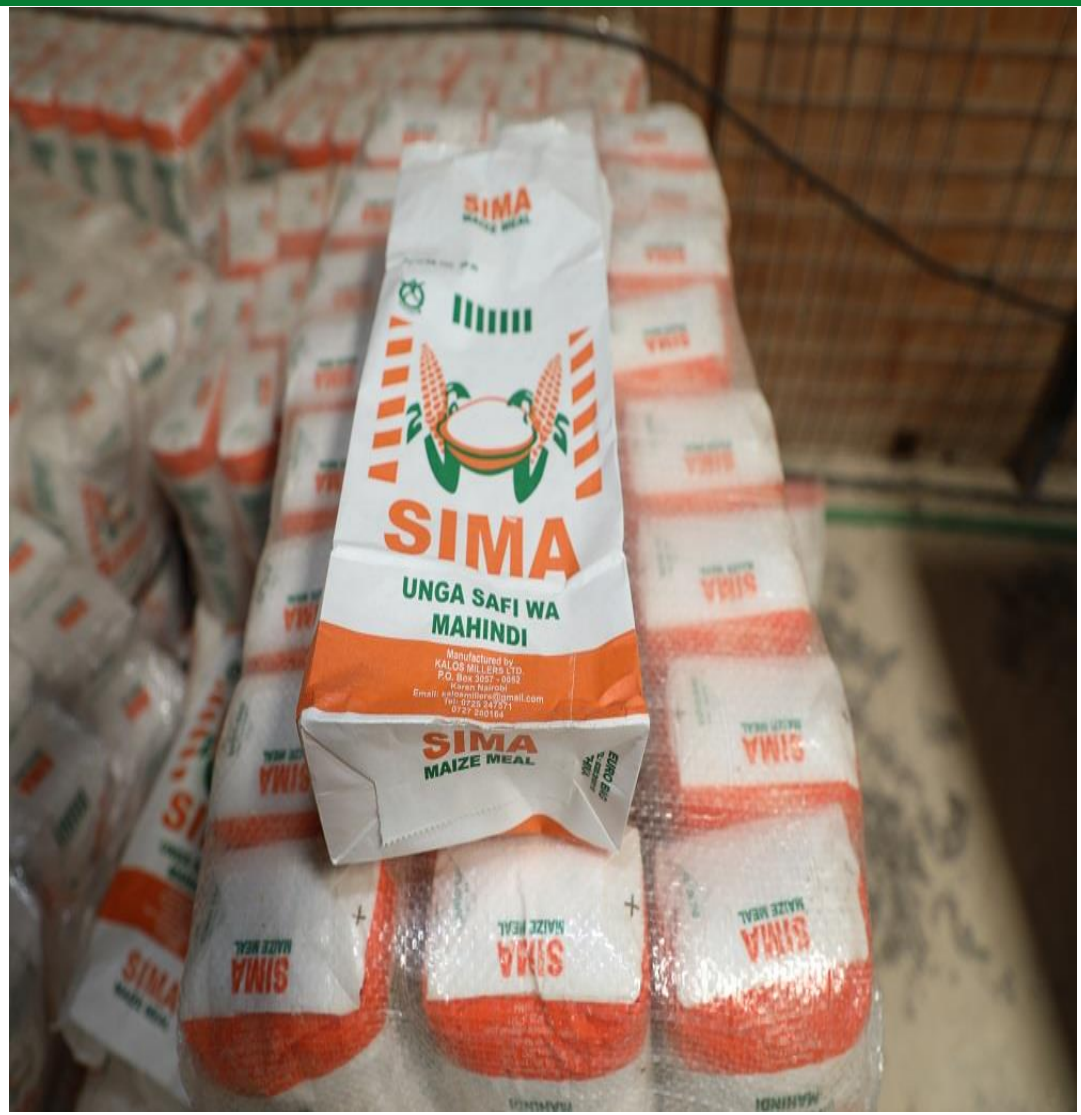
Agricultural innovations scaling in Africa – How occurring?...

- **Experience from AATF** shows that **once innovations are licensed to the private sector**, **they begin the journey** that will eventually culminates in widespread commercialization

- The pace of progress depends on factors: size, capacity, and resource endowments of the firms

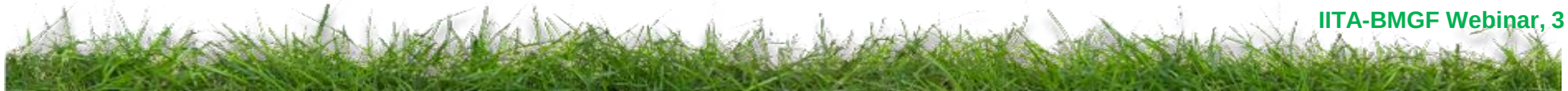
- In Africa, most agric. SMEs who license products have **limited resources** for wide promotion, product multiplication and distribution.

- **Leads to limited scaling** and **overall impact**



Pre-requisites to scaling of agricultural innovations…

- **System-wide changes** in agricultural landscape
- **The government**: supportive policies, regulatory frameworks, and institutions; critical in helping to make scaling activities less risky and more profitable, paving the way for the private sector to come in
- **Private sector** (including SMEs) participation; plays a critical role in scaling technologies
- **Public and private** efforts must be better integrated for effective scaling as both sectors are is crucial. Public sector, especially in pre-competitive space to lower the risk of investment



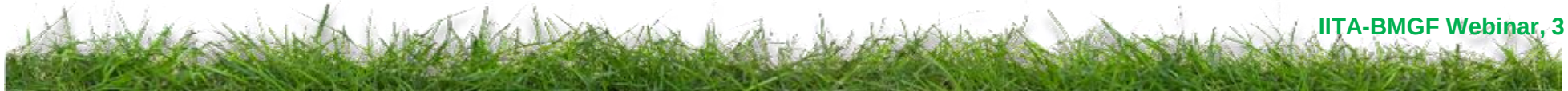
Pre-requisites to scaling of agricultural innovations…

- **Intermediary organizations** that work with agricultural stakeholders, coordinating along the value chains, dealing with the chokepoints that forestall scaling. Help ensure that the marginalized have a voice

- **Agriculture dev't infrastructure** & their supportive networks. Helps reduce transaction cost & improve marketing efficiency

- Appropriate **incentives** (incl. smart **subsidies** well guided to have only the intended benefits) to elicit the interest of the private sector

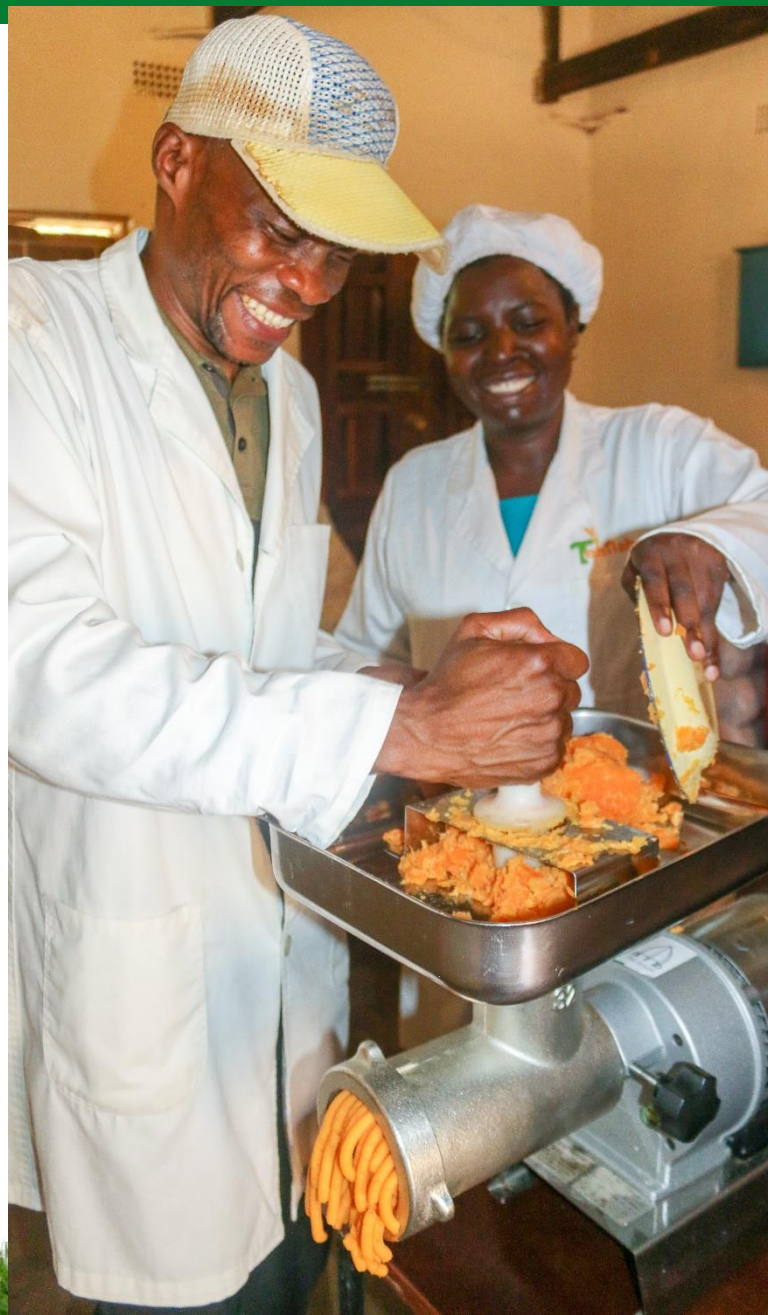
- **Functional active agricultural extension** and knowledge-sharing of GAPs & good farmer advisory services, esp. through effective demonstrations.



Pre-requisites to scaling of agricultural innovations…

- **Catalytic finance** targeted at scaling of innovations is an important lever
- Viable **market-based systems** to expand demand for innovations
- **TA** to help catalyze change related to scaling of agricultural innovations
- **Coordination** as encapsulated in one of the four fundamental guiding principles of TAAT (***technology matters***; ***scale matters***; ***policy & regulatory environment matters***; and ***partnerships matter***).

➔ Scaling of innovations involves factors that go far beyond one actor's sphere of influence



Pre-requisites to scaling of agricultural innovations…

❖ Existence of **beneficial platforms** (e.g., IPs) where different public and private stakeholders come together discuss/agree on mutually-beneficial services

❖ **A strategic, not ad-hoc approach to scaling**; need for effective strategies for scaling last mile interventions. Will help to sustain and widen the **recent and ongoing attention to scaling** in agriculture.

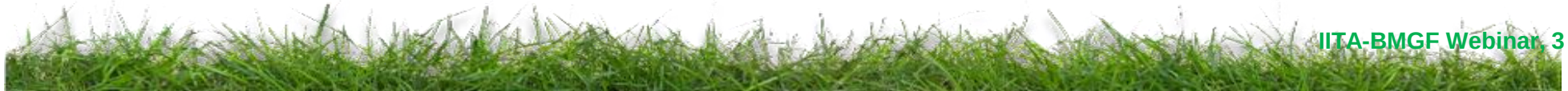
- **Is about concrete plan/business case for sustainable scaling**

➔ All the above are summarized in what Gerald Shively (Purdue University) described as **"scaling up triangle"** consisting of the:

i) Power of science & technology

ii) Strong and sustained political will

iii) A favorable policy environment



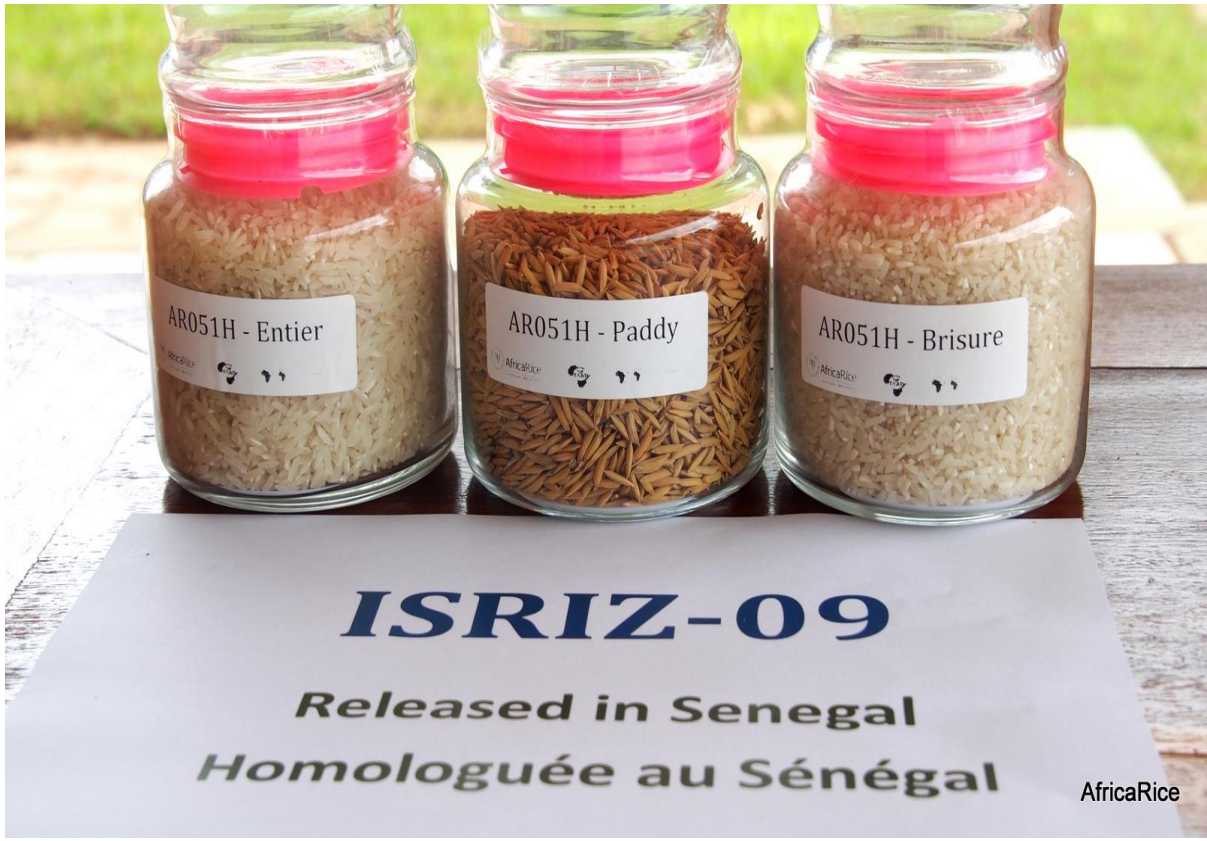
Policies that help drive scaling of ag. innovations (AATF)…

- That **address bureaucratic requirements & permit commercialization**
- That **allow businesses to charge viable and sustainable prices for products**, devoid of the exploitation of the buyers
- That **allow relevant agricultural innovations to be moved across national and regional borders** with minimum tariff and non-tariff barriers as well as other taxes

Policies that help drive scaling of ag. innovations (AATF)…

- Harmonized regional frameworks which **allow free movement of good across borders** (within regional blocks and bilaterally).

- **Predictable** policies and regulatory environments **with appropriate incentives** to enable the participation and growth of the private sector.



Incentives that drive scaling of agricultural innovations in Africa(AATF)

Internal (innovation related)

- Provision of **real and tangible solutions** to known challenges
- **Scalability/easy to replicate or multiple** - will ensure that the expected huge demand/market for the innovation is met
- **Cost-effectiveness -** will ensure value for money
- **Profitability -** will arouse/keep the interest of the different stakeholders

External (outside the innovation itself)

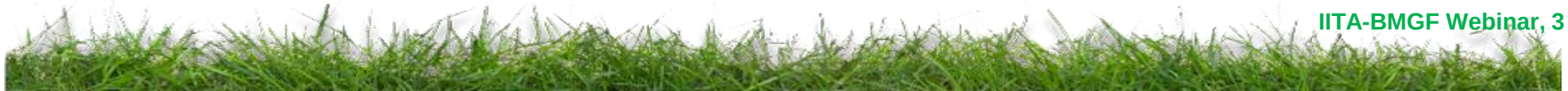
- **Access to different factors of production** land, labor, management, capital
- Some **targeted and well-intended subsidies**

Who should play critical roles?...

- ***Partnerships and collaborations*** (including among SMEs) are critical, esp. when properly/strategically constructed to address important gaps

- ***Intermediary platforms*** (e.g., IP) can play an important role in linking projects to key players, partnerships, and financing. Can facilitate learning/adaptive management critical for achieving broader systemic change and successful scaling of innovations.
  - **Participants in an IP hold each other accountable**

- ***Public-Private Partnerships*** (PPPs) can also be used to bridge the gap between the public and private sectors. However, effective PPPs require an appropriate policy framework



Who should play critical roles?...

Key advocates of scaling of ag. innovations in Africa

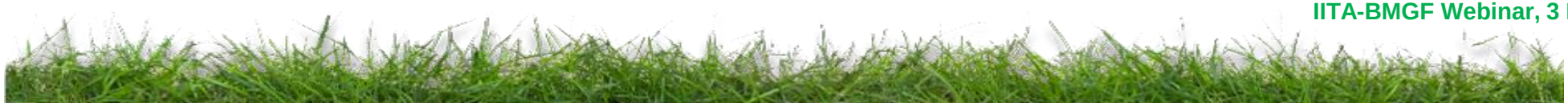
- AfDB
- AATF
- The World Bank
- AGRA
- Grow Africa
- Purdue University
- Etc.

Key challenges that prevent many ag. technologies and innovations from going to scale in Africa

❖ Complete **absence or inadequacy of the pre-requisites** indicated in earlier slides

❖ Extensively discussed earlier during the:

- **Purdue Conference** in September 2018
- **World Food Prize** at de Moines 2018
- **Soft launch of the Scale-Up Sourcebook** in Washington DC, Feb. 2019
- **Formal launching of the Scale-Up Sourcebook** at AGRF 2019
- **AGRF 2020** with the focus being **moving into action on scaling**

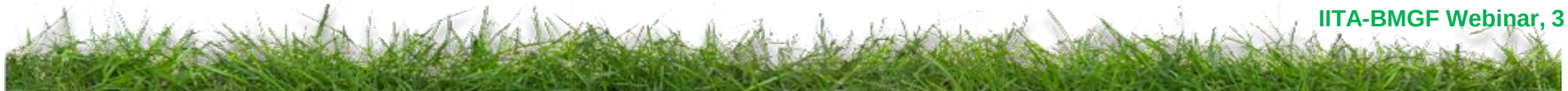


Way forward and conclusion…

- The already **well-known barriers** to wide-scale agricultural innovations scaling **must be systematically removed** to pave way for significant adopt and creation of impact at scale. This is important for moving into action on scaling.

- **Progress** being made **must be tracked** based on clear key scaling performance indicators.

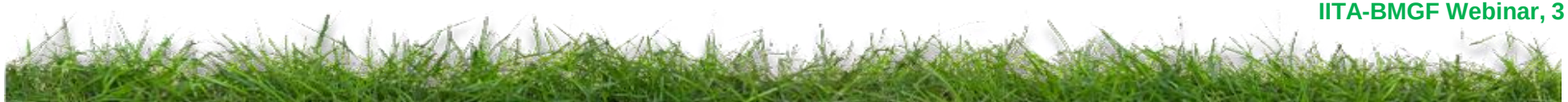
- **Challenges faced by intermediary organizations** (e.g., funding) **must be addressed**, given their importance agricultural innovations scaling role for sustainability.

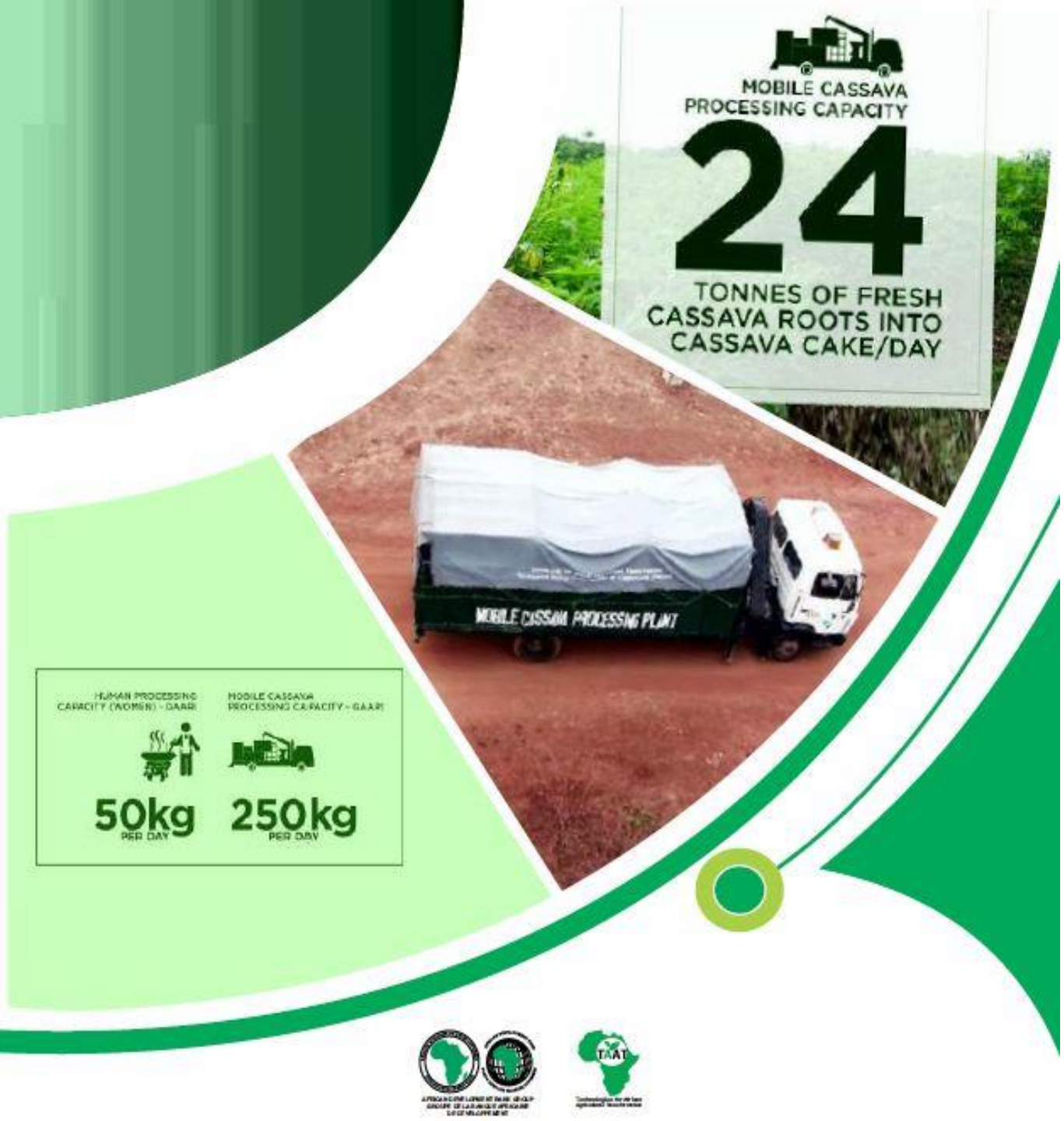


Way forward and conclusion

- The **cooperation, collaboration and sharing of responsibilities** required to usher in sustainable scaling of agricultural innovations **must begin to concretely happen now** (the approach in TAAT through the RTDI). Meetings alone cannot do this.

- **Avoid the temptation of scaling prematurely** when all important elements that will increase the chances of success are not in place (often compounded during crises and shocks such as the COVID-19 pandemic).





Thank you very much for listening