



Long-term EU-AU Research and Innovation Partnership for Food and Nutrition Security and Sustainable Agriculture

# Dialogue for Action and Brokerage in West Africa: Fostering Knowledge, Communication & Innovation Hubs

Virtual Workshop | 28 - 29 October 2020





# NG'WALA INVENTIONS



EDMOND NG'WALAGO

## DIGITAL FARM INPUT PRODUCTION AND SUPPLY TECHNOLOGY



1: Innovation and digitalization in agriculture: Paving the way for entrepreneurs, AgriTech and FoodTech start-ups

3: Agroecological transitions of food systems: new ideas to link together the health of agroecosystems, animals and humans





## 2 - CRITICAL FACTORS FOR DEVELOPMENT SUCCESS / LIMITING FACTORS.

- Agro-Input skills, knowledge and passion of our team has led us to save 150,000 small holder farmers from East Africa improving their yields and income from using our digital service and product (Bio-fertilizer and Bio-pesticides).
- As a start up who need to reach 42 Millions small holder farmers from Sub Saharan Africa supplying them with bio-pesticides and bio-fertilizer using our digital innovations we need collaboration and assistance in these areas;-
- Technology: Our digital technology that we have innovated of using public digital tanks connected with prepaid meters still need development to overcome the current challenges occur during operation.
- Skills: We need more skills in agro-Input human centered design, Agro-Input business model development and Agro- input data engineering.
- Finance: After supported technological and skillfully we need fund to expand our business reaching 42 Millions small holder farmers from Sub-Saharan Africa by the year by 2023.





### 3 - MOST PRESSING THEMATIC PRIORITY CONCERNING THIS TOPIC.

- Agro-Input digitalization is a catalyst towards high yields and income especially when comes to small holder farmers who contributes to up to 80% of the world food.
- Ng'wala Inventions has come up with the technology that involves the use of community shared digital tanks connected with prepaid meters allows small holder farmers to access organic pesticides in their premises even if they have little amount of money while conserving the environment and health.
- **Why shift from manual delivery to digital**
  - Deliver bio-pesticide and bio-fertilizer to small holder farmers within their premises
  - Farmers can access our bio-pesticides and bio-fertilizer at any quantity they want even if they have little amount of money
  - Environment friendly, we don't use packages which are sources of pollution
  - No repacking therefore, ignores cheating of selling expired bio-pesticides and fertilizer done by Agro dealers
  - Ignores favoritism and corruption that are done by Agro dealers in distributing farm inputs
  - Encourage government subsidies as the system ensures direct benefit to small holder farmers
  - Efficiency data for decision making by the Government and other stakeholders





## 4 - KEY ACTORS, IMPORTANT PLAYERS

- Small holder farmers: these are the most key players as they contribute to 80% of the world food so anything that we think in agriculture should be in direct use of the technology.
- Non Government Organizations: these are non profit organizations to rift farmers from poor standard of living by supporting them with modern technology, training , knowledge and markert. Eg Southern Growth Corridor Agricultural Corridor.
- Government Agencies such as National Environment Management Council of Tanzania which are responsible for environment conservation law enforcement.
- Research Institute: these are very important in ensuring efficient and effective improvement of digitalization
- Climate change stakeholders such as Tanzania Meteorological Authority responsible for weather forecasting and give alert to small holder farmers on real situation that may affect farming.





## 5 - CONDITIONS FOR ENHANCING ACTORS' COOPERATION (CRITICAL FACTORS, ENABLING ENVIRONMENT AND INTERFACES TO ENSURE COLLABORATION)

- Sustainability; We are the producer of organic pesticides and fertilizer that helps small holder farmers increase yields and income without affecting their environment.
- Contribution to world food; Small holder farmers contributes to 80% of the world therefore, working with them as we do its one kind of contributing to the world food fighting hunger and food insecurity.
- Clean environment; We currently solving social problems of low crop productivity and low income to small holder farmers while conserving the environment for future generations.
- Scaling; No high yields and income if agro-put system is poor. Poor systems of Agro-Input means high level of hunger and Malnutrition and solving it requires to improve Agro-Input Systems.
- Employment: We provide both employment unofficial such as organic wastes collectors, sorters, transporters, industrial workers and official jobs such as machine operators, informational technologists, agriculture/agribusiness experts, administrators, operators,





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# THANK YOU

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