



BASICS PROGRAM: Seed Quality *NASC, NRCRI, IITA & FSL*



**Research
Program on
Roots, Tubers
and Bananas**

**Ibadan
18 April 2016**



The largest and longest serving provider of agri-food research, services and regulatory advice in the UK

With a track record for working in Africa, and globally in pest risk and diagnostics

Seed Quality Overview: Vision



Potential for commercialisation of Pre-basic, Basic and Commercial cassava seed enhanced through provision by NASC of efficient, cost effective seed certification and cultivar recommended listing services

....the state of being for this component after the conclusion of a successful program.

Overview: Theory of change

- Enhancing capacity at NASC through:
 - Revising standards for Pre-basic, Basic and Commercial that is with **deference to prevailing** farm prevalence of pests and other risk factors including cultivar virus carrying capacity and renewal rates of vegetative planting material
 - Establishing a **simplified single-platform technology** for identification of priority pests
 - Demonstrating viability of NASC-approval of Commercial seed standard by decentralised 3rd party service providers
 - **Data capture** of cultivar performance for recommended listing as commercially available cultivars

...the key drivers which when set in motion will solve this components' major problems and unleash its' major opportunities.

Key Results (Outcomes)

- Operational status of NASC enhanced through evolved systems, human capacity and infrastructure capability, in delivery of seed certification and cultivar recommended listing services to Pre-basic, Basic and Commercial seed sectors
- Certification standards for Pre-basic, Basic and Commercial seed drafted, validated and tabled for uplifting as policy
- Farmer-preferred and researcher-released cultivars placed on Recommended Listing of Cassava Cultivars

...referring to your results framework and any new thinking, over the course of four years what are the key results (highest priority) for this component?

Key Results: Lead Indicators



- Setting of Road Map for NASC/meeting KPIs
- Staff mobility with partners (social capital through Twinning)
- Molecular platform operation for identification of known pests
- Revised Pre-basic, Basic and Commercial seed certification standards based on evidence of CMV risk vs pass-rates required to motivate a seed system
- Commercial seed certification decentralized amongst community service providers (project partners), with oversight by NASC
- Numbers of Pre-basic, Basic and Commercial seed fields certified by new standards
- Costs of services quantified and embedded in cost of seed

...referring to your results framework and any new thinking, what are the most critical indicators to monitor the success of this component?

Key results – threats & opportunities



Risks

- The interdependency with the other partners:
 - Cooperation and availability of project partners for 3rd party certification and field sampling
 - Access to project fields for sampling
 - Competing interests from other duties required of NASC staff

Opportunities

- For NASC to meet with seed certification providers in Tanzania, Uganda and Kenya etc, building on similar BMGF projects
- New technologies for pest detection and for field data capture
- An enduring legacy for the project in Nigeria and that may be mirrored elsewhere

...what are the biggest threats, challenges and opportunities to achieving the key results?

2016 Work Plan: Milestones

- Road Map for NASC
 - Agreeing expectations, shared wins and risks
 - Timetabling activities and interdependencies with partners
 - Defining KPIs that internalize learning with NASC
- Workshop on Basic and Pre-basic standards
- Staff mobility e.g. NASC, NRCRI
 - NRCRI to FSL (CMV diagnostic development)
 - NASC to Fera and East Africa (Tz, Ug, Ke)
- Data on pest prevalence of project and farmer fields
- Design of molecular platform, CMV LAMP developed
- Material for planting commercial vs farmer trials available for year 2 trials

...what are the key milestones for 2016?

2016 Milestone - Interdependencies

- The quality component stands or falls by having access to the fields of the other partners and the cooperation of these partners to take on specific tasks of sampling, data recording and certification.

...which 2016 milestones are dependent on an input or service from another partner? Briefly explain.

2016 Milestones

- Getting to know you, knowing what each are doing, building towards shared activities
- Reliance on the quick start and success of other components

...what are the most significant challenges in achieving 2016 milestones?

Conclusion

- Year 1 presents the highest hurdles for the Seed Quality Component, in terms of new learning, new behaviours, new technology and new partnerships.
- We need to be meeting very soon (May) to establish the NASC Road Map for cassava seed certification from which we expect great things.

...acknowledgement, words of encouragement, or photo.

Unique skills of Component Lead(s)



Fera Science Ltd (FSL)

- Attributing pest diagnostics (visual symptoms & laboratory test) to a probability of:
 - pest being present i.e. positive identification
 - pest prevalence at a field level i.e. % prevalence amongst plants
- Pest risk and statistical setting of certification threshold standards that optimize market opportunity
- Molecular diagnostics for known crop pests
- Worked extensively in Africa and globally
 - Potato, cassava, banana, maize, coconuts, roses
 - *Ralstonia*, *X. vasicola* pv. *musacearum*, CBSVs (GLCI), Maize Lethal Necrosis Disease

...what special knowledge, capacity, or comparative advantage does the component lead (or leads) bring to this component?

Q &A – 10 minutes

10 minutes will be reserved for questions and comments on component overview, key results, and work plan. Q&A focus should be on year 1 milestones / related activities.

Session note taker will record main comments / questions, specific points for follow up, and any unresolved parking lost issues flagged for follow up discussion.