



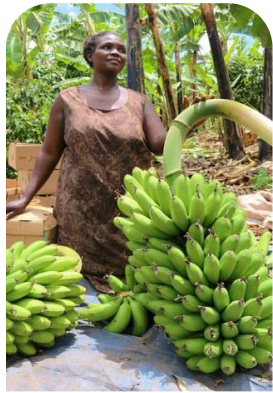
# Tools4SeedSystems: building a better seed future - together

JORGE ANDRADE-PIEDRA

Alliance



# Roots, tubers and bananas program



**Banana  
Plantain**



**Cassava**



**Potato**



**Sweetpotato**



**Yam**



**Other R&T**

Working globally to harness untapped potential of RTB crops to improve:

Food security, nutrition, income, climate change resilience and gender equity of smallholders.

## Common challenges and opportunities

- Genetic complexity (> grains)
- Vegetative propagation, similar seed systems
- Perishability, bulkiness and post harvest/value chain options



# Seed systems: Knowledge gaps hold back progress

Perspective

*Outlook*  
**AGRICULTURE**

Outlook on Agriculture  
1-8  
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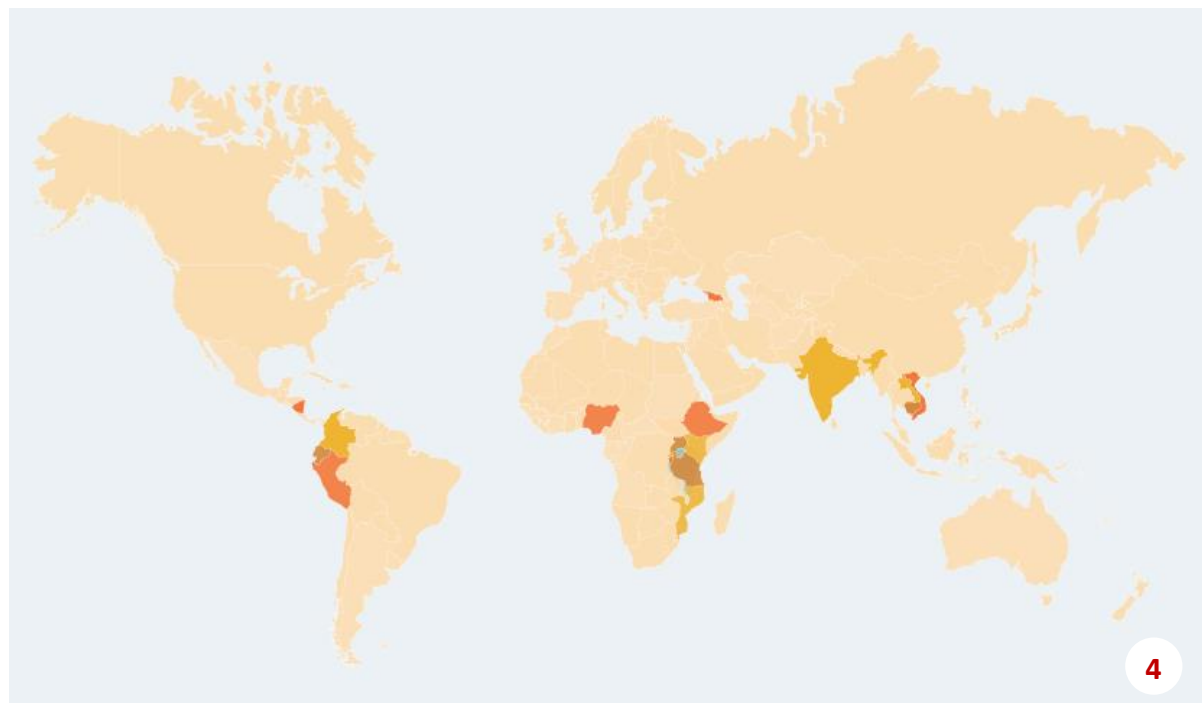
**“Breaking through the 40% adoption ceiling: Mind the seed system gaps.”  
A perspective on seed systems research for development in One CGIAR**

Margaret A McEwan<sup>1,2,3</sup>, Conny JM Almekinders<sup>2,3</sup>,  
Jorge JL Andrade-Piedra<sup>2,4</sup>, Erik Delaquis<sup>2,5</sup>,  
Karen A Garrett<sup>2,6</sup>, Lava Kumar<sup>2,7</sup>, Sarah Mayanja<sup>2,8</sup>,  
Bonaventure A Omondi<sup>2,9</sup>, Srinivasulu Rajendran<sup>1,2</sup>  
and Graham Thiele<sup>2</sup>

## 4 major gaps

- Identifying effective seed delivery pathways
- Ensuring seed health and stopping the spread of disease
- Capturing the demand characteristics of different types of farmers
- Effective policies & regulation

17 countries  
50+ researchers



# The Tool Box

<https://tools4seedsystems.org/>



Replicable,  
open-source,  
and backed by science.

- ✓ Description sheet
- ✓ User guide
- ✓ Case study
- ✓ Tool validation
- ✓ Peer-reviewed publication
- ✓ Technical support available

# Strategies for deployment of disease resistant, clean seed material to combat a viral disease in southeast Asia

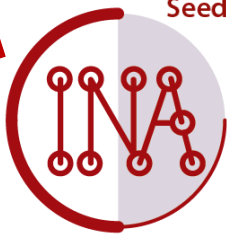
Gap:



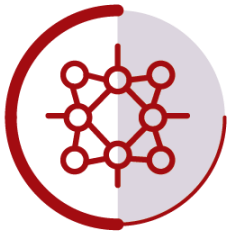
Tools:



Seed Tracker



Impact network analysis (INA)



Seed tracing



Photo credit: CIAT



# Effective seed distribution pathways for sweetpotato in Uganda



Photo credit: Paul Rachkara

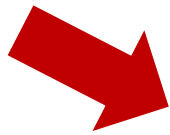
Gap:

Strategies for seed health management

Tools:



Seed Tracker



Impact network analysis (INA)



Integrated seed health approaches and models

Designing a new potato seed system in the Republic of Georgia to protect seed health



Photo: R. Mdivani

Clean seed replacement strategies for sweetpotato in Tanzania



Photos: K. Ogero

# Major donors



Australian Government  
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