

# Scaling Readiness

## Accelerating the Scaling of RTB Innovations

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This is the third of the series of newsletters that will capture our efforts to develop an approach that will assess and accelerate the scaling of innovations in the CGIAR Research Program on Roots, Tubers and Bananas (RTB). This newsletter aims at introducing and giving visibility to the four case studies that are helping the Scaling Readiness team in developing and testing the tools and methods. In return, these projects are supported by the Scaling Readiness team to develop, implement and monitor strategies to support the scaling of innovations.

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### Four case studies that are piloting the scaling readiness approach

The 4 case studies include:

- Scaling best cassava agronomy practices in Tanzania and Nigeria (led by IITA);
- Scaling BXW-control in DR Congo and Uganda (led by Bioversity International);
- Developing a National policy for a sustainable and resilient cassava sector in Cambodia (led by CIAT);
- Decision support for potato late blight management in Ecuador (led by CIP).

The cases cover different geographies (Latin America, Africa, Asia), different RTB crops (cassava, banana, potato) and different types of innovations (technical, market, policy). This was purposefully done so that the cases can serve to:

- Validate the scaling readiness conceptual and analytical framework;
- Assess the RTB innovations for their scaling readiness;
- Provide decision-support to the case studies in developing action plans that will accelerate the scaling readiness;
- Support and monitor the implementation and impact of action plans in selected cases;
- Provide a basis for generalization of findings that also can serve other projects in the RTB portfolio.

FOR FURTHER INFORMATION

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RESEARCHGATE

[Enhancing Scaling  
Readiness of RTB  
Innovations](#)



## IITA CASE

# Africa Cassava Agronomy Initiative

### Country

Nigeria and Tanzania.  
The project will expand activities into Uganda, Ghana and DR Congo in 2019.

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### Partners

#### NARS partners

NRCRI, FUNAAB and ARI;

#### Advanced research organizations

WUR, KULeuven, UF, ETH, AfSIS, ICRAF, CIAT, CABI-ASHC

#### Development partners

MEDA, CAVA-II, FCI, FJS, SG2000, OYSCGA, Psaltry, 2Scale, NOTORE, Minjingu Mines and Fertilizer Ltd.

### Website

[www.acai-project.org](http://www.acai-project.org) (under development)

[www.cassavamatters.org](http://www.cassavamatters.org) (shared website with the Cassava Weed Management Project)

### Most important innovations

- Decision Support Tools to provide site-specific recommendations on cassava agronomy technologies requested by project development partners to scale up and use in their activities
- Agronomy at scale research approaches, combining ICT for data collection, storage and analysis; GIS-assisted sampling and geospatial statistics, and crop modelling to develop decision support systems

### Problems encountered

Problems are defined by project partners and involve issues related to different aspects of the cassava value chain, namely (i) nutrient management, particularly development of appropriate blends and site-specific fertilizer recommendations, (ii) cultivation practices, mainly optimal land preparation and planting practices, intercropping and weed management, and (iii) output markets, specifically scheduled planting and agronomy interventions to sustain year-round supply of roots with high starch content to processing factories.

### End users

End users are extension agents within the primary partner dissemination networks; final beneficiaries are smallholder cassava growers in target areas in Tanzania and Nigeria.

### Anticipated next users

Secondary partner organizations operating within the cassava value chain in Nigeria and Tanzania, engaged through 'Cassava Clusters', extending the use of the decision support tools across the cassava-growing area in both countries, as well as scaling out to other countries.

### Scaling locations

The humid and sub-humid areas in Nigeria (Southeast and Southwest Nigeria) and Tanzania (Coastal regions: Pwani, Lindi and Mtwara; Lake region: Kagera, Mwanza and Mara; Zanzibar)

### Scaling strategies

The scaling strategy involves various activities as part of a workstream within the project, aiming to scale up the use of the decision support systems. These include (i) grassroots events, (ii)

farmer-friendly videos and fact-sheets, (iii) training of extension agents and facilitation of the use of the DSTs, (iv) awareness campaigns and (v) Cassava Cluster knowledge campaigns.

### Value of the Scaling Readiness approach to the project

These are two-fold: (i) provide a framework to assess how ready a technology is for scaling, and assist in prioritizing efforts to speed up the development, and (ii) provide tools, knowledge and expert opinions to identify and anticipate bottlenecks in the 'environment' in which the technologies will be scaled, and assist in prioritizing efforts to address these and reach the scaling goals.

### How can the CGIAR enhance scaling of innovations?

A change in mindset is needed. The entry-point for research investments should change from technology-driven research to needs-driven research for development, operating within the context of the target users and beneficiaries. A solid framework is needed to provide an understanding of the 'environment' in which innovations should 'fit' and how likely a technology can be made 'ready' to maximize the potential for uptake and adoption.

*ACAI is aiming at a sustainable and effective transfer of appropriate cassava agronomy recommendations to thousands of smallholder cassava growers in sub Saharan Africa.*





## BIOVERSITY CASE

# Broadening the scaling of BXW management in East and Central Africa

### Country

Uganda, DR Congo, Burundi

### Project contact

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### Partners

Bioversity International, International Institute of Tropical Agriculture (IITA), Catholic Relief Services (CRS), World Vision International (WVI), Provincial Department for Agriculture and Livestock (DPAE, Burundi), South Kivu Provincial Inspection for Agriculture, Fisheries and Livestock (IP-APEL, DR Congo), National Agricultural Research Organization (NARO, Uganda).

### Website

[RTB Website Blog on SDSR](#)  
[RTB Poster on BXW control using SDSR](#)  
[www.cialca.org](http://www.cialca.org)

### Most important innovations

- SDSR is a simple, labour-extensive management approach for BXW that can reduce disease levels from 80% to less than 2% in 6 months.
- SDSR is adaptable to farmer needs. The role banana plays in farmer livelihoods varies; farmers can often select an appropriate management regime.

### Problems encountered

The current management technology is labour intensive and many farmers refused to adopt it. It also relies on collective action – where all farmers with BXW need to apply simultaneously. This is very difficult to achieve. SDSR promotes effective control of BXW (rather than eradication) and it allows management by individual households, ensuring impact where collective action is difficult to mobilize.

### End users

Farmers, farmers organisations

### Anticipated next users

(I)NGOs, Local development organisations, DPAE, IPAPEL, NARO, Public agricultural extension institutions, Media (particularly radio)

### Scaling locations

Northern Uganda, South Kivu Province of DR Congo, Muyinga Provincem of Burundi

### Scaling strategies

or DR Congo and Uganda, the scaling strategy is developed and owned by multistakeholder partnerships for BXW management. These platforms were established under 'results based management' initiatives supported by RTB. In Muyinga, Burundi, scaling is implemented via contracted partnerships within an existing development programme funded by USAID. Scaling

strategies are embedded in national and local institutions, and will be supported by capacity development and reflexive monitoring and evaluation. Technology scaling is a complex challenge - by adopting an 'action research' approach to learning, scaling strategies are intended to be flexible, agile and responsive.

### Value of the Scaling Readiness approach to the project

Scaling readiness will help us to pinpoint and address specific weaknesses in SDR technology to improve scaling potential. It will also allow an insight into which stakeholder groups may require additional capacity investments to support successful scaling.

### How can the CGIAR enhance scaling of innovations?

Agricultural research 'in' development would benefit from action research approaches and transdisciplinary partnerships. This would help to 'embed' scaling within the development of solutions to agricultural problems.

See: [www.rtb.cgiar.org/blog/2014/11/23](http://www.rtb.cgiar.org/blog/2014/11/23)

*Left of the path, healthy bananas of an SDR-practicing farmer who learned about SDR from a friend.*  
*Right of the path: an absentee farmer whose bananas are heavily attacked by BXW.*  
Photo: B. van Schagen, Kabamba, South Kivu, DR Congo.



## CIAT CASE

# Developing a National policy for a sustainable and resilient cassava sector in Cambodia

### Country

Cambodia

### Project contact

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### Partners

UNDP; CIAT; FAO; IFC are the main coordinating partners. National government agencies - MAFF, MIC, Provincial Department of Agricultural and Forestry, NGOs, development agencies, private sector, and farmer groups will be engaged in the development of the policy document.

### Most important innovations

- The overarching goal of the project is to promote the adoption of sustainable production systems that generate a range of productivity, socio-economic and environmental benefits to producers and to society at large.
- Promotion the adoption of profitable and robust soil fertility management practices and improved varieties suited to a range of agro-ecosystems.
- Promote the application of measures to control pests and diseases through measures such as surveillance and the development of seed systems to enhance the availability of clean planting material for infected areas.

### Problems encountered

The cassava sector policy aims to provide a platform to leverage and coordinate national efforts and existing initiatives to address the key priorities in the area of: improving productivity while conserving the natural resource base; in up-grading value chains; and in converting market access into market presence.

### End users

The final users or beneficiaries of the policy are: smallholder farmers; domestic traders and processors; exporters.

### Anticipated next users

The policy seeks to support national government ministries and departments, local extension agencies, development programs, researchers, and donors.

### Scaling locations

National scale

### Scaling strategies

The initiative is part of a scaling strategy that seeks to leverage and coordinate activities in Cambodia.

## Value of the Scaling Readiness approach to the project

There are many projects and initiatives within the cassava sector in Cambodia. These are often uncoordinated and often don't address the binding constraints to adoption.

The scaling readiness project can help understand the existing network of activities and priorities amongst the different stakeholder; identify institutional constraints to adoption; and help develop a roadmap for the sector in Cambodia.

## How can the CGIAR enhance scaling of innovations?

Understand how the variations in the biophysical, market, and institutional environment the relative advantage of a technology with household livelihood strategies and the incentives for next users to engage with final users.

*Cassava farmer Kampong Cham Province (Cambodia) using appropriate fertiliser for sustainable and profitable cassava production.*





## CIP CASE

# Scaling of the Hand-Held Decision Support Tool (DST) for Late Blight Integrated Management in Ecuador

### Country

Ecuador

### Project contact

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### Partners

IFAD investment Program  
'Buen Vivir Rural', Ministry  
of Agriculture and Livestock  
(MAG) National Institute for  
Agricultural Research INIAP,  
Agricultural input providers  
(Private companies)

### Most important innovations

The 'Hand-Held Decision Support Tool (DST) for Late Blight Integrated Management' is an affordable and practical approaches to improve late blight management in low-income countries.

### Problems encountered

The overall concern that all farmers confront in late blight management is deciding when to spray and what fungicide to apply (many farmers apply more than 15 times). The DST helps farmers make better decisions about timing of fungicide sprays and selection of fungicides. Using the tool farmers can reduce fungicide costs and environmental impact without risking disease outbreak and crop loss.

### End users

Potato producers and farmer's organizations.

### Anticipated next users

Public technology transfer services at national and local levels, Agricultural input providers (Private companies)

### Scaling locations

Provinces of Tungurahua, Bolívar, Chimborazo and Carchi.

### Scaling strategies

The scaling strategy is to create a public private partnership for the commercial development and promotion of the HH-DST. The strategy includes:

1. Link technology to the institutional objectives of partners
2. Evaluate institutional readiness for adoption
3. Adaptation to local context in collaboration with partners
4. Disseminate results and raise awareness in collaboration with partners
5. Invite public and private extension services and private companies to take joined ownership, and commercial development of the DST under a license agreement with CIP



## Value of the Scaling Readiness to the project

Strengthening the design and operation of a solid scaling strategy, through a better understanding of: 1) the features of the market and institutional environment constraining or boosting the promotion and use of the technology; and 2) the non-technological innovations that are needed for scaling (commercial and institutional innovations including different partnership schemes).

## How can the CGIAR enhance scaling of innovations?

The prospect of achieving impact at scale would increase significantly depending on the extent at which CGIAR's research agenda consider working in partnership with the private and private sectors, not only involved in agriculture, but also with actors from the health and education sectors. This means moving from an agricultural innovation perspective towards a multi or cross sectorial innovation perspective

*Farmer spraying fungicides, following safety protocols and recommendations of the 'Hand-Held Decision Support Tool'.*

