

Cluster annual report - 2017

Cluster code – CA4.3 Biofortified cassava varieties for improved nutrition and livelihoods



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RTB Cluster Report

Correct citation: Smith, J.S.; White, E.S. and Fulano, F. 2017. Title of document or report. City (Country). CGIAR Research Program on Roots, Tubers and Bananas (RTB). RTB Cluster Annual Report 2017. Cluster code. Available online at: www.mel.cgiar.org

Published by the CGIAR Research Program on Roots, Tubers and Bananas

The CGIAR Research Program on Roots, Tubers and Bananas (RTB) is an alliance led by the International Potato Center implemented jointly with Bioversity International, the International Center for Tropical Agriculture (CIAT), the International Institute of Tropical Agriculture (IITA), and the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), that includes a growing number of research and development partners. RTB brings together research on its mandate crops: bananas and plantains, cassava, potato, sweetpotato, yams, and minor roots and tubers, to improve nutrition and food security and foster greater gender equity especially among some of the world's poorest and most vulnerable populations.

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ISSN 2309-6586

DOI+ISBN

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1. MAIN ACHIEVEMENTS

Sensitization and dissemination of biofortified cassava and OFSP carried out in Nigeria and, Tanzania, and initiated in Liberia and Ghana. Capacity building of farmers and processor on best agronomic practices and product development is done with NARs partners. Advocacy strategy materials and policies developed. Change agents training to carry out advocacy. Fund raised in Tanzania and Nigeria to support advocacy and dissemination of nutritious RTB crops. Gender responsive tools deployed to identify factors would drive acceptance and utilization of nutritious crop.

MAIN ACHIEVEMENTS WITH GENDER AND YOUTH RELEVANCE

Survey conducted in Benue State and Oyo State (Feb, 2017) to determine adoption rate of bio fortified cassava and identify gender-based constraints affecting farmers and processors' in selected rural communities by the IITA gender team under the GREAT project (Gender Responsive Researchers Equipped for Agricultural Transformation)

<http://www.greatagriculture.org/content/news/blog/creating-niche-acceptance-vitamin-cassava-nigeria-women-key-actors>

- Biofortified crops meeting sponsored by HPlus held in Tanzania with scientists and NARS partners to mainstream biofortification in breeding programs towards release of biofortified varieties had NARs partners from more than 10 countries Germplasm distribution to partners for inclusion in regional nursery towards release of biofortified varieties distributed to partners in Ghana, Benin, Uganda, Sierra Leone and Nigeria has been done.
- Awareness creation on biofortified cassava through media sensitization at the Grand Challenge Program during the IITA@50 program internal reports
- Emmanuel Oladeji Alamu, Bussie Maziya-Dixon, Alfred Gilbert Dixon (2017). Evaluation of proximate composition and pasting properties of high quality cassava flour (HQCF) from cassava genotypes (*Manihot esculenta* Crantz) of β -carotene-enriched roots. LWT - Food Science and Technology, 86 (2017) 501-506. <http://dx.doi.org/10.1016/j.lwt.2017.08.040>

Nutritious food Fair by HarvestPlus in November at Michael Okpara square in Enugu. This target students where competition on facts o yellow cassava and nutrition is contested, farmers, processors, policy makers and the general public. Over 3,000 participants gather and the Nollywood stars promote biofortified products with film shows and sensitization materials like fliers Report in HarvestPlus 2017 annual report

MAIN ACHIEVEMENTS WITH CAPACITY DEVELOPMENT RELEVANCE

In 2017, IITA organized the Ago-Owu Farmers field day organized to create awareness to farmers in Osun State and share knowledge on biofortified cassava varieties, cultivation, weed management, agronomy and the use of improved seeds with more than 2000 farmers, processors, researchers and policy makers in attendance. This event and training was

reported in the media (>over 18 on record), i.e. <https://www.thecable.ng/osun-agriculture-and-institutional-partnerships>, <http://tribuneonlineng.com/iita-osun-partners-boost-agriculture-205-5-hectares-land-research-institute>

2. MAIN GAPS AND CHALLENGES

The deliverable to be led by some partners in Benin and Cameroun was not started as scheduled due to logistics and time. Cluster member in Liberia and Cameroon have done activities that have to be mapped to this cluster. NARs partners working on sensitization and advocacy have not been captured. The cassava biofortification community of practice will have to be carried along as a strong team

MEASURES TAKEN AND ADJUSTMENTS PROPOSED

There cluster list will be updated to include them and their work on biofortified cassava There is discussions with the RTB Foods cluster members to map biofortified cassava work to this cluster.

3. PARTNESHIPS: ACHIEVEMENT AND CHALLENGES

List of Key External Partnerships


Please list up to three important partnerships for 2017, using the following table.

FP	Stage of research*	Name of partner	Topic of partnership
4	On farm testing of biofortified cassava	CSIR-Crops Research Insitute (Bright Peprah)	Testing of elite biofortified cassava in Ghana on farmers' fields. Sensitization activities to promote adoption
4	1 – for Discovery/Proof of concept	NRCRI - Nigeria	Testing biofortified material
4	1 – for Discovery/Proof of concept	Dassa University - Benin	Testing biofortified cassava varieties with farmers
4	2 – for Piloting	Liberia	Testing biofortified cassava flour for baked products

* Please mark: 1 – for Discovery/Proof of concept; 2 – for Piloting; 3 – for Scaling up and scaling out.

Advocacy and Capacity Development

The situation analysis studies (SITAN) on biofortification and the advocacy strategies for Tanzania, Nigeria and regional levels completed and validated. The advocacy strategies are being implemented.



The SITAN studies provide baseline information for evidence-based advocacy for fundraising and policy change.

Advocacy and Capacity Development

50 regional and national advocates and champions were equipped with skills to carry out advocacy and implement the national and regional advocacy strategies to help raise new investment and influence policy on biofortification.

3 country policies, strategies and plans (2 in Tanzania and 1 in Nigeria) that prioritize support to biofortification were developed:

1. The National Policy on Food and Nutrition in Nigeria;
 2. Tanzania Ministry of Agriculture, Livestock and Fisheries – Food Security draft five-year strategic plan;
 3. Tanzania Food and Nutrition Center’s five-year strategic plan.
- Biofortification was included in the National Food Fortification Alliance as a complementary intervention to end hidden hunger in Tanzania.
 - 549 (251 female) change agents (283 Nigeria and 266 Tanzania) were equipped with the capacity to design and implement gender sensitive projects on orange-fleshed sweetpotato, pro vitamin A maize, and high-Iron beans through ToT and step-down courses.
 - A range of advocacy and communications materials (document folder, factsheets, flyers, leaflets, pull-up banners, videos, blog articles, posters, success stories were developed and disseminated in print and electronic formats.
 - BNFB launched a project web page <https://cipotato.org/bnfb/> that serves as a repository for all project outputs and products and helps improve the visibility.
 - More than 3150 print copies have been disseminated.
 - BNFB has optimized tools and media (including social media) to create awareness and improve the understanding of scaling up of biofortified crops.

Status of Internal (CGIAR) Collaborations among Programs and between the Program and Platforms

Name of CRP or Platform	Brief description of collaboration (give and take among CRPs) and value added*	Relevant for RTB FPs
CC5.3 NextGen Gender Project	Gender responsive tools to understand factors that drive or limits adoption of biofortified cassava	Efficiency benefits

*e.g. scientific or efficiency benefits

4. FUND RAISING

US\$ 94,243 new investment (US\$16,000 in Tanzania and US\$78,243 in Nigeria) for biofortified crops programs this has been generated by the BNFB project led by CIP

5. INNOVATIONS¹

List the innovations that: 1) have been made available for use to next-users in 2017; 2) have demonstrated uptake by next users in 2017.

Title of innovation (minimum required for clarity)	Corresponding output in MEL	Phase of research *	Partners involved	Geographic scope: for innovations in phases AV* or USE* only (one country, region, multi-country, global)
Retention of PVAC in cassava bread	6523-Knowledge on retention of PVAC in cassava bread established Internal Report: "Retention of pro-vitamin A carotenoid in composite bread baked with high quality cassava flour from yellow-fleshed cassava roots" <i>Awoyale Wasiu (2017): Consumer's acceptability and willingness-to-pay for composite bread</i>	AV	IITA and Liberal NARs	One country

¹ Research and development innovations are new or significantly improved (adaptive) outputs - including management practices, knowledge or technologies.



<p>Genotypes with best physiochemical properties</p> <p>Capacity building for advocates and advocacy strategy</p>	<p>baked with high quality cassava flour from yellow-fleshed cassava roots - presented at the 41st conference and annual general meeting of the Nigerian Institute of Food science and Technology (NIFST) held between 22nd-25th of October 2017, at the International Conference Centre, FCT-Abuja (Publication in draft)</p> <p>6514-Report on Genotypes with best physiochemical properties identified Evaluation of proximate composition and pasting properties of high quality cassava flour (HQCF) from cassava genotypes (<i>Manihot esculenta</i> Crantz) of b-carotene-enriched roots http://hdl.handle.net/10568/83228</p> <p>6536-Country and regional advocacy plans</p> <p>Building Nutritious Food Baskets Project Regional advocacy strategy 2017 and beyond (08/2017) Building Nutritious Food Baskets Project: Nigeria advocacy strategy Advocacy strategy for scaling up biofortified crops for nutrition security in Tanzania 2016-2018</p> <p>6539-Strategic country advocates and regional champions (individuals and organizations) identified and trained</p>	<p>USE</p>	<p>CIP,IITA,HarvestPlus NARS in Nigeria and Tanzania</p>	<p>Multiple countries</p>
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* Phases: AV - available/ready for uptake, USE - uptake by next users.