

Cluster level information for POWB – 2018

SW4.4 – Nutritious sweetpotato

OUTPUTS TO BE HIGHLIGHTED (1 OR 2)

Output code - Title	Description available in MEL is clear and complete	End date is 2018	Major risks that may hinder the delivery of results ¹	Main source of funding	Means of verification
SW4.4.1.3 - Nutrition quality and food safety laboratory protocols established and applied to vitamin A, iron, and other nutrient analyses of SP in laboratories in Nairobi (BecA), Lima, Mozambique, Rwanda and Indonesia	Yes - This output will produce protocols to guide nutrient and microbiological analysis applied to sweetpotato products and roots developed as part of the value chain. These protocols will be shared with respective countries where value chain activities are occurring to guide packaging and shipment of samples to BecA (FANEL) and or Lima for further analysis.	Yes	Insufficient funding to cluster to complete all proposed deliverables	W3/ Bilateral/ SASHA/ SUSTAIN	Protocols for nutrient and microbial analysis of OFSP value chain products published/ validated Training manuals and reports
SW4.4.2.2 - Techniques developed and assessed for utilization of SP as an ingredient in commercially processed and traded products in Rwanda, Kenya, Malawi, Ghana and Nigeria	Yes - This output documents the techniques available for using sweetpotato as an ingredient in commercially processed baked products (bread, cakes, other local wheat based products). Based on work done at FANEL in collaboration with BecA, the pros and cons of these methods will be documented and published. In addition, training material for small scale processors of commercially viable OFSP based products in respective countries will be produced. CapDev activities will transfer knowledge to build local capacity at country level for OFSP transformation.	Yes	Noncompliance from private sector collaborators in field testing techniques	W3/ Bilateral SUSTAIN /SASHA II	Technical Reports, Training manuals and publications

¹ Focus on technical or geographic considerations.



OUTCOMES TO BE HIGHLIGHTED (1 OR 2)

1. Nutrition quality and food safety laboratory protocols established and applied (see Annex 1 for detailed list) to vitamin A, iron, and other nutrient analyses of sweetpotato in laboratories in SSA and Asia leading to the adoption of SP and RTB crops derived nutritious and safe foods by rural and urban consumers.
2. Techniques developed and assessed for utilization of sweetpotato as an ingredient in commercially processed and traded products (see Annex 2 for detailed list) in Rwanda, Kenya, Malawi, Ghana and Nigeria, resulting in the adoption of sweetpotato and RTB crops as ingredients in the formulation and recipes for food products by households, small-scale and large-scale processors and commercialization of these food products.

Countries for 2018 case studies: Tanzania, Malawi, Kenya, Nigeria and Rwanda

MAIN CHANGES IN THE LOGIC OF THE CLUSTER AND AREAS OF WORK THAT WILL BE DISCONTINUED

Several initially planned outputs with CIRAD had to be removed due to lack of funding support to CIRAD to contribute as a result we dropped all those deliverables from the cluster. This reduced substantially the number of deliverables that needed reporting coming from Asia region.

NEW KEY EXTERNAL PARTNERSHIPS

Partner	Brief description of collaboration and value added*
Naivas Supermarket, Kenya	Naivas supermarket is the second largest retail chain after Tuskys in Kenya and east Africa. Last year they were trained by FANEL and Euro-Ingredients Limited on using OFSP puree as an ingredient in bakery products. They run a successful, promotional trial of OFSP puree bread in June 2017. In January 2018, they started OFSP puree bakery products commercialization in Kenya.
SinnovaTek, Raleigh, NC, USA	SinnovaTek is a leader in emerging aseptic technologies and a one-stop shop for innovative companies looking to get their products to market. CIP-FANEL working with SinnovaTek on Technology Transfer to develop shelf-stable preservative free OFSP puree for post-harvest management, OFSP puree supply chain management and ready to eat products in SSA.
Women's Bakery, Rwanda	A Women's Bakery is a social enterprise, based on a loaf of bread. They teach women how to make and sell nutritious, affordable breads and manage profitable bakeries in their communities. Their five-step model is scalable and adaptable. Partnership with CIP on the adoption and utilization of OFSP puree will meet their goal of making and selling nutritious foods and empowering women and households.


*e.g. scientific or efficiency benefits in achieving expected results



NEW INTERNAL (CGIAR) COLABORATIONS 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*
A4NH	Collaboration and engagement with A4NH on food systems Flagship 1 in target countries (Bangladesh, Nigeria, Ethiopia). Exploration of activities for joint projects in these countries ongoing
Harvest Plus	Continued engagement in Rwanda, Tanzania and Nigeria on building advocacy for continues promotion of biofortification. The collaboration for Nigeria and Tanzania occur with other CG centers in the Building Nutritious Food Baskets (BNFB) project. The BNFB Project through advocacy efforts conducts activities that support policy change, resource mobilization and engagement with governments, developmental partners, and the private sector to commit funding for biofortification of RTB crops.

*e.g. scientific or efficiency benefits



Annex 1. Nutrition quality and food safety laboratory protocols established and applied to vitamin a, iron, and other nutrient analyses of sweetpotato in laboratories in Kenya (BecA), Peru, Mozambique, Rwanda and Indonesia

1. Assessment of provitamin A carotenoids in RTB crops and their processed products
2. Assessment of iron and zinc in RTB crops and their processed products.
3. Assessment of vitamin C in RTB crops and their processed products
4. Assessment of antioxidants and bioactive components in RTB crops and their processed products.
5. Total viable counts for assessment of food safety in RTB foods processed products
6. Determination of acrylamides in in RTB baked and fried products
7. Determination of glycoalkaloids in RTB crops and processed products
8. Determination of shelf-life of OFSP puree and nutrient retention under ambient conditions
9. Evaluation of sensory profiles of OFSP puree breads made with shelf-stable OFSP puree
10. Evaluation of bioaccessibility of beta-carotene from OFSP puree and OFSP flour products

Protocols will be developed in collaboration with BecA at ILRI Hub, HarvestPlus, CIAT, IITA, NCSU and NRI-Greenwich University, and Wageningen.

Protocols will be shared with regional universities such as University of Nairobi, JKUAT, Soikane University, Makerere University, UDS -Ghana, FUNAAB-Abekuta Nigeria, Kigali Institute of Technology, Hawassa University and LUARNA-Malawi.

Annex 2. Techniques developed and assessed for utilization of SP as an ingredient in commercially processed and traded products in Rwanda, Kenya, Malawi, Ghana and Nigeria

1. OFSP puree as in ingredients in doughs for bread, buns, muffins and cookies
2. OFSP puree as in ingredient for fried dough for mandazi and fried products
3. OFSP puree as an ingredient for reconstituted French fries
4. OFSP puree as ingredient for baby foods
5. OFSP puree and flour for bread
6. OFSP puree and flour for soups
7. OFSP concentrate as a food colorant
8. OFSP concentrate for cold press juice formulations
9. OFSP for noodles and pasta formations
10. OFSP puree and starch for dairy products stabilizations

Protocols will be developed in collaboration with Euro-Ingredients Limited (EIL), Tuskys Supermarket, Organi Limited, Tehile Bakeries, BecA ILRI Hub and NCSU.

Protocols will be shared with regional private sector Africa.