Building Nutritious Food Baskets Project

Final review and closeout meeting report

Bolton White Hotel, Abuja – Nigeria.

14th – 16th August 2018

CENTRO INTERNACIONAL DE LA PAPA
CIP
A member of the CGIAR Consortium

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Consultative Group on International Agricultural Research

CIMMYT
International Maize and Wheat Improvement Center

HarvestPlus
Better Crops • Better Nutrition

IITA
Research to Nourish Africa

FARA
Forum for Agricultural Research in Africa

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Acronyms and abbreviations

ASA	Agriculture Seed Agency, Tanzania
AU	African Union
AUC	African Union Commission
BNFB	Building Nutritious Food Baskets
BMGF	Bill & Melinda Gates Foundation
CAADP	Comprehensive Africa Agriculture Development Programme
CIAT	International Center for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Centre
CIP	International Potato Centre
CORAF	Council for Agricultural Research and Development
CS SUNN	Civil Society Scaling-Up Nutrition in Nigeria
DVM	Decentralized vine multiplier
ECOWAS	Economic Community of West African States
EAC	East African Community
FARA	Forum for Agricultural Research in Africa
FMARD	Federal Ministry of Agriculture and Rural Development
GMO	Genetically Modified Organism
HH	Household(s)
IITA	International Institute of Tropical Agriculture
MIS	Management Information System
MLE	Monitoring, Learning and Evaluation
MoBNP	Ministry of Budget and National Planning
NEPAD	New Partnership for Africa's Development
NMNAP	National Multi-sectoral Nutrition Action Plan
NFFA	National Food Fortification Alliance
OFSP	Orange-fleshed Sweetpotato

OPV	Open Pollinated Varieties
PABRA	Pan-Africa Bean Research Alliance
PSC	Project Steering Committee
PVA	Pro-Vitamin A
RAC	Reaching Agents of Change
SADC	Southern African Development Community
SITAN	Situation Analysis
SRI	Sugarcane Research Institute – Kibaha
TARI	Tanzania Agriculture Research Institute
TFNC	Tanzania Food and Nutrition Centre
ToT	Training of Trainers
WINNN	Working to Improve Nutrition in Northern Nigeria

Executive summary

The Building Nutritious Food Baskets (BNFB) is a multi-partner project that aims to promote and scale-up biofortified staple crops in Tanzania and Nigeria. BNFB works through advocacy for increased investment in biofortified crops and through strengthening institutional and community capabilities to produce and consume biofortified crops in a sustainable way to combat hidden hunger. The final review and close-out meeting of the project was held between 14th – 16th August 2018, in Abuja, Nigeria with the aim of reviewing accomplishments over the three years and to discuss and document lessons learned and sustainability strategies. This report captures the proceedings of the meeting, and highlights BNFB progress and lessons.

Below are the highlights of the process and outputs of the meeting:

a. The opening remarks were delivered by Paul Demo on behalf of CIP-SSA, Mr. Obey Assery Nkya representing the Government of Tanzania, Steven Mugo representing the project steering committee and Madam Roselyne Gabriel on behalf of the Federal government of Nigeria. In his remarks, Paul Demo, the CIP-SSA Regional Director observed that the BNFB project is unique and quite progressive in design and challenged partners to ensure the partnerships already created during the project implementation is sustained to continue fighting hidden hunger. Mr. obey expressed his satisfaction with the project achievements observing that BNFB has been quite successful in building institutional capacities to scale-up biofortification in the two target countries. On his part, Steven Mugo called on the partners to increase visibility and create awareness on biofortification to influence funding opportunities for sustainability. Moreover, Dr. Mugo recommended that the project should be transformed into a program, adding that there was still a long way to go in the fight against hidden hunger and malnutrition. In her remarks, Madam Roselyne Gabriel called on participants to adopt the lessons learned and replicate good practices. She further reiterated the continued support to the project by the Nigeria government and in fighting hidden hunger.
b. The opening remarks were followed by presentations from both the project's regional and country teams, highlighting the achievements of the project, opportunities, challenges and lesson learned. The key achievements presented include:
    - At least 11 policy and strategic documents have been influenced to include/prioritize biofortification within the agricultural and nutrition sectors.
    - A total of $6,145,332 has been raised to support initiatives on biofortification in Nigeria and Tanzania.
    - The project has built the capacity of at least 40 agencies/institutions to design and implement programs in support of biofortification.
    - At least 6405 (3215 males, 3190 females) change agents have been trained on critical areas of the biofortified crops value chain since the project started.
    - Seven new varieties of biofortified crops have been released in Nigeria and Tanzania.
    - At least 980,865HH have been recorded as growing biofortified crops in Tanzania and Nigeria.
c. The team further discussed sustainability strategies, namely, the establishment of multi-institutional, multi-sectoral partnerships and platforms, working with public and private sector in co-financing advocacy, capacity building and seed systems activities, mainstreaming biofortification in national research programmes and capacity development of national organizations and the private sector. In addition, the participants proposed that the platforms established should be fully registered with the national authorities with well written

constitutions. Moreover, it was recommended that line ministries in the two countries should include a budget line for biofortification to sustain the biofortification agenda. As an indication of commitment to sustainability, the Tanzania participants indicated that the pro-vitamin A maize platform has committed membership base and good progress has been made to register the platform as a legal entity by December 2018. Moreover, the project has continued to strengthen the capacity of the Prime Minister's Office (PMO), the government entity that hosts the high level multi-sectoral committee on nutrition. The participants from Nigeria indicated that there is increased government attention to biofortification as reflected in the inclusion of biofortification in key policy and strategy documents and that there are at least 33 active advocates promoting biofortification in various strategic sectors in the country. Moreover, BNFB has facilitated the inclusion and prioritization of biofortification in the agenda of the multisectoral platform meetings coordinated by the Ministry of Budget and National Planning (MoBNP).

d. During the meeting, various action points/recommendations were raised during discussions for consideration by the BNFB team. The recommendations are as follows;
    - Biofortification should be implemented as a continental initiative beyond the two BNFB pilot countries for adoption by many African countries.
    - FARA should utilize the HarvestPlus Continental Biofortified Crop Release Map to inform its messaging on released varieties.
    - The messages on biofortification should be customized for different audience levels and there is need for continued education of government technocrats on biofortification.
    - Recent studies have established increasing incidences of anaemia and Tanzania and participants observed the need to expedite the availability of high iron beans to help deal with the increasing cases. BNFB was challenged to ensure the bush bean varieties are released soonest.
    - Participants recommended that the project team should seek to document the process of variety release as a success story.
    - There is need to continue supporting the operationalization of the promulgated policy and strategic documents that have been influenced to include biofortification in Tanzania, Nigeria and the region.
    - BNFB should analyze and report on the extent the advocacy strategy has been implemented and highlight which areas need further input/support post project. This will enable partners to plan well on how to support/implement the pending items.
    - The project should devise new mechanisms to capture data on households obtaining biofortified crops and the number of participants trained through the step-down courses.
    - There's need to strengthen the capacities of local implementing partners further, particularly on how to monitor and evaluate policy outcomes on biofortification
    - The project team should speed up the process of documenting the lessons, processes and successes of the BNFB project.

Background

The Building Nutritious Food Baskets (BNFB) initiative is a three-year project (November 2015 – October 2018) that is implemented in Nigeria and Tanzania. The project seeks to reduce hidden hunger by catalysing sustainable investment for the utilization of biofortified crops (vitamin A cassava, vitamin A maize, vitamin A sweetpotato and iron rich beans) at scale. The project demonstrates how multiple biofortified crops can be scaled up at country level using a "food basket" approach. The project is led by CIP and engages a range of partners, including; The International Centre for Tropical Agriculture (CIAT), the International Maize and Wheat Improvement Centre (CIMMYT), the International Institute of Tropical Agriculture (IITA), HarvestPlus and the Forum for Agricultural Research in Africa (FARA). The goal of the BNFB project is to help reduce hidden hunger by catalysing sustainable investment for the utilization of biofortified crops at scale. The project seeks to specifically demonstrate how scaling up can be achieved through concerted efforts of a range of CGIAR centers and programs (formerly the Consultative Group for International Agricultural Research) along with community, national, regional, and international stakeholders.

The BNFB final review and project close-out meeting was held between 14th – 16th August 2018, in Abuja, Nigeria (see Appendix 1 for the agenda). The objectives of the meeting were to; (a) review accomplishments over the three years; (b) discuss and document lessons learned and (c) consider strategies for sustainability of the initiated actions and achievements. The expected outputs of the meeting were as follows:

1. BNFB achievements (2015-August 2018) at country and regional levels documented;
2. Key findings including lessons learned over the 3 years documented;
3. Agreement on key priorities to be undertaken before closeout (in relation to expected outputs, outcomes, impact and reporting);
4. Foundations for ownership and sustainability of BNFB activities made and the way forward documented.

Participants included the BNFB core project team (Senior Country Coordinators – Nigeria and Tanzania; Regional Monitoring, Learning and Evaluation-MLE Specialist; Capacity Development and Communications Specialist; Regional Advocacy Coordinator; Senior Programme Assistant; Country Program Assistants; Seed Systems Specialists - beans, cassava, maize, OFSP; Project Manager; the BNFB Steering Committee members; representatives of the Governments of Nigeria and Tanzania; HarvestPlus and selected stakeholders. The list of participants is found in Appendix 2.

This report captures the proceedings of the meeting, and highlights of BNFB progress and lessons learnt so far. The workshop program (Appendix 1) was a mix of presentations, round table discussions and plenary sessions enriched by interactive discussions from the participants.

Below is a record of the workshop proceedings.

Workshop proceedings and documentation

Session 1: Introductions, welcome and opening remarks

1.1 Introductions

The meeting began at 8.30am. The Capacity Development and Communications Specialist, Joyce Maru, facilitated the introductions session. Participants introduced themselves and briefly shared their reflections on the project close out and expectations of the meeting. Some of the participants' perceptions of the BNFB project included the following:

- It would be more impactful if BNFB transitioned from a project to a program;
- Media is a key agent of change in scaling up of biofortification and every effort must be put in place to ensure the sector is fully engaged;
- High levels of hidden hunger and malnutrition still exist, and partners need to consider BNFB to continue with its coordination role beyond October 2018;
- BNFB has created a momentum which has to be leveraged;
- BNFB had generated new evidence which has contributed to the African Union Continental Declaration, a milestone that essentially creates a new chapter for biofortification on the continent;

1.2 Welcome and opening remarks

After the introductions the BNFB project manager, Hilda Munyua, welcomed the BNFB team, members of the Project Steering Committee (PSC) and stakeholders and highlighted objectives of the meeting, expected outputs and the agenda for the meeting. She then introduced the CIP Regional Director for Africa, Dr. Paul Demo, to give opening remarks. In his remarks, Dr. Demo applauded all partners and stakeholders including government, private sector, civil society and donor representatives for their tremendous contribution towards the success of the project. He reiterated that CIP was proud to be the lead partner in the BNFB consortium and supported the idea of transforming the project into a program as suggested by participants. Dr. Demo emphasized that the BNFB project has highlighted the importance of nutrition component and the need to shift from food security to food and nutrition security. He added that BNFB had demonstrated a scaling up model and its uniqueness in penetrating to vulnerable communities with nutritious biofortified crops through supportive policies, capacity strengthening and tested technologies. He said there was need to continue to strengthen the partnership already created during the project implementation for the sake of keeping the momentum moving forward.

Representing the Government of Tanzania**,** Mr. Obey Assery Nkya thanked the BNFB team for the critical achievements attained. He further observed that the project has been very successful in influencing policy and building institutional capacities to scale-up biofortification in the two target countries. On the part of Tanzania, he said the country was keen on moving forward with the biofortification agenda adding that the Government was in full support of the initiative. He challenged the partners to think strategically on how to sustain the BNFB momentum. Mr. Obey stressed on the need to institutionalize the platforms that have been established.

Representing the project steering committee, Dr. Stephen Mugo thanked the Government of Nigeria for hosting the meeting and recognised the presence of the BNFB PSC members. He called on the partners to continue increasing visibility and creating awareness on biofortification, and to explore funding opportunities to ensure sustainability. Dr. Mugo applauded the efforts by partners that have fast-tracked the release of seven (7) new biofortified varieties in the two countries. He pointed out that although there

were a few challenges at the inception phase, all partners learnt a lot from these experiences and have subsequently realized tangible benefits as the project comes to an end. Dr. Mugo supported the idea of partners coming together and transforming the project into a program, adding that there was still a long way to go in the fight against hidden hunger and malnutrition.

Representing the Government of Nigeria, Mrs. Roselyne Gabriel called on participants to reflect on the lessons learned and apply them going forward. She said that the Nigerian Government has been receptive to the biofortification agenda and offered tremendous support to the project. Mrs. Gabriel pointed out that some leaders had invested resources to advance the objectives of BNFB. She cited the Emir of Kano, who had allocated 15 acres of land for biofortification. She added that the Governor of Kaduna state was also interested in the adopting biofortified crops for the benefit of for his people.

Session 2: Regional presentations on achievements, lessons learned, opportunities, challenges, sustainability and priorities before closeout

2.1. Regional promotion and advocacy

A detailed presentation on achievements by FARA its regional advocacy deliverables was given by Dr. Rose Omari (Annex 1). She noted that at regional level, the project had identified and strengthened the capacity of 18 regional and nine (9) youth champions and advocates. Other notable results during the period under review include: biofortification being included in two key policy documents - the (1) the West and Central African Council for Agricultural Research and Development (CORAF) Nutrition Strategy for implementation in Promoting West Africa Trade Integration; (2) the African Union Business Plan to guide Implementation of the Comprehensive Africa Agriculture Development Programme - CAADP-Malabo Declaration 2017–2021. Biofortification has also been entrenched in several programmes and calls for proposals including the implementation of the FARA Science Agenda for Agriculture in Africa with several strategic plans and country guidelines that have been completed and executed, New Partnership for Africa's Development's (NEPAD's) Flagship Programmes for Nutrition and Food Security, the Technology for African Agricultural Transformation programme and the African Union Commission (AUC) 2018 Call for Research Proposals.

Rose further highlighted the opportunities that exit at the regional level for biofortifications, namely a) Supportive regional and global policies such as the Economic Community of West African States (ECOWAS) strategy to address micronutrient malnutrition, the East African Community food and nutrition policy which includes food-based approaches and bio-fortification and the Southern African Development Community (SADC): The Regional food and nutrition strategy (2015-2025) b) Potential Domestic resources for investments in biofortification such as the commitments by member states to invest 10% of national budgets in agriculture through Comprehensive Africa Agriculture Development Programme (CAADP) and National Agriculture Investment Plans c) Potential external funding to support food based approaches e.g. African development Bank, Feed Africa strategy and nutrition sensitive agriculture initiatives d) advocacy opportunities such as the African Union's (AU's) annual Africa Day for Food and nutrition Security and the AU flagship programme on home grown school feeding programme

Rose identified the unavailability of biofortified products in most countries and the perception that biofortified crops are genetically modified organisms (GMOs) or non-organic as the key challenges facing advocacy for biofortification at the regional level.

2.2. Capacity development and communications

Joyce Maru's presentation (Annex 2) focused on the progress the project has made in training change agents in priority areas along the value chains of the biofortified crops, institutional capacity building at national and community level and communications. She indicated that to date, the project has strengthened the capacity of at least 40 institutions. During year three, a total of 4057 individuals were trained on OFSP, PVA maize and high iron and zinc beans through 9 Training of Trainers (ToTs) (5 in Nigeria and 4 in Tanzania) and 27 step-down courses (6 in Nigeria + 21 in Tanzania). Joyce outlined the following achievements as far as the dissemination of advocacy materials is concerned:

- Over 15000 flyers and materials disseminated to partners;
- BNFB materials have been uploaded on the Sweetpotato Knowledge Portal and the BNFB webpage for wider access;
- Materials have been cross-posted and cross-linked on the partner websites for wider reach; and

The BNFB materials are available online on MELSpace - the CGIAR Monitoring Evaluation and Learning platform https://mel.cgiar.org/user/login and the CGSpace repository (https://cgspace.cgiar.org).

Discussion

After the two presentations, the floor was opened for participants to make contributions or ask questions. Some of the issues raised include:
A participant inquired whether FARA can consider working with AU Member States to advance the AU Continental Declaration on biofortification Agenda. Another participant sought for clarity concerning the strategies with statements on biofortification that have been put in place at the Regional Economic Communities levels to facilitate cross border seed access. For example, the SADC, COMESA, and East African Community (EAC) seed harmonization protocol.
Another participant lauded the media biofortification awards for Tanzanian journalists noting that the initiative had resulted to increased reporting and coverage of issues on biofortification in print and electronic media. Following the awards, the project has been monitoring what is being written - thanks to the good linkages with journalists through the creation of a WhatsApp group for media and biofortification in the country.
Other participants observed the following:

a) Biofortification should be implemented as a continental initiative beyond the two BNFB pilot countries for adoption by many African countries;
b) The BNFB platform should be speaking to a continental level advocacy. Nigeria and Tanzania were only the 'cooking labs';
c) FARA should utilize the HarvestPlus Continental Biofortified Crop Release Map to inform its messaging on released varieties;

d) Biofortification education should be customized for different audience level and availability of technocrats to respond to the key concerns of the policy makers and the common people on the distinction of biofortification from biotechnology; and
e) A participant postulated that engagement of different institutions at different levels is critical for the scale up of biofortification in Africa. There is need to maintain strategic engagements than relying on projects; The participant further emphasized the need to develop a partnership sustainability strategy for sustaining strategic partnerships and foundations.

Responses to questions and comments

Responding to some of the questions/comments, Rose indicated that FARA had mapped out all countries that have biofortified crops – both released and those underdoing trial. This, she pointed out, had helped people understand what crops are available. Rose however acknowledged that sustained advocacy, communication and awareness creation is needed for adoption of biofortification by the different key stakeholders. She said FARA will work with the Governments of Nigeria and Tanzania towards the AU Continental Declaration on biofortification. She noted that efforts are ongoing to engage ECOWAS in relation to biofortified.

Session 3: Country presentations on project's achievements, lessons learned and priorities before closeout

A: Nigeria

3.1 Promotion and advocacy in Nigeria

Phorbee Olapeju's presentation (Annex 3) focused on the work undertaken in policy change, demand creation and raising investments for biofortification in Nigeria during the last three years. The highlights included a series of advocacy engagements with development partners/donors and private-public-sector partners to advocate for biofortified crops. As a result of these efforts, four policy documents have included statements on biofortification namely: (1) the Nigerian Food and Nutrition Policy (2016-2020), (2) the draft Nigerian Food and Nutrition Strategic Plan of Action, (3) the Agricultural Sector Food Security and Nutrition Strategy (2016–2025) of the Federal Ministry of Agriculture and Rural Development (FMARD), and (4) a draft national advocacy policy brief prepared by the Federal Ministry of Budget and National Planning. In terms of resources, Olapeju cited the $510,000 for Working to Improve Nutrition in Northern Nigeria (WINNN) project and $837,000 from Modelez foundation for healthy living project as the notable resources raised during the year. Moreover, organizations such as Civil Society Scaling-Up Nutrition in Nigeria (CS-SUNN), Catholic Relief Services, Nutrition International and Global Alliance for Improved Nutrition (GAIN) has developed proposals that include components on biofortification. Olapeju further pointed out that Nigeria has appointed and built the capacity of at least 33 advocates across sectors, disciplines and regions whose functions will continue even after the project comes to an end.

Olapeju pointed out that there was need to ensure equal priorities for both regional and country activities as well as to have advocacy champions to speak for and on behalf of biofortification. She acknowledged that data collection in Nigeria was a big challenge. She further acknowledged that Nigeria had just released new varieties of biofortified crops for example OFSP '*Solo Gold'* variety, and therefore talking about project closure would make Nigeria lose the momentum already gained and jeopardize the gains made. She added that intensifying scaling up of the new varieties of biofortified seeds will go a long way in helping deal with the problems of malnutrition and hidden hunger in Nigeria.

Olapeju highlighted the following as some of the opportunities for biofortification in Nigeria a) increased donor interest in reducing micronutrient malnutrition in Nigeria b) growing capacities of nutrition division/unit of state governments to mainstream biofortification into their programs and c) government attention on biofortification as reflected in key policy and strategy documents. The challenges facing biofortification in Nigeria include low 'buy-in' by some donors due to low prioritization of sweetpotato in Nigeria and limited biofortified crop value chain for business.

3.2. Seed systems - Nigeria: PVA cassava

3.2.1 Vitamin A cassava

Paul Ilona's presentation (Annex 4) focused on delivery channels for vitamin A cassava and the progress made to reach households with the nutritious crop. Paul indicated that working with about 65 delivery partners in Nigeria, HarvestPlus had reached approximately two million households with the crop. He further indicated that for scaling to happen, there is need for awareness on competitive value-added products supported with evidence of health benefits, policies and services to support investment and markets and access to seeds for planting and products for consumption.

Paul observed that the results recorded in PVA cassava in Nigeria were made possible by working through 60 national advocates that included celebrities, policy makers, traditional rulers, women leaders and academicians. The key drivers of PVA cassava adoption in Nigeria include income opportunities, health benefits, awareness creation, product diversity among others.

Paul cited the availability of better varieties to meet increasing commercialization of vitamin A cassava (varieties with high provitamin A >15u/g), dry matter of>30% and root yield of >25 tons/ha), root mealiness, processing methods that retain nutrients in foods, packaging methods that increase the shelf life of foods and the need for a shift from social to commercial delivery platforms as some of the main challenges facing PVA cassava value chain in Nigeria. Paul highlighted the need to mainstream PVA cassava into livelihood programs and availability of channels to deploy innovative awareness and market creation tools as the key opportunities for the crop.

3.2.2 OFSP

Jude Njoku then followed with a presentation on OFSP (Annex 5), observing that BNFB has trained and worked with 40 decentralized vine multipliers (DVMs) in 4 states (Enugu, Kogi, Taraba and Ogun). The partnership has ensured that at least 1886 HHs (890F&996M) have received OFSP vines as follows: **Enugu**: 712 (371F&341M); **Kogi:** 25 (4 F&21M); **Ogun**: 119 (47F&72M) and **Taraba**: 1030 (468F&562M). Other achievements include the establishment of the OFSP platform, which was launched on 20 July 2017. The platform comprises 20 members drawn across the OFSP value chain. Jude indicated that there had been increased interactions and sharing of experiences within the members and process of registering the platform as a corporate organization is on course.

Jude further indicated that the purchase of vine cuttings from DVMs for dissemination appears costly and unaffordable and that most households are were not able to pay for vines. A more cost-effective approach needs to be adopted where subsidy is provided to the contracted DVMs with 80% of vines they produced mopped up by the project for dissemination. Other challenges include low capacity of DVMs to expand production of vines, limited number of OFSP varieties that meet the farmers preferences, limited interest by the private seed sector to participate in quality vine production and menace posed by the herdsmen. The opportunities for OFSP in Nigeria include synergy with other OFSP related projects for availability of quality vines (such as SASHA), the Federal Government School feeding program and Nutrition policy and an already organized sweetpotato market.

3.2.3 PVA maize

Presenting on PVA maize (Annex 6), Wende Mengesha highlighted the achievements so far, underscoring that working with national partners, BNFB released two released PVA maize varieties (Sammaz 49' and Sammaz 52') and had so far provided a total of 10.6 tons of breeder seed to eight seed companies (Premier Seed, Seed Co, Maslaha Seed, Value Seed, Gold Agric, WACOT, Jirkur, Savanah seed and Youth Agripreneur) to produce up to 780 tons of certified seed. The other key achievement highlighted by Wende include the establishment of a PVA maize platform meeting in Nigeria, with two PVA maize platform meetings already held (in December 2017 and the second in July 2018). The objectives of the meeting of the platform among others were to bring the stakeholders together to plan, synergize, and attend to issues around scaling up PVA maize in Nigeria, especially adoption by farmers and acceptance by consumers/users.

Wende cited the following as the challenges facing PVA maize in Nigeria: The Fall Army Worm infestation; limited time and funding to fully meet the project targets and; limited awareness about the PVA maize varieties. The opportunities include: Released PVA-maize varieties, good agronomic performance of the released varieties (Disease tolerant and higher grain yield) and the good demand for PVA maize on the market.

Discussion

Following the presentations from the Nigerian team, the participants asked questions and sought clarifications on several issues as follows:

One participant sought to understand the convergence point between BNFB and HarvestPlus during advocacy especially for the country champions i.e. How are the two parties have synergized advocacy efforts.

Response: Paul averred that several national platforms have been initiated that bring together the various partners in biofortification and that this has helped to ensure synergy. Paul further indicated that national events such as the food fair have been excellent opportunities to synergize efforts.

Another participant asked about the sustainability for the provision of foundation seed and basic seed and if IITA gives the seed for free and what will happen when IITA exits. The participant also wondered whether an estimate of households reached could be determined based on the seed provided.

Mengesha responded that breeder seed is given to seed companies and they in turn produce their own foundation seed. The project only offered the seed to start them off. Concerning the estimation of households, Mengesha confirmed that the formula based on tonnage of certified seed produced and the average landholding by grain farmers in Nigeria has been adopted for many years now and that the project will rely on this formula to calculate the households reached with the PVA maize.

A participant inquired whether it was effective to keep investing in research for new varieties instead of dissemination of already existing ready to go technologies.

In Response, James Gethi noted that maize seed system is private sector led. This being the case, the seed companies have the liberty to produce the varieties that are most acceptable by farmers and hence sales/profit. James indicated that if you avail only one variety to one seed company, then the issue of sustainability comes in. Therefore, more varieties need to be developed continuously to meet the needs of different agro-ecological and socio-economic dynamics. There is therefore need to continue to create demand for existing varieties coupled with continued efforts in breeding for improved varieties.

Contributing to the discussion, a participant recommended that briefing notes and talking points on biofortification for policy makers should be developed and shared in advance to facilitate high level discussions on biofortification. This will ensure that policy makers talk from an informed point of view. Another participant lauded the work the project had done in enticing hospitals to include biofortification in their nutrition programs. It was further observed that institutions such as the UN are now supporting biofortification which is really a good thing. It is therefore advisable to learn the importance of these platforms and institutionalize them for continuity of Government efforts. Governments on the other hand must create the relevant environment by creating incentives from both the demand and supply chains.

B: Tanzania

3.3 Promotion and advocacy in Tanzania

Richard Kasuga presented a summary of the progress that Tanzania had made so far on advocacy and resource mobilization (Annex 7). Richard stated that District councils in Tanzania had begun implementing policies and investing in biofortification. At least five documents in Tanzania have included statements on biofortification, namely: (1) the Tanzania Food and Nutrition Centre (TFNC) 5-year strategic plan; (2) the 5-year strategy for the Ministry of Agriculture, Livestock and Fisheries' Food Security; and (3) the National Multisectoral Nutrition Action Plan (NMAP). BNFB supported the implementation of (4) the Agricultural Sector Development Program Phase 2 and influenced the inclusion of biofortification in (5) the revised Terms of Reference for the National Food Fortification Alliance (NFFA). In terms of resources, Richard indicated that US$ 1.31 million has been mobilized in support of biofortification.

Other highlights on progress include;

- Developed capacities of several institutions such as TFNC to be able to undertake issues of biofortification with ease and with proper technical know-how. The Prime Minister's Office which is responsible for the coordination of Government business was also supported and given orientation to have a deeper understanding of biofortification. BNFB further strengthened the capacity of members of the Tanzania Agricultural Journalists Forum, where 30 journalists were trained to enable them to have a deeper understanding of biofortification and report on issues from an informed perspective.
- The BNFB project has also engaged and mobilized the private sector to drive issues of biofortification, for example, AFCO Investments processing company in Dar es Salaam recorded high demand for biofortified crops. Meru Agro company in Arusha Tanzania through CIMMYT also played a big role in ensuring release of PVA maize in Tanzania.

Richard highlighted the inclusion of biofortification in relevant policy documents in Tanzania, trained and committed champions and advocates, a vibrant private sector ad availability of seed released for the three crops (OFSP, PVA maize and HIBs) as the key opportunities for biofortification in the country. The challenges include the need for standards of biofortified food products and regulatory mechanisms, sustained funding for investment in nutrition and competing government priorities that compromise the budget allocation for biofortification by the Government.

3.4. Seed systems: PVA Maize; OFSP; High Iron Beans

3.4.1 PVA maize

James Gethi's presentation (Annex 8) focused on the progress made by the PVA maize team in Tanzania. The key achievements include the establishment of a PVA maize platform to accelerate up-take of the crop at scale in Tanzania, strengthening the capacities and involvement of key actors - national seed agencies, the private sector and farmer/ women/youth groups in large scale production of seeds of PVA maize. Working closely with Meru Agro, CIMMYT catalyzed the release of two PVA maize varieties. Another achievement is the establishment of the PVA maize platform in Tanzania with two PVA meetings held, one on 20 February 2018 and the other on 19 July 2018,

James highlighted the key challenges facing PVA maize in Tanzania, namely, the length of time needed for PVA maize seed to be available on the market (it takes at least 3-4 seasons before large volumes of seed are available), safeguarding against counterfeit seeds (quality assurance of PVA maize) and historical and cultural aspects of preference for white kernels and overcoming the stigma associated with the yellow color in maize.

3.4.2 OFSP

Kiddo Mtunda presented the progress made for OFSP in Tanzania (Annex 9). She said that SRI-Kibaha had distributed 485,000 vines directly to 39 decentralized vine multipliers in 12 Districts for further multiplication. Moreover, SRI-Kibaha are testing five additional varieties with processing qualities (high sugar content, low dry matter content) which are currently undergoing one season of closed and open quarantine evaluation. Kiddo reported that SRI Kibaha is evaluating nine other varieties and fast-tracking their official release. At least four of these varieties, namely Naspot 13, SPKBH03, SPKBH03/676, and Ex-Luambano are promising and will soon be submitted for national performance trials. Other achievements include the establishment of the OFSP platform in Tanzania and reaching 8,211 households (including the 1,200 reached through schools) directly and 17,590 indirectly with OFSP.

The opportunities for OFSP in Tanzania include the increasing demand for roots which in turn is driving the demand for seed, availability of value added products (such as OFSP flour, crisps, matoborwa, buns, etc) and interest by the private sector. Conversely, drought conditions in central zones of Tanzania, inadequate clean vines (virus indexed vines are costly), maintenance of beta carotene at drying and processing stage are the major challenges.

3.4.3 High iron and zinc beans

Boaz Waswa (stepping in for Jean Claude Rubyogo presented the progress by CIAT on high iron and zinc beans in Tanzania (Annex 10). Boaz said that in partnership with national partners, two best candidates were officially released in January 2018 as Selian 14 (MAC44) and Selian 15 (RWV 1129). He added that additional high iron and zinc bush genotypes ((RWR 2154, KAB 06F2-8-36, KAB06F2-8-35, CODMLB 001, NGWANKUNGWANKU, CODMLB 033, SMC 18 and SMC17) are being tested in different multilocational sites (Selian Agriculture Research Institute, Machine Tools Lyamungu, Uyole, Tukuyu and Kagera) for the second season. The material exchange was made possible through the Pan-Africa Bean Research Alliance (PABRA) model, leveraging the East African Seed Protocol. Boaz highlighted opportunities for high iron and zinc beans in Tanzania, stating that:

- There is a good interest and possible extension of work on biofortified beans among development partners all over the country. Partners like NAFAKA, ONE ACRE FUND, and the Anglican Church of Tanzania have shown interest in biofortified bean dissemination and production.
- Processing biofortified beans into more digestible forms (bean flour, porridge and soup) may be key to promoting consumption of biofortified beans especially among children under five years of age.
- Discussions have taken place with *Nigeria Incentive Based Risk Sharing Systems for Agricultural Lending (NIRSAL)* to promote beans in Nigeria- HIB is a potential entry point.
- Proposal with Australian research organization to carry out studies on cooking and nutrient availability- September 2018.

Discussion

One participant appreciated the release of high iron beans (HIB) saying that Tanzania has high prevalence of anaemia and ever increasing maternal deaths as a consequence. He suggested the need to expedite the availability of HIB to deal with the increasing cases of malnutrition and hidden hunger.

Another participant acknowledged the contribution of biofortification to the fight against micronutrient deficiency. He hailed the efforts that the Government has put in place to fight hidden hunger in Tanzania. He said anaemia was still high among the under-five and therefore the need to continue promoting biofortification, especially among the rural poor and fortification, which is mainly reaching the urban dwellers. He pointed out that Biofortification Guidelines and Micronutrient Guidelines are currently under development in Tanzania.

A participant inquired about whether the choice of climbing beans was a tactical approach influenced by the private sector against the bush beans and why open pollinated maize varieties (OPV) for Tanzania was not considered?

In response, Boaz averred that climber beans are grown in several parts of Tanzania and the introduction of the new climber HIB is not new in the country. However, he indicated that research is at advanced levels to avail bush varieties to meet the different farmer preferences. Concerning the OPVs, Thokozile observed that for maize, CIMMYT has cut down on OPV production by 10% and has prioritised hybrids due to private sector preference.

Session 4: Overall project progress

4.1. Progress on Monitoring, Learning and Evaluation (MLE) and Documentation

The BNFB MLE Specialist, Godfrey Mulongo, took participants through the progress on implementing the project M&E system (Annex 11). He outlined the successful piloting and launch of the BNFB data management and reporting system where he indicated that throughout the implementation period, the project has been strong on process monitoring, which had resulted in high quality outputs. He however indicated that the quality of progress reports was not uniform across partners and suggested a number of strategies to improve the quality of the reports: improving on completeness of data reported, the need to include means of verification or evidence for progress data and that the reports should always demonstrate the value addition and the cataclysm of the project as a scaling up model.

He outlined the online data repository system which he said played a big role in enhancing reporting by consolidating bi-weekly reports hence saving time. He showcased the project management information system (MIS) where he said it had enabled presentation of real time data indicating the step by step progress of the project.

In terms of documentation, Godfrey explained that situational analysis reports had been delivered, besides undertaking crop specific studies and documenting case study stories on the scaling up model and processes. Up to eight stories had been drafted and are in the final stages of completion.

4.2. Overall BNFB project progress and achievements

Presenting on the overall project progress to date (Annex 12), Godfrey noted that the project has made tremendous progress on most of the indicators as highlighted below:

- A total of 10 policy and strategic documents have been influenced to include/prioritize biofortification within the agricultural and nutrition sectors.
- To date a total of $6,145,332 has been raised to support initiatives on biofortification in Nigeria and Tanzania
- The project has built the capacity of at least 40 agencies/institutions to design and implement programs in support of biofortification
- The total number of change agents trained since project inception now stands at 6405 (3215 males, 3190 females).
- Seven new varieties of biofortified crops have been released in Nigeria and Tanzania.
- At least 980,865HH have been recorded as growing biofortified crops in Tanzania and Nigeria. These include 56,695 (24,542 in Tanzania, 32,153in Nigeria) reached with OFSP (2016–2017), 3,500 reached with small packets of high-iron and zinc beans disseminated to farmers in Tanzania and 14,763 farmers that will benefit from the 150MT of certified PVA maize produced by seed companies in Nigeria. The figure also includes 905,907HH that HarvestPlus has reached with yellow cassava using their own funds in Nigeria (2017 and 2018 data).

Discussion

A participant pointed out that the two Governments have invested in biofortification although it is difficult to estimate the exact resources invested.
A participant recommended that the project should speed up data collection on direct and indirect households that have accessed biofortified crops, particularly OFSP. This should include households that have received vines, courtesy of BNFB partners.
Another participant sought clarity on whether the project is counting households growing/producing biofortified crops or those that have accessed/received planting materials.
In response, Godfrey indicated that the project is limited to accessing planting materials and the indicator on growing is an adoption matric that requires a more sophisticated survey that is not in the purview of the current project design.
Another participant wanted to know the definition of commercial processor as adopted by the project.
Finally, a question arose on what mechanisms the project has put in place to ensure the case studies/ stories are shared widely.
Participants further recommended that the project team should seek to document the process of variety release as a success story because "the process of expediting the release is as good as the product"
In response, it was indicated that commercial processors have been classified into two (1) the formal processors that have fulfilled all the food inspection and certification requirements and are marketing their products in medium-large retail outlets and (2) small processors operating informally.
Concerning the dissemination of the case stories, the project had adopted diverse ways including print and online means. The project also hopes to compile a booklet containing all the case stories.

4.3. Overall BNFB Financial progress report

Alessandra Furtado presented the overall BNFB Financial progress report Annex 13) to participants through Skype. She indicated that some partners such had not signed their last sub – grantee agreement modification and encouraged the representatives of the organizations to follow up with the relevant offices to expedite the process. She further asked all partners to keep their activity expenditures within the approved budgets. Alessandra reminded participants that the submission of year 3 quarter 4 financial and narrative reports was due October 15th, together with project ledgers. She explained that CIP will review the ledgers and selected documentation and that all partners are expected to sign agreement close-out letters. Alessandra averred that the final payments/ reimbursements will take place ahead of CIP's final report to Bill & Melinda Gates Foundation (BMGF). She also encouraged thematic leads to work on their work plans and budgets for the remaining time frame to enable the project management team capture projections in the Year 3 Quarter 3 report that was due 31st August 2018.

Session 5: Lessons learnt

The BNFB Project Manager, Hilda Munyua facilitated a session on lessons learned. In her presentation (Annex 14), Hilda explained the process and defined key concepts and steps that help document a lesson learnt**.** She further observed that for a lesson to become a lesson learnt, it needs to be accompanied by an action and something needs to be changed.

Hilda then reiterated the key features of a good 'lesson learned', which include the following:

- **Background:** a brief description of the situation.

  Experience / Challenge: an encounter or practical contact with something, event or observation. An experience is often documented as an issue for consideration, a best practice or an item for improvement / a difficulty in a task or undertaking that is stimulating to the one engaged in it.

- **Innovation:** What action did you take to address the challenge? Where was there a difference between what was planned, and what actually happened? Either a positive or a negative difference!

- **Finding:** information discovered as a result of an inquiry, an act of discovery.

- **Analysis:** an examination of learning points by distilling the root causes of success or of a problem and the differences observed and lessons identified that led to the discovery and identification of the appropriate action to sustain the success or correct the problem

- **Recommendation:** a prescription on what should be done in a specific circumstance. It highlights what the learning point was and what should be done in future to avoid the problem or to repeat the success.

- **Lesson learned:** a lesson needs to be accompanied by an action if it is to be considered 'learned', and something needs to be changed, such as a procedure, a budget or a methodology. The change needs to be communicated, hence a lesson learned is a change in process, behaviour or performance as a result of an experience.

After the presentation, participants formed three groups (Nigeria, Tanzania and the region) and practice writing of good lesson learnt. Appendix 3 and 4 present samples of the work done by the groups.

Session 6: Studies and surveys

Session 6 highlights presentations on studies and surveys carried out by the BNFB team. Richard Kasuga, Olapeju Phorbee, Godfrey Mulongo, Hilda Munyua, Joyce Maru, James Gethi and Boaz Waswa (for Jean Claude Rubyogo) highlighted the approach and key findings (annexes 15-21.

Richard and Olapeju presented the findings of the situation analysis (SITAN) study for Tanzania and Nigeria respectively. Godfrey presented the findings of the Reaching Agents of Change (RAC) ex-post evaluation, Hilda presented the findings of the Partnership survey, Joyce presented findings on the usage of the OFSP investment guide products, Boaz on consumer acceptance of and willingness to pay for iron beans in northern Tanzania and James presented the findings of maize seed demand, PVA maize value chain and maize grain processing study in Tanzania. Below are the highlights of each study:

6.1. Tanzania Situation Analysis Findings

Richard observed that despite the late finishing of the situation analysis (SITAN) study in Tanzania, the findings (Annex 15) were extremely critical in informing the advocacy strategy that is at advanced levels of implementation. The following are some of the highlights of the SITAN:

- Five varieties of OFSP were released between 2010 and 2015, namely Kabode, Ejumula, Kakamega, Mataya and Kiegea.
- According to OFSP farmers participating in the focus group discussions, the average area under OFSP production in the sampled areas is 1.03 acres per household with the average yield of 2.86 tons per acre.
- The two major factors affecting OFSP production in Tanzania are shortage of quality planting materials and low preference of OFSP varieties over white varieties due to low dry matter content. Others include lack of awareness and drought stress.
- Results indicate that the participating households consume an average of 35.3% of the OFSP produced. Overall, production and consumption of OFSP still remains low in Tanzania. Comparatively, the consumption of OFSP is higher in the Lake zone because sweetpotato is one of the staple crops in the region. In this region, OFSP has been produced for about ten years since its introduction in Misungwi district in 2007. Conversely, the consumption of OFSP is lower in the Northern zone and in the Southern highlands zone because in these zones, OFSP is relatively recent and not the main staple crop.
- The work on PVA maize in Tanzania is recent. BNFB is the only project currently supporting research and dissemination of PVA maize. These efforts have seen the release of two provitamin A maize varieties. The two varieties released in 2016 in partnership with Meru Agro are Meru VAH 517 and Meru VAH 519 with β-carotene levels at 8 and 14ppm, respectively.
- Similar to PVA maize, work on biofortified beans in Tanzania is just starting. Apart from the work and funds by BNFB, there are no other initiatives on high iron beans in Tanzania. Currently, there are two high iron bean genotypes namely MAC44 and RWV1129 that are at advanced National Performance Trial stage, pending official release this year. This research work is supported by BNFB.
- In addition to the two varieties, with the support of BNFB, multilocational trials for stability and adaptability tests for eight more high iron and zinc genotypes are ongoing.

6.2. Nigeria Situation Analysis Findings

Below are some key findings (Annex 16) of the SITAN conducted in Nigeria:

- The level of awareness on biofortification was high among farmers but low among consumers. Over 60% of the farmers surveyed were aware of the existence of biofortified sweetpotatoes, cassava and maize but over 61% of the consumers were not aware of the existence of these crops.

- Among the states, farmers' awareness on biofortification was highest in Benue, at 83.8%, followed by Kaduna, at 79%, Akwa-Ibom, at 70%, Taraba, at 56.9% and Osun, at 56.7%. Among consumers, awareness of the existence of biofortified sweetpotatoes, cassava and maize was high only in Benue state, at 83%.

- The level of farmers' awareness on the biofortified crops was highest for OFSP, at 55.1%, and then cassava, at 39.9%. Only 5% of the respondents were aware of the existence of biofortified maize.

- The main barriers disadvantaged groups faced in accessing and benefiting from biofortification included cultural and individual preferences relating to the product attributes; inefficiencies in the credit market, information access, and input and output markets; and their low education levels.

- There were five key policies in Nigeria that target malnutrition, but only two specifically mentioned biofortification as a strategy for addressing micronutrient deficiency.

6.3. RAC Ex-post Evaluation Findings

The highlights of the RAC ex-post evaluation was presented (Annex 17) by Godfrey are as follows:

- A total of 14 policy and strategy documents that position OFSP and biofortification at the top of the nutrition agenda were promulgated and enacted between 2011 and 2017, seven of which were in Mozambique, four in Nigeria, and three in Tanzania.
- The new investment raised through the influence of RAC surpassed the target of $18m by 20%. The bulk of the funding came from international donors and was highest for Mozambique, which had the longest involvement with OFSP.
- RAC aimed to reach 600,000 direct HH with OFSP in 5 years after the project came to an end. By the time of the evaluation, RAC and its follow-up projects had distributed more than 24,434,952 vine cuttings to 390,966 farmers directly in the three countries, 20.3% of whom are women. At this commendable rate, by 2020 RAC is likely to achieve or even surpass its target
- RAC put in place an elaborate three-tier seed multiplication plan to ensure consistent and sustainable supply of OFSP seed for multiplication and production. This system is well established and working. New CIP projects have added value and continued to strengthen seed multiplication activities in all the three countries.
- More than 41,216 children from 174 elementary schools in Nigeria are consuming OFSP weekly as part of the school-feeding program. In Mozambique, 32% of the sweet potato produced is orange-fleshed and people eat it two–three times a week.

6.4. Partnership Survey

Hilda explained that the objectives of the partnership survey study were to assess how well the BNFB partnership has worked with special reference to the partnership engagement process, implementation process, leadership and management of the partnership and value add by BNFB. A total of 39 partners were invited to participate in an online monkey survey with two follow up reminders. Out of the 39 participants, 16 responded (41% response rate). The key findings (details Annex 18) are shown below:

- *The BNFB partnership engagement process* is generally smooth, CIP was inclusive and provided timely support and sufficient information throughout the process. Out of the 11 respondents, 6 indicated that they strongly agreed, four agreed and one neither agreed nor disagreed.
- *The BNFB partnership met its objectives/expectations*: 10 partners felt that their objectives and expectations were met, with 5 indicating that they strongly agreed, 5 agreed and 1 neither agreed nor disagreed.
- *There was a clear understanding of what the project objectives were, what the project expected to achieve through the partner organization*. Six strongly agreed, 4 agreed and 1 neither agreed nor agreed.

- *Each partner's roles and responsibilities were clearly defined*. Five respondents indicated that they strongly agreed, 5 agreed and 1 neither agreed nor disagreed.
- *Levels of cooperation* - Out of the 10 respondents, 3 cited excellent, 6 very good and 1 good.
- *On whether information and guidance on the tasks to be carried out and objectives was provided*, 4 respondents strongly agreed while 6 agreed.
- *Assessment of whether finances were availed to partners in good time*, 3 respondents strongly agreed, 4 agreed while 3 indicated they neither agreed nor disagreed.
- *Partners were asked whether they felt respected in the BNFB partner*ship and 6 stated that they strongly agreed while 4 agreed.
- *When asked whether the BNFB partnership benefited the beneficiaries in Nigeria, Tanzania and the regional level*, all the respondents answered – yes.

6.5. Utilization of Investment Guide Toolkit

Joyce presented key findings of a survey on the utilization of the OFSP investment guidelines toolkit (comprising three products – an investment guide, an implementation guide and a summary to provide practical tools to advocates and champions to respond to questions relating to what it takes to invest in OFSP projects and programs. Joyce indicated that out of the 30 individuals invited to participate, 28 provided feedback. Below are some highlights from the study (Annex 19):

- *Whether the OFSP investment guides have been useful in the work of regional and national champion/advocate*, 8 stated that they strongly agreed, 10 agreed and 3 neither agreed nor disagreed.
- *Whether they frequently referred to the investment guides during their advocacy work*: 8 respondents stated that they strongly agreed, 8 that they agreed, 3 that they neither agreed nor disagreed and 1 strongly disagreed.
- *The investment guides are simple and easy to use*: 7 respondents stated that they strongly agreed, 9 that they agreed and 4 that they neither agreed nor disagreed. They explained that: I did not use any investment guide; the English language used is very simple for majority to understand; they are well articulated and very easy to understand.
- *Which of the three toolkits did you use more frequently*: 6 respondents cited the investment guide, 9 the implementation guide and 5 the summary guide.
- I *will continue using the investment guides in the future*: 7 respondents stated that they strongly agreed, 8 that they agreed, 4 that they neither agreed nor disagreed and 1 strongly disagreed.
- *I recommend that BNFB updates the summary investment guide to incorporate other biofortified crops*: 15 respondents stated that they strongly agreed, 4 that they agreed, and 4 that they neither agreed nor disagreed.

6.6. Maize Seed Demand Study

James presented the results of the maize seed demand, PVA maize value chain and maize grain processing study carried out in Tanzania (Annex 20). The findings indicate that:

- Although the potential area for maize cultivation is 16,195,384 ha, the current area under maize cultivation in 2017/18 season is only 4,839,842 ha, indicating that there is a lot of land (70.1 %) suitable for maize cultivation but it is not yet fully utilized.
- Approximately 42,000 tons of seed were produced in the last three years. There is very low quality declared seed produced.

- It was estimated that the seed demand is 105,000 MT, of which a substantial amount is from recycled seed.
- In Tanzania, 37 companies market seed, with three seed companies importing and producing seed at the same time.
- The study further indicates that the production of maize increased from 5.1 m tons in 2012 to 8.0 m tons in 2016. Productivity has also improved from 0.5t/ha in 2003 to 2.5t/ha in 2016. Southern highlands have the highest productivity at 3.0t/ha.
- Grain exported was approximately 62,000 MT in 2015 and dropped to 45,000 MT in 2017.

6.7. Consumer Acceptance of and Willingness to Pay for High Iron Beans

Boaz Waswa (representing Jean-Claude Rubyogo) explained that the study on *consumer acceptance of and willingness to pay for iron beans* was guided by the following objectives: (1) characterizing bean consumers in northern Tanzania; (2) assessing consumers' perception, knowledge, and demand of higher iron beans in northern Tanzania; and (3) evaluating consumers' willingness to pay for iron-biofortified beans compared with non-iron-biofortified beans. A total of 408 HH heads responsible for decision-making on food preparation (purchasing of food) in the household and key informants of representative institutions were interviewed using a semi-structured tool. The key study findings (Annex 21) indicated the following:

- 95% of bean consumers in both rural and urban areas are willing to pay for iron-biofortified bean as an invisible trait. These consumers are willing to pay a higher price than the prevailing bean market price by 25%.
- majority of the consumers, farmers, and traders exhibit a low level of awareness and knowledge about higher iron beans as a source of iron.

Discussion

Following the 7 presentations made on BNFB studies and surveys, participants asked several questions and sought clarification as follows:

- The Tanzania SITAN indicates that OFSP varieties are low in dry matter and susceptible to pests and diseases. Is this an accurate statement?
- Why does most of the investments going to OFSP in Tanzania and not the other biofortified crops?
- The response rate for the partnership survey response rate is low and could be misleading to present the percentages. Moreover, are there plans to ensure more partners respond?
- How will farmers/consumers differential HIB from the others?
- What factors/characteristics did the respondents consider rating the HIB better than the other varieties during the willingness to pay study?
- How does one differentiate between the CPP orange (non-biofortified varieties) with the PVA maize in Tanzania?

Answers

- Making a general statement that OFSP varieties are susceptible to pests and diseases is quite general and should be revised in context or relative to a white-fleshed variety. However, it is scientifically accurate that OFSP varieties are low in dry matter content when compared with most white or cream varieties. Kiddo explained that dry matter and beta-carotene content are inversely related.
- In terms of investments, OFSP has received most of the funding in Tanzania because the crop has been on the market and is relatively more known than the other two crops (HIB and PVA – maize).
- The point on not presenting percentages was well received. Concerning more responses, Hilda indicated that follow-up would be made through e-mail to increase the response rate.
- The issue of the hidden trait of the HIB was discussed at length. Boaz indicated that this is a continuous challenge that strategies such as farmer and consumer education, strict inspection, seed contracting, and labelling will be put in place to prevent unscrupulous business people from selling fake beans.
- Boaz indicated that farmers considered the colour, palatability and the short time of cooking in rating the HIB favourably.
- James reiterated that not all orange coloured maize varieties are biofortified. Concerning the PVA maize in Tanzania, he indicated that the two PVA maize varieties were released by Meru Agro and that the package is well labelled to indicate that they are biofortified. However, he indicated that farmer education concerning this matter needs to be sustained.

Session 7: Sustainability strategies

In her presentation on sustainability and the way forward (Annex 22), Hilda outlined the various strategies that the project has put in place to ensure the ongoing work continues and the gain realised are sustained in the long-term. Some of the strategies include the establishment of multi-institutional, multi-sectoral partnerships and platforms, working with public and private sector in co-financing advocacy, capacity building and seed systems activities, mainstreaming biofortification in national research programmes and capacity development of national organizations and the private sector. Hilda pointed out that by design, BNFB had built-in sustainability right from the onset i.e. the project is essentially about sustainability and scaling up of biofortified crops for nutrition security in Nigeria and Tanzania through a 'food basket' approach.

Following this presentation, participants took time to discuss in groups sustainability strategies and agreed on the agreed on the partners will be taking ownership of the different activities that are currently supported by BNFB. Below are the results presented by the groups:

Sustainability Tanzania

Thematic areas	Sustainability	Organization
Advocacy	1. Continue to support NFFA to nest the platforms. Fully integration of BF in TFNC work/departments. The development of the BF guideline will help boost these efforts. 2. The maize platform has committed membership base and there is urgent need to make it a legal entity in the next two months (BNFB to lead this to expedite). Moreover, CIMMYT will continue to be an ex-officio member of the platform. The technical support provided by CIMMYT will continue to be nested in other program activities 3. Continued nesting of nutrition/BF agenda in the PMOs office for scalability of multi-sectoral approaches e.g. e.g. Directors of Crop Promotion, Food security, Research, Director of Policy and Planning. 4. Operationalization of ASDP2 and MNAP through the High-Level Committee on Nutrition (PMOs office)	TFNC, MoA
Capacity development	1. SUGECO has initiated cost recovery ToT courses that have turned out quite popular. This will continue. 2. Modules of critical areas of the biofortified crops have been developed and published	
Seed systems	1. Commercial wing is going to be established under the Tanzania Agriculture Research Institute (TARI). 2. Entrenchment of biofortification into district council budgets for continuity. 3. School feeding programmes 4. Strengthening TFDA and supporting TFNC for regulation of standards and to fight against fake seeds and products 5. TFNC to work with PMOs office to obtain HPLC machine – as an entire compendium from Vienna or COSTEC. The capacity to use this machine has been built by the support of BNFB 6. Avail the seeds of the biofortified crops with the Agriculture Seed Agency (ASA) for continued seed multiplication.	TAMISEMI (PO-RALG), TFNC, COSTEC, ASA

Sustainability - Nigeria

Thematic areas	Sustainability	Organization
Advocacy	1. There is increased government attention on biofortification as reflected in the inclusion of biofortification in key policy and strategy documents. 2. There are currently 33 active advocates promoting biofortification in various strategic sectors in the country.	MoBNP, Federal Ministry of Agriculture and Rural

Thematic areas	Sustainability	Organization
	3. BNFB has strengthened the policy environment by facilitating the inclusion of biofortification agenda in the multisectoral platform coordinated by the Ministry of Budget and National Planning (MoBNP) 4. The advocacy strategy is published and open access for partners to learn about the critical areas to intervene.	Development (FMARD)
Capacity development	1. Strengthened institutional capacity of Agriculture, Rural and Management Institute to conduct training on OFSP on sustainable basis 2. Mainstreaming step-down training into Agricultural development programs 3. Trained seed companies on production of certified seeds for PVA maize. 4. National and private seed companies own and have institutionalized ToT courses through the step-down approach.	Agriculture, Rural and Management Institute, the National Root Crops Research Institute, Premier Seed Co, Maslaha Seed Co, Gold Agric, and Savanah Seed Companies
Seed systems	1. Strengthened the breeding program: Many promising genotypes are in the breeding pipeline 2. Renewed interest of counterparts to assist farmers to engage in vine and root production including provision of low capacity watering pump. 3. Strengthened the capacity of national research and private sector for production of seeds of biofortified crops.	ADPs, National Root Crops Research Institute

The regional team highlighted the following as the sustainability plans:

1. The regional advocacy strategy developed will ensure continued advocacy activities.
2. The enlistment and the commitment of regional champions who are well resourced with advocacy materials will ensure continued advocacy.
3. The mainstreaming of biofortification in NEPAD's flagship programmes is likely to sustain the momentum of some activities in the future.
4. The draft declaration on scaling-up food fortification and biofortification within the food system that is ready for submission through AU Policy Organs will ensure governments' commitments to invest and adopt biofortification as an effective intervention to combat hidden hunger
5. The proposed development of framework for implementation of expanded biofortification programme in Africa initiated by AU will further enhance sustainability.
6. Mainstreaming of youth and women in regional advocacy initiatives and creation of a WhatsApp group will ensure continuous information sharing and promotion of biofortified products in the region.

Comment

Participants lauded the project for putting in place practical mechanisms to sustain the impressive results registered. For even better sustainability, participants recommended that the platforms established should be fully registered with the national authorities with well written constitutions. Moreover, it was recommended that a budget line for the line ministries working on biofortification be considered to sustain the results.

Session 8: Key issues and way forward

Dr. Paul Demo facilitated a session on what participants felt are the key issues that need to be addressed going forward. Below are some of the issues raised during the plenary:

1. If funding for another phase were available, there is need to continue supporting the operationalization of the promulgated policy and strategy documents that have been influenced to include biofortification in Tanzania, Nigeria and the region.
2. BNFB should analyze and report on the extent the advocacy strategy has been implemented and highlight which areas need further input/support post project. This will enable partners to plan well on how to support/implement the pending items.
3. TFNC should liaise with the PMO's office to seek funding from the Tanzania Commission for Science and Technology to buy the high-performance liquid chromatography instrument required to analyse the levels of essential micro nutrients in the biofortified crops and food products produced.
4. The project should devise mechanisms to capture data on step-down courses and beneficiaries.
5. There is need to further strengthen the capacities of local implementing partners further, particularly on how to monitor and evaluate policy outcomes on biofortification.
6. More efforts are required to address the challenges raised such as the disincentives of the biofortified crops - low yields, pests and diseases, low dry matter (OFSP), poor malleability (PVA cassava) and limited markets.
7. The project team should speed up the process of documenting and sharing the lessons, processes and successes of the BNFB project.

Session 9: Closing remarks

Prof. Ngozi, made the closing remarks on behalf of the Project Steering Committee (PSC). Prof. Ngozi expressed her deep pleasure to have had the opportunity to work with the project and underscored her satisfaction with the progress the project had registered in fighting hidden hunger in Nigeria and Tanzania. She encouraged all actors to keep promoting and championing biofortification.

The next remarks were made by Mr. Obey who observed that although the project was coming to an end, the agenda on biofortification continues. He encouraged increased awareness creation and

documentation of the project successes and congratulated CIP for the way the organization managed the partnership/consortium. In his closing remarks and on behalf of CIP-SSA, Dr. Paul Demo indicated that the BNFB project model is extremely innovative and well-conceived. He termed the design as 'revolutionary' and encouraged its replication and scale up Africa wide. Dr. Demo challenged participants to find ways to keep the momentum going. Concluding the session, the Project Manager, Hilda, applauded the Government of Nigeria for hosting the event and further expressed her gratitude to both Governments for the support that enabled the project to realise the results. Hilda further thanked the Bill & Melinda Gates Foundation for supporting the initiative and the PSC members for continued support and insights they have provided to steer the course of the project. She further thanked the project team for their hard work and dedication.

Appendices

Appendix 1. Programme

	DAY ONE 14.08.2018	Time	Responsibility	Goal	Convener
	Arrival and registration	8:00 – 8:30 am	Maryann Mwangi / Yakubu Mutari / Agnes Mrinji		
1	**SESSION 1: INTRODUCTIONS, WELCOME AND OPENING REMARKS**				Dr Paul Demo
	Introductions	8.30- 9.00 am	Joyce Maru	Break the ice and team building	
	Welcome remarks	9:00 – 9:10 am	Dr Paul Demo	Welcome remarks and welcoming of country host	
	Welcome and opening remarks by country host	9:10 – 9:25 am	Mme Roselyn Gabriel		
	Welcome remarks by a representative of Tanzania delegation	9:30 – 9:35am	Mr Obey Assery Nkya		
	Welcome remarks – on behalf of partners & PSC members	9:25 – 9:30 am	Dr Stephen Mugo		
	Objectives of the meeting, expected outputs and agenda	9:35 – 9:45 am	Hilda Munyua	Develop a common understanding of the purpose of the meeting and the program	
2	**SESSION 2: REGIONAL PRESENTATIONS ON ACHIEVEMENTS, LESSONS LEARNED, OPPORTUNITIES, CHALLENGES, SUSTAINABILITY AND PRIORITIES BEFORE CLOSEOUT**				Prof Ngozi
	Regional promotion and advocacy Capacity development and communications Discussion	9.45 – 10.10 am 10.10 – 10:35 am	Rose Omari Joyce Maru	Achievements Nov 2015 – Aug 2018, lessons learned, opportunities, challenges, sustainability, pending priorities before closeout	

		10.35-10.45 am			
	HEALTH BREAK	**10:45 – 11:10am**	**Maryann / Yakubu / Agnes**		
3	**SESSION 3: COUNTRY PRESENTATIONS ON PROJECT'S ACHIEVEMENTS, LESSONS LEARNED AND PRIORITIES BEFORE CLOSEOUT**				
	A. Nigeria Promotion and advocacy OFSP activities PVA Maize activities Vitamin A Cassava activities	11:10 –11:40 pm 11:40 – 12:10 pm 12:10 – 12:40 pm 12:40 – 1.10 pm	Olapeju Phorbee Jude Njoku Wende Mengesha Paul Ilona	Achievements Nov 2015 – Aug 2018, lessons learned, opportunities, challenges, sustainability, pending priorities before closeout	Mme Roselyn Gabriel
	LUNCH BREAK	1.10 – 2:00pm	Maryann / Yakubu / Agnes		
	Discussions	2.00 - 2.30 pm			
	B. Tanzania Promotion and advocacy OFSP activities High iron beans activities PVA maize activities Discussions	2.30–3:00 pm 3.00–3.30 pm 3.30–4.00 pm 4.00 – 4.30 pm 4.30 – 5.00 pm	Richard Kasuga Kiddo Mtunda Jean-Claude Rubyogo/Boaz James Gethi / Thokozile	Achievements Nov 2015 – Aug 2018, lessons learned, opportunities, challenges, sustainability, pending priorities before closeout	Mr Obey Assery
	HEALTH BREAK	5.00 – 5.30 pm	Maryann / Agnes / Yakubu		

	DAY TWO 15.08.2018	Time	Responsibility	Goal	Convener
4	**SESSION 4: OVERALL PROJECT PROGRESS**				**Dr Stephen Mugo**
	Recap of day 1	8.15 – 8.30 am	Rapporteurs		
	Overall progress on BNFB monitoring, learning, evaluation, studies and documentation	8.30 – 9.00 am	Godfrey Mulongo	Achievements monitoring, learning, evaluation, studies, documentation and reporting	
	Overall BNFB project progress and achievements	9.00-9.30 am	Hilda Munyua	Overall project achievements against set milestones	
	Overall BNFB financial progress report Nov 2015-August 2018	9.30-10.00 am	Alessandra Furtado	Overall financial project report, burn rate and how this informs the	
	Plenary discussions	10.00-10.30 am			
	HEALTH BREAK	10.30 – 11.0 am	Maryann / Agnes / Yakubu		
5	**SESSION 5: LESSONS LEARNED**	11.00 – 1.00 pm	All	Group discussions in cross-cutting and thematic groups discuss and agree on key lessons learned in each country / regional level	Dr Tumaini Mikindo
	Process of documenting lessons learned	11.00-11.30 am	Hilda Munyua		
A	***PROJECT DESIGN***		Project team		
	ADVOCACY & POLICY & ADVOCACY MATERIALS	11.30-12.30 pm	Rose/Olapeju/Richard/ Joyce/Hilda	Group discussions in cross-cutting and thematic groups discuss and agree on key lessons learned – project design, advocacy, policy engagement, new	

				investment and advocacy materials	
	Plenary presentations and discussions	12.30-1.00 pm			
	LUNCH BREAK	1.00 – 2.00pm	Maryann / Yakubu / Agnes		
B	***LEARNING MATERIALS, TOTs & STEP-DOWN COURSES, & PROJECT PLANNING, IMPLEMENTATION, MONITORING & EVALUATION COURSES***	2:00 – 3:00 pm	Joyce / Jude / Mengesha / Olapeju / James / Kiddo / Jean-Claude / Richard / Godfrey	Group discussions in cross-cutting and thematic groups discuss and agree on key lessons learned in each country / regional level	Dr Jonas Mugabe
	Plenary presentations & discussions	3.00-3.30 pm			
C	**SEED SYSTEMS**	3.30-4.30 pm	Kiddo / Jude / Jean-Claude / Jude / James / Mengesha / Paul /	"	
D	**PARTNERSHIPS**	4.30-5.00 pm	Hilda / Olapeju / Richard / Kiddo / Jude / Joyce / Godfrey /Jean-Claude / Jude / James / Mengesha / Paul /	"	
	Plenary presentations & discussions	5.00-5.30 pm			
	HEALTH BREAK	5.00-5.30 pm			
	DAY THREE 16.08.2018	**Time**	**Responsibility**	**Goal**	**Convener**
6	**STUDIES AND SURVEYS**			**Presentations and discussions on key findings and recommendations from studies and surveys conducted by BNFB**	**Dr Bho Mudyahoto**
	Recap of day 2	8.15-8.30 am	Rapporteurs		
A	Situation analysis studies – Nigeria/Tanzania	8.30-9.00 am	Olapeju / Richard		
	RAC Ex-post evaluation results	9.00-9.30 am	Godfrey		

	Partnership survey findings	9.30-10.00 am	Hilda		
	Usage of investment guide survey findings	10.00-10.30 am	Rose / Joyce		
	Capacity development – key findings on the RAC/BNFB model	10.30-11.00 am	Joyce		
	HEALTH BREAK	11.00-11.30 am			
B	Consumer acceptance of and willingness to pay for iron beans in northern Tanzania	11.30-12.00 pm	Jean-Claude / Boaz		Dr Adeyinka Onabolu
	Maize seed demand, PVA maize value chain and maize grain processing	12.00-12.30 pm	James		
		12.30-1.00 pm			
	LUNCH BREAK	1.00 – 2.00pm	Maryanne / Mutari / Agnes		
7	**EXIT & SUSTAINABILITY STRATEGIES & WAY FORWARD**	2.00-2.30 pm	Hilda		Dr Boaz Waswa
	Group discussions	2.30-3.00 pm			
	Plenary presentations & discussions	3.00-3.30 pm			
8	**CLOSING CEREMONY**	3.30-4.30 pm			Dr Paul Demo
	Summary on key issues, lessons synthesis & way forward				Gift Oguzor/Vivian/ Bevin
	- Closing remarks				Prof Ngozi / Mr Obey Assery
	Vote of thanks				Stakeholder
	HEALTH BREAK	4.30-5.00 pm	Maryann / Mutari / Agnes		
	COCKTAIL & EXHIBITION	7.00-8.00 pm	Maryann / Mutari / Agnes		
	DAY FOUR 17.08.2018: **PROJECT STEERING COMMITTEE MEETING**				

Appendix 2. List of participants

S/N	Name	Title and Organization.
1	Obey Assery Nkya,	Director, Dept of Coordination of Govt Business, Office of the Prime Minister, Tanzania
2	Ngozi Nnam,	Fellow Nutrition Society of Nigeria (FNSN) Co-Chair, Professor of Community and Public Health Nutrition, Trustee, African Nutrition Society.
3	Jonas Musabwa Mugabe	Manager of the Platform for African-European Partnerships in Agricultural Research for Development (PAEPARD). FARA
4	Stephen Mugo,	Regional Principal Scientist and Africa Regional Representative, CIMMYT
5	Victor Ajiero	Senior Program Officer, Bill & Melinda Gates Foundation
6	Boaz Waswa	Senior Scientist, Pan-African Bean Research Alliance (PABRA) - CIAT.
7	Peter Kulakow	Cassava Breeder. IITA
8	Uruakpa John	Deputy Director, Micronutrients Control. Federal Ministry of Health, Nigeria.
9	Zainab Towobola	Head Nutrition & Food Safety Division Federal Ministry of Agriculture and Rural Development, (FMARD), Nigeria
10	Mme Roselyne Gabriel	Deputy Director, National Policy on Food and Nutrition/Economy Growth Department. Ministry of Budget and National Planning, Nigeria
11	Adeyinka Onabolu,	Senior Advisor on Food Security & Nutrition, Office of the Hon Minister for Agriculture and Rural Development, Nigeria
12	Mikindo Tumaini,	Executive Director, PANITA
13	Bho Mudyahoto,	Head, Monitoring and Evaluation (Global), HarvestPlus – IFPRI
14	Stephen A. Ruvuga	Executive Director, Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) (National Network of Farmers Groups in Tanzania)
15	Hilda Munyua,	Project Manager, BNFB, CIP.
16	Godfrey Mulongo	Senior MLE Specialist, International Potato Center
17	James Gethi	Seed Systems Specialist, CIMMYT
18	Wende Mengesha	Maize Breeder - IITA - Nigeria

S/N	Name	Title and Organization.
19	Paul Ilona	Country Manager, HarvestPlus Nigeria
20	Maryann Mwangi	Senior Program Assistant, CIP
21	Richard Y. Kasuga	Senior Country Coordinator, BNFB
22	Phorbee Olapeju	BNFB Country Coordinator-Nigeria, CIP
23	Joyce Maru	Capacity Development and Communications Specialist, CIP
24	Mutari Yakubu	Program Assistant BNFB, CIP
25	Mariam Akiror	Advocacy Specialist, Africa Strategic Alliances Program, HarvestPlus
26	Rose Omari	Consultant, Capacity Development and Advocacy on Biofortification, FARA
27	Kiddo Mtunda	Officer in Charge / Root Crop Breeder, SRI- Kibaha
28	Thokozile Ndhela	Maize Breeder, CIMMYT
29	Vivian Atakos	Regional Communication Specialist, CIP.
30	Gerald Kitabu	Chairman-Tanzania Agricultural Journalist Association
31	Jude Njoku	Agronomist, National Root Crops Research Institute Umudike, Nigeria
32	Vincent Assey	Managing Director-Tanzania Food and Nutrition Center
33	Bevin Angellah Bhoke	Documentation officer
34	Agness Mrinji	Program Assistant, BNFB, CIP
35	Gertude representing DR. M. L. BUGA	Director, Industrial Chemical and Minerals Department, (ICMD) Raw Materials Research and Development Council (RMRDC)
36	Paul Demo	Regional Director CIP SSA
37	Gift Oguzor	BNFB Champion
38	Samson Afolabi	R & D Manager, PREMIER SEED LTD.

Appendix 3: Lesson learned - Tanzania

Theme	Background	Experience	Innovation	Analysis	Recommendation	Lesson learned
Seed systems	BNFB was meant to conduct a study on three models of PVA seed dissemination in Tanzania. Objective was to understand how stakeholders would access the seed effectively	The project soon established that the PVA maize varieties had not been released and therefore conducting this study was not useful.	With stakeholder guidance, it was found useful to explore other potential useful research areas to generate information on other critical areas of PVA maize including the 3 models of seed dissemination. This was done by assistance of external consultants	There were no varieties released.	At the inception, Tanzania and Nigeria were treated as if at the same level. Same with crops in the basket. For other crops, seed could be produced by communities. However, this is not so for Maize. In future, it is important to regard the uniqueness of country contexts and the variations in the seed value chains of the different commodities	CIMMYT with support from independent consultants conducted a study on PVA and general seed demand in Tanzania which has been published to wider utility.
Policy	The project was designed to influence policy change for BF and support the operationalization of the policies into programs	Policy engagement with the government is complex and policy influence is contingent upon government plans. Policy change takes long	The project was lucky to find ongoing policy changes/development. The project big-bagged these ongoing initiatives (ASDP2 & MNAP).	Limited time for advocacy particularly for awareness creation and policy change. The scoping study should have been conducted to obtain sufficient information on the status of policy and investments before targeting is done	Projects on policy change should be longer, 3 years may not be adequate to influence policy. Moreover, knowledge of government policy making process is important for projects like this.	Building on ongoing efforts in advocacy, the project advocated the inclusion of BF crops in 3 key project documents.
	The project was meant to advocate of for food basket project in Tanzania	It soon occurred that only OFSP had been released in Tanzania and advocating for policy change and investments for food-basket was not practical	The project leveraged the E.A.C and SADC seed protocols to expedite the release of HIB and PVA maize varieties in Tanzania. Exchange of genotypes from Rwanda and Zimbabwe	Only one crop had been released in Tanzania	Advocacy for food-basket should be contingent upon officially released varieties in any country	The project expedited the release of 4 varieties (HIB and PVA maize)
Partnership	To implement the food basket project as this one, the need for multi-commodity and multi-partners is unavoidable	Managing complexity of needs, cultures, value chain differences and politics is apparent in such partnerships. However,	Partnership was open-door, prior engagement of partners at design was done and each partner allowed to design the component of their respective crop	Openness in partnership engagement	For a multiparters project like this, in-depth engagement at the project design is crucial. Good partnership management, transparent and accountability are very key. Moreover, the respective partners should	The project worked with 7 partners in a mutually constructive and productive environment. The project appointed an advocate from MoA and included a

Theme	Background	Experience	Innovation	Analysis	Recommendation	Lesson learned
		involvement of the MoA and farmer networks (e.g. MVIWATA) could have been more intensive			be allowed to design their component on the project and prior agreement on budget allocation at design stage to eliminate potentiality for conflict at implementation. Additionally, incorporating a member of the project advisory committee appointed by the minister of Agric (plus the advocate) is recommended	representative of MVIWATA on the PSC.

Appendix 4: Regional lesson - sample

Theme	Background	Experience	Innovation	Analysis	Recommendation	Lesson learned
Advocacy	Harvest Plus was responsible for coordinating the seeds systems using BNFB funding However, Harvestplus requested for exception during the inception workshop and promised to use their own funding to coordinate the seed systems	This affected the implementation arrangements, partnerships, roles responsibilities, synergy, reporting and results. Moreover, most planned meetings for seed system did not take place	The project established the seed platforms that were held on a rotational basis by the consortium partners	Attention needs to be paid to the following: • Implementing arrangements • Partnerships • Roles and responsibilities	• It's necessary to make all partners accountable to the results framework • Securing partners' commitments before signing Partner Cooperation Agreement (PCA)	• Partnerships that don't link to results framework are not effective • The PSC worked hard and took a very strong position to address the loose partnership • Internal commitments and actions are necessary to strengthen partnerships and clarify roles and responsibilities • Every partner needs to understand what their commitments are– There should be clarity in communication • Attribution of results to partners is important at all levels

Annexes

The presentations made during the review and close-out meeting are found at the link below. The annexes in the link are as follows:

Annex 1: Regional promotion and advocacy
Annex 2: Capacity development and communications
Annex 3: Promotion and advocacy – Nigeria
Annex 4: PVA cassava
Annex 5: OFSP activities
Annex 6: PVA maize activities – Nigeria
Annex 7: Promotion and advocacy – Tanzania
Annex 8: PVA maize activities – Tanzania
Annex 9: OFSP activities – Tanzania
Annex 10: High iron beans activities
Annex 11: Monitoring, learning, evaluation and documentation
Annex 12: Overall BNFB achievements
Annex 13: Overall BNFB financial report progress
Annex 14: Process of documenting lessons learned
Annex 15: Tanzania SITAN study
Annex 16: Nigeria SITAN study
Annex 17: RAC ex-post evaluation findings
Annex 18: Partnership assessment study
Annex 19: Utilization of investment guides
Annex 20: Maize seed demand
Annex 21: Willingness to pay for iron beans study
Annex 22: Sustainability strategies

Follow the link below to access the presentations:

https://cgiar-my.sharepoint.com/personal/m_mwangi_cgiar_org/Documents/Forms/All.aspx?slrid=f697ab9e-c089-7000-aaf2-936f15f8986b&RootFolder=%2Fpersonal%2Fm_mwangi_cgiar_org%2FDocuments%2FBNFB%20Shared%20Documents%2FCloseout%20Meeting-Annexes&FolderCTID=0x012000D3FBA823EE985940B6605EB9EFD6FF22