Jumpstarting orange-fleshed sweetpotato in West Africa through diversified markets – the engine is up and running …

Prepared by
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6th Sweetpotato for Profit and Health Initiative Meeting
29 September – 2 October 2015
Kigali, Rwanda
Overview

- Introduction
- Progress – Profit/Wealth and Health
- Plan and prospective
Jumpstarting OFSP ... is a three-year pilot project for West Africa and funded by the Bill & Melinda Gates Foundation

OUR VISION

Sustainable and inclusive market-driven approaches for orange-fleshed sweetpotato (OFSP) to increase incomes, and improve health through consumption of vitamin A rich OFSP, especially in women and children in Ghana, Nigeria and Burkina Faso.

PROJECT OUTCOMES

1. Formal and informal diversified OFSP market opportunities developed in pilot areas in Ghana, Nigeria, and Burkina Faso.
2. Viable QDPM seed system in target areas capable of expansion in response to increased demand.
3. Households, including women and children, in target areas have increased vitamin A consumption from OFSP.
4. Commercial sweetpotato planting material and OFSP producers, including women, increase income through participation in OFSP value chains.
CIP’s Sweetpotato Program, Partners, and Target Numbers in West Africa

Breaking Postharvest Bottlenecks: Long-term Sweetpotato Storage in Adverse Climates

Key NARS Partners
- Ghana: Council for Scientific and Industrial Research (CSIR)-Crops Research Institute, CSIR-Savanna Agricultural Research Institute, Ministry of Food and Agriculture, Ghana Health Service, University for Development Studies, Kwame Nkrumah University of Science and Technology
- Nigeria: Federal Ministry of Agriculture and Rural Development, National Root Crops Research Institute, Agricultural Development Programmes, Federal University of Agriculture Abeokuta, Ofa Polytechnic, Bayero University Kano, Osun Elementary School Feeding and Health Programme
- Benin: Institut National de Recherches Agricoles du Benin

Key NGO Partners
- Ghana: iDE-Ghana, Association of Church Based Development Projects, Catholic Relief Service, Partnership for Child Development (PCD), Farm Radio International (FRI)
- Nigeria: Helen Keller International, PCD
- Burkina Faso: iDE-Burkina Faso
- Benin: Børnefonden

CGIAR and Other Regional Partners
- Alliance for a Green Revolution in Africa, CGIAR Research Program on Dryland Systems, CGIAR Research Program on Integrated Systems for the HumidTropics

Numbers under country names indicate households to benefit by 2020

Jumpstarting OFSP in West Africa through Diversified Markets

- Breaking Postharvest Bottlenecks
- Institutes offering Training of Trainers Course
- Enhancing the Nutrient-rich Yambean
- Sweetpotato Breeding Programs
- Primary sites (All trial stages, crossing, laboratory, etc.)
- Phenotyping under Genomic Tools Project
- Secondary sites (Multilocational and on-farm trials)

Key Sites
- Green: Weak bimodal rain distribution pattern
- Light green: unimodal rain distribution pattern

Map showing countries and regions withSweetpotato Programs and partnerships.
CIP IS WORKING IN PARTNERSHIP:

- **IMPLEMENTING PARTNERS:**
  - NGOs: ACDEP, iDE Ghana and Burkina Faso, ESOKO Ghana and Burkina Faso
  - Relevant Government Agencies:
    - In Ghana: CSIR-SARI & CRI, MOFA, MOFA-WIAD, Ghana Health Service, University for Development Studies
    - In Burkina Faso: INERA, Min of Agriculture
    - In Nigeria: National Root Crop Research Institute (NRCRI), O-MEALS, State Agricultural Extension (ADP)

- **PLANNING in Ghana:** School Feeding Program

- **JOINT PROGRAM PARTNERS:** MEDA, TRAX-Ghana, SNV, World Vision International, Partnership for Child Development (PCD), Farm Radio International, HKI, CRS
We developed an “Actor–center theory of change/Impact pathway”

QDPM seed systems
- Released OFSP varieties, advanced materials from breeding programs, and other commercially important varieties will be cleansed up using thermotherapy and indexing procedures.
- Experiments to evaluate various methods of planting material maintenance and multiplication will be evaluated on-station and on-farm.
- QDPM system to be viable, it will need to be managed at the local level.
- Identify/establish commercial seed producers of various sizes.

Increased income through diversified markets
- At least 4 potential OFSP market opportunities will be assessed.
- Develop and deploy market promotional materials for marketers to use with customers.
- Appropriate and economically feasible OFSP products and recipes will be developed in Ghana.
- Organize seed and root FGs.
- With partners trained in adult learning and group organizational skills, we will conduct a series of 6 training exercises to address major aspects of sweet potato production, marketing, and utilization.

Increased vitamin A intake
- Develop and produce adequate quantities of locally appropriate training materials.
- CHPS staff trained on using the counseling materials and integration of these materials into the newly initiated nutrition-counseling program of Ghana Health Service, targeting pregnant women, infants, and young children.
- Levels of subsidy for vine distribution to pregnant women will be fully, partially, or not subsidized in order to evaluate consumer willingness to pay for OFSP planting material, and to help guide future strategies for OFSP dissemination to vulnerable populations.

Assumptions
- Good farmer sensitization
- Appropriate training
- Good rainfall patterns
- Breeders providing good varieties
- GHS staff knowledgeable about OFSP
- Structured markets
- Understanding benefits of OFSP

Actor-level outcomes
- Farmers: Increased OFSP production, reduced post-harvest losses, increased income, access to diversified food/dishes by women, formalized MOU with institutional actors serving as market outlet farmers.
- Seed producers/farmer groups: Strong links between breeding and seed system – provision of desired varieties to farmers.

Ghana Health Services: Increase in VitA w/food, Build capacity of health personnel at service delivery points, Build capacity of community based volunteers on OFSP, especially with pregnant women.

Structured Market Buyers: Purchase use of OFSP to feed students and prisoners for nutritional benefit; what will the actor need to make project successful, Arranges for funding in advance, Do analysis of business considering cost of OFSP.

Awareness/Advocacy/FDI: Awareness creation and sensitization, Increase in production of OFSP, Increase in consumption of OFSP, Access to diversified market and increased income, improved nutritional status especially for VitA. Expect to see an increase in product consumption of OFSP; after advertising, increase in family income and improved nutrition of consumers of the product.

Processors: High demand for sweet potato based products. This means processing of sweet potato based products, e.g., washing and bagging of potatoes, also processed potatoes.

Market Access Actors: Income for the seller, have to be convinced that there is a demand for OFSP.

External Factors:
- Household
- Literacy
- Language barriers
- Gender dynamics
- Absolute poverty
- Access to health care
- Government health budgets
- Infrastructure and service providers
- Weather and climate
- Regulatory environment
- Conflicts
- Disease and epidemics
- Unstable power supply

Vision: Sustainable and inclusive market-driven approaches for OFSP to increase incomes and address VitA deficiencies especially in women and children in Ghana, Nigeria, and Burkina Faso.

Outcome 1:
- Formal and informal diversified OFSP market opportunities developed in plant areas in Ghana, Nigeria, and Burkina Faso.

Outcome 2:
- Viable QDPM seed system in target areas capable of expansion in response to increased demand.

Outcome 3:
- Households including women and children, in target areas have increased VitA consumption from OFSP.

Outcome 4:
- Commercial sweet potato planting material and OFSP producers, including women, increase income through participation in OFSP value chains.
Actor-outcome matrix: Ghana, Burkina Faso and Nigeria

ACTORS/PARTNERS

1. Farmrs/dvm/FA
2. Inpt/Ir deal/lab/T
3. PM/OL/Adv/RB
4. Consumers
5. Ext/ADP/hl wkrs
6. Marketers/Xleve
7. R&D/Ac Inst/Pro
8. Inv/Fund/donor
9. Ad/socio-mkt
10. FBO,CBO
11. Processors

OUTCOMES

1. Institutional and other diversified market opportunities for OFSP developed in project pilot areas in Nigeria.
2. Commercial seed system functioning in target areas and capable of expanding in response to increased demand.
3. Most at-risk households and individuals in target areas have increased vitamin A intakes.
4. Commercial sweetpotato seed and root farmers are benefitting from participation in OFSP value chains.
1. Farmers, decentralized vine multipliers, farm associations
2. Transporters, Input dealers/Irrigation equipment dealers/labor
3. Policy Makers, opinion leaders, advocacy, regulatory bodies, relevant ministries
4. Consumers, school community
5. Extension/Agricultural Development Program/Health workers
6. Marketers/Multilevel
7. Researchers, academic institutions, professionals
8. Investors/Fund providers/international donors, organized private sector
9. Advertisement/media/social marketers
10. Faith Based Organizations (FBO), Community-Base Organizations (CBO), NGOs
11. Processors
Sweetpotato can be grown in all year round

<table>
<thead>
<tr>
<th>Present Year</th>
<th>Next Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dry Season</strong></td>
<td><strong>Rainy season</strong></td>
</tr>
<tr>
<td>Jan</td>
<td>Feb</td>
</tr>
<tr>
<td>Land preparation</td>
<td>Hunger Period</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tertiary Multiplication</strong></td>
<td><strong>Twice Sweetpotato growing season</strong></td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

HOW TO IMPLEMENT OUR PROJECT – We have prepared …

The Sweetpotato Crop calendar in West Africa
Base on the uni-modal rainfall distribution pattern

Based on FEWSNET Calendar in Nigeria
Elements required for a functioning seed systems (CPPDM = Crop production, pest and disease management)

- Donor(s)
- Funds
- Value chains & Market opportunities
- Advocacy, Awareness demand creation campaign, Sensitization, meetings, Agricultural Trade, Action Research
- Multiplication, CPPDM
- Postharvest handling
- OFSP Processing & utilization
- Bookkeeping
- Monitoring, tracking system
- Strong partnership/multi-partners, Commitment, Ownership
- 1-2-3 Seed Systems
- Training
- Breeding program
- Dissemination
Overview seed flow with reference to 1-2-3 system, and linkage of seed and breeding programs

**Breeding**

**Seed System**
- Tissue culture, screenhouse

**Dissemination:**
- **Foundation Seed**
  - Large scale multiplication, on station, managed by researcher, contracted private sector working together with Researcher/breeder, market driven

**Varieties, Breeders, Elite, pre-basic, foundation**

**Primary (‘1’) Multiplication**

**Secondary (‘2’) Multiplication**

**Tertiary (‘3’) Multiplication**

Potential for cost recovery

- **QDPM**
- **Positive & Negative Selection**

**DECENTRALIZED VINE MULTIPLICATION (DVM)**

**Supervision by Extension agent**

**Vine production, market driven**

**Vine and root production, market driven**

**GROWERS/ROOT PRODUCERS**
PRIMARY MULTIPLICATION

Nyankpala, SARI in Ghana
SECONDARY AND TERTIARY MULTIPLICATION

Commercial Multiplier – Burkina Faso

DVM with drip irrigation – Burkina Faso
SECONDARY AND TERTIARY MULTIPLICATION

Commercial vegetable growers become seed & root production business people – Ghana and Nigeria
Medium-scale commercial root producers

Left: Ghana and above: Burkina Faso
DONOR EXPOSURE TO PROJECT ACTIVITIES
Kofi Annan, Nane Annan, Regional Ministers

Above: Vice President of Ghana

Left: Kofi Annan and Nane Annan Forum - Deputy Ministers for Agriculture & Northern Region of Ghana
Above: Deputy Governor for Osun State, Nigeria

Right: Traditional leaders for Kumbungu, Ghana
# DVMs & Root Producers in 2015 Through July

## Burkina Faso (INERA)

<table>
<thead>
<tr>
<th>Location</th>
<th>DVM</th>
<th>% Female</th>
<th>% Male</th>
<th>End Users (Organizations)</th>
<th>Area of Vines (Ha)</th>
<th># Root Producers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenedougou Province (Orodara)</td>
<td>97</td>
<td>14</td>
<td>86</td>
<td></td>
<td>16.3</td>
<td>8,650</td>
</tr>
<tr>
<td>Sokouraba</td>
<td>52</td>
<td>15</td>
<td>85</td>
<td>Commercial farmers, home-growers, etc.</td>
<td>2.6</td>
<td></td>
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<tr>
<td>Mahon</td>
<td>33</td>
<td>15</td>
<td>85</td>
<td>Commercial farmers, home-growers, etc.</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Centre-Eastern Region</td>
<td>3</td>
<td>33</td>
<td>67</td>
<td>AGRA Project</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Eastern Region</td>
<td>7</td>
<td>14</td>
<td>66</td>
<td>HKI</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>NAFASO Seed Company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comoe Province (Niangoloko)</td>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
<td>Ministry of Agriculture</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Houet Province (Bazon)</td>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
<td>Ministry of Agriculture</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Ghana (CRI/SARI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North, Central and South Ghana</td>
<td>15</td>
<td>0</td>
<td>100</td>
<td>Commercial farmers, home-growers, etc.</td>
<td>8</td>
<td>4,589</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>112</td>
<td></td>
<td></td>
<td></td>
<td>24.3</td>
<td>13,239 (27% Women)</td>
</tr>
</tbody>
</table>
KENEDOUGOU SWEETPOTATO MARKET NETWORK

BURKINA FASO

EAST

KENEDOUGOU SWEETPOTATO MARKET NET WORK

→ WEALTH

Dori wholesalers

Kaya wholesalers

Ouaga wholesalers

Bobo wholesalers

Mali regions

Senegal

City consumers

City processors

Villages consumers

Villages processors

City retailers

City retailers

City retailers

City retailers

Home consumption

Kénédougou producers

Sikasso collectors

Bobo collectors

7 & 10 tons trucks transporting

Tricylce, motorbike, donkey carts

iDE Burkina Faso
### Potential Buyers identified to be linked to OFSP Producers (Northern Region, Ghana) - ACDEP

<table>
<thead>
<tr>
<th>Name</th>
<th>Buyer Category</th>
<th>Location</th>
<th>Phone Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Juliana Bawa</td>
<td>Caterer of Ghana School Feeding Programme (GSFP)</td>
<td>Sagnerigu</td>
<td>0208346029</td>
</tr>
<tr>
<td>2. Atunkong Janet</td>
<td>GSFP Caterer</td>
<td>Sagnerigu</td>
<td>0244803691</td>
</tr>
<tr>
<td>3. Salimatu Ibrahim</td>
<td>GSFP Caterer</td>
<td>Kumbungu</td>
<td>02445833961</td>
</tr>
<tr>
<td>4. Mariama Sayibu</td>
<td>GSFP Caterer</td>
<td>Kumbungu</td>
<td>0249661012</td>
</tr>
<tr>
<td>5. Sulemana Bariatu</td>
<td>GSFP Caterer</td>
<td>Tolon</td>
<td>0262931785</td>
</tr>
<tr>
<td>6. Rose Glover</td>
<td>Everglow Restaurant</td>
<td>Tamale</td>
<td>0268331334</td>
</tr>
<tr>
<td>7. Hajia Saratu Issah</td>
<td>GSFP Caterer</td>
<td>Tamale</td>
<td>0208221773</td>
</tr>
<tr>
<td>8. Alice Bokuma</td>
<td>GSFP Caterer</td>
<td>Kumbungu</td>
<td>0208387107</td>
</tr>
<tr>
<td>9. Abiba Alhassan</td>
<td>GSFP Caterer</td>
<td>Tolon</td>
<td>0548186288</td>
</tr>
<tr>
<td>10. Dramani Fatimata</td>
<td>GSFP Caterer</td>
<td>Tolon</td>
<td>0245124569</td>
</tr>
<tr>
<td>11. Give &amp; Take</td>
<td>Baker</td>
<td>Tamale</td>
<td>0542000359</td>
</tr>
<tr>
<td>12. Pakrozy</td>
<td>Baker</td>
<td>Tamale</td>
<td>0249841025</td>
</tr>
<tr>
<td>13. Shekina</td>
<td>Baker</td>
<td>Tamale</td>
<td>0268815475</td>
</tr>
<tr>
<td>14. Hajia Zelia Mariama</td>
<td>Retailer</td>
<td>Tamale</td>
<td>0246226751</td>
</tr>
<tr>
<td>15. Adamu Rahman</td>
<td>Retailer</td>
<td>Tamale</td>
<td>0544267184</td>
</tr>
</tbody>
</table>
Identifying and contacting processors (yoghurt, juice, baker and food vendors)

Identifying and building partnerships with supermarkets (e.g. Shoprite – already 1 month), Hotels (potential hotels: Best Western Hotel (Accra), Noda Hotel (Kumasi) and Modern City Hotel (Tamale))

Ghana Health Service (GHS) related to the antenatal program

University for Development Studies - baker
ARE WE DOING SOMETHING ON HEALTH AND NUTRITION? YES!

AT GHANA HEALTH SERVICES

- Training Master Facilitators in Nov 2014: 14 (43% women)
- Step down training and Community Health Services: 35 (40% women) in mid-Dec 2014
- Step down training is still going on: 34 centers
- Counseling including OFSP at the community level is also on-going (referred to both photos)
SCHOOL FEEDING PROGRAM
Kwara and Osun States in NIGERIA through O’MEALS

No. Schools: 8
No. caterers: 60
No. kids: 4160 pupils

Planning to scale up the numbers
ACTION RESEARCH

RESEARCH THROUGH INTERNSHIP

- Gender prospects for an orange-fleshed sweetpotato development in Rural Northern Ghana – Jumpstarting OFSP project by Simone Tijdink – University of Amsterdam
- Willingness to pay for Orange-fleshed sweetpotato – Jumpstarting OFSP by Chinonso Etumnu, University of California

RESEARCH THROUGH NATIONAL AGRICULTURAL RESEARCH SERVICES

- Agronomic trials: fertilizer trials, i.e. inorganic- vs organic fertilizer, various organic fertilizers, etc.
- Breeding demonstration trials
- Mother and baby trials for an on-fam advanced trial for varieties to be released

RESEARCH ON OFSP BREAD AND ITS SURVEY - UDS
RESULTS FROM THE VISITS OF THE ANNANS

AGRA PROJECT – led by Crop Research Institute and backstopped by CIP-led project Jumpstarting OFSP Ghana

Strategies for OFSP expansion and scaling intervention in Ghana

FUTURE – Jumpstarting year 3 areas of focus

- Strengthen seed system (QDPM) implementation
- Continuing learning from Ghana Health Service intervention
- Expanding and documenting formal and informal markets for fresh roots and processed products
- Solidify M+E systems
- Solidifying and expanding partnerships
THANK YOU VERY MUCH FOR YOUR ATTENTION!

ACKNOWLEDGEMENT

- The Bill & Melinda Gates Foundation
- Governments and farmers and marketers

From
The West Africa Team