Project overview

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Enhancing nutrition security and incomes through adding value to indigenous vegetables in East and Central Uganda.

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Moment of silence
Background

• This research was done as a consortium called Afri-SOL
• A network of African researchers/stakeholders with interest in indigenous African vegetables especially Solanaceae species
• 2012 - Engagement between RUFORUM and Afri-SOL
• More on: www.afri-sol.org
Indigenous Solanaceae vegetables
Solanum aethiopicum

- Popular vegetable in Sub-Saharan Africa, rich in fibre, minerals and carotene
- The most important commercial and subsistence local vegetable species in the urban and peri-urban areas
- Commercial production of *S. aethiopicum*, dominated by small-scale farmers at over 80%
- Major production constraints are abiotic (drought, soil fertility), Production (no recommended agronomic practices), biotic (pests, poor seed quality, poor post harvest),
- Neglected and under utilized crop
Project Title

Enhancing nutrition security and incomes through adding value to indigenous vegetables in East and Central Uganda.
Key Result areas

1. Varieties of indigenous vegetables with longer shelf life and processing potential identified and profiled.

2. Appropriate processing and handling mechanisms/technologies for indigenous vegetables identified.

3. Appropriate delivery pathways of value-added indigenous vegetables established.

4. Information sharing mechanisms on utilization of indigenous vegetables established.
Stakeholder involvement

UCU
CHAIN UG
FARMGAIN
NRI

FARA
EU
RUFORUM
Media
NARO
IITA

Makerere University
CARITAS
Farmers organisations

Local Governments

MAAIF

Schools
Market Vendors
Seed Businesses
Consumers

KCCA
# Overview of the results framework

<table>
<thead>
<tr>
<th>Intervention logic</th>
<th>Project target</th>
<th>Achievements</th>
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<tbody>
<tr>
<td><strong>Overall Objective:</strong> Increased (i) consumption of African indigenous vegetables in nutritionally vulnerable populations and (ii) revenues of those engaged in their production</td>
<td>Increased daily consumption of leafy vegetable by households in East &amp; Central Uganda to 60%</td>
<td>60% from 48% at the baseline</td>
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<td>10% increment in household incomes from sale of indigenous vegetables</td>
<td>&gt;100% income from 5%</td>
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<td><strong>To strengthen the capacity of the most promising consortia</strong></td>
<td>300 farmers equipped with technologies and skills for seed production and of prolonging shelf life of indigenous vegetables</td>
<td>Over 250 farmers trained; 11 under graduate; 7 masters and 1 PhD</td>
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<tr>
<td>Result 1: Better knowledge of indigenous vegetable varieties with prolonged shelf life</td>
<td>A vegetable collection among farmers in Uganda. A target of up to 100 different vegetable accessions by year 1.</td>
<td>A collection of over 180 vegetable accessions is characterized and maintained at UCU by 2015</td>
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<td>Participatory varietal selection to validate and produce 3 new vegetable varieties by year 3</td>
<td>4 candidate indigenous vegetable lines have been produced by 2017</td>
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<td>On-farm varietal line purification system to enhance vegetable varieties developed by year 3</td>
<td>A seed purification system has been developed by 2017 (farmer based)</td>
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Participatory germplasm collection & evaluation
Field & participatory evaluation of collected germplasm
Sensory evaluations of the Vegetable accessions

Participatory sensory evaluation of vegetables in Mbale, Nabisolo, 2015

Farmers ranking the vegetables during a sensory evaluation in Jinja, Butiki-Kyekidde, 2016
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<td><strong>Result 2: Appropriate processing and handling mechanisms/technologies for indigenous vegetables documented &amp; availed to targeted stakeholders.</strong></td>
<td>3 different postharvest handling practices and 2 processing methods tested on identified indigenous vegetables by year 3</td>
<td>- 3 post harvest handling practices tested (zero energy technology; packaging materials) in 2016/2017 - 2 processing methods tested by 2017</td>
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<td>2 different food based industries in Uganda involved in testing the identified processing and handling technologies above by end year 3</td>
<td>Pilot testing of the cooling and packaging technologies done on-farm in 2017/2018</td>
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<td>A profile of processing &amp; handling technologies by year 1</td>
<td>A survey conducted in East and Central Uganda in 2015</td>
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Checking on the performance of the zero energy technology (charcoal cooler), 2015

Participatory evaluation of differently processed vegetables in MAK, 2016

Participatory evaluation of packaging material in Namulonge, 2016
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<td>Result 3: Appropriate delivery pathways of value-added indigenous vegetables established</td>
<td>A profile on the vegetables farmers in East and Central Uganda by year 1</td>
<td>A survey was conducted in 2015</td>
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<td>A Demand &amp; supply study conducted on potential market for value added indigenous vegetables</td>
<td>A survey was conducted on the demand and supply of AIVs in 2015</td>
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<td>Profile of existing value chains produced</td>
<td>The Value chain for AIV was profiled in 2016</td>
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<td>At least 1 delivery pathway identified and promoted by end of Yr 3</td>
<td>An appropriate delivery pathway has been identified by 2017</td>
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<td>Result 4: Information on utilisation of indigenous vegetables shared with a wide array of stakeholders through appropriate pathways.</td>
<td>- Web site established by Yr1 &lt;br&gt;- At least 3 publications released by end of Yr 3 &lt;br&gt;- Linkage to a mobile phone based system of updating key stakeholders especially on market information and training opportunities Yr 1 &lt;br&gt;- One Video documentary on vegetable production &lt;br&gt;- Schools/community outreach programs (4 schools, farmer groups) by year year 3 &lt;br&gt;- Attend annual innovation platform meetings &lt;br&gt;- At least 2 newspaper/ articles by end year 3</td>
<td>Website was in place Year 1 &lt;br&gt;Farmers trained on market access platforms including mobile phone by year 3 &lt;br&gt;Documentary produced by Year 3 &lt;br&gt;Over 40 schools/ 2000 farmers reached in various fora by year 3 &lt;br&gt;Annual IP meetings attended 2 articles published by year 3</td>
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Knowledge sharing activities
Key Sustainability Pathways

• The consortium actively seeks for funding to support its work
• Linkages with National, Regional and International research institutes eg NARO, MARI- Tanzania, ICRAF, WorldVeg, NIAB-UK, Hanze University, CRG-Spain)
• Institutionalization of vegetable production in the university outreach at departmental level
• Linkages with local government (Mukono) and the ministry of Agriculture, Animal Industry and Fisheries
• Membership in key networks- RUFORUM
• UCU is developing as a centre of excellence in vegetable research
• Emerging indigenous seed businesses
• Some farmer groups have now become service providers (TOT)
Acknowledgement
Thank you

Merci

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