Gender Equity in Agricultural Innovation Systems, Including Seed Systems

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3ie-AGRA workshop: Learning from 3ie’s Agricultural Innovation Evidence Programme
Session: Gender and Equity in Agricultural Innovation Programmes
The Concorde Hotel
Presentation Outline

1. Sustainable intensification of maize-legume cropping systems for food security in eastern and southern Africa (SIMLESA): Gender Equitable Benefits through Agricultural Innovation Platforms (AIPs) in Rwanda

2. Gender in the formal maize seed sector: (i) Women in the maize seed business in East and Southern Africa (ii) Gender mainstreaming in seed companies: Uganda case

3. Capacity building

4. Conclusions & further areas of research
Sustainable intensification of maize-legume cropping systems for food security in eastern and southern Africa (SIMLES EA)

- Ethiopia, Kenya, Malawi, Mozambique and Tanzania
- Botswana, Rwanda and Uganda, (previously in South Sudan)
- Funded by the Australian Centre for International Agricultural Research (ACIAR)
- Led by the International Maize and Wheat Improvement Center (CIMMYT)
- Initiated in 2010 (see simlesa.cimmyt.org for fuller details)
- 4 objectives, gender, capacity building
Gender and Equitable Benefits through AIP in Rwanda

- Study underlying success factors in gendered generation and sharing of equitable Sustainable Intensification (SI) benefits through Agri. Innovation Platforms (AIP) in Rwanda. Through the following:
  1. Analyse successful (and not so successful) AIPs in Rwanda
  2. Document underlying success factors critical for realising and sustaining key benefits among the AIPs
  3. Inform national policy in Rwanda, and lessons for Africa

Methodology

- Integrated methodologies
  - Rwanda Agricultural Board (RAB) institutional memory, records on 22 AIPs
  - Visits and AIP interactive meetings – 9
  - Rapid analyses tools for Sustainable Intensification Benefits – 6 AIPs
  - In-depth case studies – 6 AIPs
  - Historical recounting – 6 AIPs
  - Focus Group Discussions – 6 AIPs
  - Key informant interviews – 9 informants
  - Observation and photography – each of the 18 sites
AIS Analytical Framework

• AIS is an analytical framework, which is suitable for analyzing innovation through a gender lens because of its emphasis on institutions and actors that create “gendered” patterns of interaction.

• The AIS framework takes into account the many actors along the value chain, as well as diverse organizational forms that can facilitate education, research, and extension systems as well as practices, attitudes, and policies that frame agricultural production and trade (World Bank, FAO, and IFAD 2009)
Case studies

• Koperative Iharanira Amajyambere y’Icyaro (KIAI) or Cassava Innovation Platform
  – unique lesson on surviving collapse

• Huguka Mudende
  – Most successful AIP – good example of multi-functionality
Benefits, Level of Attainment and Estimated Attribution Among Mudende AIP Membership

A. Crop Related Benefits:

- Production volume: (i) potato=10 tons/hectare in 2008 to 25 tons/hectare in 2016; and (ii) Yield of milk=1 litre/cow in 2008 to 7 liters/cow in 2016 (local breed).
- Men and women benefit equally
- Germplasm was provided by RAB

B. Business Related Benefits:

- Investments in AIP partnerships, infrastructure, equipment, produce marketing networks, training skills, led to: (a) Credit access; (b) High income; (c) Better market access; (d) Attract agribusiness farm inputs

C. Social benefits:

(i) youth and women participation was highly valued; (ii) societal harmony: AIPs brought together diverse actors at household and other levels to collaborate and rely on complementarity and reduce competition (increased yield, incomes, etc).

D. Environment related benefits:

(i) cow loans through URWEGO bank was able to get more quality farm manure; (ii) Agronomic and soil fertility trainings from RAB.
Infrastructural Benefits for Mudende

- Green house gas
- Preparing to killing microbes in the soil
- Potato pre-seed in the basin
- Rented farm land used by members of Mudende to farm
Infrastructural Benefits for Mudende AIP

Mudende milk collection Center
Infrastructural Benefits of KIAI AIP
Principles that Anchor Equitable Benefit Sharing in the AIPs

- Government policy: (i) Rwanda policy clearly notes that each gender is entitled to equal pay or compensation for similar work; (ii) Implementation; and (iii) Policy awareness among key actors.

- Business ethics: Gained through trainings, which were seen as critical to the AIP success. Incomes at cooperative level are sustainably shared.

- Culture: Demand folks, “cannot reap where they did not sow.”

- Gendered access to benefits of SI depended on quality participation among women, men and youth.

- There are two stages of AIPs growth: (i) Stage I: scaling priorities, first 5-7 years of all AIP were dependent on donor, government and few private funds input; and (ii) Stage II: more private capital became available, in addition to initial investments in collective-action-based market concepts. At this stage the AIPs that survived initial challenges are realizing broader dividends.
Women in the maize seed business in East and Southern Africa

Sylvia Horemans  
Kamano Seed Company Ltd  
Zambia

Josephine Okot  
Victoria Seed Ltd  
Uganda

Cecilia Alphonse Magesa  
Meru Agro Tours & Consultants Co. Ltd  
Tanzania

Stephanie Angomwile  
Afriseed  
Zambia

Dr. Grace Malindi  
Mgom’mera Seed Company  
Malawi

Janey Leakey  
Leldet Seed Company Ltd  
Kenya

Dr. Zubeda Omari Mduruma  
AMINATA Seeds  
Tanzania

Sarah Muya  
Suba Agro Trading & Engineering Company Ltd  
Tanzania

Elizabeth Sikoya  
Sementes Nzara Yapera Lda  
Mozambique

https://repository.cimmyt.org/handle/10883/20141
Research findings for women in the maize seed business study

Production portfolio of the company include maize and legume seeds i.e. beans, cowpeas, pigeon peas and soybeans.

They vary in production output ranging from 33.3 tons to 1411.3 tons of maize per year.

Innovative mechanisms for marketing:

- Bodaboda (motorcycle)
- Maendeleo (development) seed pack
- Work with women lead farmers
- Women targeted branded materials i.e. maternity wards sheets
The number of male and female employees working in the seed companies

<table>
<thead>
<tr>
<th>Department</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>Seed production</td>
<td>349</td>
<td>194</td>
</tr>
<tr>
<td>Seed processing</td>
<td>421</td>
<td>200</td>
</tr>
<tr>
<td>Seed marketing</td>
<td>25</td>
<td>69</td>
</tr>
<tr>
<td>Transport</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>13</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>837</td>
</tr>
<tr>
<td>Men</td>
<td>548</td>
</tr>
</tbody>
</table>

**Majority of the women are in seed processing** (sorting, cleaning, grading, stitching, loading and packing)

**In seed production**
- women are in planting, weeding, and harvesting
- men are breeders, production managers, technicians and agronomists and mostly full-time employees

**Men take the leadership roles in administrations** as general managers, zonal managers and managing directors.
In each category of outgrowers, there are more men outgrowers than there are female outgrowers.

The difference not big: 53% men and 47% women.

Large parcel of land ownership as a challenge for women outgrowers.
Challenges and recommendations for women-owned seed companies

**CHALLENGES**

- Societal discrimination and bias of women’s entrepreneurial and leadership skills in seed companies
- Limited infrastructure (e.g. processing plants, warehouse capacity and transport.)
- Women-owned seed companies have less start-up and working capital
- Limited human resources and retainment of skilled staff i.e. breeders
- Delayed payments e.g. by governments and agro-dealers affects business operations and cash flow especially for small seed companies

**RECOMMENDATIONS**

- Challenge social norms and stereotypes and build capacity on women’s contribution in the seed sector
- Increased investments through loans, grants from public and private sectors.
- Facilitate women-owned seed companies to access affordable loans from public and private institutions
- Train and motivate staff through promotional strategies to retain skilled staff
- Encourage government(s) to invest in women-owned seed companies
**Problem**: Marketing strategy for selling of seeds is one size fits all.

- Women outgrowers have smaller land plots and less secure land ownership and produce lower quantity of seeds than men.
- However, the quality of seeds produced by women outgrowers is much better than that of men.
- Few seed companies have allowed women outgrowers to grow seed on their land.

**Graph**:
- 62% of the outgrowers are men.

**Number of male and female seed outgrowers in 13 Uganda seed companies (80 market share)**

- **Individual Early Generation Seed (EGS) Outgrowers**:
  - Male: 37
  - Female: 60
- **Individual Certified Seed (CS) outgrowers**:
  - Male: 414
  - Female: 746
- **Cooperative Certified Seed (CS) outgrowers**:
  - Male: 5
  - Female: 26
- **Group Certified Seed (CS) outgrowers**:
  - Male: 270
  - Female: 279
- **Under irrigation scheme**:
  - Male: 24
  - Female: 136

**Logos**: USAID, Bill & Melinda Gates Foundation, CIMMYT, IITA, STMA, CGIAR.
Capacity Building

Materials for strengthening integration of gender considerations in formal maize seed sector development

- Gender-responsive approaches for the promotion of improved maize seed in Africa
- Guiding tool for gender-responsive demos and field days data collection
- Gender-responsive budgeting tool for the promotion of improved maize seed in Africa

Training manuals

- Gender-responsive approaches for enhancing the adoption of improved maize seed in Africa: A training manual for agro-dealers
- Gender-responsive approaches for enhancing the adoption of improved maize seed in Africa: A training manual for breeders and technicians
- Gender-responsive approaches for enhancing the adoption of improved maize seed in Africa: A training manual for seed companies
Conclusion & areas for further R&D

• More than three fourth of the SSA population rely on agriculture and women occupy the largest share of that portion. We need to find ways to increase the number of women who are in the agribusiness sector than they are at present.

• The issue of land ownership for a majority of the women is a big setback for expansion of farming area.

• Heavy reliance of hand-hoe agricultural practices and less on mechanization, will not lead as far to achieving gender equity and economic development of the communities or countries in SSA.

• More needs to be done in terms of finding the best partnership model between farm groups/cooperatives, private sector, public and development actors.
Acknowledgment

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Bill & Melinda Gates Foundation
United States Agency for International Development
RAB, MINAGRI, Rwanda Government
Farmers, farmer Cooperatives, Agr. Innovation Platforms
All participating partners – private, NGO, extension
All the women seed company owners and leaders in East and Southern Africa whom we have interviewed and their employees
Ms. Pauline Muindi
Dr. Lone Badstue
Ms. Florence Sipala
Ms. Jessica Osanya
Dr. Michael Misiko
Kipenz Films
Maina Wainaina studio
Thank you for your interest!
## Participatory Audit Tool for AIP Benefits

### Benefits, Level of Attainment and Estimated Attribution Among Mudende AIP Membership

<table>
<thead>
<tr>
<th>AIP type of Activity (specify)</th>
<th>List of main benefits reported/observed (by 2016) related to AIP</th>
<th>Level of direct attribution to AIP</th>
<th>% sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levels of benefits</td>
<td>Partnerships</td>
<td>Donor funds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social (e.g. Table banking, labor sharing)</strong></td>
<td>Youth participation</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Women participation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Better nutrition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Better societal harmony</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Reduced drudgery</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Environment related</strong></td>
<td>Reduced soil erosion</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Reduced weeds</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Better soil health</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Better water retention</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>More soil organic C</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Infrastructural</strong></td>
<td>New business building/s</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Better storage (potato/milk)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sum of score in each category</strong></td>
<td></td>
<td>60</td>
<td>48</td>
</tr>
<tr>
<td><strong>Success score</strong></td>
<td></td>
<td>81</td>
<td></td>
</tr>
</tbody>
</table>

Key: 0=None. 1=Weak. 2=Average. 3=Strong. X=Unknown