National Initiatives for food security and Nutrition: Case Studies

CAADP implementation in Rwanda: Initiatives, Successes, Lessons learnt and challenges

Dr Agnes Matilda Kalibata
Minister of Agriculture and Animal Resources
Place of Agriculture in the National Economy

• 31% of Rwanda’s GDP
• 70% of exports
• Employment – 80% of population
• Provides 90% national food needs
Investments in the sector - guided by 2nd Strategic Plan for Agricultural Transformation

1. Intensification and development of sustainable production systems
   - Institutional strengthening
   - Policy and regulatory framework
   - Agricultural statistics and ICT
   - M&E systems
   - Decentralisation

2. Support to the professionalisation of the producers
   - Natural resources, water and soil conservation
   - Crops and livestock development
   - Marshland development
   - Irrigation development
   - Supply & use of ag. inputs
   - Food security management

3. Promotion of commodity chains and agribusiness development
   - Creating an enabling environment
   - Development of traditional and non-traditional exports
   - Value addition
   - Infrastructure
   - Rural finance

4. Institutional development
   - Promotion of farmers’ organisations and capacity building for producers
   - Proximity services for producers (extension)
   - Research

PSTA II Poverty Reduction and Food Security
CAADP Alignment with GoR Strategies

2007 - 2020

- EDPRS
- MDG’s
- Vision 2020

Operational Programmes
- PSTA I
- PSTA II
- PSTA III
- ???

Stategic Frameworks
- PSTA I
- PSTA II
- PSTA III

Vision 2020
Rwanda’s agriculture sector faces a set of unique challenges

- Need to generate higher incomes for poor farmers on small plots of land
- Control soil erosion and reverse soil fertility loss
- 2/3 of the country is on steep slopes
  Increase land available for cultivation
- Reduce dependency on rainfed Agriculture for sustainability
- Weak capacity base: infrastructure and skills
- Absence of a string private sector for farm services, marketing and inputs
- Weak/absence of an extension system
<table>
<thead>
<tr>
<th>Category</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Intensification</td>
<td>• Land Consolidation&lt;br&gt;• Fertilizer access&lt;br&gt;• Seeds access</td>
</tr>
<tr>
<td>Erosion Control</td>
<td>• Terracing&lt;br&gt;• Agro-forestry</td>
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<tr>
<td>Resource Use</td>
<td>• Irrigation&lt;br&gt;• Water Harvesting</td>
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<tr>
<td>Targeting nutrition</td>
<td>• One cow per poor family&lt;br&gt;• Small ruminants&lt;br&gt;• Kitchen garden</td>
</tr>
<tr>
<td>Building Skills and Market Dev</td>
<td>• Participatory Extension Services&lt;br&gt;• Research&lt;br&gt;• Domestic and Export Market Dev</td>
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Key elements of the crop intensification program

Land consolidation 25,000 ha (06)550,000ha (10) (2.8%-61%)

- Small holder farming
- Efficiency of Access and distribution of input
- Smallholder access to extension services
- Increased opportunity for credit access
- Increased marketing power
- Potential for increase in mechanization
Crops by Agro ecologies - A Rwandan Green revolution
Fertilizer access has been improved through market-based subsidies

- GoR bulk imports & smart transport subsidies ensure availability
- Private sector capacity-building: auction and distribution network
- Voucher system to ensure access

Results
- Land consolidation to maximise effect
- Fertilizer use in target districts increased from 4 kg to 19.9 kg/ha
- Households using fertilizer increased from 25 to 44%
- Plans for 65% in 2010
Access to improved seeds- partnerships between private & public sectors

Creating demand, even among the poorest farmers

- Drought resistance and Hybrid seed access
- Conditional upon fertilizer purchases
- Maximizing effect of fertilizer subsidies

Developing local seed production

- Ensuring sanitary & phyto-sanitary standards
- Providing incentives, e.g. subsidised loans
- Making research & technology
80% of Land protected against erosion

Reducing Erosion
- Radical Terracing
- Progressive Terracing
- Agro-Forestry

Restoring Soil Fertility
- Livestock Ownership for Organic fertilizer
- Inorganic Fertilizer

On target for protecting 100% of arable land by 2014
Nutritional security and income improved through livestock ownership and productivity

- **One cow per poor family**
  - 90,000 cows distributed
  - More than half contributed by farmers

- **Small Ruminants**
  - Goats, Sheep, Piggery
  - Poultry Extensive vaccination campaign
  - Control of major disease

- **School feeding and kitchen gardens in the most vulnerable**
  - One cup of milk
  - Cows at schools and school gardens
  - Kitchen Gardens

![Graph showing Milk & Meat Production](image)
Without LWH

• Land is acidic, impoverished in fertility, poorly holding moisture, and is dry in dry months,

• Soil, moisture and agricultural inputs are washed downhill by gravity and flood

With LWH

• Soil fertility is replenished and moisture holding capacity is improved

• Slope is corrected and Soil erosion is controlled

• Land productivity is improved and maintained.
Key challenge – steep landscape
Taming the hills for food security and Erosion Control
Production on terraced land: agriculture and environmental protection
Production increases are several times higher.
## Outcomes and Impact:
### Key indicators to track

<table>
<thead>
<tr>
<th>Real growth</th>
<th>2000</th>
<th>Actual June 2010</th>
<th>Rwanda’s Vision 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agric GDP %</strong></td>
<td>- (0.7 in 2007)</td>
<td><strong>8.8</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Agriculture as % of GDP</strong></td>
<td>45</td>
<td><strong>33.8</strong></td>
<td>33</td>
</tr>
<tr>
<td><strong>Fertiliser application (kg/ha/annum)</strong></td>
<td>0.5</td>
<td><strong>19.9</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Soil erosion protection (% total land)</strong></td>
<td>20</td>
<td><strong>80.9</strong></td>
<td>90</td>
</tr>
<tr>
<td><strong>Land under “modernised” agric (%)</strong></td>
<td>3</td>
<td><strong>18%</strong></td>
<td>50</td>
</tr>
</tbody>
</table>
Outcomes and Impact:

CIP has transformed agriculture

- Yields in CIP areas have increased between 2 and 4-fold
61% increase in maize production through use of improved seed and
Outcomes and Impact: Food consumption higher than production

Cereals Equivalent

Outcomes and Impact: Positive food balance free of aid and imports

<table>
<thead>
<tr>
<th>Food Balance sheet</th>
<th>2008B</th>
<th>2009B</th>
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<tbody>
<tr>
<td>1. AVAILABILITY = 2 + 3</td>
<td>1,104</td>
<td>1,387</td>
</tr>
<tr>
<td>2. Production</td>
<td>1,208</td>
<td>1,532</td>
</tr>
<tr>
<td>3. Losses (-20%)</td>
<td>-181</td>
<td>-230</td>
</tr>
<tr>
<td>4. NEEDS = National Consumption</td>
<td>1,156</td>
<td>1,190</td>
</tr>
<tr>
<td>5. Balance/Deficit = 1 - 5</td>
<td>-52</td>
<td>197</td>
</tr>
<tr>
<td>6. Imports (estimated)</td>
<td>103</td>
<td>N.A.</td>
</tr>
<tr>
<td>7. Food Aid</td>
<td>36</td>
<td>N.A.</td>
</tr>
<tr>
<td>8. TOTAL</td>
<td>-52</td>
<td>197</td>
</tr>
</tbody>
</table>
Outcomes and Impact:
Food security at the Hhold level

Season 2007 B

Season 2010 B
Outcomes and Impact: Mitigating the impact of the global food crisis

Index of grain prices in Rwanda and world markets, July 06 - April 08
Key Successes: 1) Food security and a smiling farmer

2) High Returns on Investment:
   • 1$US in Agric = 3.19$US GDP
   • Staples – highest returns: 1$US = 3.84$US GDP
Rwanda: Rwanda and her partners

- Irrigation: Increasing Area for Irrigation 2010-2017 = 63,000 ha (e.g. Asian success)
- Mechanization
- Improved seed Varieties
- Better fertilizer Access and Improved technologies
- Invest in a National seed Industry
- Invest in post harvest systems including strategic reserves
- Invest in value addition
- Increase access to agric financing and crop insurance
Key actions at Regional level

Commitment to achieve the CAADP growth and budgetary objectives

- Agriculture-led growth of 6%
- Increased public investment (10% budget share)
- Achieve FOOD AND NUTRITION SECURITY (MDG1)

Commitment to peer review and accountability processes that would allow for transparency, sharing of lessons and experience with all stakeholders and other member states
Strengthening the CAADP process

- Investment plans and Peer review
- Improving advocacy
- Better coordination of all actors
- Increased Financing

Lessons from Rwanda: OWNERSHIP

- Build on strong national and political ownership
- Bringing the development partners on board to support the Government owned and led agenda
- Commitment to Maputo declaration
Major stakeholders

Governments
Development partners
AU/NEPAD
COMESA
Civil society and Private sector

More Recently:
- GAFSP
- CFS