“Highlights”
Sector Policy Beans
Training BPR Agribusiness Team
Elies Fongers & Marc van Strydonck
Kigali, July 2012

BPR – Bean Sector Training
Bean Sector – Warm-Up Quiz 1

The plant
- Which parts of the bean plant can be consumed?
  Leaves – Flowers – Fruit – Seeds – Roots
- How tall is a bean plant?
  30cm – 50cm – 75cm – 1m – 2m – more
- Which food do beans replace?
  Flour – Vegetables – Nuts – Meat – Fish – Dairy
- Which bean colour is most healthy?
  White – Yellow – Mottled – Red – Brown – Black – Other
Highlights Sector Policy - Beans

- Value Chain
- Key Risks
- Target Clients
- Financing Needs
Why do we focus on the bean sector?
- Key food crop for Rwanda as a whole
- Rwanda is a competitive producer in the region with exports to Uganda, Tanzania and DRC
- One of the priority crops under the Crop Intensification Programme
### Bean Value Chain - General

#### Beans Growing Seasons in Rwanda

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<th>Beans Season A</th>
<th>Beans Season B</th>
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Bean Value Chain - Overview

**Inputs**
- Seeds
- Fertiliser
- Pesticides
- Stakes

**Farmer / Cooperative**
- Ploughing
- Weeding
- Harvesting
- Drying

**Storage**
- Collection
- Storage
- Drying
- Fumigation

**Processing**
- Grading
- Packaging
- Pre-cooking

**Own use / Market**
- Export
- Domestic

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*Pre-Harvest*  
*Post-Harvest*  

**BPR** – Bean Sector Training – Page 6
Bean Value Chain - Inputs

- Seeds: main input and generally retained by smaller farmers from previous harvest

- Fertilisers: generally no or limited fertilisers are used by smaller farmers

- Pesticides: distributed by the government free of charge

- Stakes: required to grow new, high yield varieties
Bean Value Chain – Farmer/Cooperative

- Production costs: 100 - 120 RWF / kg

- Productivity: 1 MT / ha / year (traditional varieties)

- Bean production cycle: 70 – 90 days (runner beans) and 100 – 150 days (climbing beans)

- Crop rotation with maize, sorghum, cassava and other crops
Bean Value Chain – Farmer/Cooperative

*Improved bean varieties*
- Yields of 2.5 to 3.5 MT / ha / year can be achieved!

- Seeds are more expensive (circa 500 RWF / kg)

- Adequate fertilisers are required

- Solid stakes are required (investment up to 300,000 RWF / ha)
Bean Value Chain – Farmer/Cooperative

- Role of cooperatives is rather modest
- No cooperative is set up with beans as main production objective
- Main role: collection of harvest, storage facilities, fumigation
- Cooperatives are encouraged by f.i. P4P, IFDC, HarvestPlus and USAID to build improved facilities for storage and fumigation
Bean Value Chain – Storage

- Storage facilities are mainly developed by cooperatives, private investors and institutional investors (i.e. Minagri, RGCC)

- Main bottleneck in collecting the beans is the financing capacity of the cooperative or warehouse => raw material collection finance
Bean Value Chain – Market

- Prices: 260 – 320 RWF / kg (consumption beans) and 400 – 450 RWF / kg (seed material)
- Different demand in different regions: red or mottled varieties (country side) and white or yellow beans (urban areas, export markets)
- Largest specific buyers: WFP, P4P, Minagri, Prisons, Schools and Hospitals
Bean Value Chain – Market

![Graph showing the market value of beans from January to December from 2007 to 2010. The graph indicates an overall increase in market value over the years.](image-url)
### Bean Value Chain – Key Risks

<table>
<thead>
<tr>
<th>Key risks</th>
<th>Mitigants</th>
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</thead>
<tbody>
<tr>
<td>Yields of high yield varieties more sensitive to farming practices</td>
<td>Farmer selection, input availability and use</td>
</tr>
<tr>
<td>Post harvest losses</td>
<td>Access to storage, drying and fumigation</td>
</tr>
<tr>
<td>Price risk and variations from region to region</td>
<td>Off take agreements and market price monitoring</td>
</tr>
<tr>
<td>Large informal market</td>
<td>Integrated value chains, contracts counterparties</td>
</tr>
</tbody>
</table>

*Source: BPR – Bean Sector Training*
Bean Value Chain – Target Clients

- Cooperatives

- Independent storage operators
## Bean Sector – Financing Needs

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<tr>
<th></th>
<th>Input finance</th>
<th>Raw material collection finance</th>
<th>Inventory finance</th>
<th>Asset Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
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<tr>
<td>Cooperatives</td>
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<tr>
<td>Traders</td>
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<tr>
<td>Warehouses</td>
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