THE PEOPLE'S BANK
Banki yacu, Hafi yacu.

From	Agri Knowledge Centre
To	EMT Members, Agri Commercial Officers (ACO's)
Location	Kigali
Date	13 August 2012
Subject	Sector document for the Maize 2012 – Final
version	Version N° 1, September 2012

1. Summary – Quick Guide

Maize has been identified as one of the priority crops by the Rwandan government and has experienced a very significant growth over the past years.

Value chain:

- Maize production in Rwanda 400-700,000 MT on about 150,000 hectares vs. demand about 500,000 MT per year
- Production cost RWF 80-125/kg (depending on use of fertiliser and certified seeds). Certified seeds not available in sufficient quantity. Fertiliser currently subsidised at 50% for maize.
- Average yield of 1-2.5MT/ha per season (depending on season and region). Efficient commercial farms may reach yields of 4MT/ha
- Storage facilities are lacking, post-harvest losses reported to be about 30%, but investments are taking place.
- Market value volatile (seasonality, overall crop performance in Rwanda, too high cost of production, government intervention both in Rwanda and in neighbouring countries).
- Main processors (Minimex, Maïserie Mukamira) reported difficulties in securing needed maize for their operations in past years.

Profitability may be limited for small farmer with yields below 1.5MT/ha!

Main risks:

- Crop yield very sensitive to soil fertility and moisture
- High levels (30%+) of post-harvest losses
- Volatile market prices, with minimum price guarantee from government
- Limited experience of maize in Rwanda as a whole
- High level of government involvement (input subsidization, market support, consumption forms)

Most of the above risks can be mitigated through adequate farmer selection, storage access, off-take arrangements and market price monitoring.

Financing opportunities:

- Pre-harvest (input) finance opportunities are limited. Seeds are often available free of charge and fertilisers are subsidised. Main pre-harvest cost is labour.

- Post-harvest raw material collection finance is the main financing opportunity in maize.
  Requires:
  - Adequate storage facility (at cooperative level or of trader),
  - Off-take contract with acceptable off taker
  - Tri-partite agreement between cooperative or trader, off-taker and BPR
  - Financing to be limited to X% of market value of commodities stored in warehouse

- Post-harvest inventory finance is possible.
  Requires:
  - Adequate storage facility (preferably independently managed)
  - Reliable market price data source
  - Sufficient carry in the market (maize prices should increase after harvest to cover cost of handling, storage and finance)
  - Warehouse / store management agreement, for example with double lock system
  - Periodical quantity and quality control
  - Financing of 50-60% of market value of stored grains or financing amount based on support price or historical low prices
  - Top-up or partial loan repayment in case of market price decline

- Asset finance may be used for equipment, transport or storage finance (Ref. Asset finance product description)

- Trade finance opportunities with import and/or export flows of maize. (Ref. Trade finance product description)

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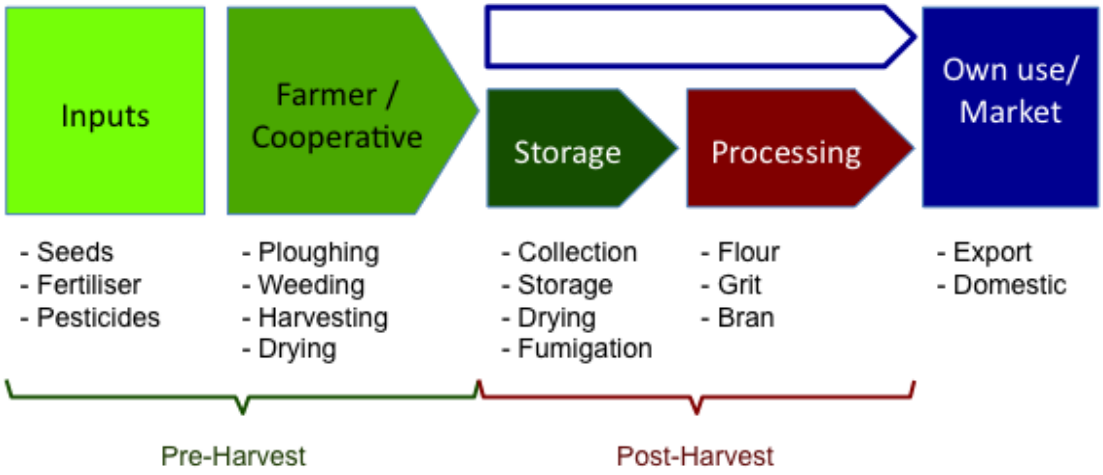
2. Maize Value Chain



When considering financing the maize sector, it is essential to understand the value chain structure and its related risks.

At the moment of writing this sector policy (2012), the maize value chain is not yet fully developed in Rwanda. This may be due (i) because of the rapid development of maize production, which is still "relatively" new in Rwanda as a main grain crop and (ii) because of the relatively recent introduction of cooperative structures, which do not yet fully embrace their roles and potential in this sector.

Maize has been identified as one of the priority crops by the Rwanda government in order to ensure food security and reduce imports.
Until 1996 maize was only cultivated significantly in the highlands of Rwanda and until a few years ago the maize processing industry was very limited in the country. Returning people from neighbouring countries, especially Uganda and Tanzania, have shifted the interest away from other crops such as sweet potatoes to maize. According to RAB maize now occupies about 10% of the cultivated area in Rwanda, is now the third most important food crop and maize processing is considered as priority in the maize value chain by the government.

Current maize product demand in Rwanda is estimated to be about 500,000MT per year, which has been met by a growing production recently reaching an estimated 700,000MT per year (Minagri 2012). If adequate storage is put in place, Rwanda could be in a position of domestic production exceeding domestic demand.

At the moment, only maize and wheat, priority crops in Rwanda, benefit from subsidized fertilizers. Production of maize has received a very strong support from the government through seed distribution, fertilizer distribution, land consolidation and technical advice. However, the capacity of cooperatives to help farmers in marketing and sales is still very limited. Storage facilities are generally lacking and post-harvest losses are estimated to be in excess of 30% (according to FAO, WFP and USAID).

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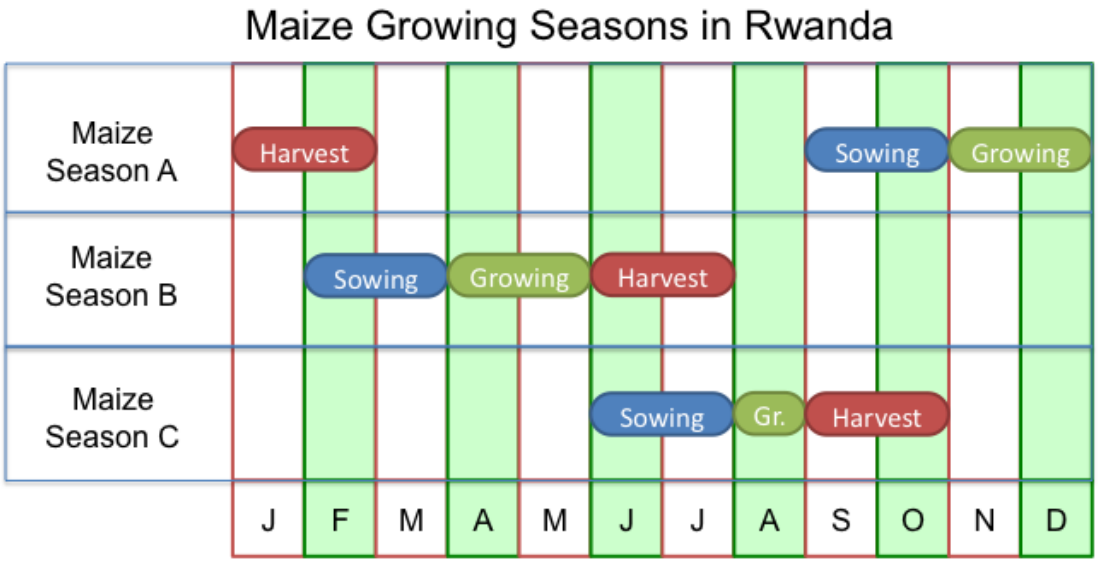
According to Minagri, Rwanda has about 150,000 hectares of land under maize cultivation. Depending on the regions, farmers will produce 1 or 2 maize crops per year. Average yields are estimated to be 1.0 to 2.5MT/ha (depending on the region and season), many farmers however barely reach yields of 1 MT/ha, while the potential with current certified seed material is estimated to be as much as 6 MT/ha, if grown in suitable growing areas with adequate fertilizer, moisture and production methods.



The two main maize growing seasons in Rwanda run from September to about February for season A and February to July for season B.
The production cycle of maize is 6 months on average, however depending on the varieties and regions the cycle can vary between 4 and 9 months.
In marshlands there is the possibility of having a third growing season, season C, running from Jun-Jul to Sep-Oct.

Despite the relatively low yields, production costs of maize are competitive with some border regions of DRC, but not so with Uganda and Tanzania. Maize from Uganda is generally considered to be of lesser quality by Rwanda consumers, however due to its cheaper price it is imported in significant quantities into the country.

There are financing opportunities for BPR in the maize sector, such as Raw Material Collection Finance for cooperatives and traders and Asset Finance for cooperatives, commercial farms and processors. Other financing opportunities may be considered in Inventory Finance and Working Capital Finance for cooperatives, traders and possibly also processors on a case-by-case basis. International trade flows may also offer financing opportunities in trade finance.

Input Finance will generally be difficult as long as the sector is distorted by subsidised inputs and market interventions, except on a case-by-case basis for larger operators.

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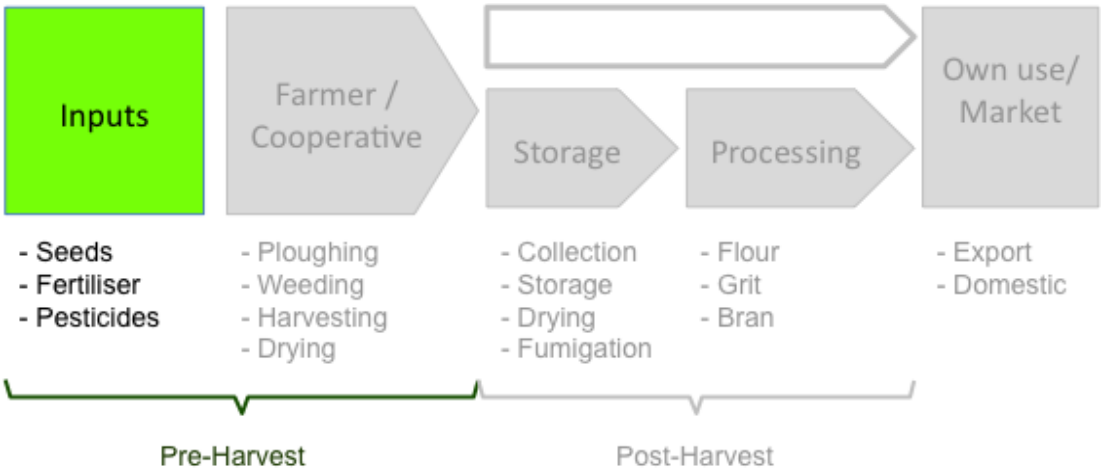
The maize value chain is furthermore exposed because the development of the downstream infrastructure (storage, market access) has not followed the rapid growth of production. The government has recently set up the Rwanda Grain and Cereals Corporation (RGCC), a private-public partnership to support the grains and cereals market in Rwanda. The RGCC is proposing to offer off-take contracts at pre-agreed prices based on the farmer's productions costs and distance to market. While this initiative will give market security to farmers, it may not encourage farm efficiency and/or cost competitiveness of Rwanda on the regional market. RGCC was not yet operational at the time of this report (June 2012).

Potential market distortions such as sector specific subsidies, guaranteed minimum prices and off-take guarantees need to be considered carefully.

Finally, the maize value chain is not fully integrated due to considerable own consumption and because farmers or cooperatives also sell their produce directly into the market, without necessarily going through cooperatives and/or traders and processors, making it difficult to assess the real performance of the sector today.

The challenges in the maize value chain are essentially the development of adequate storage facilities to reduce the post-harvest losses and improve access to market. The increased use of inventory finance solutions by either cooperatives, traders or processors may increase the linkages within the value chain, however the infrastructure remains to be developed first.

a) Inputs (Pre-Harvest)



Financing opportunities and risks in pre-harvest (inputs) should be considered with caution as long as key inputs are available for free or at subsidised prices, because of the potential market distortions this could create.

The inputs for maize production are essentially seeds and fertilizers.

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Seeds for commercial grain production are often distributed to cooperatives for free or with no payment obligation until after harvest and therefore generally require no financing. Shortage of certified seeds also forces farmers to use seeds from unverified origin and likely lower yield potential.

Fertilisers for maize are currently subsidised by the government at 50% of their cost through a voucher system.

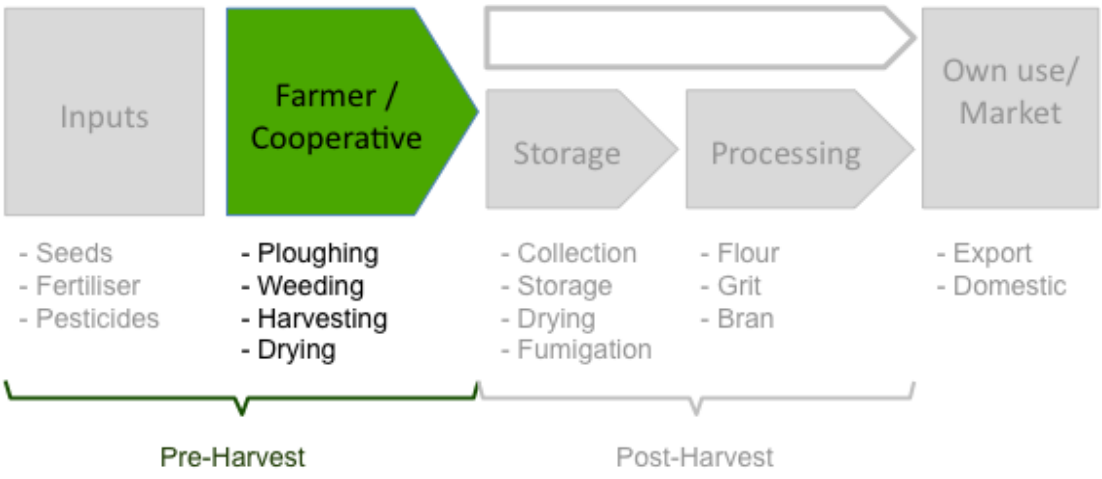
Some reports indicate that the fertilisers available on the market in Rwanda are not ideal for maize production, which heightens the risk of fertiliser being traded and / or applied to other crops.

Pesticides used in the field are (according to some cooperatives) available free of charge as an incentive to develop and improve the cultivation of maize and therefore not a significant cost to farmers.
Mechanisation is still very limited, except on larger commercial farms and cooperatives.

Some farms and cooperatives, contracted by RAB to act as seed multipliers, buy their seeds from RAB and sell part of the harvested seeds back to RAB as seed material. While this could be a financing opportunity, RAB does not provide off-take guarantees to such farmers and financing must therefore be based on market conditions.

Except for the actual labour costs, current maize input costs (mainly seeds and fertilisers) are modest and within a context of higher risk not attractive for bank financing.

b) Farmer / Cooperative (Pre-Harvest)



Maize farming is still a “relatively” new crop in Rwanda and experiencing some important weaknesses:

- Maize seed availability is limited and of variable quality

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- Management techniques are lacking, it is not uncommon for farmers to experience crop failures due to excess or lack of water, late sowing, or inadequate fertilisation
- Farmers have limited capacity of storage and grain protection and as a result encounter high levels of losses due to moisture and pests
- Farmers have no or little market experience with maize

Current (2012) maize production costs are estimated to range between RWF 80 and 125/kg, such price calculations are generally based on expected yields of 2 to 3 MT/ha.

With many farmers achieving yields of only 1 to 1.5MT/ha per season, these may be unable to cover the full cost of seeds, fertilizers and labour as recommended. As a consequence, such farmers are more likely to use uncertified seeds, apply little fertiliser and may not fully account for their own labour.

Table: Illustration of maize production costs calculation (please note calculation is based on yield of 2.27MT/ha)

Item	**Unit**	**Value**
Average yield	Kg/ha	2,270
Average production cost	**RWF/kg**	**102**
Land rental	RWF	3
Labour for 1st ploughing and 2nd ploughing	RWF	28
Organic manure	RWF	26
Seeds	RWF	4
Small equipment (bucket, basin, basket, bag …)	RWF	1
Sowing labour	RWF	6
Fertilizers (NPK, DAP, Urea)	RWF	6
Labour for 1st weeding and 2nd weeding	RWF	13
Labour for fertilizer spreading	RWF	3
Phyto products	RWF	2
Labour for Harvest and Transport	RWF	9
Depreciation of equipment (hoe, pump, watering can …)	RWF	1
Other : Security	RWF	1

Source: Adapted from FIDA - Minagri

Land preparation is often done by the farmer him/herself, with a total production cost (including inputs) ranging from RWF 80 to 125 per kg depending on fertiliser usage.

Mechanised field preparation is reported to cost as much as RWF 100,000 per hectare (NB About 50% higher than the cost of labour for the 1st and 2nd ploughing in the above illustration of maize production costs calculation!), which would not be economical for the average

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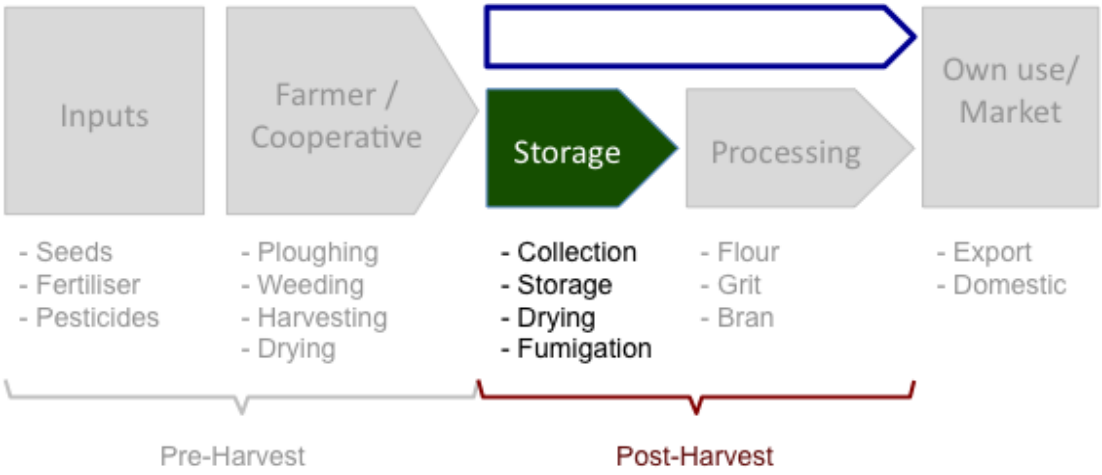
farm / cooperative in Rwanda. However, the availability and cost-efficiency of field mechanisation may find its place in larger fields resulting from the land consolidation or in large farms with higher yields.

c) Storage (Post-Harvest)



Farmers and most cooperatives and traders have no or only very basic storage facilities, which can result in high levels of post-harvest losses, reported to be as high as 30% (FAO, HarvestPlus, WFP).

Storage facilities are being constructed by cooperatives (for aggregation and fumigation), private investors (for example ENAS) and (semi-)institutional bodies (for example Minagri and/or RGCC) to provide adequate collection and storage points, reduce post-harvest losses and to improve access to markets. Organisations and programs such as P4P, IFDC and USAID are supporting the development of rural storage facilities through technical advice, financing and off-take arrangements. The availability of such facilities and the off-take arrangements offer good financing opportunities for the Bank in raw material collection finance and or inventory finance.

Minagri is also investing in a number of storage facilities across the country and has announced its intention to purchase about 20,000 MT of maize in 2012, with the aim to support demand and stabilise the maize prices. Some market players see this market intervention of Minagri as a cause for concern because at some point these stocks would have to be sold or used, with a potential negative impact on the market (low prices, government precedence in some contracts, etc.).

The P4P program of the UN World Food Program is also actively purchasing grains in Rwanda to meet the WFP's own needs in the region. P4P's maize purchases are done on an import price parity, which means that they will only purchase from Rwandan producers if the local price is competitive with the price of imported grains (including

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transport costs). In 2011 P4P purchased 8,000 MT of maize in Rwanda.

Some storage facilities, such as the Enas – Kirehe Project, are equipped with grading and drying equipment. Most cooperative storage facilities would however have to rely on natural drying to ensure adequate storage conditions. However, according to P4P moisture related problems have rarely been an issue with maize in the East Province, because of the relatively dry weather, provided the grains are purchased soon after harvest.

Pesticides used in the field are reported to be available free of charge from the government (Minagri), however those used for post-harvest treatment of the crop (as a requirement from buyers such as P4P) have to be paid for by the cooperative at a cost of about RWF 3,300 per MT.

Financing opportunities in the form of raw material collection finance are to be considered with off-take commitments from organisations (WFP, P4P) or commercial players (Minimex, Enas). Such financing structures could be attractive because of the strong mitigants available (market access, price, physical commodity control), but can only be applied if adequate and secure storage is available.

Adequate storage facilities will also pave the way for an increase usage of inventory finance solutions such as Warrantage and/or Warehouse Receipt Finance.

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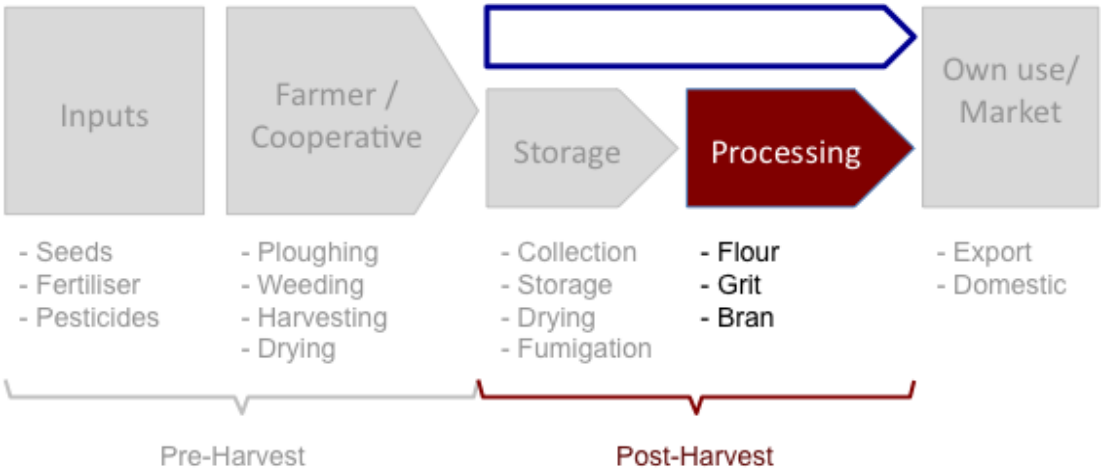
d) Processors (Post-Harvest)



There is an estimated 100 small mills with a capacity of 3-5 MT/day in Rwanda, and when operating all year round could absorb about 175,000 MT per year. The capacity utilisation of these small mills is not known. The importance of good and efficient mills will become of increasing importance as a result of the governments requirement of having all maize processed before consumption.

Larger processors such as Minimex (45,000 MT) and Maiserie Mukamira (10,000 MT) struggle to fill their needs with maize produced in Rwanda. Minimex had to import up to 80% of its needs in recent years, which suggests that a very large portion of the production in Rwanda (if numbers are correct) is either lost, consumed or sold on the market by the producers themselves.

Minimex is experiencing severe difficulties to source its maize requirements from domestic sources in 2011-12. Furthermore, delivered maize is often of sub-standard quality (too high moisture and presence of foreign matter problems) because of poor storage conditions at the farmer's level. Its experience is also that prices in Rwanda are higher than neighbouring countries and that a significant improvement in farming efficiency is required to make Rwanda maize competitive. Prodev, a company related to Minimex, has recently established its own farming activities to supply some of the processor's grain needs and to serve as a driver for neighbouring farmers.

Maize is processed into (i) flour, for human consumption, (ii) grit (used for example by breweries) and (iii) bran, representing about 30% of the production and used as animal feed in mixture with other ingredients.

In addition to asset finance, opportunities should also be considered for financing raw material stocks accumulated after harvest to meet the processing needs of larger mills. This could be done in the form of inventory finance.

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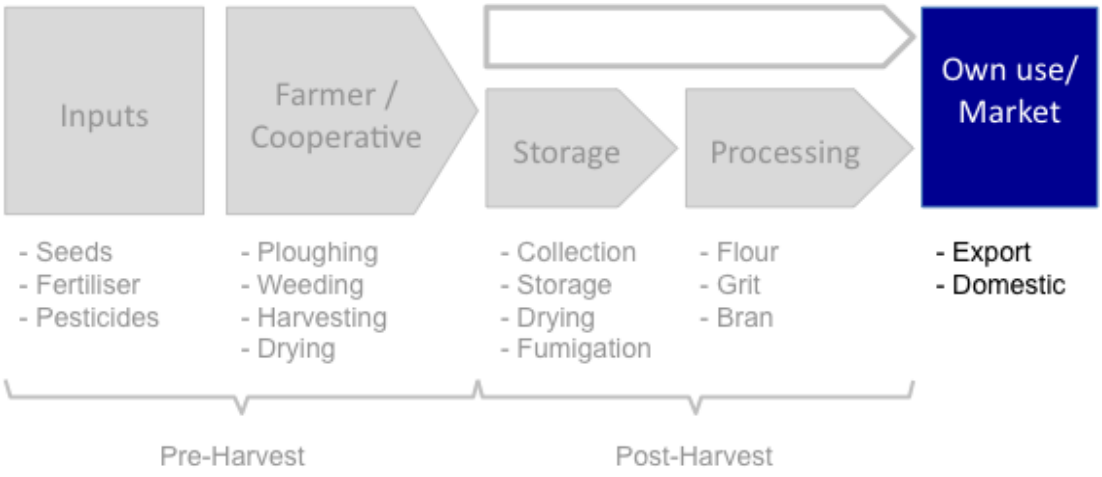
e) Market



Maize produced in Rwanda is mostly consumed domestically as production costs are not very competitive in the regional market, except the border region with RDC. The maize production in Rwanda is not sufficient to meet domestic consumption, however sources differ in the level of import dependence.

The government of Rwanda has made it compulsory to consume only processed corn rather than grain maize and it should therefore be expected that the need and availability of milled maize products will gradually increase.

Market price information is relatively scattered, however through various platforms, such as e-soko and RATIN, it is possible to obtain regular national and regional price updates. The e-soko platform provides local retail prices, while RATIN provides national wholesale prices. The independence of these price sources could not be verified. We also refer to your own (BPR) commodity data spreadsheet.

The Rwandan market for maize can be classified in five (six) different types:

1. Local consumer markets (direct sales by producers)
2. Institutional buyers such as WFP, P4P
3. Industrial scale processors such as Minimex and Maïserie de Mukamira
4. Government institutions such as RAB (seeds), Minagri (consumption) and public-private partners such as RGCC
5. Direct consumers such as schools, hospitals, prisons
6. Export markets such as DRC

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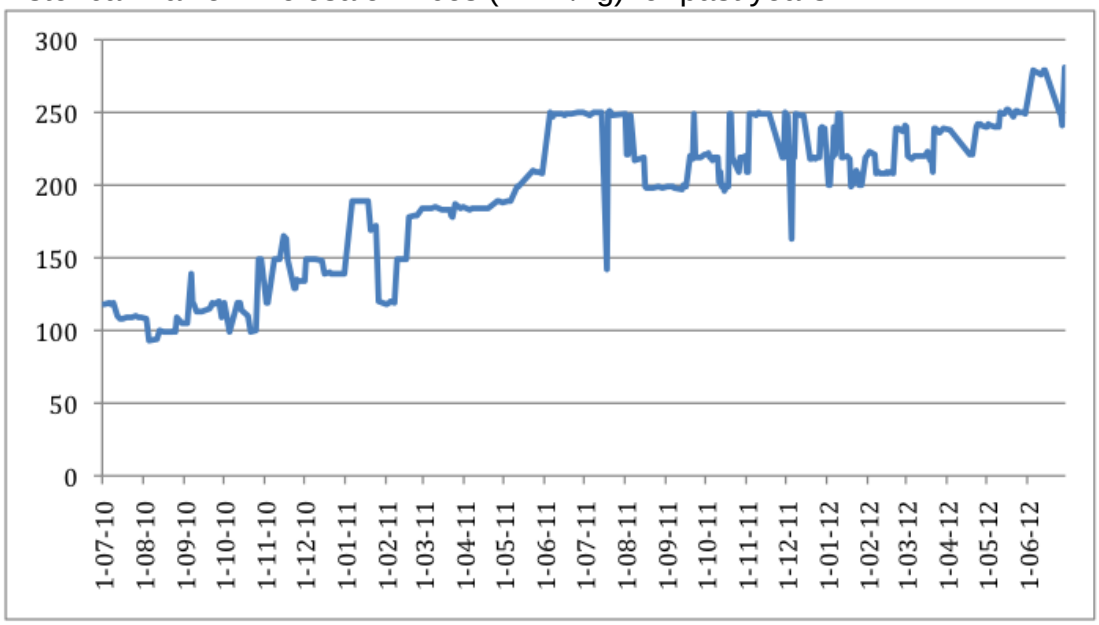
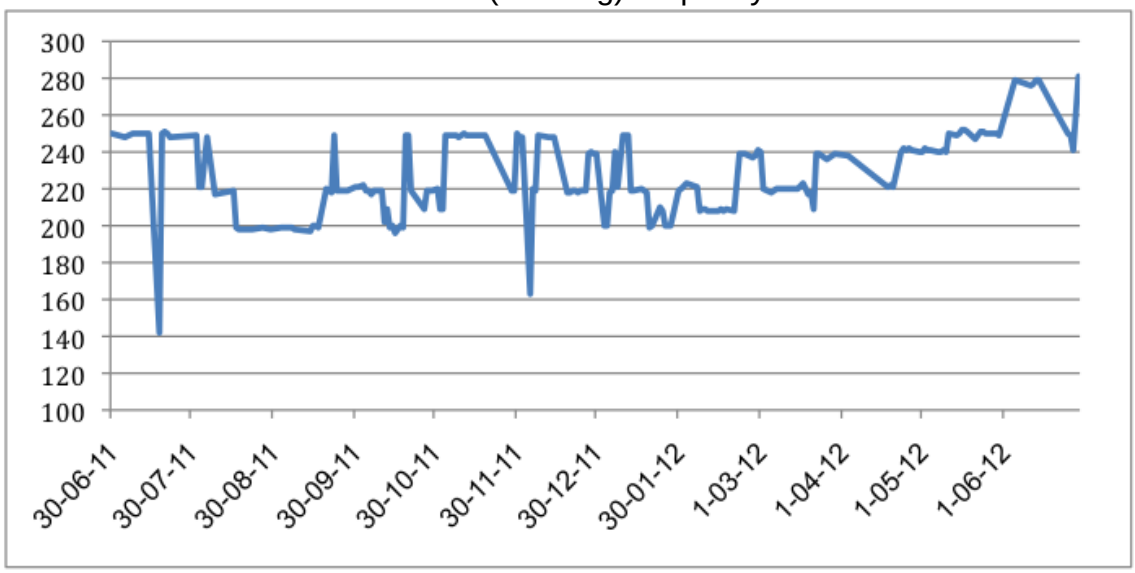
Historical Maize Wholesale Prices (RWF/kg) for past years



Source: RATIN

Historical Maize Wholesale Prices (RWF/kg) for past year



Source: RATIN

Adequate, up to date and reliable commodity market price information is an essential element of information required for any form of finance in agriculture.

From the historic data above, it should be noted that there is very little seasonality in prices (and therefore no carry in the market) and the price variation between RWF 200 and 250/kg in the past year can probably be attributed to the minimum price set by the government.

On a year-to-year basis, price volatility can be very significant, with prices ranging from RWF 100 to almost 300/kg. It should be noted

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however that since mid-2010 maize prices are in a general upward trend.

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3. Financing needs

Any financing opportunity in the maize business should be considered on the basis of the cash flow that will be generated and how secure this cash flow is. Because maize is a "relatively" new crop to Rwanda and that it is not yet a very organised sector, risks are relatively higher for this commodity because of the following reasons:

- government intervention in the supply and pricing of inputs
- low or very variable yields
- lack of adequate storage
- high volatility of commodity prices
- high level of home or local consumption

	Input finance	Raw material collection finance	Inventory finance	Asset Finance
Farmers	Sarura			
Cooperatives	X	X	X	X
Store Operators		X	X	X
Processors			X	X

a) Input finance

The market for farming inputs is somewhat distorted due to free and/or subsidised distributions made by the government. As a result there is a heightened risk of misuse (farmers may be able to sell the fertiliser at a profit instead of applying it (all) to their crops). The performance risk (crop failure as a result lacking experience and poor management, weather uncertainties and inadequate post-harvest equipment) is relatively higher in maize than other crops because of lack of experience.

Financing maize farming inputs has high risks involved and, except for (larger commercial) farms of maize for consumption and/or for seeds with a proven track-record, it should not be a priority for BPR at this moment.

b) Asset finance

In most cases, post-harvest set-up and equipment of farmers is the major bottleneck to a profitable development of this sector. Even though mechanisation would help farmers achieve timely crop operations, if access to adequate drying and storage facilities is not available the former could be detrimental to the farmer's profitability. All market players agree that without local drying and storage facilities, maize crops will be of poor quality, suffer heavy post-harvest losses and fail to attract buyers.

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The first priority should therefore be to finance drying and storage facilities, subsequently to which other asset financing such as mechanisation and/or transport may be considered at cooperative level. One could also consider financing necessary investments in existing storage facilities in order to upgrade these to an acceptable level.

c) Raw material collection finance

There is a significant number of potential buyers in Rwanda such as Commercial processors (Minimex, Maiserie de Mukamira, local mills), MLIs (P4P) and Institutional buyers (RAB, Minagri), which currently find it difficult to secure the maize they require. This is mainly due to the cooperatives' limited ability to aggregate the production of their members because of lack of financing.

Provided acceptable storage facilities are available and off-take contracts are in place, providing cooperatives with working capital finance in the form of "Raw Material Collection Finance" is an attractive financing opportunity that should be further developed in this sector.

Furthermore, when secure storage facilities are available, inventory financing may also be considered. Given the lack of carry (seasonality) in the market, the attractiveness of such financing may be limited and financing should only be considered for conservative financing amounts (e.g. support price of the government and/or historically low prices). These financing structures will offer farmers access to financing for harvested crops, but also enhance their potential benefit by having the possibility to sell their produce later in the season with a reduced risk of post-harvest loss if a suitable storage facility is available.

d) Inventory finance

Processors, in addition to the processing equipment that requires financing, need working capital to finance grain stocks either through domestic purchases (generally soon after harvest) or imports. Especially in cases of downstream linkages such as Minimex and Bralirwa, where an off-take agreement can be put into place for part of the finished production in combination with security over the commodity, working capital financing should be considered.

Future development of inventory type financing could also be used to enhance the financing structure.

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4. Strengths, Weaknesses, Opportunities & Threats (SWOT)

The SWOT analysis of the maize sector is summarised in the table below

Strengths	**Weaknesses**
- Suitable soil & climate (eastern half of Rwanda) for maize production - Potential for 2 crops per year and in some areas even 3 - Strong government support - Large areas of suitable land to develop maize production - Better quality maize than neighbouring countries	- Relatively new crop for farmers in Rwanda (lack of expertise) - Limited availability of adapted seeds - Low yields - Not cost competitive with some neighbouring countries - Lack of "cooperative" experience and management skills
Opportunities	**Threats**
- Large areas of land available for maize production expansion - Unsatisfied domestic demand and export market potential in DRC	- Regional competition - High risk of crop failure in case of inadequate rain or fertiliser - High degree of government intervention

When preparing a SWOT analysis for a client in the Tea sector please keep in mind that this SWOT analysis will almost certainly not be the same as the SWOT analysis for the sector (as presented above). The reason is that a client will most probably have at least a number of different weaknesses than the sector and the same counts for the opportunities and threats.

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5. Risks

The table below summarises the main risks and mitigants with regard to different financing opportunities the maize sector:

Key risks	Mitigants
Low yields of maize	Training and experience of farmers, adequate farming techniques & fertilisation
Post harvest losses	Adequate drying, grading, pest control and storage infrastructure
Side-selling of fertiliser (subsidised) and grain	Integrated value chains, contracts with cooperative
Price risk: intervention by government and impact imports	Financing amounts based on market prices

a) Input Finance

Finance solution to enables farmers or cooperatives to acquire necessary inputs and/or (for larger commercial farms) pay for pre-harvest labour. This type of financing contains a relatively high element of risk as a result of value chain distortions due to government subsidies and market support for both seeds and fertilizers.

Risk	Description	Mitigant
Usage	Risk that financing is used for other purposes than purchase of inputs	Small farmers may be tempted to sell some of the subsidised fertilisers at a profit. Single crop input subsidies create a high risk that is difficult to mitigate.
Performance	Risk that the farmer or cooperative fails to targeted production yields and quality	(i) Adequate track record of production; (ii) To date no grains from cooperatives have been refused by P4P, despite strict quality standards; and (iii) Storage should be regularly inspected for maintenance, procedures and commodity
Market	Risk that the cooperative is unable to sell the aggregated grains at a profitable price	Advance rate based on actual purchase price of inputs and X% of market value to mitigate market risk in case of default of off-taker
Price	Risk that the commodity price drops significantly after financing is disbursed	Financing is only granted on actual purchase price of inputs and for part of X% of the market grain value (not the off-

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		take price)
Payment	Risk that farmer or cooperative fails to pay or payment is not used to repay financing	Payment must be made against delivery through customer account with BPR (tri partite agreement farmers, cooperatives and BPR)

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b) Raw Material Collection Finance

Financing solution for cooperatives and traders to enable grain aggregation. This financing structure can be implemented with any cooperative and trader that has a trade relationship with a reputable off-taker, and is already implemented by BPR.

Risk	Description	Mitigant
Usage	Risk that financing is used for other purposes than grain purchase for aggregation	Disbursement of finance facility subject to raw material collection receipts
Performance	Risk that the cooperative or trader fails to meet its obligations in storage and quality	(i) Cooperative or trader must have adequate storage facility available and goods must be adequately insured; (ii) To date no grains from cooperatives or trader have been refused by P4P, despite strict quality standards; and (iii) Storage should be regularly inspected for maintenance, procedures and commodity
Market	Risk that the cooperative is unable to sell the aggregated grains at a profitable price	(i) Purchases should be backed by an off-take[1] contract from a reputable party at an agreed quality-related price (ii) Advance rate of X% of market value to mitigate market risk in case of default of off-taker (iii) Facility only available during crop collection period (1 – 2 months) and for max stocks in store
Price	Risk that the commodity price drops significantly after financing is disbursed	(i) Disbursements are made only on the back of off-take contracts with agreed price; and (ii) Financing is only granted for part of (X%) of the market grain value (not the off-take price) (iii) Facility only available during crop collection period (1 – 2 months) and for max stocks in store (?)
Off-take	Risk that the off-take	Agreement should be with

[1] See Off-take Risk

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	defaults	reputable counterpart
Payment	Risk that off-taker fails to pay or payment is not used to repay financing	Payment must be made against delivery through customer account with BPR (tri partite agreement cooperative / trader, offtaker and BPR)

c) Inventory finance (Warrantage or WHR)

Financing solution for farmer, cooperative, trader or processor. This financing structure is mostly of interest to farmers and cooperatives as it enables these to delay the sale of their crop to maximise their revenues. Financing is provided on the back of commodity stocks for an agreed percentage of their current market value (50-60%) or based on support price / historical low maize prices.

As the WHR system does not yet exist in Rwanda, “warrantage” can be used with caution given the limited right of the Bank over the secured commodity.

Risk	**Description**	**Mitigant**
Usage	Risk that financing is used for other purposes than grain inventory finance	(i) Disbursement of finance facility subject to storage or warehouse receipts; (ii) Release of stocks / warehouse receipts subject to repayment (documents against cash)
Performance	Risk that the warehouse manager fails to meet its obligations in storage and quality	(i) Warehouse infrastructure and procedures should be acceptable and warehouse adequately insured; (ii) Warehouse operator should be independent or operated under double lock system or independent monitoring; (iii) Storage should be regularly inspected for maintenance, procedures and commodities; (iv) For formal WHR financing, performance of warehouse should be covered by Indemnity fund
Market	Risk that the commodity cannot be sold on the market	Generally commodities such as maize will always find a buyer if quality is correct and can be stored for prolonged periods if required
Price	Risk that the commodity price drops significantly after financing is	(i) Financing should be based on reliable market price information (e-Soko);

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	disbursed	(ii) Financing is only granted for part of (X%) of the grain value (up to Y% if backed by a fixed-price off-take contract) or based on government support price or historically low prices; and (iii) In case of significant market price decline, borrower should top up (add quantity of grains to reach maximum advance rate of X% or repay part of the financing)
Payment	Risk that off-taker fails to pay or payment is not used to repay financing	(i) Commodity is only to be released after payment is made or guaranteed (documents against cash); (ii) Payment must be made through Borrower's account with BPR (tri-partite agreement cooperative / trader, off-taker and BPR) or Financing is to be repaid by the Borrower before the commodity is released

d) Asset finance

Financing solution for large commercial farms, well-managed and financially strong cooperatives or processors. This kind of financing should only be considered to finance (the improvement of) post-harvest infrastructure and only when adequate post-harvest infrastructure (drying, storage, fumigation) is in place also other assets like mechanisation etc as otherwise "improved" productivity as a result of mechanisation may be lost after harvest.

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