



Food and Agriculture  
Organization of the  
United Nations



## **INSTITUTIONAL PROCUREMENT OF STAPLES FROM SMALLHOLDERS**

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The case of common purchase for  
progress in Rwanda

Siobhan Kelly  
Clare Mbizule



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## PREFACE

The Food and Agriculture Organization of the United Nations (FAO) under the strategic objective to enable inclusive and efficient food systems, is interested in analyzing the role of institutional buyers in the development of smallholder-based food supply systems.

An institutional buyer refers to either a public or a private sector entity with presence in the domestic market that purchases large quantities/volumes of produce. Usually an institutional buyer refers to public institutions such as schools, food reserve authorities, the military, prisons, hospitals, food aid organizations and relief development agencies. Typically these buyers do not have a profit motivation and are usually driven by the need to acquire food products for consumptions within their own institutions or as food donations. They are generally guided by public procurement policies which can leave them with little room for flexibility in contract negotiations or choosing suppliers.

Institutional buyers can also refer to private sector entities such as schools, hospitals, universities, which have a different set of needs and requirements from the public sector. In addition to the profit motivation, they will also be driven by their customers' demand criteria, as well as the market dynamics and structure within which they operate. In general, institutional buyers can offer long term market opportunities for smallholders.

To increase the knowledge on institutional procurement for smallholder market integration, the Rural Infrastructure and Agro-Industries Division of FAO (AGS), in collaboration with the World Food Programme (WFP) performed a series of case study appraisals. WFP's Purchase for Progress (P4P) was identified as an entry point for analyzing models of institutional procurement.

WFP is the world's largest humanitarian relief organization providing food assistance in developing countries. The P4P pilot was launched in 2008 in 20 countries to leverage WFP's purchasing power to support local agriculture and market development. P4P links WFP's demand for staple food commodities with the technical expertise of a range of partners, to stimulate smallholder productivity and collective marketing with the objective that smallholders sell their surplus to formal markets. P4P is a good example of an institutional effort that links the organization's procurement needs to local development concerns, by building a support initiative to increase the volume of staples procured directly from smallholders and or small traders.

The objective of the cases is to analyze the role of P4P within the overall framework of inclusive food systems and to identify examples of other institutional procurement models with potential for smallholder inclusion. Despite the recognized potential of private actors as institutional buyers, the focus of this work is mainly on the public sector.

The series of case studies comprises seven countries: Ghana, El Salvador, Ethiopia, Guatemala, Kenya, Rwanda and United Republic of Tanzania. The analysis is based on a series of scoping missions that took place between October 2012 and February 2013 and secondary information collected afterwards.

The aim of the cases is not provide up-to date information on the progress of P4P, but instead to analyse the P4P experience in each country, including an identification of the main challenges and an assessment of their sustainability, potential for scaling up and replication. The cases constitute background papers for a forthcoming publication comparing the P4P across countries with the Brazilian institutional procurement programmes, identifying lessons learned and offering policy guidance for upscaling and replication.

## ACKNOWLEDGMENTS

The authors would like to express their sincere thanks to the FAO and WFP offices for facilitating the field work. In particular the FAO and WFP representatives and their staff for the support shown in preparation for and during the mission. Special thanks go to Emmanuela Mashayo, P4P Coordinator, Rwanda for her valuable technical insights and expertise and for all of the logistical support, which ensured the success of the mission. Her comments and the comments of Edouard Nizeyimana, WFP Rwanda on various drafts were also key as an important point of validation for the case study contents.

Gratitude is also expressed to all the persons and institutions that have kindly contributed with time, information, data and valuable insights to the development of this report.

Acknowledgments also go to Lynne Miller (Deputy Country Director Ethiopia) Elisabeth Faure, WFP'S, and Peter Anaadumba, FAO consultant, Joseph Mpagalile, Agro-industries officer of FAO's Rural Infrastructure and Agro-industries Division (AGS) for their various contributions and inputs on initial drafts. A special thanks also to Jamie Morrison of FAO's Trade and Markets Division for his expert technical guidance and comments on various iterations of the case. As well as Florence Tartanac, Senior officer for her comments. Sincere gratitude also go to Natalie Vergara consultant with AGS for her valuable comments and support with editing, report structuring and finalizing the case.

## EXECUTIVE SUMMARY

This study describes the development and experiences of the Government of Rwanda's Common Purchase for Progress Programme (CP4P). Against this background it provides an overview of the maize market in Rwanda and the Government's adaptation of the World Food Programme's Purchase for Progress approach as a template for developing the CP4P. It provides insights on large-scale and institutional procurement for maize, with a specific focus on the potential for linking smallholder farmers to these buyers. Large-scale and institutional buyers refer to both public and private buyers, such as public sector institutions, including schools, hospitals, food reserve authorities, prisons, the military and food aid agencies and non-governmental organizations (NGOs). Private buyers include breweries, large agro-processors and supermarkets, as well as private operated institutional buyers such as schools, hospitals or private nursing homes.

Over the past 10 years much of the work of the Rome-based agencies, in particular the Food and Agricultural Organization (FAO) and the International Food for Agricultural Development (IFAD), has been anchored in supporting the promotion of smallholders' integration into agricultural value chains. These initiatives has resulted in the development of tools and approaches that contribute to professionalizing farmer organizations; improve access to value chain finance tools; increase the sustainable intensification of production and strengthen business model linkages between farmers and small, medium and large buyers.

In synergy with these approaches and interventions, the World Food Programme (WFP), in 2008 launched its 5-year Purchase for Progress (P4P) pilot programme in 20 countries. WFP is the world's largest humanitarian relief organization and has been purchasing food locally from large traders and importers in developing countries for over 20 years. Recently WFP has been testing various tools, such as P4P, to explore an institutional shift from food aid to food assistance.

The P4P approach, leverages WFP's reliable buyer status to stimulate smallholder productivity and collective marketing to engage with formal markets. The programme provides capacity building to smallholder groups to strengthen aggregation of supply of produce in a manner which does not compromise WFP's food-quality standards or commitment to cost-efficient procurement.

**Box 1:** The development logic of P4P

Increased income for smallholder farmers is the result of:

Increased productivity + Enhanced group marketing capacity + Market development + Enabling environment

The emerging lessons from the P4P approach have been in synergy with the market linkages and sustainable value chains work conducted by FAO which is leading a programme of work to better understand the potential that large-scale public and private procurement could have in stimulating and supporting the transformative development of food supply systems.

### **The transition from P4P to "Common P4P" in Rwanda**

In Rwanda, the P4P initiative was launched in August 2009 with the selection of 25 cooperatives located mainly in the Eastern and Northern provinces of the country, representing 14 802 farmers comprising 6 490 female farmers and 7 592 male farmers. Up until November 2012 WFP, through P4P, had purchased 8 279 tonnes of maize and beans worth US\$2.9 million from 19 cooperatives.

The launch of P4P in Rwanda coincided with a number of major national initiatives focused on increasing production, land consolidation, reducing post-harvest losses and strengthening

smallholder cooperatives. These include; the Crop Intensification Programme (CIP) (2007-2010), the set-up of the Rwanda Cooperative Agency (RCA) in 2008 and the Post Harvest Handling and Storage Task Force (PHH&STF) in 2010; the launch of the National Post-Harvest Staple Crop Strategy (NPHSC) in 2011. These initiatives were followed by the government's announcement in the same year to proactively target agricultural cooperatives in the procurement of up to 40 percent of the public sector's staple grain requirements, with an initial focus on the National Strategic Grain Reserve (NSGR).

To consolidate progress and learning under these initiatives, the Government looked to the experiences and approach of WFP's P4P for an already tested strategy, set of tools and embedded capacity building programme for procuring directly from smallholder-based organizations. Within this context, a Memorandum of Understanding (MoU) was signed between the Ministry of Agriculture and Animal Resources (MINAGRI) and WFP in July 2011 to collaborate on an initiative entitled Common P4P. Core to the Government of Rwanda's adaptation of P4P is the concept of leveraging the institutional purchasing power of a large and reputable buyer as an incentive for stimulating production and for bringing smallholder collective capacity to a standard where they can interact professionally with other large buyers.

The institutionalization and sustainability of the P4P approach through CP4P, builds on existing methods, tools and lessons and is reinforced by coordination mechanisms across Ministries, in particular MINAGRI and the Ministries of Commerce and Education, as well as the Rwanda Cooperative Agency and ongoing agricultural support schemes such as the CIP and PHH&STF.

### **Main findings**

Within the context of the research and case study, overarching findings have shown the following:

- The Government has been successful **in the translation of agriculture policies and strategies from rhetoric into practical action and results**. The interrelationship between policies, strategies, institutions and interventions are, for CP4P at least, coherent with clearly defined mandates, tasks, and reporting structures with policy and institutional adaptation based on reiterative learning as a cornerstone of the overall approach.

When challenges emerge, the government response has been quick and action-oriented, incorporating lessons learnt and expert technical advice and assistance when needed. One example of this was the quick establishment of the Post-Harvest Handling and Storage Task Force, set-up in 2010 to reduce post-harvest losses and improve market linkages in response to the success and unexpected market gluts of maize that arose from the implementation of the Crop Intensification Programme.

- Timing, rapid responses to emerging problems and **coordination between these programmes and initiatives have been key for the success** of both P4P and the inception period of CP4P. The launch of P4P initiative in Rwanda in 2009 meant that the programme, unlike other P4P pilot countries, was able to immediately capitalize on the bumper crops which resulted from the success of the Crop Intensification Programme. This allowed the P4P team to concentrate on other important challenges such as smallholder collective bargaining power, storage, and marketing. In turn, the CP4P and the PHH&STF have been able to build on the good practice approaches and technical assistance programme provided to farmer organizations by P4P.
- The Government is also an advocate of **the role of the private sector in the development of the agricultural sector** and, where possible makes concerted efforts to ensure that private sector actors are included in policy discussions and the implementation of programmes. For instance,

under CP4P the outreach and presence of the agro-dealer networks and large trading companies in the country are taken advantage of to distribute fertilizer, credit, training and coordinate the collection of maize around the country for supply to the NSGR.

- The focus of the P4P approach in **building the collective capacity of smallholder groups** to integrate more effectively into the staples market has successfully tested the P4P proof of concept, with 19 out of the 24 FOs receiving support from P4P, supplying to either P4P or other formal markets .
- An important pillar of the programme to be stressed is the **emphasis on not creating dependency on the WFP market**, with participants encouraged to use their new-found capacity to diversify their market outlets. As such, the success of the P4P programme should not necessarily be equated with produce sold to WFP, but moreover on produce sold to alternative structured buyers.

The CP4P is still in the early stages of development and will continue to need ongoing technical and funding support to help it reach its goals of embedding the approach across public institutions charged with procuring food staples. While some institutional and policy changes will be required as the Programme grows, this case shows that the core institutional support, services and strategies, through the CIP, PHHSTF and RCA are already in place for this initiative to move forward. A more formal institutional set-up, on a small-scale, may reinforce ongoing efforts and accelerate the take-up of the CP4P vision and strategy by other public institutions. It is hoped that the findings from this case study can contribute to the evolution of CP4P and its role in improving the livelihoods of smallholder farmers in Rwanda.

## ACRONYMS

ACDI	Agricultural Cooperative Development International and
CIP	Crop Intensification Programme
CP4P	Common Purchase for Progress
DCO	District Cooperative Officer
DFID	Duterimbere micro-financial institute
EDPRS	Economic Development and Poverty Reduction Strategy
ENAS	Enterprise Nkubili Alfred & Sons
FAO	Food and Agriculture Organization
FBO	Farmer-Based Organizations
FDC	Forward Delivery Contracts
FO	Farmer Organizations
IFAD	International Fund for Agricultural Development
MINAGRI	Ministry of Agriculture and Animal Resources
MINICOM	Ministry of Trade and Industry
MINALOC	Ministry of Local Government
MoU	Memorandum of Understanding
NAP	National Agricultural Policy
NGO	Non-Governmental Organization
NPHSC	National Post-Harvest Staple Crop Strategy
NPPC	National Policy on Promotion of Cooperatives
NSGR	National Strategic Grain Reserve
P4P	Purchase for Progress
PHH	Post Harvest Handling
PHSCS	Post-Harvest Staple Crop Strategy
PSTA	Strategic Plan for the Transformation of Agriculture
RBS	Rwanda Bureau of Standards
RCA	Rwanda Co-operative Agency
RCA	Rwanda Co-operative Agency
RGCC	Rwanda Grains and Cereals Corporation
RWF	Rwandan Franc
SMFM	Sell More For More
STF	Post-Harvest Handling and Storage Task Force
USAID	United States Agency for International Development
VOCA	Volunteers in Oversea Cooperative Assistance.
WFP	World Food Programme

# 1. INTRODUCTION

## 1.1 Objective and scope of study

The present study provides insights and lesson on the adaptation of the Purchase for Progress (P4P) model by the Government of Rwanda. The case describes the factors leading up to the development of Common P4P (CP4P), its structure, coordination, operational modalities, supporting policies, strategies and institutions. It therefore differs in its focus from the other studies in the series which primarily look at experiences of the P4P by itself.

In addition to informing the development of the Common P4P and its role within the staples market in linking farmers to markets, the purpose of the case study is also to better understand the role that procurement by institutional and large-scale private buyers have in fostering the integration of smallholders into formal markets.

The experiences of both P4P and Common P4P provide an interesting case for understanding more about the role of institutional or large domestic local procurement as a driver of development and in the transformation of local food systems.

The commodity foci is maize and beans - the two main products procured in P4P and CP4P - with most of the analysis around the maize value chain given that this is the main commodity bought by private and public institutional buyers. Beans are nonetheless a priority crop in Rwanda for food security and commands a high price relative to other staples.

## 1.3 Methodology

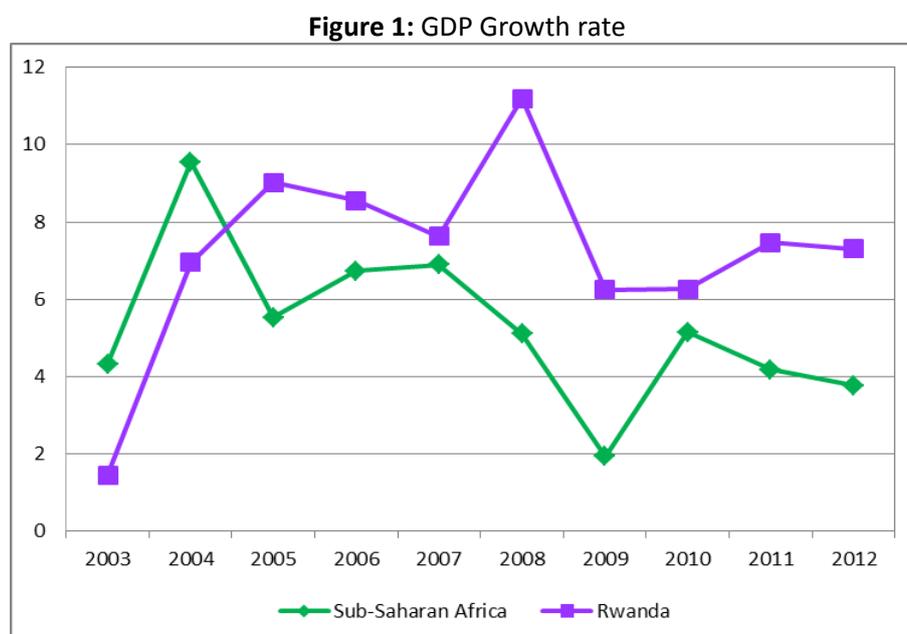
Information documented in this study was gathered during an intensive one week field mission in the country by staff from both FAO and WFP. The joint WFP-FAO scoping mission to Rwanda took place in October 2012 and focused on meetings in Kigali with government ministries of Agriculture and Commerce, high level and technical task teams, partners of P4P, financial service providers, private sector traders, transporters and grain millers. Field visits took place to co-operatives, apex organizations, district agricultural officers, rural markets, border-crossings and warehouses in the Eastern and Northern Provinces. A local consultant was contracted to follow-up on the validation of findings and to source relevant data with desk reviews of relevant policies, strategies and related partner reports prior and post mission.

The case provides an initial overview of the country's enabling environment and the government's vision and strategy for the modernization of the agriculture sector; the role of large-scale public and private buyers in the maize value chain; the evolution of CP4P and the role of WFP in support of the country's adaptation of P4P; the institutional coordination of different public agencies and initiatives; institutional and technical support for farmer organizations and observations of the model based on the FAO-WFP joint mission.

## 2. BACKGROUND

### 2.1 Sector overview

The national development strategy, Rwanda Vision 2020, is based on a 2-year consultation process, and together with the Economic Development and Poverty Reduction Strategy 2007-2012 (EDPRS), provide the overall vision for transforming agriculture from subsistence based to a modern industrial sector by 2020. This vision is reiterated, not only in the National Agricultural Policy (NAP) (2004) but throughout all of the country's major policy documents. The National Industrial Policy (2011) indicates the target of becoming a middle-income country by 2020, requiring GDP growth of at least 8 percent per annum with the following objectives; (1) increasing domestic production for local consumption; (2) improving export competitiveness and (3) creating an enabling environment for industrialization. Rwanda's GDP growth rate has increased over the last eight years from 1.4 percent in 2003, reaching a high of 11.1 percent in 2008 to a level of 7.4 percent in 2012 (see Figure 1). Over the same period of time (2003-2012), the GDP growth of Rwanda has on average been 2 points higher than for the Sub-Saharan region.



Source: World Bank 2012

The modernization of the agriculture sector is at the heart of Rwanda's national development programme, Vision 2020. The agricultural sector in Rwanda employs about 90 percent of the active population and contributes 40 percent of the GDP, giving the sector a dominant role in the economy. Rwanda is Africa's most densely populated country with a total population of 10.94 million and a total land area of 24 700 square kilometres.

High population density and dependence on agriculture is compounded by the fact that only about 11 percent of the land represents permanent crop land (USAID, 2010a). Figures vary for the total cultivable area which is estimated at between 52 and 79 percent of the country's land (FAO, 1998). Remaining agricultural lands are covered with forests, marshlands, and marginal lands in the hillsides where permanent and routine cultivation is not considered sustainable (USAID, 2010a). As a result average land-holding sizes are very small and estimates vary on average between 0.5 - 0.75ha

## 2.2 Agricultural policies

The Strategic Plan for the Transformation of Agriculture 2009-2012 (PSTA II) sets out how the National Agricultural Plan will contribute to the country's vision for modernization and is structured around four primary programmes; (i) intensifying the development of sustainable production; (ii) promoting commodity chains and agribusiness (iii) supporting the professionalization of producer organizations and linkages to the private sector, and (iv) strengthening the institutional and regulatory framework for agriculture.

### **i) Intensifying sustainable production**

The Crop Intensification Programme (CIP) first phase implemented from 2007-2010, has been central to PSTA, focusing on increasing agriculture productivity for maize, beans, cassava, potatoes, rice and bananas and improving food security through (a) increased distribution of fertilizers<sup>1</sup> and seed, (b) improvements in irrigation methods and (c) higher level land use through marshland development and land consolidation.

Depending on the suitability of local agro-ecological conditions, farmers have been encouraged to consolidate land, without affecting or changing land rights, to grow priority crops which include maize, rice, banana, Irish potatoes, sweet potato, cassava, sorghum and beans. Land consolidation is voluntary, but farmers must participate in the programme in order to avail of subsidized inputs such as seeds and fertilizers on credit under the CIP.

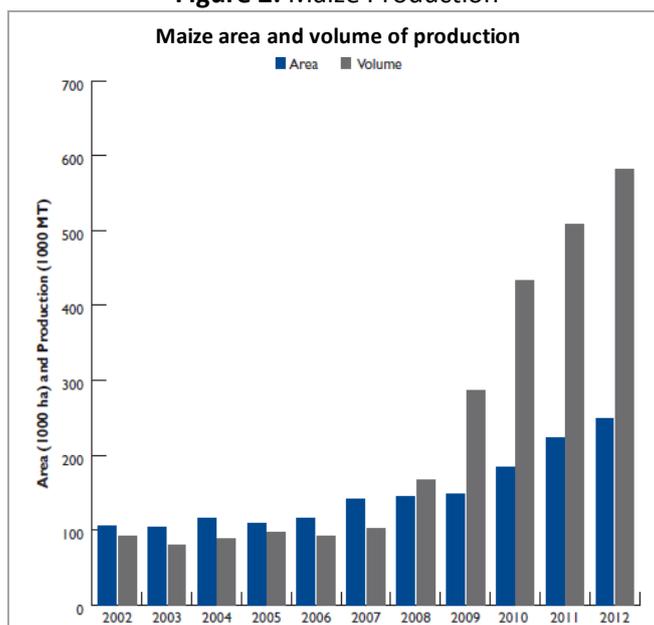
The strategy for phase two of CIP (2010-2017) acknowledges the need for more attention to smallholder-market linkages to ensure that investments are sustainable and participating farmers have better access to market outlets. The GoR also envisaged a strategy of linking farmers directly to the National Strategic Grain Reserve (NSGR) in an effort to recover credit for farm inputs as well as providing a reliable market for production surpluses.

The new strategy, in addition, to continuing the usual system of bidding large quantities of food grains through private traders and/or stock holders, would also stock the NSGR either directly from cooperatives and/or through private service agents that collect directly from farm gates or storage centres. The impetus for this strategy was reinforced with the announcement of a Government directive that public institutions procuring food through public tenders should aim to procure 40 percent of their requirements directly from Rwandan smallholders through registered cooperatives.

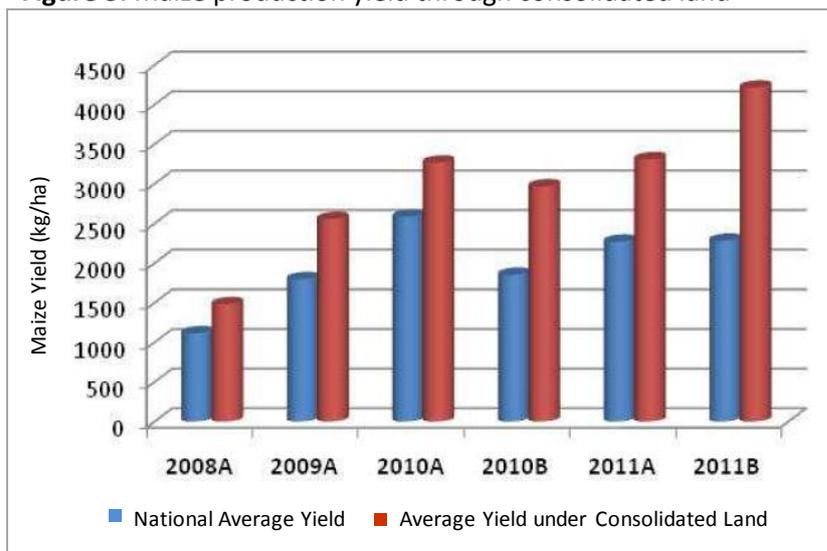
The results from the CIP have been impressive. According to official statistics from MINAGRI maize production has more than tripled from 175 000 tonnes in 2008 to 575 000 tonnes in 2012 (USAID, 2013). Figure 2 shows the notable increases in maize production levels, since the onset of the CIP. Over the past decade, the share of maize in overall agricultural production has increased significantly and now ranks third after beans and banana. While maize production has trebled under the CIP, the area planted has only increased from circa 150 000 ha in 2008 to 240 000ha in 2012 (USAID, 2013). The land consolidation model has been key to raise the production yields without significantly increasing the cultivated surface (see Figure 3).

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<sup>1</sup> subsidized up to 50 percent by the state

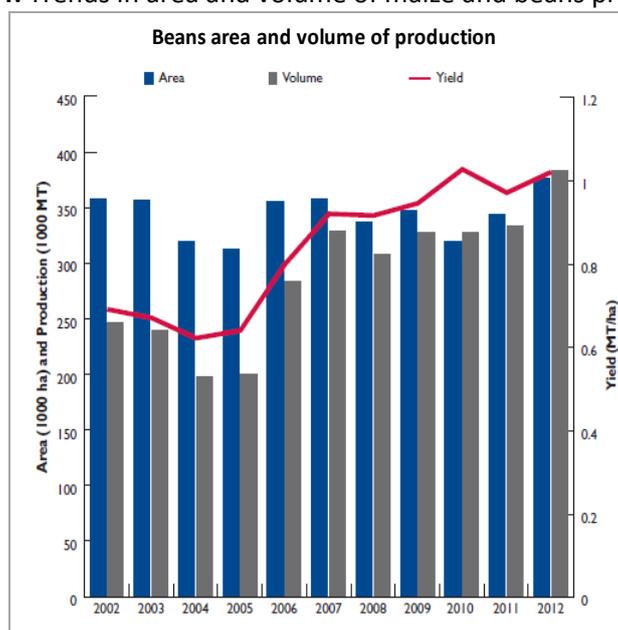
**Figure 2: Maize Production**

Source: USAID 2013

**Figure 3: Maize production yield through consolidated land**

Source: MINAGRI, 2012

For beans the largest of the agricultural commodities produced in the country, production has increased by 30 percent from 2008 to 2012 (USAID 2013). The area for beans cultivation has remained relatively stable over the last decade, but average yields have increased by 40 percent (See Figure 4).

**Figure 4: Trends in area and volume of maize and beans production**

Source: USAID 2013

## ii) Promoting commodity chains and agribusiness

The National Post-Harvest Staple Crop Strategy (PHSCS) was developed with the support of USAID and launched in March 2011. The strategy drew significantly from the experience of the USAID sponsored Post-Harvest Handling and Storage (PHHS) project which works in partnership with P4P to deliver post-harvest handling training to cooperatives enrolled in the programme.

The PHSCS outlines how the government and partners, including the private sector, would work together to strengthen the harvesting, post-harvest handling, trade, storage, and marketing of staple crops in the country.

The PHSCS also guides the work of the Post-Harvest Task Force (PHH&STF) which was set-up to support MINAGRI's markets and extension unit to respond to the dramatic rise in production in 2010 due to the CIP and the consequent high post-harvest losses. The PHH&STF is currently envisaged to be a temporary structure with a mandate to run until 2016, with the expectation that by this time, the relevant post-harvest efforts and activities will have been embedded into agricultural support systems at all levels. Since the inception of the PHH&STF, post-harvest losses for maize are estimated to have reduced from 30 percent in 2008 to circa 19.8 percent in 2012.<sup>2</sup> The PHH&STF also has the responsibility of management of the National Strategic Grain Reserve.

The National Post-Harvest Staple Crop Strategy aimed at strengthening agricultural value chains is also reinforced by the Ministry of Commerce's Small and Medium Enterprises Policy (2010) which seeks to promote a culture of entrepreneurship, facilitate SMEs access to business services and finance, simplify fiscal and regulatory frameworks governing SMEs and put in place an appropriate framework for SME development and growth. With agriculture employing over 90 percent of the population, the overall objective of the strategy is to create diversified employment opportunities

<sup>2</sup> PHH&STF 2012 – unpublished.

for communities in rural-based agricultural and non-agricultural enterprises. At the local level MINICOM, with support from IFAD, provides SME and rural traders and retailers with assistance on areas such as business plan development and access to finance as well as collecting data on SMEs to support monitoring and further national strategic development.

### **iii) The professionalization of producer organizations and linkages to the private sector**

The role of the cooperative model is considered key in the implementation of agricultural related policies and its significance is set out in the National Policy on the Promotion of Cooperatives. The GoR views cooperatives as *“... a potential vehicle...for creating employment and expanding access to income-generating activities, developing business potential, including entrepreneurial and managerial capacities through education and training; increasing savings and investment, and improving social well-being...”*

The Rwanda Co-operative Agency was created to support the implementation of the NPPC and falls under the direction of the Ministry of Trade and Industry . Its main role is to regulate the formation and operation of cooperatives. To register with RCA, a cooperative must have formal governance and administrative structures including a board of governors, an accountant and a bank account. The RCA has 14 staff members who work in close collaboration with district offices. There are 4,838 registered cooperatives in Rwanda, of which 1682 are agricultural cooperatives.

### **iv) Strengthening the institutional and regulatory framework for agriculture**

The progress made under initiatives such as the CIP and the PHH&STF has also been reinforced by the enabling environment created by the National Land Policy and Gender Equity laws and the National Decentralization Policy (2001). The National Land Policy (2004) and National Gender Policy (2004) have established a land tenure system that guarantees tenure security for all Rwandans, which has been fundamental in a country with land population density of 321people/km sq and where land holdings are on average 0.75 of a hectare.

Core to the success of these initiatives has been the cross-institutional collaboration and intra- policy relevance. For instance, the GoR is addressing the high agricultural transaction costs and diseconomies of scale caused by land fragmentation and smallholdings by promoting the aggregation of land through a land consolidation initiative, which falls under the CIP. The cooperative model is key, not only for improving smallholder collective marketing capacity and distributing government inputs under the CIP, but also to collaborate with the district MINAGRI offices on land consolidation. According to official government figures, 502 917 had been consolidated in 2011, representing 36 percent of total arable land area. The government’s goal is to consolidate 70 percent of arable land by 2020.

The development of both P4P and CP4P have taken place under the aegis of a series of regulations, policies, and strategies put in place over the past decade to support the modernization of the agricultural sector in Rwanda. The implementation of these policies and strategies have been effective due to a strong governance structure with chains of responsibility which run down to the local level, which has also contributed to the sustainability of P4P related activities and laid the policy and institutional ground for the development of CP4P.

## **2.3 P4P Rwanda**

Cooperatives in Rwanda however had little exposure to selling collectively or to large buyers. The Government looked to the experiences of the World Food Programme’s (WFP) Purchase for Progress

initiative, which combines the leverage of WFP’s purchasing power with capacity building activities on smallholder aggregation of grains and collective marketing and bargaining power, without compromising WFP’s food quality standards or commitment to cost-efficient procurement.

The P4P initiative in Rwanda was launched in August 2009 with the selection of 25 cooperatives located mainly in the Eastern and Northern provinces of the country. By November 2012 the number of cooperatives increased to 28 representing 23,866 farmers comprising 10 884 female farmers and 12 982 male farmers. Up until November 2012 WFP, through P4P-Rwanda, purchased 8 279 tonnes of maize and beans worth US\$2.9 million from 19 cooperatives.

In close collaboration with the USAID sponsored Post Harvest Handling and Storage (PHHS) project, P4P-Rwanda delivered an institutional capacity building programme for cooperatives on areas including; post-harvest handling practices; quality parameters that govern WFP’s procurement<sup>3</sup>; improvement or facilitating investments in the construction of storage centres for bulking commodities; organizational management to enhance collective bargaining power; and contract negotiating skills with buyers.

The initiative has also partnered with Banque Populaire du Rwanda, Rabobank, and the Kenya Commercial bank, to address issues related to the capitalization of cooperatives and access to financial products. Tools such as third party payment agreements have been developed with banks – which facilitate cash advancements to suppliers by cooperatives or banks advance on the basis of contracts with large buyers, such as WFP.

An important pillar of P4P is the emphasis on not creating dependency on the WFP market, with participants encouraged to use their new-found capacity to source additional market outlets. In Rwanda the programme has set a limit of procuring no more than 50 percent of smallholders’ marketable surplus. In practice cooperatives have sold about 30 percent of surpluses to P4P, with the remaining surpluses sold to alternative buyers.

## 2.4 Common P4P

The GoR’s interest in building on the range of tools, partnerships and lessons emanating from P4P in Rwanda, led to the signing of a Memorandum of Understanding between the Ministry of Agriculture and Animal Resources (MINAGRI) in July 2011 to scale-up smallholder outreach of the P4P approach in a joint initiative entitled “Common P4P”.

The MoU outlined three areas of support that WFP would provide to GoR based on its experience in local and regional procurement; (i) build the capacity of MINAGRI staff to design and implement “Common P4P”; (ii) develop the internal capacity to procure efficiently from smallholder farmers and (iii) monitor the effect of government purchases on the market and on farmers’ livelihoods.

### Box 1: The development logic of P4P

#### P4P Objectives are to:

- Identify and share best practices for WFP, NGOs, governments and agricultural market stakeholders to increase profitable smallholder farmer engagement in markets.
- Increase smallholder farmers' capacities in order to raise their income from agricultural markets.
- Identify and implement best practices for increasing sales by low-income farmers to WFP with a particular focus on small-scale farmers.
- Transform the WFP food purchase model in a way that supports sustainable production and address the root causes of hunger.

<sup>3</sup> Moisture/foreign matter/size of grain/absence of live infestation etc.

Core to the GoR's adaptation of the P4P concept is the rationale of leveraging the institutional purchasing power of a reliable and preferred buyer as an incentive for stimulating production and for improving the professional capacity of cooperatives to interact with other large buyers.

The NSGR has been the first public institution to pilot test Common P4P (CP4P) which is managed by a task force within MINAGRI set-up to reduce post-harvest losses under the CIP. From the national budget, 2.5million USD as of 2012 had been allocated for the implementation of CP4P.

## 3. MARKET OVERVIEW FOR MAIZE IN RWANDA

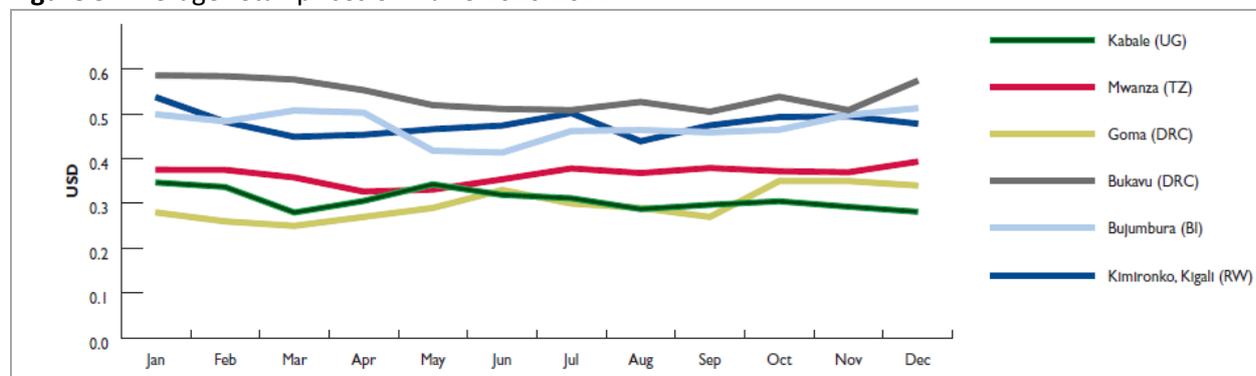
### 3.1 Market overview and performance

The market in Rwanda for food crops and staples exhibits a high level of dynamism and similar to most countries across South-East Africa, the demand is high and constant all year-round. Maize is consumed either green (fresh on the cob) or as maize meal (coarsely ground). The crop is grown throughout the country with the Eastern province producing the largest share - 32 percent. Most maize (75 percent) is harvested December-January after season A (September to February) with the remainder harvested in May/June after season B (March to July). In the wetlands areas some production (5-10 percent) can also take place in season C in November – December (USAID, 2013).

The results of the CIP, have contributed to a better market performance with significant production increases. Despite this however, local retail prices have remained constant year-on-year and between 2010 and the end of 2012 averaged out at 0.5USD/KG. Figure 5 shows retail prices in Rwanda compared to neighboring countries.

The main reason for this is, compared with retail prices in other main urban markets in the region, particularly Ugandan and Tanzanian, Rwandan maize is expensive and not competitive. Even factoring in transport costs from Mwanza to Kigali, Tanzanian produce is still competitive, as are imports from Kabale (South-East Uganda). It is not clear however the reasons for the price differentials, but may be due to incomplete data, the high transaction costs due to fragmentation of supply and aggregation, high costs related to drying due to the more humid Rwandan climate, and the limited storage capacity compared with the neighbouring larger countries<sup>4</sup>.

**Figure 5:** Average retail prices of maize 2010-2012



Source: USAID, 2013

### Supply chain structure

The first stage in the maize supply chain is dominated by fragmented sales between smallholder farmers and small traders. Even if smallholder farmers are cooperative members, they may not sell through the cooperative due to immediate cash needs which traders can respond to. Small traders travel farm-to-farm to purchase small quantities which they store in small store-houses located in rural towns. The produce is either sold in the local rural market for domestic consumption, to local small millers, or to medium or large traders which pass through the towns on the way to Kigali. In Kigali the produce is initially sold to wholesalers or other large traders for onward sales to either

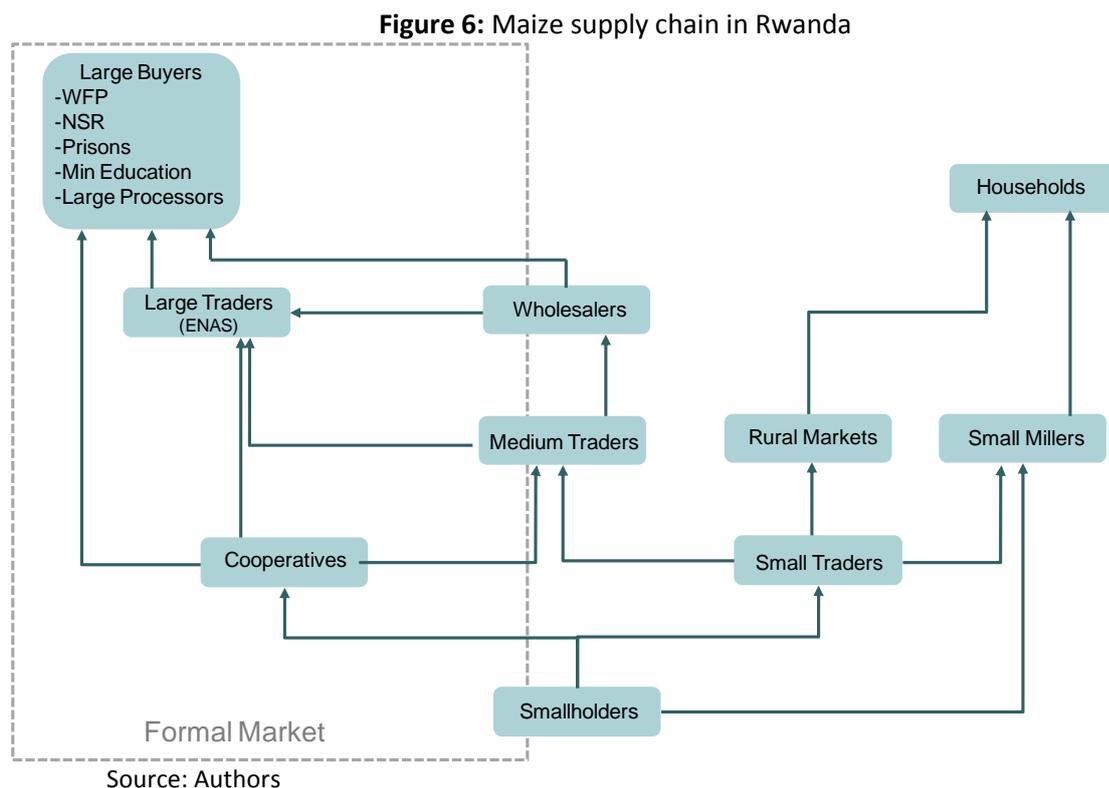
<sup>4</sup> The latter part of this section has been adapted from report on Rwanda cross-border Agriculture Trade Analysis, USAID – Enabling Agriculture Trade Project, 2013

large-scale buyers such as WFP, the National Strategic Grain Reserve, prisons, large processors or to urban market retailers.

Produce aggregated by cooperatives is generally intended for sale at a premium price to large scale buyers or traders such as WFP through P4P, to CP4P (for the NSGR), or large traders, such as Enterprise Nkubili Alfred & Sons (ENAS). If produce is not sold to a large buyer, it will be sold to a small or medium trader for a price, higher than the market rate but inferior to the price offered by large buyers.

Produce bought by P4P-WFP will be transported to local and regional refugee camps. Purchases for the NSGR are held for distribution to food insecure parts of the country.

Large trading companies, such as ENAS which operates mainly in the East of the country, and the Murenzi Supply Company which operates in the West, play a major role in the market. After aggregating maize through purchases procured from small and medium traders, wholesalers, cooperatives and importers, the large trading companies will target large buyers such as WFP's regular programme, NSGR, the Rwanda Correctional Services and the Ministry of Education through tenders, with spot deliveries to large millers. After processing, large millers will distribute flour locally to shops, supermarkets, bakeries and WFP or export to the region. Figure 6 illustrates the supply chain structure for maize in Rwanda.



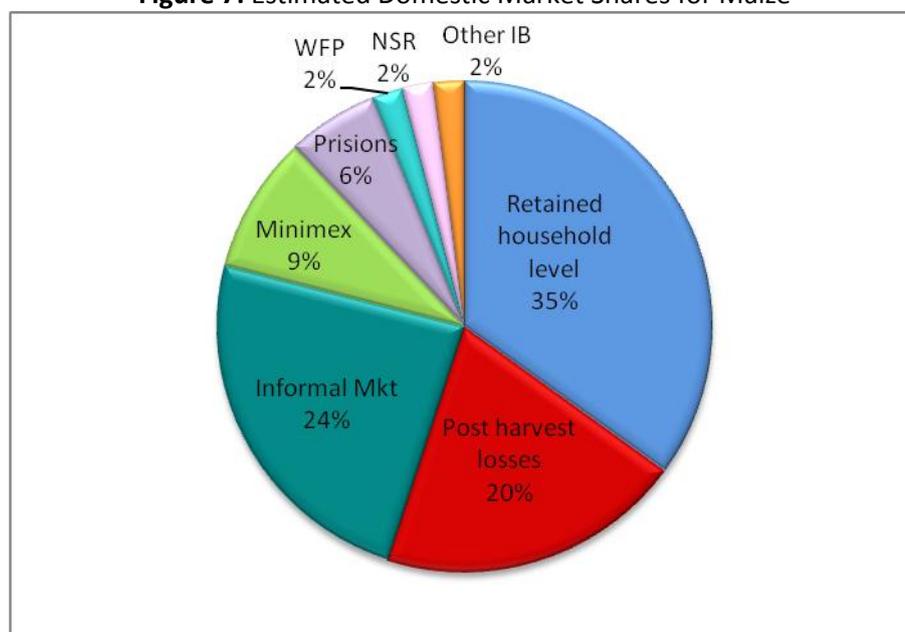
### Market shares

Due to a lack of analytical market information there are no statistics that indicate market shares or segments of the major players in the market. From a review of primary data from interviews and from discussions with relevant personnel in Ministries and the private sector, the mission made the following estimates which have not been validated. The bulk of maize harvested is consumed green

during harvest with 35 percent retained for local processing and household consumption, 1 percent for seed production, between 17-20 percent accounts for post-production losses and about 5 000 tonnes or 0.8 percent of production is exported, mostly to Burundi and DR Congo and some to Uganda (USAID, 2013).

For the remaining marketable surplus it is estimated that 24 percent is traded informally on the spot market and 21 percent, is traded formally. Formal trade is accounted for by 9 percent from the country's largest miller (Minimex), followed by the Rwanda Correctional Services sourcing 6 percent, NSGR and WFP (regular programme and P4P) buying 2 percent respectively, and the final 2 percent is made up of combined purchased by a smaller miller (Sosoma), Ministry of Education and the Rwanda Grains and Cereals Corporation. Figure 7 shows market shares of the main actors.

**Figure 7: Estimated Domestic Market Shares for Maize**



Source: Authors' compilation with data from interviews and USAID, 2013

Institutions make up shortages by engaging in their own agricultural activities, for instance prison run farms using inmate labour and the military with camp farms. In 2012, the marketable surplus was boosted with imports of approximately 65 000 tonnes, mostly from Uganda with some imports from Tanzania.

Overall, there are a lot of empirical gaps related to demand, supply and market shares of the main institutional and private buyers of maize and staples in Rwanda, and addressing this dearth in data would contribute to reinforcing the ongoing strategy of integrating smallholders into more formal structured markets in the country.

### 3.2 Public and private large-scale and institutional buyers' market for maize

Institutional buyers are becoming an increasingly important segment for smallholder suppliers of maize and beans, particularly for those organized into cooperatives. Currently, apart from small and medium traders, cooperatives most important buyers are - the World Food Programme, the National Grain Strategic Reserve for maize and beans, the Rwanda Agriculture Board which buys seed maize, the recently formed Rwanda Grain and Cereal Corporation (RGCC) (a public-private entity) and large private traders - ENAS and Murenzi Supply Company.

Rwanda's large maize millers - Minimex which produces maize grit and flour, and fortified flour and Sosoma Industries, which produces a mixed, soya, sorghum maize blend – could also eventually be important buyers for smallholder cooperatives with the right level of capacity to supply sufficient quantities and quality. The millers have a combined output capacity of around 65 000 tonnes per annum (USAID, 2009). Currently however these buyers only procure from medium or large traders such as ENAS and Murenzi.

Public institutions – RGCC, MINAGRI, WFP through P4P, presently offer cooperatives most of the market opportunities to sell collectively. The RGCC for instance, created in February 2012 by the government, has a 'public mission' to enable farmers to access markets and it supports the implementation of the CIP. RGCC started procurement in April 2012, buying mainly maize and beans. Up until the time of the mission it had procured 1 300 tonnes with 70 percent sourced directly from cooperatives. RGCC has aims to purchase 30 000 tonnes per season by 2017. It prefers to procure from Rwandan farmers but if supply is insufficient it plans to buy abroad. The company procures as much as possible from cooperatives with deficits sourced from local traders. RGCC takes only 2-4 working days to pay its suppliers.

Both WFP through P4P and the NSGR, through CP4P, offer 'soft' tendering to cooperatives meaning that some of the more onerous conditions that large traders comply with are waived, such as performance bonds and reduced volumes. The soft tendering process does not compromise compliance with WFP's or NSGR's food safety and quality standard. These conditions are combined with institutional support and technical guidance to enhance suppliers' capacity to honour contracts and meet the needs of WFP and NSGR, with P4P also providing subsidized support on aspects such as transportation and fumigation. Once cooperatives demonstrate that they can meet the buyers' needs in terms of quantity, price, standards and delivery they are weaned off or "graduate" from the capacity building support arm of the programme and invited to tender in the competitive process along with other traders on WFP's vendor list. Out of the 28 cooperatives receiving support from P4P, to-date one cooperative, NYAMIG, in Nyagatare, has graduated from P4P support. NYAMIG has been included in normal local WFP procurement tendering process three times, but as yet has not won a contract.

**Table 1: Pricing formulas and type of contracts**

<b>I.Bs</b>	<b>Type of contract</b>	<b>Pricing formula</b>
<b>1.WFP/P4P</b>	Direct contracting	$po = pm + bq$ ( $bq = cp + mg$ )
	Public tendering	$po = pc$
	Soft tendering	$po = pc$
<b>2.NSGR</b>	Soft tendering	$po = pc$
	Public tendering	$po = pc$
<b>3.RGCC</b>	Direct contracting	$po = pm + bq$
	Soft tendering	$po = pc$
	Public tendering	$po = pc$
<b>4.RCS</b>	Public tendering	$po = pc$
<b>5.MoE/Boarding schools</b>	Public tendering	$po = pc$
<b>6.RAB</b>	Direct contracting	$Po = pf$ ( $pf = cp + mg$ )

Source: Authors

*po*: price offered by I.B

*pm*: prevailing price on the market (market price) *légende*

*pc*: competitive price of the tender

*bq*: Bonus for quality

*cp*: cost of production

*mg*: margin (negotiable between I.Bs and coops)

*pf*=fixed price by the seeds multipliers national committee and agreed by RAB

Table 1 shows the pricing formulas and types of contracts used by the different buyers and Table 2 shows the prices offered by institutional buyers compared to the market price over a three year period. Overall institutional buyers offer higher prices, on average 30 percent more than the spot market price at the time of sale. The price offered by WFP is on average 10 percent higher than the local market price which ensures that the institution procures grain that complies with its food quality and safety standards. The Rwanda Agricultural Board when sourcing seeds offers a price up to three and four times higher than the local market price, however prices for seeds are usually higher than for staple commodity prices.

**Table 2: I.Bs prices versus market prices (Rwf/kg) between 2010 and 2012**

Cooperative	District	Institutional buyer	Staple commodity/ Seeds	2010		2011		2012	
				po	Pm	po	pm	Po	pm
RGCC	Nyagatare (Rwimiyaga)	WFP/P4P	Maize	205	180	229	200	260	240
		WFP/P4P	Beans			330	300	280	230
COTEBARU	Nyagatare (Rukomo)	WFP/P4P	Maize					260	220
			Beans			320	300		
COACMU	Kirehe (Musaza)	WFP/P4P	Maize	133	80	198	130		
		WFP/P4P	Beans	327	250	310	200		
		RAB*	Maize (seeds)	240	80	400	150	400	230
			Beans (seeds)	450	250	446	250		
		NSR	Beans			275	240		
		RGCC	Beans					300	280
COAIGA	Kirehe (Gahara)	RAB*	Maize (Seeds)	250	80				
		NSGR	Beans						
INGANZO	Musanze (Nyange)	NSR	Beans					365	310
		RAB*	Beans* (seeds)			500	310		

Source : Group interviews with Coops Leaders in Nyagatare ,Kirehe and Musanze, November 2012

po: price offered to farmers by I.Bs

pm: market price (average local prices at delivery date)

(\*): prices for seeds are higher than staples commodity prices and are set by RAB

## 4. COMMON PURCHASE FOR PROGRESS

### 4.1 Development and coordination of CP4P

In addition to the CIP and the land consolidation programme, a growth through specialization approach was also introduced. This approach identified focus crops to produce<sup>5</sup> for each district. The combination of these programmes resulted in a marked increase in the production of maize and beans across the country from 2007. There was a notable boom in production as indicated in section 2.2. For maize, production increased steadily from 2006 to 2012 with a particular increase of circa 65 percent between 2008-2009. Bean production increased more gradually over the same time period production (USAID, 2013).

In response to the government's initiatives many smallholders have changed farming systems in Rwanda to the priority crops. To ensure that these smallholders remain committed to the Crop Intensification Programme reliable market systems are required which reward increases in smallholder investments in quality and efficiency.

In an effort to improve the efficiency of market systems, the government established the Post-Harvest Handling and Storage Task Force (PHH&STF) in 2010 to contain post-harvest losses which were increasing along with productivity increases. In addition, in order to improve the role of smallholder in the maize and beans value chains, in April of the same year the Government also issued a directive requiring government institutions to purchase at least 40 percent of their staple grain requirements from smallholder farmers through cooperatives.

#### Description of the National Strategic Grain Reserve

The National Strategic Grain Reserve was the first government institution to act on the directive, and intends to progressively increase the amount procured from smallholders each year, by the public and private sectors, to 200 000 tonnes by 2020.

The NSGR is run by the PHH&STF and has four main objectives:

- i. Providing emergency food assistance to transitory food insecure.
- ii. Supporting communities and farmers with storage facilities.
- iii. Assisting producers secure a minimum price for their produce at harvest time.
- iv. Providing domestic consumers price support (market intervention) to procure food at reasonable price.

The National Strategic Grain Reserves are located in different parts of the country: in Gasabo (Metallic Silos in Kigali Special Economic Zone), Kicukiro, Nyabihu, Nyanza, Nyamagabe and Rusizi Districts.

Metallic Silos have been operational since May 2012 and uses grain processing technology by the Danish manufacturer, Cimbria. Silos have a total capacity of 20 000 tonnes, and, depending on moisture content, an average throughput capacity of 50 tonnes per hour and 500 tonnes per day. At the time of the mission, the NSGR had a plan of purchasing 10 000 tonnes of maize and 7 000 tonnes of beans and the government has plans to continue the development of NSGR

When trucks arrive at the site with produce, samples are taken for laboratory analysis then verification of supplier documents is done, the truck is weighed and allowed to proceed at the intake

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<sup>5</sup> The selection process was based on each districts agro-ecological potential and district level consultation processes and meetings

where further sampling is done to ensure the quality parameters specified in the contract. After unloading, the truck is again weighed on its own and the in-house computer calculates the produce supplied.

If stocks are not released for national food security activities they are rotated back into the market after 18 months through public auction. To avoid market distortions, lots are kept small. The last auction lot previous to the date of the mission, October 2012, was for 4 000 tonnes.

### **WFP support to CP4P**

Since the inception of Common P4P, WFP has assisted the government with the overall development of the programme with specific input on the following areas:

#### *Selection criteria and process*

WFP assisted the government in defining the criteria for selecting implementation areas and participating cooperatives across the country, agreeing that:

- (i) Common P4P would be implemented in surplus producing areas associated with the CIP.
- (ii) Cooperatives registered at either the district or national level with the Rwanda Cooperative Agency would be eligible to participate in the programme. There is no minimum period for registration however, compared with WFP's P4P selection process, which stipulates that cooperatives must have been registered with RCA for a minimum of one year. For WFP-P4P, this additional stipulation was necessary to address concerns over the stability of the organization and hence their reliability as suppliers in the long term.
- (iii) To maximize outreach, WFP-P4P and CP4P endeavor to not operate in the same district.
- (iv) Purchases from farmers' cooperatives are on a contract basis with specifications on the minimum quality standards to be met by the suppliers.

*Design of a public procurement strategy:* From July to November 2011, WFP assigned a market analyst to work 2 days a week with MINAGRI staff assisting with the development of a procurement strategy for maize and beans.

*Development of a crop production forecasting tool:* a customized excel based tool was developed to help the GoR ascertain the quantity of marketable surplus, based on crop assessment reports, for each district after factoring in household consumption and post-harvest losses.

*Training in procurement practices:* Training for PHH & STF staff, MINAGRI extension officers, warehouse managers and district agronomists was carried out on the following topics;

- principles of P4P and potential challenges to implementation
- how to engage with farmers as sellers, with training on pricing, negotiations and buyer-seller relationship.
- inventory stock management of commodities, quality control management, and warehouse management.
- handling of mobile commodity quality testing kits known as "blue boxes<sup>6</sup>" to assist in pre-testing of commodities at cooperative warehouses. Five kits were donated to the government following the training.

*Training in post-harvest handling practices:*

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<sup>6</sup> The blue box is a box containing a set of equipments for field quality testing and screening. The tools included in the box allow performing grading of cereal grains (including wheat and rice), grading of pulses (such as lentils, peas, chickpeas, beans) and moisture determination of various type of commodities. The box includes the necessary tools to conduct sampling exercises in accordance with International Standards (GAFTA/ISO).

Trainers from USAID's PHHS<sup>7</sup> project were contracted to carry out a training of trainers for 31 district agronomists and a selection of 660 cooperative members from 54 cooperatives on post-harvest handling techniques under the Sell More for More Programme<sup>8</sup>. In turn these trainers, trained an additional 4 150 agriculture promoters, who are government staff operating in cells - the lowest administrative level after villages and districts.

#### *Training in project leadership and management*

In collaboration with, leadership and management training for CP4P targeted cooperatives will be carried out in 2013.

#### **Institutional Coordination of Common P4P**

CP4P is coordinated by MINAGRI's Post Harvest Task Force (PHH&STF) based in Kigali. They oversee the work of PHH&STF provincial officers and supervise the activities of 15 Kigali based PHH&STF field officers, each of whom is assigned responsibility to guide the post-harvest and marketing activities in two of the country's 30 districts.

MINAGRI have an extension officer stationed in each province and an agronomist in each district and sector. Socio-economic advisors and agriculture promoters operate at the village and cell levels, living and working alongside the community members they serve. Promoters across the country have received training on post-harvest handling, and work with their extension and PHH&STF counterparts at higher levels, to ensure that farmers are receiving the information, training and access to fertiliser and inputs needed to maximise their production and marketing efforts.

Under the guidance of a lead district agronomist activities are carried out to ensure that the distribution of inputs and training in improved production practices reaches all smallholders. These activities include facilitating timely access to subsidized fertilizer and inputs through cooperatives; partnering with the district Cooperative office on institutional strengthening of cooperatives; coordinating with MINAGRI, the PHH&STF and other development partners to ensure that farmers have the necessary support needed to market production surpluses. The district agronomist also provides support to ensure that farmers follow the recommended land consolidation guidelines focusing on at least one of the priority crops recommended for their areas. These activities are also discussed and coordinated through a Joint Action Forum at district level which is held every week.

The agriculture extension and PHH&STF staff perform different activities throughout the agriculture cycle. In the planting season, the focus is on forecasting production in each sector. Socio-economic advisors and promoters gather information on the crops that households will plant in their cells and villages, and the land that will be allocated to each crop. This information is fed to the sector level agronomists who meet with their district level agronomist each Monday often with a PHH&STF field officer from Kigali in attendance. Based on the data from the districts, PHH&STF field officers coordinate the delivery of subsidised fertilisers and seeds to the cooperatives. Inputs are subsidized at 50 percent and provided to farmers on credit.

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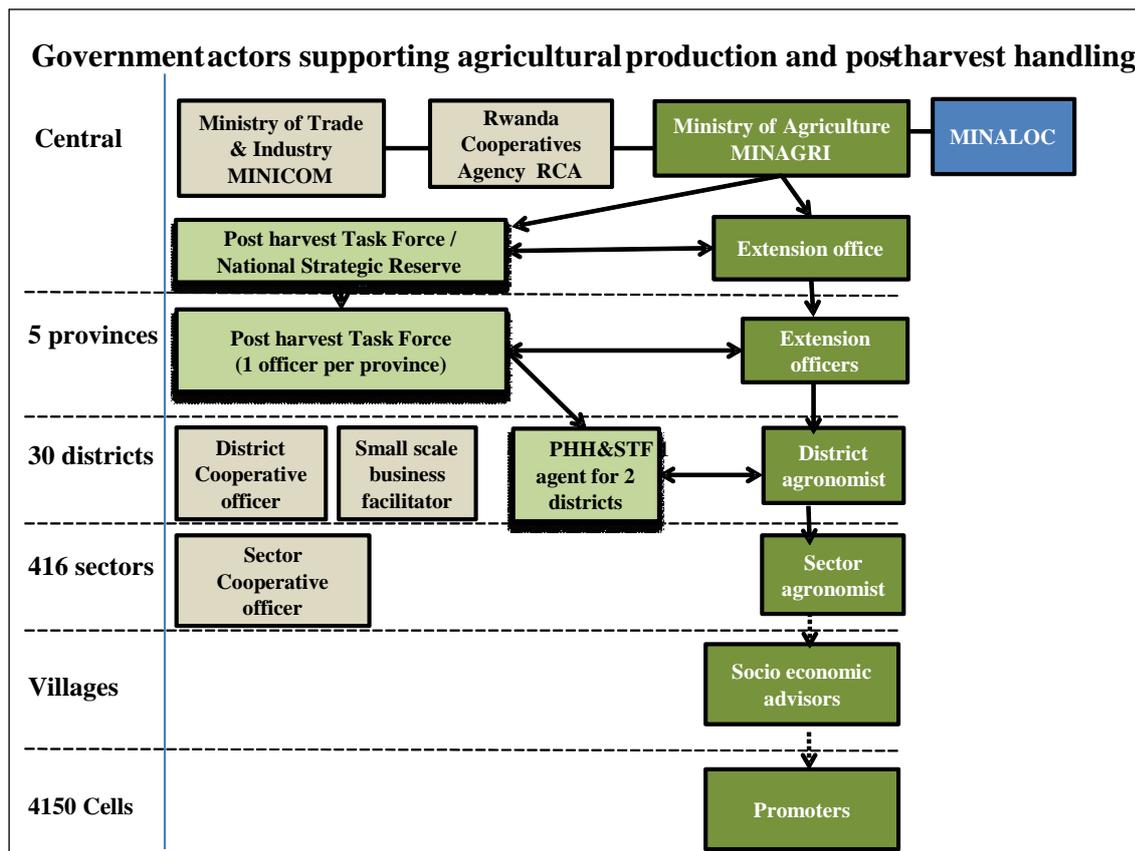
<sup>7</sup> Post-harvest handling and storage.

<sup>8</sup> The Sell More For More (SMFM) program. SMFM was created by ACDI/VOCA in collaboration with WFP's Purchase for Progress programme to train local support firms to deliver postharvest and management training to farmer organizations. The Sell More For More approach helps farmers earn more income by improving post-harvest handling and executing effective market-oriented business plans. It works through farmer-based organizations (FBO) ranging from informal groups to formal cooperatives, and the name of the approach articulates the outcomes of the program: Sell More product by increasing quantity For More revenue by increasing quality.

As the harvest approaches, the sector and district agronomist visit farmers to ascertain when they will be harvesting, identify any needs for post-harvest equipment and/or drying facilities and conduct refresher training on appropriate post-harvest handling practices.

The production forecasts prepared by the districts at the start of the season are used by the PHH&STF to plan NSGR purchases from the cooperatives. Based on the available projections for Season A of the 2012/13 agricultural season, the government has signed Forward Delivery Contracts (FDCs) with 212 cooperatives to deliver 22 048 tonnes of maize and beans.

**Figure 8:** Linkages between government actors involved in Common P4P



Source: Authors

22 048 tonnes of maize and beans.

Figure 8 above shows the linkages between MINAGRI and other relevant government actors including the Ministry of Trade and Commerce, Rwanda Cooperative Agency<sup>9</sup> and the Ministry of Local Government that are vital to the smooth implementation of CP4P. Accountability is core within the governance structure and performance contracts are in place at all levels to monitor the implementation of government programmes. All ministry staff including the Prime Ministers and Ministers are assigned districts where they are required to travel to regularly to ensure that planned interventions are on track.

<sup>9</sup> The Ministry of Trade and Commerce is the parent ministry of the Rwanda Cooperative Agency

## The Role of Cooperatives in CP4P

The directive issued by MINAGRI that all government institutions should buy at least 40 percent of their grain needs from smallholder based cooperatives has placed the cooperative model as central to public institutional buying and the government's plans to modernize agriculture and improve service delivery to smallholders. As such, cooperatives are the principle mode of engaging smallholders in both P4P and the CP4P. The cooperative system is guided by the National Policy on Promotion of Cooperatives and the Rwanda Cooperative Agency.

The decentralization policy and process has helped to increase the speed at which the RCA can respond to the needs of cooperatives with power devolved to the District Cooperative Officer (DCO) whose overall supervision falls under the guidance of the RCA but who reports directly to the district mayor. Using a training of trainers approach, the DCO disseminates learning on governance issues such as registration, developing rules and regulations, organization and management, and developing marketing strategies.

Women and men have equal rights under cooperative membership in Rwanda and the participation of women in management is strongly encouraged under the National Land Policy and Gender Equity laws. Two P4P sponsored cooperatives met in the Kirehe district both indicated a thirty percent average for female membership. Various activities are focused on encouraging the participation of women, including trainings aimed at sensitizing management to the business case of gender balance both in membership and in management and decision making processes, which has encouraged male members to bring their wives and other women farmers to join the coops.

Institutional and technical support to CP4P has been provided by both P4P and USAID through its Post Harvest Handling and Storage Project in Rwanda, which has helped cooperatives strengthen postharvest management in maize producing districts. Matching grants of between 40 - 60 percent of the total cost for constructing modern warehouses have been provided to two cooperatives in Kirehe, one cooperative in Bugasera and one in Nyanza districts to assist with storage, cleaning and drying of grains.

In collaboration with USAID, support has included capacity building in basic record keeping and business and marketing skills. Access to financial products and loans has also been improved thanks to the support of the Banque Populaire du Rwanda, Kenya Commercial Bank and other local Micro Financial Institutions.

P4P has also partnered with IFAD on the promotion of warehouse receipt systems also known as warrantage. While still a relatively new tool in Rwanda the use of the warrantage is becoming more popular as a mechanism to improve access to better market prices. The tool has been piloted with Nyamig, a cooperative based in Nyagatare district. After storing their produce in a common warehouse, the warrantage provides farmers with the choice of selling some or all of their produce immediately after harvest, if needed due to pressing financial commitments such as repaying loans or school fees, or waiting until after the harvest season when prices have increased. The warrantage tool is jointly managed by Nyamig Ltd., a local bank and a private warehouse operator.

In collaboration with Rabobank Foundation, a training programme on financial management and literacy for cooperatives was launched at the end of 2012. As part of the programme, trained cooperatives will strengthen linkages with Banque Populaire du Rwanda, in which Rabobank is a shareholder.

In 2011 in collaboration with USAID and Kenya Commercial Bank, the 'merchandise loan' or guaranteed loan was piloted which enables access to short term credit against a purchase contract with P4P, CP4P or other large reputable buyers.

### **The role of agricultural companies and traders in CP4P**

ENAS is contracted by MINAGRI to transport produce collected by agro-dealers and public owned warehouses or private warehouse rented by MINAGRI for the NSGR. The company also distributes subsidized fertilizer as well as providing extension services on the application of inputs and linkages to micro-finance institutes.

ENAS is the largest trading company in the country and rents up to 501000 tonnes container trucks to supply its 37 aggregation centres throughout the province constructed with support of USAID, The centres store between 200-500 tonnes of maize and the warehouse in Kigali has a storage capacity and 35 000 tonnes with in-house drying technology. The warehouse also stores beans, but on a short-term basis as its structure is not appropriately fitted to store the crop.

In 2012 ENAS sold 8 200 tonnes to WFP's regular local and regional procurement system, for regional and national WFP activities, 7 000 tonnes to Rwandan Correctional Services, 3 500 tonnes to NSGR and small amounts to FAO and Red Cross. The company also sells and buys soya beans, sorghum, rice and coffee.

A small trader in maize, beans, sorghum and soya beans, interviewed during the mission estimated that he traded annually about 1 000 tonnes of maize and 500 tonnes of beans. As a member of a traders' cooperative he can access loans and advances on payments. The cooperative is also part of the government's network of agro-dealers which is used by the government to distribute fertilizers on credit and deliver training. The traders also collect grain as payment for the fertilizer for the NSGR part of which is retained as payment for agro dealer services.

### **5.1 Procurement from smallholders under Common P4P**

In order not to create market distortions and undermine sustainability, similar to the P4P procurement limit of 50 percent of market surplus, CP4P also tries to limit procurement from smallholders to no more than 40 percent of marketable surplus. Procurement under CP4P is guided by the country's National Law on Procurement (2007). A call for tenders is placed in the public press inviting all interested suppliers, trader companies and cooperatives, to bid for a contract within 30 days. Tender documents are issued to all interested bidders which include all of the relevant criteria for the contract including the technical and quality specification. Tenders are opened in a public session and are subsequently reviewed by the tender committee made up of the PHH&STF who make an evaluation report with a shortlist of potential suppliers. Seven days are then allowed for clarification or complaints by bidders, after which time a contract will be signed with the winners.

In its first year of operation, the NSGR signed contracts with 15 cooperatives in season B 2011 to deliver 6 400 tonnes of beans and with 9 cooperatives in season A 2012 to deliver 1 200 tonnes of maize. Suppliers delivered 23 and 1.7 percent respectively of the agreed contracts. Under the contract for season B, 2011 the government advanced of 20 percent of the agreed payment. Most suppliers only delivered quantities which matched the value of the advance, with those that delivered more experiencing long payment time-lags. Strong market demand during the season combined with the bad experience with payments adversely impacted smallholder supplier confidence, with the result that for season A, 2012 only 2 percent of contracted maize was delivered. As grain is used to recoup smallholder debt for inputs, smallholders were also reluctant to supply to CP4P for fear of payments being used to repay fertilizer debts.

After a steep learning curve in the first year of implementation, the number of contracts signed with cooperatives were reduced to only include groups that had higher chances of success. Beginning in season B, 2012, there was also more follow-up and technical coaching provided in partnership with the sector agronomists and provincial post-harvest strategic task force coordinators. In the second year, while the contracted quantity of beans was significantly reduced to 800 tonnes, the delivery rate increased to 100 percent. For maize the contracted quantity was slightly increased to 1 360 tonnes, with 74 percent of contracted produce delivered.

For delivery in 2013, forward contracts for maize were signed in October and December 2012. As a result a number of cooperatives have been able to access loans using the contracts as collateral. The coordinators of CP4P also hope to address defaults problems by purchasing in the middle of the season when prices are more stable.

**Table 3:** Contracted and delivered quantities under CP4P

Year / Season	Commodity	Number of coops	Quantity contracted (tonnes)	Quantity delivered (tonnes)	Percentage delivered
2011 Season B	Beans	15	6 400	1 497	23%
2012 Season A	Maize	9	1 200	20	2%
2012 Season B	Beans	1	800	800	100%
2012 Season B	Maize	1	1 360	947	70%
Season A 2013	Maize	1	4 000	2 300 (to-date)	57%

Source: Government of Rwanda

Controlling moisture content is always a challenge as farmers harvest during the rainy period and they have limited capacity of drying facilities, thus not being able to reach the moisture content of 13.5%.

Compared with other large buyers, such as WFP or the RGCC, the CP4P has the advantage of being able to accept maize with up to 15.5 percent humidity, as the NSGR has a dryer on-site. Cooperatives supplying WFP through P4P cannot supply grain with a humidity rate higher than 13.5 percent.

Overall, the main challenges lessons cited by CP4P during its first year of operation have been over-estimation of FOs marketing capacity for initial contracts. Lack of transport services - as CP4P, unlike P4P, does not provide transport services. Erratic weather conditions such as drought in Season A 2011 and flooding/ localized drought effected maize production and harvests in some districts for season A in 2012 also cause unexpected problems with supplies.

The PHH&STF team interviewed during the mission also noted that while trading companies are cheaper and more efficient at honouring the terms of contracts, cooperatives can guarantee higher and more homogenous quality produce.

In districts where cooperatives are absent or weak, stock for the NSGR is sourced from smallholders through a voucher scheme with agro dealers. Smallholders deliver grain to agro dealers in exchange

for the government subsidized inputs, which is also a mechanism for the government to recoup the funding allocated for inputs on credit.

### Logistics under CP4P

Unlike P4P, contracted cooperatives under CP4P arrange for their own transport and delivery to publicly owned or rented warehouses. This process is facilitated by an aggregation centre in each of the sectors and village bulking centres which have access to scales, grain moisture meters and shellers. The government contracts the trading companies to transport produce from the agro-dealers and warehouses to the NSGR. The same trading companies will also distribute subsidized fertilizer as well as providing extension services on the application of inputs and linkages to micro-finance institutes. To participate in the CP4P, the stock needs to be accompanied by a certificate signed by the director of the sector guaranteeing that the stock has been produced nationally.

### Contracts and pricing

Under CP4P standard contract designs are used which include the minimum quality specifications. Contract prices are set based on a comparison of prices within and across districts to ascertain the appropriate market related price for CP4P purchases from cooperatives. The eSoko price database is also used as a benchmark however the utility of the system is limited as it reports only retail and not wholesale prices, with irregular price updates, affecting the reliability of the system.

Table 4 shows the differences between contracts awarded to cooperatives under the P4P and CP4P programmes. One the main differences is the provision of transportation services which under P4P are provided from cooperative warehouses to WFP warehouses Under CP4P the government only arranges transport from the agrodealers or aggregations centres to the NSR. Cooperatives under CP4P have to arrange and pay for their own transport to the aggregation centres which are not provided under CP4P. CP4P can however accept grain with a higher moisture content than WFP as the programme can avail of the NSR's on-site dryer. Prices offered are on average the same, with suppliers to the NSR through CP4P being paid after 5-10 days. Sometimes there are delays in payment. In addition to a lack of collective marketing skills, transport and payment time-lags can also be barriers to market entry for smallholders supplying the NSR. A combination of these challenges contribute to the default rates experienced by the CP4P in its first year of operation.

**Table 4:** Comparison of contracts through the P4P and CP4P programmes

Item	P4P	CP4P
Transportation	Provided	Not provided
Quality requirements	Humidity < 13.5%	Humidity <15.5%
Inputs	Not provided	Subsidized fertilizers and inputs
Price	10% higher market price	10% higher market price
Cooperatives contracted	21 coops	15 coops
Procurement limit	50% surplus	40% surplus
Payment	14 days	5-10 days

Source: Author's compilation

### Quality control and the role of the Rwanda Bureau of Standards

The drying facilities at the NSGR means that CP4P is able to accept deliveries of maize with up to 15 percent moisture content as compared to 13.5 percent by WFP. Prior to unloading, the commodities

are tested for quality, and the results will determine if the cargo is unloaded or rejected. Depending on the level of quality, the commodities may have to pass by the drier/pre cleaner, and dried to a moisture content of 13.5 percent before storage at the silos. While the Rwanda Bureau of Standards (RBS)<sup>10</sup> tests all cereals bought by WFP, the NSGR also has its own laboratory for on-site quality testing. The RBS under CP4P nonetheless plays an important role as it regulates food commodity standards across the country with 3 main activities that CP4P benefits from:

- I. Capacity building for cooperatives, including those participating in CP4P, processors and other partners to ensure that maize meets quality requirements.
- II. Commodity testing at all stages of the supply chain.
- III. Guideline development on food quality standards.



(c) Traditional maize storage  
Source: Author's photos



(d) private Maize drying machinery in Kirehe

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<sup>10</sup> <http://www.rwanda-standards.org/>

## 6. OBSERVATIONS AND LESSONS

### ***Cross-institutional collaboration and intra-policy relevance contributes to good governance***

The development of both P4P and CP4P have taken place under the aegis of a series of regulations, policies and strategies that have evolved over the past decade to support the modernization of the agricultural sector in Rwanda. Core to the success of these initiatives has been the cross-institutional collaboration and intra-policy relevance. The interrelationship between policies, strategies, institutions and interventions, running from Ministerial level to the district and down to the cell and village levels, are coherent with clearly defined mandates, tasks and reporting structures, with policy and institutional adaptation based on reiterative learning as a cornerstone of the overall CP4P approach and more generally appears to be the GoR's overall approach to governance.

### ***CP4P focus on staples contributes to equitable poverty reduction***

Given the focus of CIP on a range of staples relevant to different parts of the country, the programme is highly relevant for enabling agricultural-led economic growth and equitable poverty reduction, by providing large numbers of smallholders with opportunities to transition out of subsistence agriculture into market oriented farming. This approach is substantiated by finding that emerged from a recent IFPRI study<sup>11</sup> which highlight that staple crops are more likely to reduce poverty than export or cash crops and that for several countries involved in the IFPRI study, including Rwanda, findings shown that “food staples are more effective at generating economy-wide growth and reducing national poverty”. In Rwanda the IFPRI study showed that growth driven by maize and pulses is 30-60 percent more effective at reducing poverty than export-driven growth.

### ***Upscaling strategies are required beyond P4P and CP4P to ensure success and sustainability***

Initial teething problems experienced by both P4P and CP4P and reflected in defaults in contracts by cooperatives, even after participating in institutional capacity building over the course of 3-4 years demonstrates the investments required in bringing cooperatives to a sufficient level that will enable them to interact with formal markets. While these initiatives have demonstrated a proof of concept, more reflection is required into how the upscaling of this model can be accelerated across agricultural value chains and sectors. The GoR's ownership of the CP4P based on P4P tools and lessons is a first step in this direction, but given its nascent state will require continued investments and technical assistance if the approach is to be successfully adopted across the sector and by other institutional buyers.

### ***The institutional buyers' market for staples beyond CP4P***

For the foreseeable future, public institutions and food aid agencies and NGOs offer smallholder cooperatives, capable of supplying large enough quantities at a reasonable quality, a reliable and constant market for their produce. Based on the Governments action-oriented strategy to formalize market linkages with smallholders and improve structural inefficiencies through the Post-Harvest Handling and Storage Task Force, opportunities should improve overtime. The government's plans to scale-up the 4 percent directive to other public institutions, invest further in school feeding programme and to increase the volume of grain stored in the reserve year-on-year to will also contribute to the expansion of these institutional markets and opportunities.

The formal private sector for maize and beans is not well developed however and is mostly dependent on the activities of two large private millers, Minimex and Sosoma. These two

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<sup>11</sup> <http://www.ifpri.org/sites/default/files/publications/ib73.pdf>

companies together nonetheless control about 10 percent<sup>12</sup> of the trade in maize in the country and therefore, compared to WFP's 2 percent and the NSGR's 2 percent, these buyers potentially offer farmers in Rwanda a good market opportunity for import substitution considering that about 30 percent<sup>13</sup> of grain is imported. Nonetheless most smallholders and particularly unorganized ones are still highly dependent on informal local trade and spot markets for their income from staples production.

### ***The impact of public institutional buyers on the private sector***

The main challenge of private sector operators, such as large millers, Minimex and Sosoma, is access to good quality maize suitable for processing. Interviews with the management of both companies highlighted the challenge of competing for scarce national supplies with public sector institutions. The third largest miller Maiserie de Mukamira which produced maize meal closed down in 2012. Both buyers prefer the quality of Rwandan maize which has improved markedly since the onset of the CIP but also find it difficult to compete with the premium prices offered by the NSGR and WFP which for premium quality grain can be 30-40 percent higher than the average market price.

If national production does not increase in line with or above market demand, competition for supplies from both the public and private sector millers will become more intense, affecting price and the role and presence of private sector actors in the market.

To mitigate against the risk of shortfalls in supply, Minimex which is currently operating at 50 percent of its total capacity has plans to rent 200ha of land from the government for contract farming.

### ***Alternative models for enhancing the role of smallholders in markets***

Both P4P and CP4P have adapted the cooperative model for linking farmers to their respective institutions. For small market-linkage initiatives cooperatives are usually the more popular model among donors and the public sector for strengthening supplier bargaining power. In the absence of cooperatives, or where they are weak a number of procurement schemes, can be just as effective in aggregating smallholder supply to the market without necessarily organizing small farmers, or overtly exploiting their vulnerability.

These models can include outgrower schemes, local trader networks or small business associations. Regardless of the model adopted -farmer organization, buyer or broker-led- if the focus of the market linkage is based on the principle of promoting competitiveness developed through win-win solutions -rather than the agenda's or profit margins of individual actors- then smallholders will be inclusively and sustainably integrated into institutional markets.

### ***Improving the role of small traders in the staples' market***

Where possible the GoR, in line with policy, integrates the functions of the private sector into agricultural support activities. This is visible from its reliance on large traders such as ENAS in the transport, procurement and storage of maize and beans. MINAGRI uses the traders' large network of agro-dealers to distribute subsidized fertilizers, technical advisory services and post-harvest equipment in the Eastern province where ENAS focuses its business and also uses IMBARAGA cooperative in the Northern region. Where there are few opportunities for collective marketing and aggregation and where transport and marketing infrastructure and information systems are weak, small traders are often the most important link between smallholders and the market when no other market channel exists. However, the role of small traders in the chain, appears to receive little

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<sup>12</sup> These percentages are based on the mission's rough calculation of market shares based on figures provided during interviews. These figures have not been validated.

<sup>13</sup> This is an estimation based on figures provided in USAID's Rwanda Cross-Border Agricultural Trade-Analysis.

attention. As such, in addition to sensitizing local actors on the important role that small traders play in linking smallholders to markets, future capacity building activities should be realigned to include the training needs of these actors. For instance, strengthening the role of traders and small and medium sized agricultural enterprises through their associations can result in an acceleration of the formalization of markets and smallholder-market integration.

## 7. CONCLUSIONS AND RECOMMENDATIONS

The experience of P4P and CP4P provides important insights and lessons on how the presence of a reliable and preferred buyer, combined with support on organizing markets through aggregation of supply can contribute to increased production, improve smallholder bargaining power, market functioning and the overall formalization of staples' markets.

These initiatives have demonstrated a proof of concept, on the potential that institutional buyers have as drivers of development, based on the implementation of practical procurement mechanisms. It is hoped that this case and the observations based on Rwanda's experience can be of use to other countries interested in piloting such an initiative. It is important to highlight however the strong governance structures already in place prior to the launch of CP4P. The central vision of modernization of the agricultural sector is intertwined across a number of ministries, more importantly the Ministries of Agriculture and Animal Resources, Finance and Economic Planning, Trade and Industry and Local Government with interrelated strategies, tools and effective two-way lines of communication and accountability from ministerial level down to local government.

For the GoR to continue on this innovative path and model of linking smallholder to markets through institutional food purchasing arrangements, the following interventions may reinforce the strategy and approach for the future and its uptake by other public institutions;

- An appraisal of the institutional and policy enabling environment including public procurement policies to understand what works and doesn't work for enabling the participation of smallholders in local public procurement. This appraisal process will also guide the identification of policy and institutional changes or improvements required to facilitate how institutional buyers can more easily procure from smallholder-based organizations.
- Based on the experiences of P4P and CP4, provision of support and guidance to other interested institutions and large-scale buyers on modifications needed to procurement process and systems to enable smallholder-friendly procurement while remaining competitive. Currently, the most obvious partner would be the Rwanda Grain and Cereal Corporation, which has already recently begun to participate in CP4P. Given its 'public mission' to enable farmers to access markets and its exemplary and efficient payment times of only 2-4 working days, it would appear to be an excellent partner with which to exchange lessons and develop a coordinated plan for capitalizing on synergies.
- A combination of collective marketing skills, transport and quick payments have been challenges for supplying the NSR. Transport could be improved by using the same private trader network used to distribute inputs and collect grain from agro-dealers under the CIP. The debt collection for subsidized inputs under the CIP however would need to be clearly differentiated from supplying CP4P in return for cash. Payments could be accelerated by capitalizing on the P4P partnerships with *Banque Populaire du Rwanda*, and Rabobank. These partnerships aim to develop customized tools to facilitate cash advancements to smallholders through cooperatives to address payment time-lags.
- Smallholders will continue to require help in improving their collective ability to meet food safety and quality standards that are required to access institutional markets in a timely fashion and with sufficient quantity. If other linkage models are also explored and supported, such as support to small and medium traders in aggregating smallholder supply, the results and investments from this type of work could be accelerated.

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## ANNEX: P4P CONTRACT PROCEDURES

- **Pro-smallholder competitive tendering** - Making greater use of competitive tendering practices that are better suited to the needs of FOs and small/medium traders. This entails reducing tender sizes, waiving bag marking and performance bond requirements and purchasing beyond the warehouse gate. It may also include competitive purchases made through a commodity exchange, often using a coordinated warehouse receipt system.
- **Direct contracting** - Purchasing directly from organizations that represent smallholder farmers (farmers' associations, NGOs). This may also include using direct contracting to buy through a warehouse receipt system that encourages smallholder participation.
- **Forward contracting\*** - Executing forward contracts with farmers' organizations to reduce farmers' risk and allow farmers greater planning certainty. The modality allows for the use of contracts that specify a minimum price that WFP-P4P will pay upon future delivery or, with the collaboration of a financial partner, mechanisms that allow farmers' organizations to use forward contracts with WFP as collateral to access credit.
- **Processing options\*** - This includes working with the private sector and other stakeholders to encourage the establishment of local food processing units and, where possible, linking these entities to smallholder suppliers as a source of raw materials.

\* The last two models have not been applied yet in Rwanda.