



# Smallholder Farmers' Marketing Choices

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# ABBREVIATIONS AND ACRONYMS

ACDI	Agence Canadienne de Developpement International
AERC	African Economic Research Consortium
AGRA	Alliance for a Green Revolution in Africa
AWASHINGASOKA	Primary FO of UNICOPROMANYA
BPR	Banque Populaire du Rwanda
CIC-B	Comité Interprofessionnel des Filières Céréales et Niébé du Burkina Faso
CIP	Crop Intensification Program
CFA	West African Franc
CO	Country Office
COACMU	Coopération des Agriculteurs des Céréales de Musaza
COAMUSIRO	Primary FO of UNICOPROMANYA
CODEMATA	Primary FO of UNICOPROMANYA
COTEBARU	Primary FO of UNICOPROMANYA
COTU	Cooperative of Building Unity
CP	Collection Point
DCD	Deputy Country Director
FCPB	Federation des Caisses Populaires du Burkina
FGD	Focus Group Discussion
FEPAB	Federation des Professionnels Agricoles du Burkina
FO	Farmers' Organization
ha	Hectares
HH	Households
IFDC	International Fertilizer Development Center
INERA	L'Institut l'Environnement et de Recherches Agricoles
kg	Kilograms
km	Kilometers
M&E	Monitoring and Evaluation
MINAGRI	Ministry of Agriculture and Animal Resources, Republic of Rwanda
MT	Metric Tonne
NAFASO	Neema Agricole du Faso, S.A.
P4P	Purchase for Progress
RAB	Rwanda Agriculture Board
RBS	Rwanda Bureau of Standards
RGCC	Rwanda Grain and Cereals Corporation
RWF	Rwandan Franc
SHF	Smallholder farmers
SNV	The Netherlands Development Organization
SO	Sub-Office
SONAGESS	La Société Nationale de Gestion du Stocks de Sécurité Alimentaire
UGCPA	Union des Groupements pour la Commercialisation des Produits Agricoles
UGPCER	Union des Groupements Producteurs de Céréales du Nayala
UPPA Houet	Union Provinciale des Professionnels Agricoles du Houet

UNICOPROMANYA Union des Cooperatives de Producteur de Mais de Nyagatare  
USAID United States Agency for International Development  
VAM Vulnerability Analysis and Mapping  
WFP World Food Programme



## EXECUTIVE SUMMARY

By providing a market for high quality, aggregated commodity, Purchase for Progress (P4P) expanded the range of marketing options available to smallholder cultivators who, prior to selling through farmers' organizations (FO), were constrained to farm-gate and market sales. Half of the six FOs visited for this case study did not systematically market staple commodity prior to P4P, and only one had previous experience with contract sales. Since P4P implementation, various government entities and NGOs have contracted commodity from visited FOs, though private entities have not emerged as significant buyers of high-quality staples in either Burkina Faso or Rwanda.

In both countries, the primary marketing channels used to market P4P commodities in the last year were farm-gate sales to collectors and sales to/through the FO. Farmers' organizations have emerged as competition for farm-gate traders, who offered immediate cash payment for multiple crops in a single transaction, and did not hold smallholder farmers (SHF) to quality or packaging standards. Disadvantages of selling through this channel included low and volatile prices, the high cost of credit from traders, and trader propensity toward measurement error. Traders were unwilling to pay a premium for commodities differentiated by quality, likely due to lack of demand, inability to test for quality, and lack of facilities to simultaneously manage multiple quality grades.

With the exception of one FO in Rwanda, members sold both basic-grade commodities to and quality commodities through the FO. In the former case, the FO behaved like a trader, and FOs collecting at the farm gate captured average larger volumes from SHFs compared to traders, reflecting members' preference for selling to the FO over traders at the same price point. The sale of quality commodities through the FO has the potential to be lucrative, but interconnections between credit, length of the contract process, and price premium became problematic against the backdrop of volatile farm-gate prices, especially when utilizing direct contracts. Five of the six featured FOs reported either defaulting due to price fluctuations, or fulfilling a P4P contract at a price lower than the farm-gate price upon payment.

Physical proximity to the FO and the capacity to wait for payment through the contractual process positively influenced the likelihood of marketing high quality commodities through the FO, highlighting the vulnerability of contract sales to capture by the relatively wealthy situated close to FO headquarters. This phenomenon highlighted tradeoffs between P4P as a procurement modality and P4P as a development tool.

At five of the six FOs visited by the study team, FO leaders and members agreed that selling through the FO was constrained by member ability and willingness to participate in quality contract markets, as opposed to limited contract availability. The combination of a minimal price premium, the additional investment required to achieve quality standards, and the wait for payment amid price volatility rendered P4P contracts only marginally attractive to FOS and their members. The preference of members in Rwanda to fulfill high quality selected seed contracts, at prices 25-60 percent higher than P4P prices, revealed that additional effort required to attain high quality standards and lengthy delays in payment, of four to eight months, can be justified if the price premium is sufficiently high.

# INTRODUCTION

Smallholder farmers (SHF) face significant barriers to accessing formal markets, and have traditionally sold a majority of their crops at the farm gate to intermediaries at low prices (Fafchamps & Vargas Hill, 2005). By developing the capacity to sell to an institutional buyer such as the World Food Programme (WFP), SHF may acquire the knowledge, skills and confidence needed to engage with formal markets. Launched in 2008, P4P harnesses WFP's demand for quality commodity with the technical expertise of partners to build SHF capacity to produce and to market staple commodity through formal marketing channels (WFP, 2012b). Shifting producers from relatively low value farm-gate sales to higher value markets which compensate for aggregated, quality commodity is fundamental to the Purchase for Progress (P4P) development hypothesis.

In many countries, farmers' organizations (FOs) provided a viable entry point to support SHF, based on the assumption that FOs would establish relationships with quality-conscious buyers and evolve into a preferred marketing channel for SHF. By providing trainings, quality-enhancing technologies, and the demand platform of WFP, P4P developed the capacity of FOs to aggregate quality commodities, to negotiate, and to organize collective sales (WFP, 2011). Access to more lucrative, formal markets for staple commodity was expected to incentivize members of P4P FOs to invest in the production of high quality staples.

It was further assumed that SHF would increase sales of P4P staples through the FO marketing channel. However preliminary results from WFP household surveys suggest that changes in the number of farmers selling through the FO and the quantities they sell may be less significant than anticipated. Empowering SHF through commercial opportunities requires an understanding of the drivers of farmers' marketing choices: the available marketing options, the characteristics of each channel, and the tradeoffs inherent in the selection of a marketing strategy. To develop such an understanding, this study addresses the following questions:

1. How do the characteristics of the different marketing channels available to smallholder farmers affect their allocation of marketed surpluses across the available channels?
2. What factors affect households' decisions of how much to sell through the FO? Are farmers' sales through the FO constrained by limited demand or by limited ability or willingness to sell through the FO?

The introduction reviews the study methodology and provides overviews of the context in which P4P operates in Burkina Faso and Rwanda, reviewing the enabling environment, the P4P procurement basket, the market for P4P commodity, and characteristics of the visited FOs in each country. The second chapter presents FO-level and household-level findings for Burkina Faso, while the third chapter presents similar findings for Rwanda. The final section draws conclusions from study findings to address the research questions. References and annexes finalize the report.

Though only two countries were selected as case studies, findings from Burkina Faso and Rwanda reflect common facets of the P4P pilot, generalizable for broader-based applicability in contexts where sales of quality commodity through FOs compete with sales of basic-grade commodity to farm-gate traders.

## Study Methodology

This mixed-methods study included interviews with WFP staff, focus group discussions with leaders and members of P4P-supported FOs, as well as mini-surveys of members of P4P FOs. Annex A details the key informants contacted during the course of the study. Sources of secondary data include WFP and other relevant reports and WFP surveys administered at both the FO and household levels.

Primary data was collected between 22 July – 5 August 2013, when Sharon Amani (consultant) and Damien Fontaine (Monitoring and Evaluation Officer with the P4P Coordination Unit in Rome) travelled to Burkina

Faso and Rwanda to work with WFP Country Office (CO) P4P staff members, and to visit P4P FOs and their members. At each sampled P4P FO site, both quantitative and qualitative data were collected in the course of a day. Three trained enumerators<sup>1</sup> interviewed FO members (both men and women) to establish the previous year's sales volumes, values, and marketing channels utilized in a mini-survey. In tandem with the mini-survey, Amani and Fontaine (and in Burkina Faso, CO P4P M&E staff member Alladari Traore<sup>2</sup>) conducted three focus group discussions (FGDs) per site to gather information about the organization's marketing opportunities and about member's marketing strategies. Focus groups were conducted with FO leaders, and with two groups of 6 to 10 FO members, segregated by gender in Burkina Faso, and in Rwanda, conducted with one group of women and another mixed gender group. Focus group discussions solicited FO leaders' and members' attitudes toward contract marketing of quality commodity, and their evaluation of WFP as a buyer. Table 1 summarizes the primary data collected across the six FOs visited in Burkina and Rwanda, which yielded a total of six FGDs with FO leaders, 19 FGDs with FO members, and 147 mini-surveys with FO members. Annex B details the respondents of the mini-surveys conducted during the field visit, and Annex C contains the final English version of the instrument. The P4P unit of each CO oversaw mini-survey data management. Amani managed the FGD data and conducted the mixed methods analysis.

**Table 1: Primary Data Collection**

Data collection methods	Burkina Faso	Rwanda	Total
FOs site visits	3	3	6
Focus groups with FO leaders	3	3	6
Focus groups with members	13	6	19
Mini-surveys	85	62	147

Drawing upon existing WFP survey data enabled this study to take advantage of a larger, randomized, sample size and to contextualize the primary data collected. Table 2 outlines the study's sources of secondary data.

**Table 2: Secondary Data Sources**

Secondary data sources	Burkina Faso	Rwanda
FO survey data	Census of P4P FOs, conducted in 2009, 2010 and 2011 by WFP.	Census of P4P FOs, conducted in 2009, though the FOs surveyed in this study were not included. Follow-up survey data not available.
HH survey data	Random sample of members across P4P FOs conducted in 2009 and 2011 by WFP. Panel data includes 100 households (HHs) from UGPCER and 20 HHs from UPPA Houet in both years.	Random sample of members from P4P FOs, conducted in 2009. Members of surveyed FOs not included. Follow-up survey data not available.
FO records (reported to P4P as of October 2013)	Self-reported records kept by FO as requested by P4P. FOs varied in their record-keeping capacity/diligence.	

<sup>1</sup>Céline B.Tandamba, Noël Somé, and Rachidatou Ouattara in Burkina Faso; Denys Hategekimana, Olive Umutesi, and Damascène J. Uhoraningoga in Rwanda.

<sup>2</sup> Due to a bias in sampling at the FO member level, Traore and the enumerators visited more remote base groups of the three sampled FOs after Amani and Fontaine's departure. Traore conducted focus groups of purposively selected members, one enumerator took notes during the focus group, and the other two enumerators conducted member interviews.

Two primary methodological limitations constrain the broader applicability of this case study's findings and conclusions: non-P4P FOs and members were not sampled, and the sampled P4P FOs and members were purposively selected.

As the case study did not gather information from a control group, the treatment effects of P4P are not discernable from this study. This research cannot distinguish between differences in marketing channels available to members of P4P and non-P4P FOs, and their marketing strategies.

Regarding the non-representative sampling, FOs were selected in the first stage by the P4P Unit of the CO to represent FOs of different capacities as reflected in their throughput and WFP contract performance history. Due to time constraints, only three of Burkina Faso's seven P4P FOs and three of Rwanda's 24 P4P FOs were visited.

In the second stage, purposively sampled FOs convened farmers representing the range of member engagement with the FO to participate in the mini-survey. This sample was biased toward members geographically close to and most actively involved with the FOs. To combat this bias, the sample was expanded in Burkina Faso to include more remote base groups<sup>2</sup>, and the Rwanda FOs were explicitly asked to recruit non-active FO members for the mini-surveys.

Due to the limited and non-representative sample, findings do not necessarily extend to P4P FOs beyond those visited. Furthermore, the relationship between FO's leaders and WFP may have influenced both mini-survey as well as FGD responses. The short period of time spent collecting data at each sampled FO further limited to the team's ability to assess data validity, though the study's utilization of P4P survey data to triangulate and contextualize findings combats the necessarily incomplete nature of the primary data collection.

Despite these limitations, similar generalized patterns of marketing behavior emerged from both countries which may reflect SHF marketing strategies beyond the borders of Burkina Faso and Rwanda.

## **P4P in Burkina Faso**

### **Country Overview**

Burkina Faso has one agricultural season. The harvest for cowpeas arrives in September, the harvest for maize occurs in November and December, and white sorghum is harvested in December. Seasonal calendars for both Burkina Faso and Rwanda can be found in Annex D.

The P4P pilot aligns with the government priority to promote agricultural production, as delineated in the Cereal Action Plan in the Poverty Reduction Strategy Paper (Government of Burkina Faso, 2007) and the Strategy for Accelerated Growth for Sustainable Development (Government of Burkina Faso, 2010). P4P collaborates on trainings with and receives price information to use in forward contract pricing from the national strategic reserve, La Société Nationale de Gestion du Stocks de Sécurité Alimentaire (SONAGESS), which purchases quality commodities through competitive tenders with traders and FOs, including those surveyed in this study.

Though cereal balance sheets indicate that Burkina Faso had cereal surpluses in 9 of 10 years between 1999/00 and 2009/10 (FAO, 2013), the country has an insular de facto policy on grain exports. Private sector export licenses have been denied since 2005, and WFP has not obtained a cereal export license since 2009 (WFP, 2014).

## **P4P Overview**

Without the ability to export, WFP's commodity purchases are limited to domestic use. As current programmes in Burkina Faso focus primarily on cash or fortified/blended foods, WFP's purchases of staples outside of P4P have been in decline since 2009 (WFP, 2012c).

Through P4P, WFP procured maize and white sorghum, the main staples produced in Burkina Faso, as well as cowpeas. Within the Burkinabé culture, cereals are considered “male commodities” while cowpeas are considered a “female crop”. In line with the P4P gender strategy (ALINe & WFP, 2011), the inclusion of cowpeas in the procurement portfolio created an entry point into agricultural marketing for women, whose participation is stymied by gender-specific constraints in Burkina Faso including low literacy rates as well as limited access to land, inputs, credit and technology (WFP, 2014).

Throughout the Burkina Faso section of the report, “P4P commodity” refers to maize, white sorghum, and cowpeas. From the pilot's inception through December 2013, WFP purchased 2,028 mt of maize, 1,941 mt of sorghum, and 614 mt of cowpeas through P4P (WFP, Procurement records). Though most of this (52 percent) was purchased through direct contracts in 2009 and the first half of 2010, the CO switched to forward contracts for the 2010/11 marketing season, obtaining 32 percent of total P4P quantities purchased through this modality. The remaining 16 percent was procured through modified competitive tenders in 2012 and 2013.

## **P4P Commodity Market Overview**

In FGDs, FO leaders explained that the market for P4P commodity bifurcates into high-quality commodities purchased by institutions through contracts and basic-grade commodities purchased by traders and households, typically transacted on the spot market or with same- to one-day direct contracts. Sampled FO leaders identified WFP and SONAGESS as the primary buyers with quality standards procuring through FOs, though the quality standards of SONAGESS were weakly enforced. Of these buyers, WFP had the highest quality standards and the longest aggregation, quality assurance and payment process.

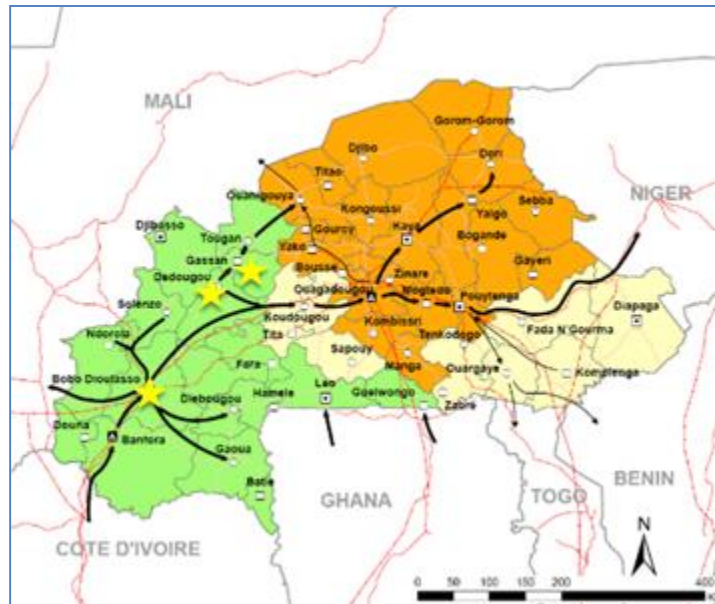
Further differentiating within the market for quality commodity, selected seeds were purchased by Neema Agricole du Faso, SA (NAFASO), a seed enterprise emerging from a partnership between with the Food and Agriculture Organization (FAO), Alliance for a Green Revolution in Africa (AGRA), L'Institut de l'Environnement et de Recherches Agricoles (INERA), and the Africa Rice Center. As revealed in mini-surveys with members, NAFASO offered high premiums for selected seeds, though payment delays were significant. The surveyed FOs did not report aggregating selected seed for NAFASO, however one did report purchasing seed from the company.

## **Overview of Visited FOs**

Of the nine FOs surveyed by WFP in 2009 (7 participating in P4P and 2 non-participating comparison FOs) only two reported previous experience selling via contracts, revealing limited FO experience with contract marketing prior to P4P.

This study surveyed three of Burkina Faso's seven P4P FOs, of which one was classified as high-capacity, and two as medium-capacity. Detailed definitions for low-, medium-, and high-capacity FOs within the context of Burkina Faso are established in the P4P Story: Burkina Faso (WFP, 2012c). The FOs surveyed (UGCPA, UGPCER, and UPPA Houet) are located in the major maize surplus area in the western part of the country, colored green in Figure 1, below.

**Figure I: Map with Production Zones and Visited FOs, Burkina Faso**



Source: FEWSNET

[http://www.fews.net/sites/default/files/documents/reports/bf\\_fullmap\\_maize\\_norm.pdf](http://www.fews.net/sites/default/files/documents/reports/bf_fullmap_maize_norm.pdf), accessed 17 Dec 13

***UGCPA: Union des Groupements pour la Commercialisation des Produits Agricoles***

Founded in 1993, UGCPA benefitted from extensive support from the Agence Canadienne de Développement International (ACDI), and has collaborated with a wide range of technical and financial partners including the International Fertilizer Development Center (IFDC), the Dutch Development Organization (SNV), and Engineers Without Borders (Traore, Audet-Belanger, & Traore, 2011). UGCPA is a union of 45 base groups with 2,300 members who bring their commodities to the headquarters located in Dédougou (where UGCPA has a 5,000 mt warehouse), or to one of 14 collection points located throughout the Boucle du Mouhoun region. UGCPA is a high-capacity FO, selling to wholesalers, businesses, processors, households, Catholic Relief Services, WFP, and SONAGESS. Prior to P4P, UGCPA was selling on contract to institutional buyers and producing to P4P quality standards, according to FO leaders.

Their long-standing relationship with the Caisse Populaire has enabled UGCPA to access an adjustable line of credit throughout the agricultural season which allows the FO to offer members a 50 percent payment on delivery of contracted commodities to the FO, prior to UGCPA's payment from the buyer. In addition, UGCPA provides members in good standing with access to inputs on credit and cash credits in advance of the harvest. According to FO records, UGCPA has met the terms and conditions of six P4P contracts since 2010. P4P sales are a small portion of total UGCPA volume, and when FO leaders were asked how they could increase smallholder contributions to P4P sales, they explained that their strategic plan involved expanding membership to include large-scale producers as their challenge is aggregating sufficient commodities to realize their obligations, particularly in lean years.

***UGPCER: Union des Groupements Producteurs de Céréales du Nayala***

Founded in 1993, UGPCER is a FO union of 166 base groups and 4,500 members, and a provincial member of the national farmers' organization Federation des Professionnels Agricoles du Burkina (FEPAB) (WFP, 2014). Unlike UGCPA, this FO has not benefitted from extensive support from partners. Though UGPCER has a 50 mt warehouse, it lacks collection points as well as a truck, and members must bring their commodities to the headquarters in Toma, Nayala Province. Buyers, including traders, households, WFP, and UGCPA, must pick up aggregated commodities as well. Attaining WFP's quality standards has been challenging for the organization, reported FO leaders in FGDs, as none of their other buyers demand such

measures. In addition, they believed the premium offered by WFP combined with delays in payment did not justify their efforts to meet WFP's quality criteria. FO leaders would be interested in pursuing additional P4P contracts only if the premium for quality were increased and the payment delay reduced. UGPCER's leaders explained their engagement in P4P contracts as a necessary cost of maintaining access to the facets of P4P participation they appreciated including training, access to finance, building relationships with WFP and other partners, increased membership and visibility, and improved morale.

UGPCER's leaders attributed the FO's increased access to credit, their improved ability to aggregate commodities from members, and their sharpened focus on marketing to P4P. According to FO records, UGPCER engaged in seven P4P contracts between 2009 and 2011 with five completed in full. Due to an inability to aggregate the full amount, the first contract resulted in a partial default. The last contract, signed in November 2011, resulted in a complete default as the commodity failed to meet WFP quality standards. FO leaders stated that they easily found another buyer for the 50 mt of rejected maize.

### ***UPPA Houet: Union Provinciale des Professionnels Agricoles du Houet***

As documented in the Burkina Faso Writeshop, UPPA Houet is an FO union located in Bobo Dioulasso which includes 483 base groups and 20,500 members (Traore et al., 2011). Formed in 1998, UPPA Houet joined FEPAB as a provincial member in 2008. The authors explain that the FO has benefitted from extensive, on-going support from Oxfam, including the provision of scales, palettes, sewing machines, maize shellers, a warehouse, working capital, and training. Other partners include IFDC, Alliance for a Green Revolution in Africa (AGRA), and the national grain board (Comité interprofessionnel des filières céréales et niébé du Burkina Faso (CIC-B)). UPPA Houet has a 160 mt warehouse, a truck, and 13 CPs. Buyers include traders, households, WFP, and SONAGESS.

Prior to P4P, UPPA Houet focused on providing agricultural inputs to members, engaging in collective marketing only to sell commodities received as members' in-kind payments to reimburse input credits. UPPA Houet leaders credited P4P with increasing FO access to credit and emphasizing collective marketing. Focus group discussions with members revealed that the women of UPPA Houet, particularly those located close to FO headquarters, have embraced quality standards and food safety as inspired by P4P trainings, despite a general lack of remuneration for quality from buyers beyond WFP. This commitment to food safety is likely due to the recruitment of a full-time women's field monitor (financed equally by UPPA Houet, P4P, and Oxfam) who supports the 25 women's base groups, as well as the organization's 12 literacy centers across Houet Province.

Despite a partial default (50 mt of a 100 mt contract) on the first contract due to an inability to aggregate sufficient quantity, UPPA Houet has engaged in five P4P contracts since 2010 with no subsequent problems in respecting the terms of contract. Of the three surveyed FOs, only the members and leaders of UPPA Houet expressed a desire for more P4P contracts.

### **Sales Volumes of Surveyed FOs**

The throughput capacity of the three surveyed FOs varied as seen in Table 3, which details the volume of P4P commodity sold from 2008 through October 2013. It bears repeating that FOs varied in their capacity to maintain and forward sales records, and non-WFP sales may not be fully represented. Across the 20 P4P pilot countries, WFP buys about 30 percent of the volumes aggregated by P4P FOs (WFP, 2012b), and FO records reveal that the WFP share is comparable in Burkina Faso, at 29 percent. It is clear from the table that UGCPA sold much higher volumes than the medium-capacity FOs, that UGPCER's volumes have been dependent on WFP and in decline since 2010, and that UPPA Houet exhibited a growth trend. The table also illustrates WFP's varying level of purchases from P4P FOs across the pilot period. The table does not capture the 2013-2014 marketing season.

**Table 3: Quantity of P4P Commodity Sold by Visited FOs, Burkina Faso**

FO	Commodity	2009		2010		2011		2012		2013 (thru Oct)		2009 - Oct2013	
		Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP
<b>All P4P FOs</b>	Maize	997	6%	1,501	68%	2,293	0%	1,421	15%	832	89%	<b>7,429</b>	<b>27%</b>
	W. Sorghum	1,395	41%	3,031	45%	1,733	0%	549	0%	45	0%	<b>6,936</b>	<b>28%</b>
	Cowpeas	153	66%	306	95%	139	41%	133	79%	312	0%	<b>1,044</b>	<b>53%</b>
	Total	2,545	29%	4,838	55%	4,166	1%	2,073	15%	1,189	62%	<b>15,409</b>	<b>29%</b>
<b>UGCPA</b>	Maize	1,126	0%	529	73%	903	0%	626	0%	202	100%	<b>3,386</b>	<b>17%</b>
	W. Sorghum	750	0%	2,365	30%	856	0%	449	0%	-	-	<b>4,420</b>	<b>16%</b>
	Cowpeas	30	0%	50	100%	67	25%	-	-	-	-	<b>147</b>	<b>46%</b>
	Total	1,906	0%	2,944	39%	1,827	1%	1,075	0%	202	100%	<b>7,953</b>	<b>17%</b>
<b>UGPCER</b>	Maize	56	100%	111	72%	-	-	44	0%	-	-	<b>211</b>	<b>64%</b>
	W. Sorghum	25	100%	293	96%	-	-	-	-	45	0%	<b>363</b>	<b>84%</b>
	Cowpeas	-	-	33	100%	-	-	-	-	-	-	<b>33</b>	<b>100%</b>
	Total	81	100%	437	90%	200	100%	44	0%	45	0%	<b>607</b>	<b>78%</b>
<b>UPPA Houet</b>	Maize	200	0%	392	23%	470	0%	596	35%	180	81%	<b>1,838</b>	<b>24%</b>
	W. Sorghum	120	42%	-	-	70	0%	70	0%	-	-	<b>260</b>	<b>19%</b>
	Cowpeas	-	-	-	-	-	-	-	-	-	-	-	-
	Total	320	16%	392	23%	540	0%	666	32%	-	-	<b>2,098</b>	<b>24%</b>

Source: FO records



The surveyed FOs' P4P contract history through October 2013 can be found in Annex E.

## Overview of Surveyed Households

Of the 343 P4P HHs surveyed in WFP's 2009 baseline survey, respondents reported average landholdings of 8.0 hectares (ha), of which an average of 4.4 ha was cultivated, supporting an average of 11 household members (AERC and WFP, 2013a).

The WFP surveys screened out households with landholdings greater than ten hectares as well as those which did not plant or harvest any staple crops in the last 12 months. By contrast, the mini-survey for this study included households with more than ten hectares of land, though screened out FO members which did not plant or sell P4P commodity in the previous 12 months.

Reflecting the differences in targeting, the 85 mini-survey respondents held larger average landholdings (11.0 ha, of which an average of 7.9 ha was cultivated) compared to WFP survey respondents, and also had a larger average household size of 15 members. As would be expected, mini-survey respondents produced and sold greater quantities of P4P commodity relative to smallholders in the WFP survey panel, as seen in Table 4.

**Table 4: Production and Sales of Surveyed Households**

Commodity	Production and sales in the previous year	WFP 2011 Follow-up survey (n = 366)	Case study 2013 mini-survey (n = 85)
<b>Maize</b>	HHs cultivating (%)	201 (55%)	64 (75%)
	Average harvest	0.55 mt	3.57 mt
	HHs selling (%)	215 (59%)	49 (58%)
	Average sale	0.20 mt	2.19 mt
<b>White sorghum</b>	HHs cultivating (%)	249 (68%)	48 (56%)
	Average harvest	1.27 mt	1.66 mt
	HHs selling (%)	277 (76%)	39 (46%)
	Average sale	0.40 mt	1.12 mt
<b>Cowpea</b>	HHs cultivating (%)	351 (96%)	56 (66%)
	Average harvest	0.23 mt	0.49 mt
	HHs selling (%)	0 (0%)	43 (51%)
	Average sale	0 mt	0.26 mt

Sources: Purchase for Progress: 2011 Follow-up survey report for Burkina Faso (WFP and AERC, 2013) and mini-survey data

# **P4P in Rwanda**

## **Country Overview**

Rwanda has two main agricultural seasons: Season A which harvests between January and February, and Season B which harvests between June and July. A seasonal calendar for Rwanda can be found in Annex D. In the study areas, maize and beans can be grown during both seasons, however Season A produces the majority of maize, and beans dominate in Season B. A third minor season, Season C, applies primarily to marshland crops such as rice which are grown in river basin areas.

Rwandan agricultural markets have been shaped by a series of government interventions. Prior to the 2007 Cooperative Law, FOs in Rwanda focused on production, and most smallholders sold to farm-gate traders. The law gave cooperatives the power to enter into contracts and established their right to participate in collective marketing (Ministry of Agriculture and Animal Resources, 2007) thereby creating another market outlet for SHF.

The Government of Rwanda's Crop Intensification Program (CIP) considers cooperatives to be “nodal points” for establishing collective bargaining power, gender equity, climate change strategies, and improved sales among SHF (Kathiresan, 2011). The CIP promotes fertilizer and selected seed, land use consolidation, and provision of extension services. The Rwanda Agricultural Board (RAB) purchases selected seed, and the Ministry of Agriculture and Animal Resources (MINAGRI) imports bulk quantities of fertilizer. Though not obligatory, participation in land consolidation is a prerequisite for access to subsidized inputs under the CIP (Kelly & Mbizule, 2013). Participants have their own plot in the area consolidated by the cooperative, but are required to plant the same seed while collectively and simultaneously engaging in agricultural activities. Harvests generated on collective land are utilized for household consumption with the surplus marketed through the cooperative. As households do not have a marketing choice with respect to commodity grown on collective land, the study team's interviews and FGDs focused on sales generated from production on household plots.

## **P4P Overview**

WFP procures maize and mixed beans through P4P in Rwanda, and these crops are collectively referred to as “P4P commodity” throughout the Rwanda sections of the report. WFP contracts with the Rwanda Bureau of Standards (RBS) to ensure that locally-purchased commodity meets quality standards. From the P4P pilot's inception through 30 December, 2013 WFP purchased 3,182 mt of maize, and 1,346 mt of mixed beans through P4P (WFP, Procurement records). Eighty-nine percent of this volume was purchased through direct contract, 11 percent through modified competitive tender, and the remainder via forward contract. The P4P team expressed interest in shifting to forward contracts to address aggregation challenges faced by FOs.

WFP's Deputy Country Director in Rwanda explained that the 2010-2011 agricultural season marked a turning point for the pilot as a bumper crop in Rwanda and food insecurity in neighboring Uganda resulted in a booming agricultural commodities market. In this period, P4P ramped up purchases and organized a trade fair to connect FOs with private buyers.

## **P4P Commodity Market Overview**

As in Burkina Faso, commodities have differentiated into three market segments in Rwanda: 1) the highest quality market for selected seed, 2) high quality for WFP, the government (MINAGRI and the Rwanda Grains and Cereal Corporation (RGCC)), and a national miller (Minimex, S.A.), and 3) basic-grade commodities. Whereas the visited FOs in Burkina Faso did not sell selected seed, all three in Rwanda did. FO leaders reported that the selected seed market offered significant premiums of 25 to 60 percent above WFP prices in exchange for top quality commodities, which, in addition to foreign matter and moisture content similar to WFP standards, included labor-intensive hand selection of seed to ensure uniformity in size. While the process was not very exacting above WFP standards for beans, only kernels growing from the middle of the maize cob qualify as seed, and these middle kernels were further graded for size. Though perceived as profitable, the seed market was characterized by significant delays in contract payment of between four and eight months. RAB purchased maize seed and Harvest Plus, a CGIAR project partnering with RAB, purchased bean seed. Despite the prolonged contract and payment process, the seed market was preferred by FOs and their members due to the significant premium offered in exchange for a quality minimally higher than WFP standards. In addition, seed contracts were flexible regarding volume fulfilment. For these reasons, FO leaders cited RAB and Harvest Plus as the buyers of choice in Rwanda.

Among the second quality tier, WFP was the preferred buyer, according to FO leaders, as it offered the highest premium and bore responsibility for transportation from FO headquarters (under P4P contracts). However, WFP also exacted the highest quality within this tier, as MINAGRI, RGCC, and Minimex relied upon their own driers and cleaners.<sup>3</sup> As opposed to WFP, which utilizes RBS certification to ensure moisture

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<sup>3</sup> FOs reported that the government institutions (MINAGRI and RGCC) did not strictly enforce quality standards and therefore paid a lower premium than WFP.

and foreign particle specifications, the other buyers in this tier required only visual inspection. It should be noted that MINAGRI strove to procure 40 percent of the grain for the National Strategic Reserves from smallholders through the Common P4P program (Kelly & Mbizule, 2013).

FO leaders and members pointed to local traders buying basic-grade commodities as the main competitors for contracted commodities, given that fluctuating farm-gate prices can quickly reduce the profitability of contracts.

## Overview of Visited FOs

This study features three of Rwanda's 24 P4P FOs, COACMU, COTU, and UNICOPROMANYA. Unlike Burkina Faso, the distinction between high-, medium-, and low-capacity had not been formalized within the Rwandan context. Two of the surveyed FOs were located in Eastern Province, while the third was in Southern Province, as indicated in Figure 2, below.

**Figure 2: Location of Visited FOs, Rwanda**



Source: Accessed from [http://upload.wikimedia.org/wikipedia/commons/c/c4/Rwanda\\_Districts\\_Map.jpg](http://upload.wikimedia.org/wikipedia/commons/c/c4/Rwanda_Districts_Map.jpg), By Government of Rwanda (Government of Rwanda) [FAL], via Wikimedia Commons

Unless fulfilling a specific contract, the FOs visited purchase commodities within a one-month window immediately after harvest.

### **COACMU: Coopérative des Agriculteurs des Céréales de Musaza**

Founded in 2007, COACMU has 1,213 members organized into 25 sub-groups in Kirehe District. They have received support from USAID which financed, among other things, a 500 mt capacity warehouse at the cooperative headquarters. Members bring their commodities to the warehouse, or to one of five collection points, and COACMU collects it with a truck when 7-9 mt have been aggregated. Formal buyers included MINAGRI, RGCC, Minimex, and WFP; while informal buyers included traders. During the harvest, COACMU also collected commodities at the farm gate, paying with cash at the same price as local traders but using the FO scale, which members preferred as they suspect traders of measurement error as reported in the FGD.

COACMU fulfilled one P4P direct contract in 2011 for 100 mt of mixed beans, which was completed without challenges with 19 days between signing and completion.

### ***COTU: Cooperative of Building Unity***

Founded in 2007, COTU encompasses 1,092 members in Ruhango District. The organization reported receiving limited assistance beyond WFP. The cooperative does not use collection points, and members are obligated to bring commodities to the warehouse located at headquarters. The 300 mt structure, nearly empty when the study team visited, was constructed with a 20,000,000 RWF loan from the Banque Populaire du Rwanda (BPR). This cooperative had a peculiar method of land distribution and rental, and required that members sell 80 percent of the basic-grade commodities harvested on cooperative land to COTU. As a result, the focus group members opted not to grow basic-grade commodities on cooperative land, preferring instead to grow maize and beans on their personal plots for sale to farm-gate traders.

The least developed of the cooperatives visited, COTU's formal buyers were RAB and Harvest Plus, though they sold minimal amounts to traders. COTU had one P4P contract in 2011 for 250 mt of maize, of which they delivered 99 mt (43 days after signing the contract) due to difficulties in aggregation caused by fluctuating prices.

### ***UNICOPROMANYA: Union des Cooperatives de Producteur de Mais de Nyagatare***

Formed in 2010, this union includes 20 base groups, comprising 1,493 members across Nyagatare District. All 20 cooperatives have accountants whose salaries are paid by the union. Representatives from four of their registered cooperatives (AWASHINGASOKA, COAMUSIRO, CODEMATA, and COTEBARU) were present at the FGDs with FO leaders, providing an interesting contrast of experiences. Buyers included RAB, WFP, MINAGRI, RGCC, the Nyagatare District market tasked with taking care of street children, and traders destined for Kigali. UNICOPROMANYA has three warehouses throughout Nyagatare District with a total capacity of 700 mt.

UNICOPROMANYA has completed four P4P contracts, one in 2010 for 100 mt of maize, and three in 2011 (for 300 mt of maize, 297 mt and 100 mt of mixed beans). Though the two 100 mt contracts were completed without difficulty, the FO partially defaulted on the larger contracts (with an average delivery of 31 percent) due to price fluctuations which rendered the contract price unattractive at the time of delivery. Time between final agreement and date of delivery was 103 days in the first case of partial default, and 126 days in the second.

## **Sales Volumes of Surveyed FOs**

The throughput capacity of the three surveyed FOs was a challenge to piece together, given the incomplete nature of the FO records. Table 5 details the volume of P4P commodity sold by P4P FOs, including those visited, as reported to P4P. As many of recorded sales failed to provide dates, the progression in sales over time could not be analyzed. However, it can be ascertained that COTU had the lowest throughput of the surveyed FOs and that COACMU had a well-developed clientele beyond WFP, though these were comprised exclusively of government institutions. The visited FOs' P4P contract history through October 2013 can be found in Annex E.

**Table 5: Quantity of P4P Commodity Sold by Visited FOs, Rwanda**

FO	Commodity	2009		2010		2011		2012		2013 (thru Oct)		2009 - Oct2013	
		Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP	Quantity sold (mt)	% to WFP
<b>All P4P FOs</b>	Maize	-	-	6,427	30%	8,417	28%	7,544	9%	5,893	10%	<b>28,281</b>	<b>20%</b>
	Mixed Beans	-	-	1,649	30%	3,877	58%	2,611	21%	662	4%	<b>8798</b>	<b>38%</b>
	Total	-	-	8075	30%	12,294	37%	10,154	12%	6,555	9%	<b>37,079</b>	<b>24%</b>
<b>COACMU</b>	Maize	-	-	570	66%	611	70%	475	0%	662	14%	<b>2,318</b>	<b>39%</b>
	Mixed Beans	-	-	139	72%	632	16%	327	46%	261	0%	<b>1,359</b>	<b>26%</b>
	Total	-	-	709	67%	1,243	43%	802	19%	923	10%	<b>3,677</b>	<b>34%</b>
<b>COTU</b>	Maize	-	-	65	0%	234	85%	118	0%	108	0%	<b>525</b>	<b>38%</b>
	Mixed Beans	-	-	100	100%	-	-	-	-	32	0%	<b>132</b>	<b>76%</b>
	Total	-	-	165	61%	234	85%	118	0%	140	0%	<b>657</b>	<b>46%</b>
<b>UNICOPRO MANYA</b>	Maize	-	-	199	50%	846	54%	570	26%	451	44%	<b>2,066</b>	<b>44%</b>
	Mixed Beans	-	-	112	100%	1,478	97%	217	74%	-	-	<b>1,807</b>	<b>94%</b>
	Total	-	-	311	68%	2,324	81%	787	39%	451	44%	<b>3,873</b>	<b>68%</b>

Source: FO records

## Overview of Surveyed Households

Of the 411 P4P HHs surveyed in WFP's 2009 baseline survey, respondents reported average landholdings of 1.2 hectares, of which an average of 1.1 hectares was cultivated, supporting an average of 5 household members (AERC and WFP, 2013b).

The WFP surveys screened out households with landholdings greater than two hectares as well as those which did not plant or harvest any staple crops in the last 12 months. By contrast, the mini-survey for this study included households with more than two hectares of land, though screened out FO members which did not plant or sell P4P commodity in the previous 12 months.

Despite the differences in targeting, average landholdings, area cultivated, and household size of the 62 mini-survey respondents were nearly identical to the WFP survey respondents, and only respondent reported landholdings beyond the 2 ha threshold defining smallholder.

**Table 6: Production and Sales of Surveyed Households**

Commodity	Production and sales in the previous year	Case study 2013 mini-survey (n = 62)
<b>Maize</b>	HHs cultivating (%)	59 (95%)
	Average harvest	1.24 mt
	HHs selling (%)	56 (90%)
	Average sale	0.95 mt
<b>Mixed Beans</b>	HHs cultivating (%)	54 (87%)
	Average harvest	0.99 mt
	HHs selling (%)	39 (63%)
	Average sale	0.46 mt

Source: Mini-survey data

# BURKINA FASO FINDINGS

This chapter explores FO-level and household-level findings emerging from the Burkina Faso data.

## Farmers' Organization Findings, Burkina Faso

Drawing upon FO survey data, FO records, WFP Procurement records, and FGDs with FO leaders, this section explores the prevalence of contract marketing, access to credit, and prices and payment terms offered to FO members.

### FO Experience with Contract Marketing

As recorded in Burkina Faso's baseline survey of FOs, only two of the seven surveyed P4P FOs, including UGCPA, reported contract sales in 2009. By the first follow-up survey in 2010, five FOs reported selling under contract in the previous season (including the three visited FOs); and six reported contract sales by the second follow-up in 2011.

The FOs reported different proportions of quality and basic-grade sales of maize, white sorghum, and cowpeas (Table 7). From January 2012 through October 2013, 17 percent of 50 sales, representing 35 percent of the total quantity sold, were contractual sales with formal quality standards. As the percentage of total quantity sold on contract is larger than the percentage of sales utilizing formal contracts, it can be deduced that contractual sales of quality commodities were, on average, larger than spot sales of basic-grade commodities. Among the visited FOs, WFP was the buyer for all but two of the transactions for quality commodities. An international development agency and FEPAB, purchasing for a SONAGESS contract, were the other two buyers with formal quality standards.

**Table 7: Contract Sales of P4P commodity, January 2012 - October 2013, Burkina Faso**

FO	Commodity	Number of sales	Total quantity sold (mt)	Contract sales with formal quality standards			
				Number of contracts	% of total contracts	Quantity sold (mt)	% of total quantity sold
All P4P FOs	Maize	35	2,253	8	23%	1,041	46%
	W. Sorghum	7	564	0	0%	0	0%
	Cowpeas	8	445	1	13%	105	24%
	Total	50	3,316	9	17%	1,146	35%
UGPCER	Maize	1	44	0	0%	0	0%
	W. Sorghum	1	45	0	0%	0	0%
	Cowpeas	-	-	-	-	-	-
	Total	2	89	0	0%	0	0%
UGCPA	Maize	13	828	2	15%	210	25%
	W. Sorghum	5	449	0	0%	0	0%
	Cowpeas	-	-	-	-	-	-
	Total	18	1,277	2	10%	210	16%
UPPA Houet	Maize	14	776	3	21%	355	46%
	W. Sorghum	1	70	0	0%	0	0%
	Cowpeas	-	-	-	-	-	-
	Total	15	846	3	20%	355	42%

Source: FO Records



The remaining 83 percent of contracts without formal quality standards tended to be informal, or direct with same-day signing and uplift/delivery. In these sales the FOs functioned like traders, aggregating and, in the case of UGCPA and UPPA Houet, transporting to buyers or markets. According to FO leaders, the surveyed FOs paid members in cash for their basic-grade commodities immediately after the farmers delivered the commodities to the FO, or within a day or two if working capital was insufficient. They reported paying prices comparable to what traders paid at the farm gate.

In FGDs, FO leaders discussed attempts to negotiate sales of quality commodities with traders. They perceived traders as cognizant and appreciative of the quality aggregated by FOs, but unwilling to pay a price premium, opting rather to purchase basic grade at market price. FO leaders attributed this revealed preference to 1) the ready availability of basic grade commodities, 2) a lack of consumer household market for quality commodities, and 3) the investment made by quality-conscious buyers (millers and other processors) in drying facilities and cleaning lines. Rather than depending on the quality of incoming commodities, these buyers relied upon their infrastructure to achieve the necessary quality, which reflects Knepper’s (2014) finding that traders were unwilling to pay a quality premium because quality-conscious buyers have made substantial investments in cleaning equipment. Knepper also found that small and medium traders were unable to test quality in the field and could not separate quality grades during collection and storage.

### FO Utilization of Credit

Credit is a critical factor enabling FOs to participate in formal markets. Access to credit allows FOs 1) to help members boost production by offering inputs on credit, and/or 2) to offer payments to members upon delivery of contracted commodities for which the FO has yet to be paid. Paying members upon delivery for contracted commodities increases the competitiveness of FOs, enabling them to offer the same terms as traders. In the absence of sufficient working capital, FO-level aggregation requires producers to wait for payment, limiting participation in collective sales. As mentioned previously, both UGPCER and UPPA Houet partially defaulted on their first P4P contracts due to challenges in aggregation tied to limited access to credit, price variability, and delays in payment for contracted commodities.

As documented in the Burkina Faso P4P story, since its inception the program has intensively negotiated with banks and microfinance institutions to relax their requirements regarding FOs’ access to credit (WFP, 2012c). In August 2010, a trilateral agreement between FEPAB, P4P, and the National Federation of Rural Credit Funds (Federation des Caisses Populaires du Burkina (FCPB)) enabled FEPAB and its four member unions to obtain loans valued at 70 percent of their forward direct contracts with P4P at an interest rate of 9.75 percent. The Burkina Faso P4P story reports that the forward direct contract modality has built confidence between finance institutions and FOs, and these contracts are used as pre-harvest collateral. The expansion of the credit market has benefitted all partners: FOs have productively employed larger credits at lower rates, WFP has reduced default rates, and FPCB has profitably engaged with FOs (WFP, 2014). In 2011, the FCPB agreement was extended to all P4P FOs.

In the 2011 FO survey, six of the ten surveyed FOs reported receiving loans from rural credit funds in the previous two years, with four FOs accessing multiple loans over the same time frame. Though sources of loans remained stable between the 2009 baseline survey and the 2011 follow-up, there was a notable increase in the average size of loans issued to FOs. As UGPCPA reported several loans significantly larger than those received by other FOs in both rounds of the survey, median loan size is also reported in Table 8, which details newly reported loans across three rounds of surveys. Table 9 establishes the evolution of credit taken by the three surveyed FOs.

**Table 8: FO Loan Sizes and Sources, Burkina Faso**

Survey year	Number of FOs with loans	Number of loans	Loan amounts (CFA)		Loan source		
			Average	Median	NGO/MFI	Caisse Populaire	Affiliated FO

2009	8	15	24,080,000	5,000,000	2	11	2
2010	7	11	18,281,818	11,200,000	0	9	2
2011	6	6	19,800,000	15,000,000	5	1	0

Source: WFP FO surveys

**Table 9: Loans Reported by Surveyed FOs (2008-2011), Burkina Faso**

FO	2008 <sup>a</sup>	2009	2010	2011
UGCPA	160,000,000	130,000,000	80,000,000	600,000,000
UGPCER	7,200,000	30,000,000	33,000,000	5,000,000
UPPA Houet	10,000,000	10,000,000	33,000,000	15,000,000

a. Based on data obtained from past two years in 2009 baseline.

Source: WFP FO surveys

Regarding the extension of credit by FOs to members, three of the ten FOs surveyed at the baseline offered cash loans and three offered inputs on credit to members. By year 3, though the number of FOs providing cash loans to members remained constant, all seven P4P FOs reported providing agricultural inputs on credit to members.

Leaders of UGCPA explained in FGDs that their long-standing relationship with the Caisse Populaire enabled a line of credit during the agricultural season, adjustable to accommodate bumper crops. UGCPA offered members subsidized fertilizer at a nine percent interest rate, payable in-kind upon harvest. Members could also access a pre-harvest advance of 2,000CFA per 100kg bag contracted to UGCPA. These credits were available only to First Category members, defined as those current on payments of their debts to the FO and who had sold at least 70 percent of their contracted quantity to UGCPA in the previous year. Second Category members are those who had not covered their previous FO credit, and provided UGCPA with less than 70 percent of the contracted quantity owed the previous year. They were ineligible for additional loans from the FO, as were Third Category members who held debts with UGCPA and did not deliver against their previous contract. Third Category members faced one-year suspensions from FO trainings and collective marketing. Members in FGDs reported striving to attain First Category status primarily for access to loans since they lacked alternative sources. FO leaders explained that the distribution of members across categories varied with the previous year's yield, and that most members were classified as First Category for the 2012/13 season as the previous harvest had been good.

P4P shifted from direct contracts to forward direct contracts with UGPCER in 2010, and leaders in FGDs credited the contracting modality with members' increased production and the FO's improved aggregation. Prior to forward direct contracts, UGPCER could offer members less than 40 percent of the contract price upon delivery. With credit accessed from the Caisse Populaire using forward direct contracts with WFP as collateral, UGPCER increased its partial pre-payments to 50 percent.

UPPA Houet utilized credit from the Caisse Populaire to finance fertilizers for 100 members (out of 800 requests), who each received enough to cover one hectare. These members repaid in-kind at harvest, and received the credit for three consecutive years, after which the capital revolves to fund another 100 members. Pledging direct contracts between farmers and the FO as collateral, women members could borrow up to the expected value of 300kg from the Caisse Populaire, to be repaid after selling the commodities to the FO. This cash advance was available only to the female members of UPPA Houet.

### Prices Paid by FOs and Payments to Members

The surveyed FOs varied in the margins they captured on contracted commodities and the prices they offered members. Table 10 explores the distribution of sale revenue between the FO and members on P4P contracts

between July 2012 and August 2013. Members participating in collective sales to WFP received the same price from the FO, irrespective of whether or not they accessed input or cash credits from the FO. Some FOs, such as UGCPA, captured larger margins than others, reflecting the respective roles of FOs and members in achieving WFP quality standards. As UGCPA had its own cleaning line, members were relieved from cleaning to achieve quality standards. UPPA Houet, on the other hand, expected members to clean their contracted commodity. Information on costs incurred by FOs to prepare commodity for sale was not available.

**Table 10: Premiums and Distribution of Revenue, July 2012 and August 2013, Burkina Faso**

FO	Number of P4P contracts	Imputed market price per 100kg (CFA) <sup>4</sup>	P4P price per 100kg (CFA)	P4P premium per 100kg (CFA)	P4P premium as a % of market price	FO share (CFA)	Member share (CFA)
UGPCER <sup>5</sup>	0						
UGCPA	1	not available	167,500	n/a	n/a	45,000 27%	122,500 73%
UPPA Houet	2	155,500	163,000	7,500	5%	23,000 14%	140,000 86%
		155,500	175,500	20,000	13%	25,500 15%	150,000 85%

Source: FO records

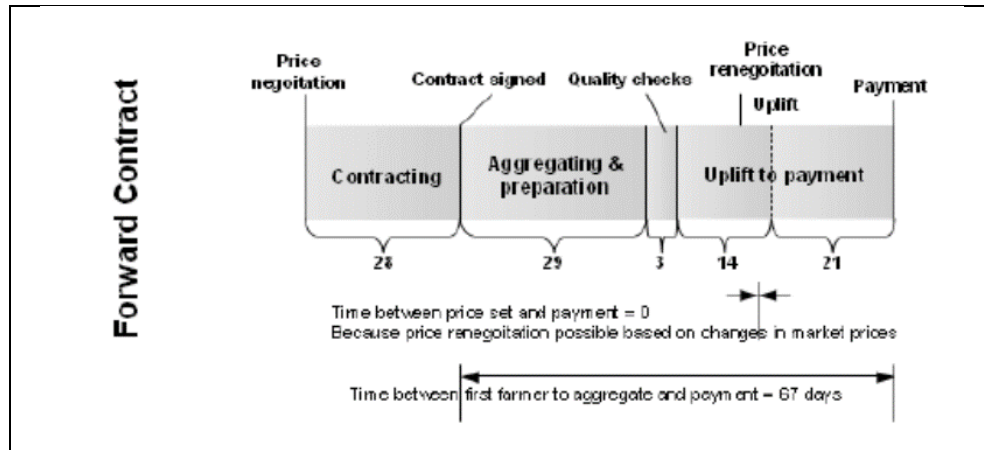
In recognition that the FO share affects the price premium gained by members, a series of charts comparing average prices members received from traders and FOs between October 2012 and May 2013 were compiled (Annex F). They highlighted the limitations of the FOs' short buying season and the challenges posed by delay of payment on contracted commodities.

Figure 2 draws upon FO records in Kenya to establish typical wait periods on P4P forward contracts. The average time between when the first farmer deposited their commodities with the FO and the FO's receipt of payment from WFP was 67 days.

<sup>4</sup>The market price of UPPA Houet represents a weighted average of two smaller quantity contracts for the same commodity, though without formal quality standards, completed in the same timeframe as the P4P contract.

<sup>5</sup>Though UGPCER did not have any P4P contracts during this period, the weighted average of members' share across the six P4P contracts the FO delivered on in other periods was 84%

**Figure 3: Timing of Forward Contract Execution, Kenya**

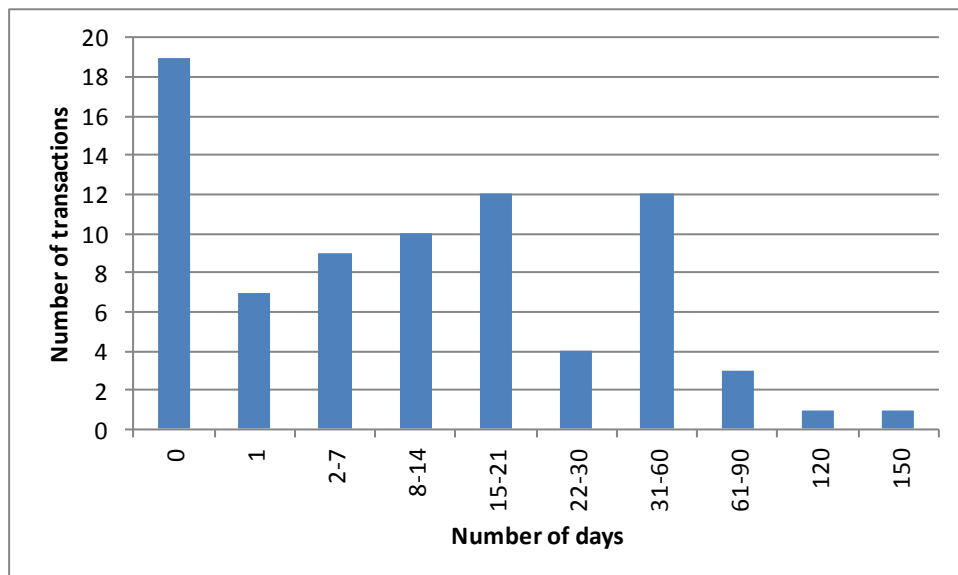


Source: Kenya Writeshop (Bymolt, Decaterina, & Krieger, 2011)

Though it reports the Kenya experience, Figure 3 is also relevant to Burkina Faso. FO leaders in FGDs estimated that aggregation took about one month, while the quality check, uplift, and payment took another month, assuming the aggregated commodities passed quality inspection on the first attempt. If not, the process took more time and became dependent upon the initial quality and the FO's ability to further dry, clean, and/or sort the goods. Batches which never attain the standards specified in the contract result in default.

The estimate of FO leaders is in line with the experience of mini-survey respondents. Only 19 of 79 respondents (24 percent) reported that they received immediate payment in full while 60 reported receiving partial payment with an average delay of 30 days for full payment. Figure 4 illustrates the distribution of wait times reported by respondents. By contrast, only 4 of the 83 sales to traders involved less than full payment when the commodities changed hands.

**Figure 4: Time Required for Full Payment, Burkina Faso**



Source: Field visit mini-surveys

The delay between delivering commodities to the FO and receiving full payment became problematic when trader's prices increased beyond the contracted price. WFP's forward direct contracts allowed for one price renegotiation.<sup>6</sup> Though the ability to renegotiate price helped FOs avoid side-selling in the context of price volatility, it placed the risk of upward price trends on WFP, and may have provided incentive for FOs to extend the aggregation process (WFP, 2012a). Across the three surveyed FOs, leaders discussed the difficulties of holding onto commodities aggregated for a P4P contract in the context of rising trader prices. Annex G builds an example to illustrate this challenge using price information collected from UGPCER mini-survey respondents and a hypothetical P4P contract.

In FGDs with the women of UPPA Houet located close to headquarters, a large majority expressed a preference for contract marketing through the FO despite delays in payment and even in the face of upward price volatility. This commitment to the FO was grounded in their appreciation of the broader benefits of FO membership and P4P programming. The annual dividend distributed in some years to members further incentivized sales through UPPA Houet. Social capital generated with the assistance of the women's field monitor may explain the ardent commitment to quality standards and to the FO, expressed by members who took pride in their ability to produce commodities safe for consumption. Evidence of such loyalty did not emerge in any other FGDs, including the rural female members of UPPA Houet. By contrast, UGCPA members explained their sales to/through the FO in light of preferable farm-gate prices as a lamentable necessity to maintain First Category status and future access to inputs on credit.

## Household Findings, Burkina Faso

Drawing upon WFP survey data, FGDs with FO members, and the mini-survey, this section reviews HH production and access to credit, then details major transactions of P4P commodity.

### Household Production and Marketable Surplus

The analysis of household survey data, jointly conducted by AERC and WFP (2013), established that the proportion of respondents producing maize and white sorghum decreased between the 2009 baseline and a 2011 follow-up (from 62 to 55 percent for maize, and from 89 to 68 percent for white sorghum), while the percentage cultivating cowpeas increased (from 87 to 96 percent). Households did not report a marketable surplus for cowpeas in either year, however, the percentage reporting a marketable surplus more than doubled for both grain commodities between baseline and follow-up (from 28 to 59 percent for maize, and from 35 to 76 percent for white sorghum). Though more households participated in P4P grain sales, the average size of the marketable surplus decreased from 0.4 to 0.2mt for maize and from 0.6 to 0.4mt for white sorghum between 2009 and 2011.

### Household Access to Credit

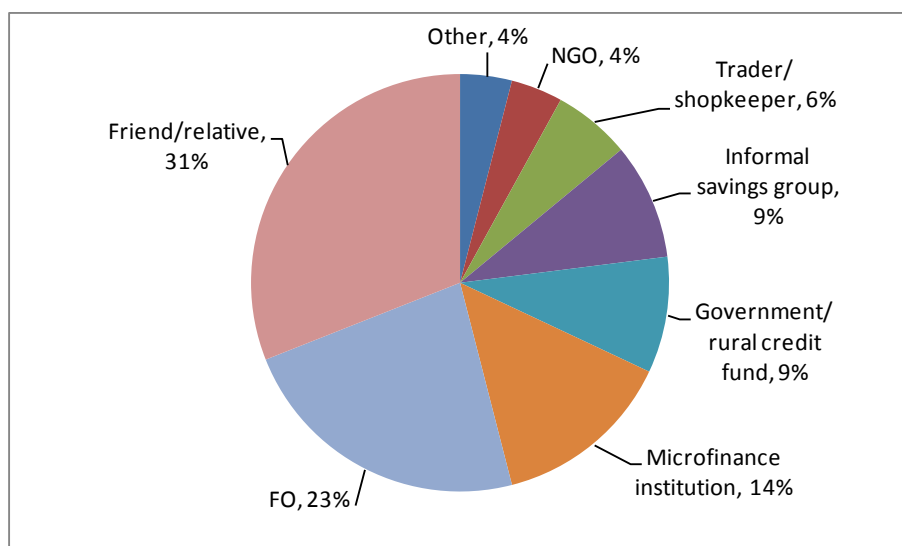
At the household level, access to credit is a structural barrier for smallholder producers, preventing many from investing to optimize productivity and compelling post-harvest sales, when prices are low, to meet cash needs. By providing credit directly, or by facilitating credit from a financial institutions, FOs can augment members' access to credit.

In FGDs, FO leaders reported liberally extending credit to members, however the 2011 household follow-up survey suggested otherwise. While 137 (41 percent) of the 337 follow-up survey respondents received credit over the two years prior to the survey, only 31 (23 percent of those who reported receiving credit, or 9 percent of all respondents) received it from their FOs. Figure 5 shows the sources of credit reported by the 137 respondents receiving credit. After friends and family, the FO was second most common source.

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<sup>6</sup> Prices presented in Annex F are actual prices received by members, as opposed to prices initially contracted by FOs.

**Figure 5: Sources of Credit, Burkina Faso**



Source: Household follow-up survey

The household follow-up survey further revealed that over the two years prior to the survey (2010 and 2011), 17 percent of UGPCER members (17 out of 100 members sampled) received credit from the FO, as had 10 percent of UPPA Houet members (2 out of 20). Table 11 shows sources of credit reported by UGPCER and UPPA Houet members.

**Table 11: Sources of Household Credit, Burkina Faso**

FO	% of respondents receiving credit	Number of respondents by source				
		Family/friends	FO	Govt/ Rural credit fund	Microfinance institutions	Other
UGCPA		Not available				
UGPCER	63%	22	17	15	13	12
UPPA Houet	45%	1	2	0	3	2

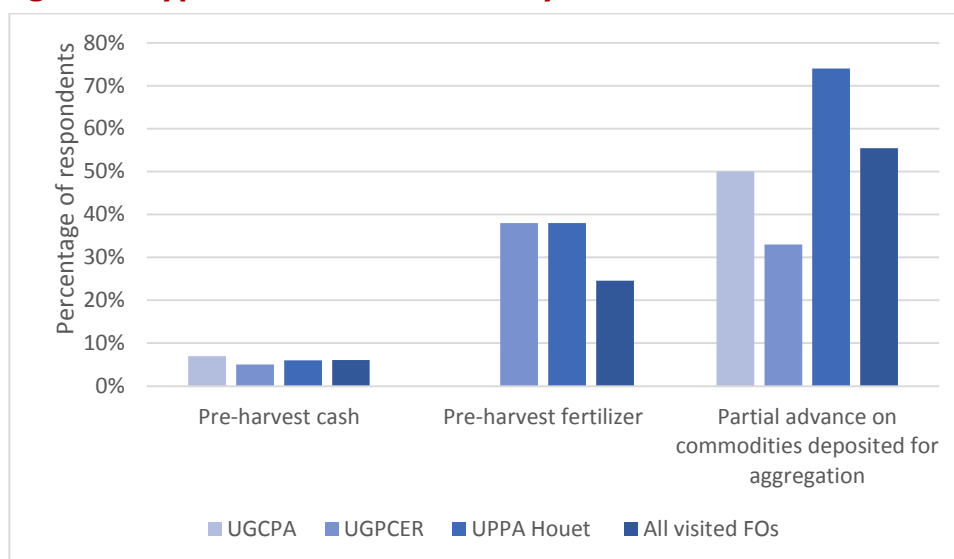
Source: Household follow-up survey

Of the 17 follow-up survey respondents receiving credit from UGPCER, 15 received inputs averaging 140,625CFA in value, while two members received smaller-sized loans, with an average value of 45,000CFA, in cash to invest in agriculture. Surprisingly, the two members reporting credit in cash from UPPA Houet, with an average value of 125,000CFA, received the loan to start or invest in non-agricultural businesses.

In FGDs, members explained that prior to the increased availability of credit from FOs, households frequently obtained credit from traders, who offered cash for inputs and emergencies to be repaid in-kind upon harvest at 50 percent of the market price. Of the 85 FO members responding to the mini-survey, 26 (31 percent) reported receiving inputs on credit from the FO, with an average value of 78,381CFA. The average landholdings of members receiving inputs was slightly larger than the mean respondent's, 12.39 ha compared to 11 ha. On the other hand, the five respondents (six percent) who received cash credit from FOs, with a mean value of 61,000CFA, reported substantially larger average landholdings, 18.25 ha, compared to the average respondent.

Forty-seven respondents (55 percent) reported receiving partial pre-payments for commodities they delivered to the FO. Figure 6 shows the distribution of different types of FO credit.

**Figure 6: Types of Credit Received by FO Members, Burkina Faso**



Source: Field visit mini-survey

In FGDs, members cited access to credit as a driver for utilizing the FO marketing channel. However, they described pre-harvest credit (cash or in-kind) as a double-edged sword, specifically by UGCPA members who expressed frustration with their obligatory sales to the FO, a mandatory requirement of maintaining First Category status. Their frustration may result from UGCPA’s unique pricing strategy (detailed in Annex F), which includes only two (location-specific) prices per commodity throughout the season.

Of the 74 mini-survey respondents selling to the FO, 59 (80 percent) reported receiving a partial pre-payment on contracted commodity deposited that the FO (Figure 6). Of these delayed payments, 40 (68 percent) were of 14 days or more with an average delay of 41 days. The following analysis focuses on this category of sales to ensure that the transaction is for contracted commodities, as opposed to basic-grade commodities transacted on the spot market.

Of the sales involving payment delays of more than 14 days, none of the UGCPA or UPPA Houet members received partial pre-payments upon delivery. By contrast, members of UGPCER accepted partial pre-payments on 74 percent of these transactions. These sales were significant in value, averaging 89,700CFA for UGCPA, 78,074CFA for UGPCER, and 174,357CFA for UPPA Houet.<sup>7</sup>Farmers’ choices suggests that, at least among UGCPA and UPPA Houet members, those who engage in contract sales of quality commodity can withstand significant payment delays without buffering with partial pre-payments. In FGDs members of these FOs asserted that though a partial advance was available to them, they opted to receive payment in one lump sum despite the uncertain wait period.

### Households’ Major P4P Commodity Transactions

Table 12 displays the locations of survey respondents’ sales of P4P commodities and the average percentage of marketed surplus sold by location. Of the household follow-up survey respondents, 30 percent sold to or

<sup>7</sup> Using the exchange rate at the time of the field visit (1USD = 500CFA), these amounts correspond to \$179, \$156, and \$348. GDP per capita in Burkina Faso is \$634 (World Bank, 2013)

through their FO. The relatively high percentages of their total marketed surplus households reported selling at each location suggests that many households “specialize” in a particular location.

**Table 12: Household Sales by Location, Burkina Faso**

FO	Commodity	Sales to the FO		Sales at the farm gate		Sales at other locations	
		Percentage of households	Average percentage of total quantity sold	Percentage of households	Average percentage of total quantity sold	Percentage of households	Average percentage of total quantity sold
All FOs	Maize	4%	73%	7%	81%	4%	78%
	W. Sorghum	11%	88%	12%	86%	8%	80%
	Cowpeas	24%	87%	27%	84%	24%	87%
	Total	30%	86%	34%	84%	29%	84%
UGCPA	Data not available						
UGPCER	Maize	3%	78%	9%	96%	5%	100%
	W. Sorghum	22%	96%	17%	96%	7%	79%
	Cowpeas	7%	100%	39%	100%	9%	100%
	Total	22%	96%	48%	98%	14%	93%
UPPA Houet	Maize	20%	49%	35%	57%	15%	68%
	W. Sorghum	-	-	10%	100%	-	-
	Cowpeas	-	-	10%	100%	5%	100%
	Total	20%	49%	45%	73%	20%	76%

Source: WFP follow-up survey of households, 2011

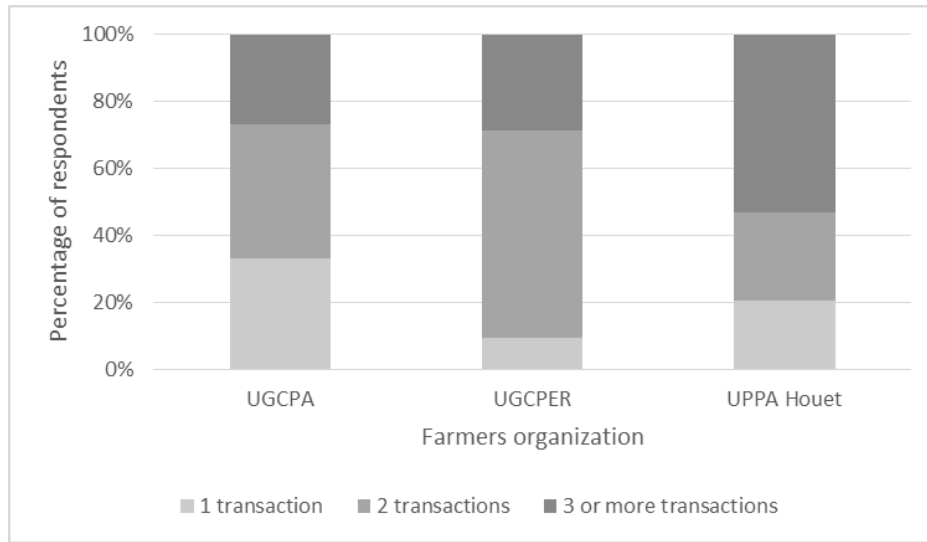
Responses to the mini-survey of FO members help interpret these findings. The members of UPPA Houet reported lower percentages sold at each location than the members of the other FOs. Based on their responses during the mini-surveys, this reflects the wider range of marketing choices available around the consumer center of Bobo Dioulasso.

Mini-survey respondents described up to three major transactions of P4P commodities. This sub-section explores the volumes and locations of these transactions, the prices received, the distances travelled and the transportation costs incurred. A transaction was defined as an exchange of commodities in a particular location to a specific buyer (or set of similar buyers such as “traders” or “neighbors”) which occurred at a point or a period in time. In this context, the sale of 1,000kg on a specific date to a specific trader or the sale of small quantities to neighbors over a three-month period, were considered one transaction.

The field visit confirmed that FO members engaged in few sales of P4P commodities. Of the 85 mini-survey respondents, 22 percent (19 members) reported one transaction, 40 percent (34 members) two transactions, and 38 percent (32 members). This varied across FOs (Figure 7), with UPPA Houet members exhibiting the most diverse marketing behavior and UGCPA members the least. Of the 29 respondents who sold P4P commodity only once during the previous year, 20 (69 percent) selected the FO as their sole marketing channel.



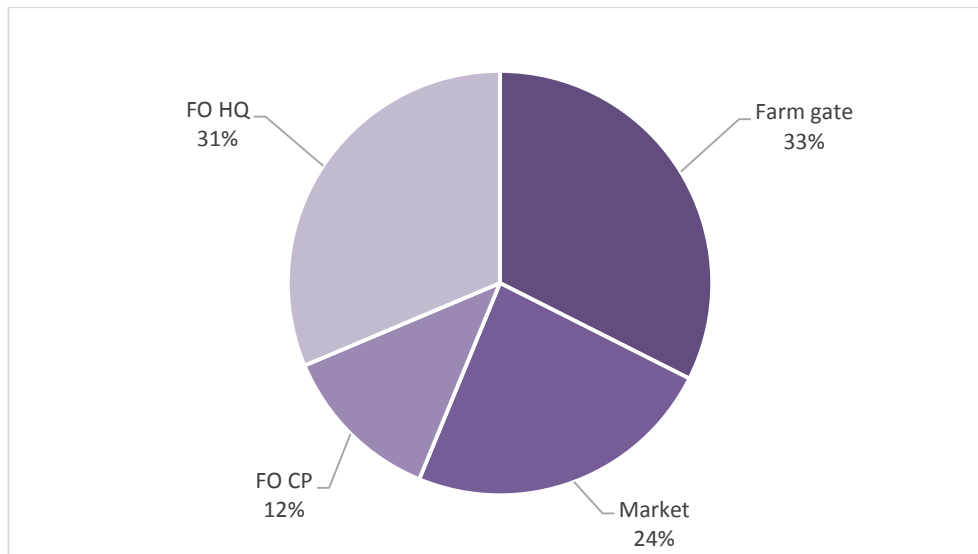
**Figure 7: Number of Transactions, Burkina Faso**



Source: Field visit mini-survey

As illustrated in Figure 8, the FO (including both collection points and headquarters) served as the primary place of sale, accounting for 43 percent of all major transactions. One third of transactions occurred at the farm gate, and the marketplace accommodated nearly one quarter of respondents' major P4P commodity sales in the year preceding the field visit.

**Figure 8: Location of Transactions, Burkina Faso**



Source: Field visit mini-survey

Table 13 presents the average sales quantity reported by mini-survey respondents by commodity, gender, and location of sale. The average maize, white sorghum, and cowpeas quantities sold by women were 50 percent, 29 percent, and 64 percent of the average quantities sold by men, respectively. The relatively large size of

women's cowpeas transactions likely reflects P4P's concerted effort to elicit women's participation in collective sales of cowpeas, a crop usually grown and sold by women. These efforts include UGCPA's waiving of the minimum transaction volume for women's cowpeas sales through the FO, and the hiring of a women's field monitor at UPPA Houet.

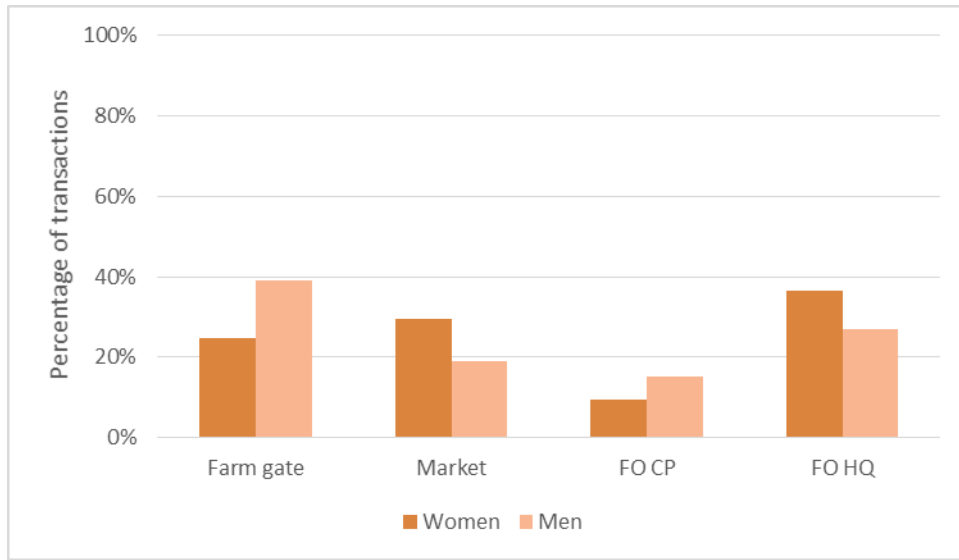
**Table 13: Average Quantity Sold by Location, Sex, and Commodity, Burkina Faso**

Commodity	Respondent sex and ratio of average sales volume	Transaction Location				Across locations
		Farm gate	Market	FO CP	FO HQ	
Maize	Women	584	354	1,000	1,327	883
	Men	1,944	1,600	875	2,209	1,760
	Women's average sales volumes as a % of men's	30%	22%	114%	60%	50%
W. Sorghum	Women	350	208	400	500	337
	Men	1,373	867	1,675	872	1,145
	Women's average sales volumes as a % of men's	25%	24%	24%	57%	29%
Cowpeas	Women	239	126	142	367	227
	Men	413	288	300	370	357
	Women's average sales volumes as a % of men's	58%	44%	47%	99%	64%
Total P4P Commodity	Women	440	209	528	895	539
	Men	1,282	816	973	1,341	1,161
	Women's average sales volumes as a % of men's	34%	26%	54%	67%	46%

Source: Field visit mini-survey

While men were more likely to sell at the farm-gate and FO collection points, women were more likely to sell in the market or at the FO headquarters (Figure 9). The fact that women sold at the market more frequently than men seems counterintuitive, however as presented in Table 13, women's average sales volumes at market are 22, 24, and 44 percent of men's, for maize, white sorghum, and cowpeas respectively. Though men sold larger quantities across all sales locations, the disparity is most pronounced at the market and the farm gate, where women on average sold 26 percent and 34 percent of men's volumes per transaction across commodities. The ratios of women's to men's average volumes were highest at FO headquarters, achieving parity in cowpeas transactions at FO headquarters.

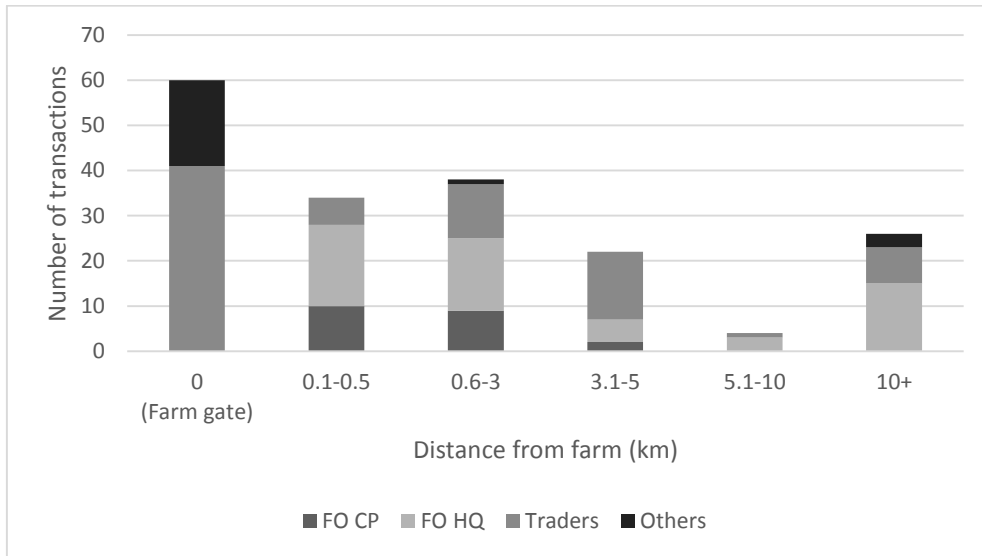
**Figure 9: Sales of Staples by Location and Sex, Burkina Faso**



Source: Field visit mini-survey

The distance between the farm and potential buyers influences household marketing decisions. Figure 10 shows the buyers categorized by distance of the sale from the farm. Farm-gate sales are characterized as having zero distance from the farm.

**Figure 10: Number of Transaction by Distance and Buyer, Burkina Faso**

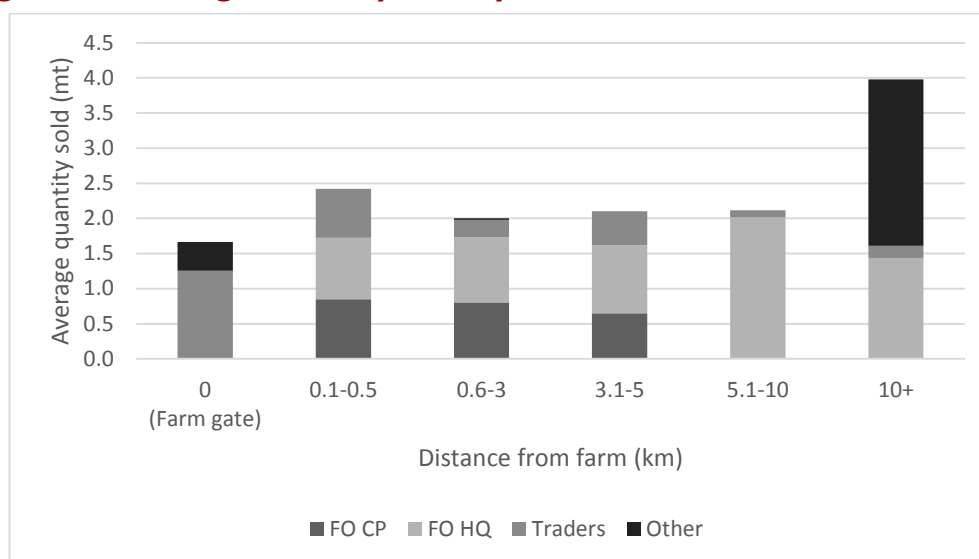


Source: Field visit mini-survey

Farm-gate sales were primarily to traders (collectors), though roughly a third of farm-gate transactions were to “others,” comprising individuals, households, and artisanal transformers (namely brewers). For sales in which respondents travelled up to 3km from the farm, FOs were the buyer in 74 percent of transactions, while traders purchased the rest. When considering distances of 5km or greater, most respondents (61 percent) sold to FO headquarters, though others brought their commodities to large traders and NAFASO. The farther

distance transactions can be characterized as larger volume sales to FOs and NAFASO, illustrated in Figure 11, below.

**Figure 11: Average Quantity Sold by Distance from Farm, Burkina Faso**



Source: Field visit mini-survey

Average volumes sold to traders were largest at the farm gate, and decreased with distance. In member FGDs, those situated more than 5km from town cited transport costs as a factor prohibiting market sales, reflected in the small average volumes sold to traders in locations greater than 5 kilometers from the farm in Figure 11.

While average volumes sold to the FO were relatively constant at closer distances and equal between CPs and headquarters, volumes sold to or through the FO beyond distances of 5km were all to headquarters as opposed to collection points. This suggests market inaccessibility for more remote locations, insufficient or poorly placed collection points, and/or FO purchasing processes favoring commodity brought to headquarters over collection points. Both of the FOs surveyed that had collection points stated that they must have a minimum of 5 mt in order for the truck to travel to the collection point. In FGDs, FO leaders mentioned the challenge of attaining the 5mt minimum at collection points, resulting in long wait times between delivery and pick-up. This may contribute to CP underutilization.

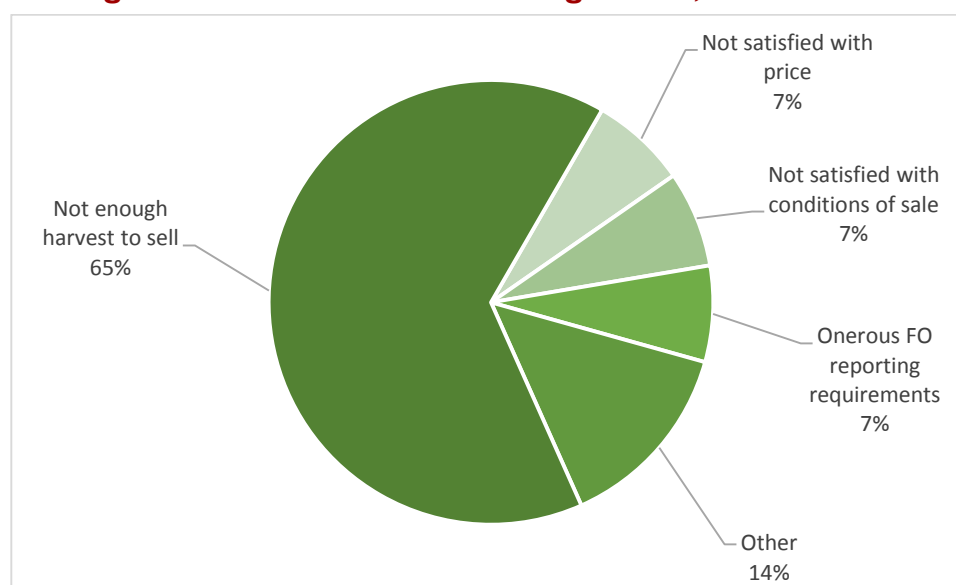
Prices for respondents' maize and white sorghum transactions remained relatively constant across distances travelled by sellers, though prices for cowpeas showed more variation. Long distance seed sales to "others" (NAFASO) were an exception, as the prices offered were double FO and trader prices. Charts of average prices received as a function of distance travelled to make the sale are available in Annex H.

In FGDs, farmers stated that local market price was equal to the consumer (retail) market price minus the per-unit cost of large-scale transport and trader margins. They asserted that local markets did not compensate for small-scale transport costs incurred by SHFs. This is confirmed by analysis of price information in Annex H complemented by cost of transport data documented in Annex I. The transport data collected in the mini-survey revealed an increase in transport costs associated with distance, reflecting the shift from free (or low-cost) transportation modes such as walking or bicycles, to equipment-assisted transport such as wheelbarrows and oxcarts, and finally to mechanized vehicles. Because prices do not reflect transport costs, farmers' sales to more distant buyers, especially those that require mechanized transport, are less remunerative than sales to nearby buyers or sales at the farm gate unless the distant buyers were to premium buyers willing to compensate farmers for high quality (e.g., WFP or seed companies).

### Household Sales to FOs

Eighty percent of mini-survey respondents reported selling to or through the FO in the last five years. Figure 12 presents the reasons why the remaining 20 percent did not utilize the FO marketing channel, with lack of sufficient surplus emerging as the primary explanation. Insufficient surplus is not an FO-specific reason and is, therefore, not directly relevant to households' decisions about how to allocate sales across alternative marketing channels.

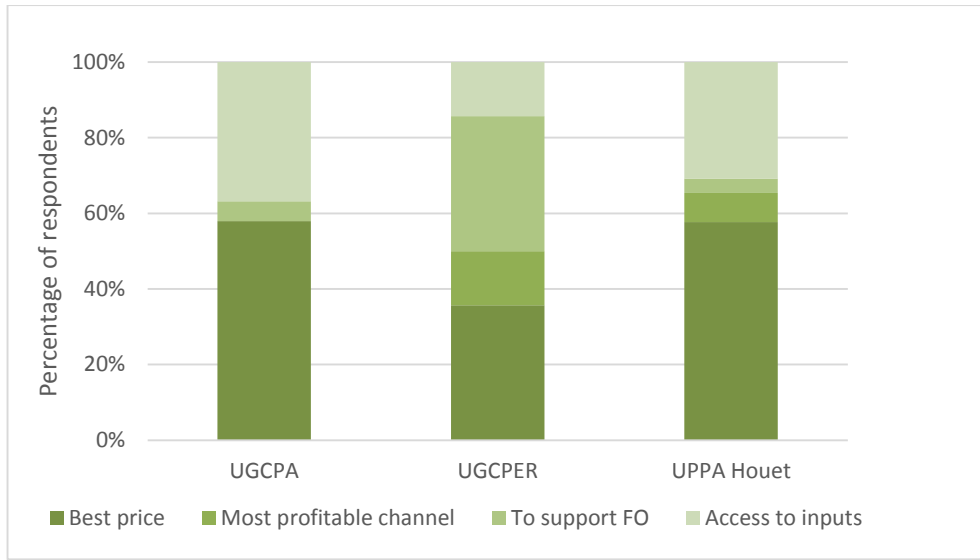
**Figure 12: Reasons for Not Selling to FOs, Burkina Faso**



Source: Field visit mini-survey

Of the 80 percent of respondents reporting FO sales, 93 percent were satisfied with the decision. Lengthy wait for payment was the primary reason cited for the seven percent of respondents dissatisfied with FO sales. Reasons for satisfaction with FO sales (Figure 13) included price, access to inputs (applicable only to members of UGCPA and UPPA Houet), providing support to the FO, and profitability of FO sales (which include reduced transportation costs, improved storage, and the large quantity sold at once for a good price).

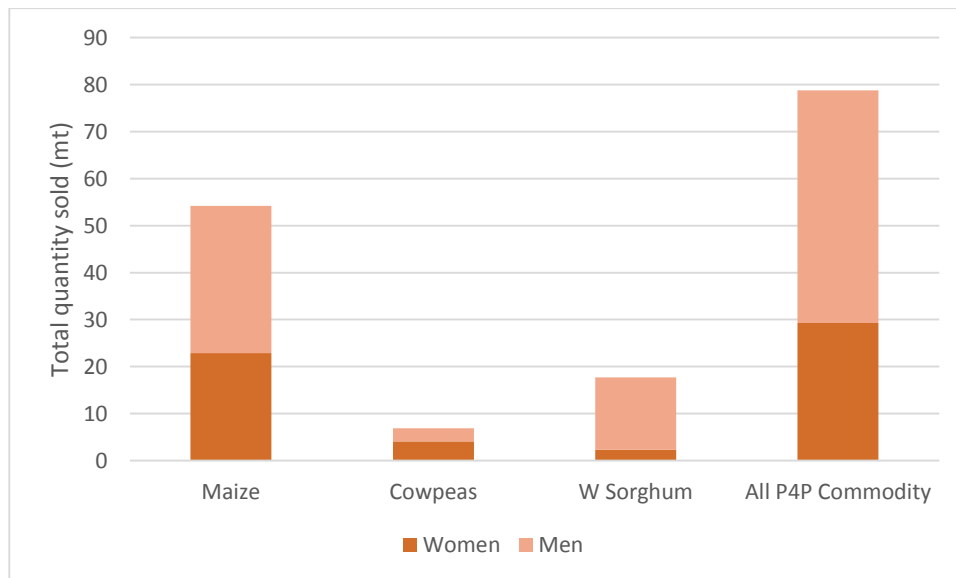
**Figure 13: Reasons for Satisfaction with Sales to/through FO, Burkina Faso**



Source: Field visit mini-survey

Among mini-survey respondents, maize was the primary commodity marketed through the FO, followed by white sorghum, then cowpeas (Figure 14).

**Figure 14: Total Quantity Sold to FO by Commodity and Sex, Burkina Faso**



Source: Field visit mini-survey

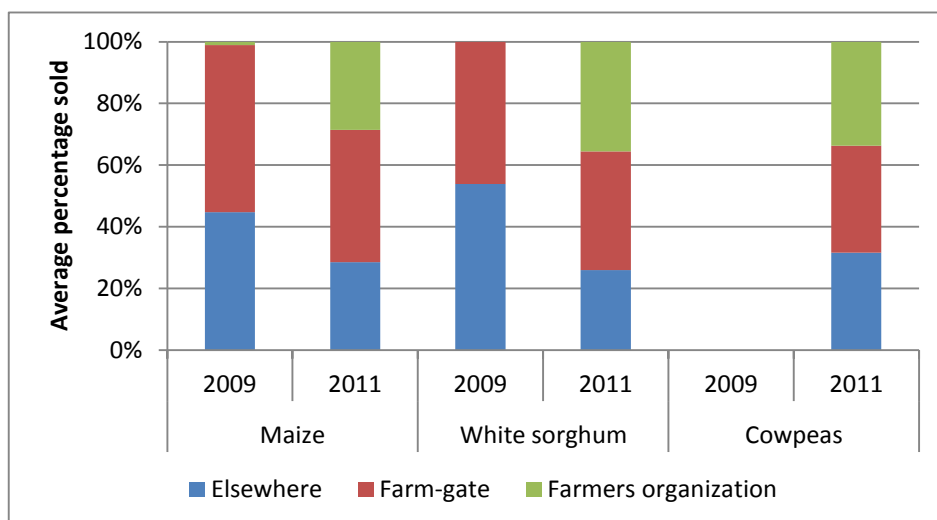
Figure 14 also reveals the relative contribution of men and women to the quantity of commodity sold to or through FOs by mini-survey respondents over the last year. Female respondents accounted for about 50 percent of the cowpeas volume, 33 percent of the maize volume, and 10 percent of white sorghum volume reported as sold to or through FOs in mini-surveys. These results confirm that cowpeas serves as a vehicle for women’s participation in collective sales. As cowpeas is considered a “female crop,” the high percentage contribution of men to its production seems puzzling, though may reflect husbands marketing on behalf of their wives, a practice documented across several countries (Somé, 2014).

Of the mini-survey respondents, 67 percent (57) reported at least one sale of P4P commodity through the FO in the year preceding the field visit. Most of these (74 percent) sold only once, 21 percent sold twice, and 5 percent sold through the FO three or more times. During FGDs, FO members and leaders alike attributed the ability to accept partial payment as the key distinction between members who participate in collective sales of contracted commodity and those who do not. Factors enabling farmers' acceptance of a waiting period include a robust harvest and alternate livelihood sources. The 28 out of 40 members who sold collectively through the FO but opted out of partial pre-payment further highlights wealth as a driver of contract marketing participation.

***Household Distribution of Marketable Surplus Across Marketing Channels***

At the time of the 2009 baseline, respondents reported selling 56 percent and 46 percent of their marketable surpluses of maize and white sorghum, respectively, at the farm gate, with the remainder transacted at market locations. By the time of the 2011 follow-up survey, FOs featured prominently as a marketing channel, while the prevalence of farm-gate sales decreased (Figure 15).

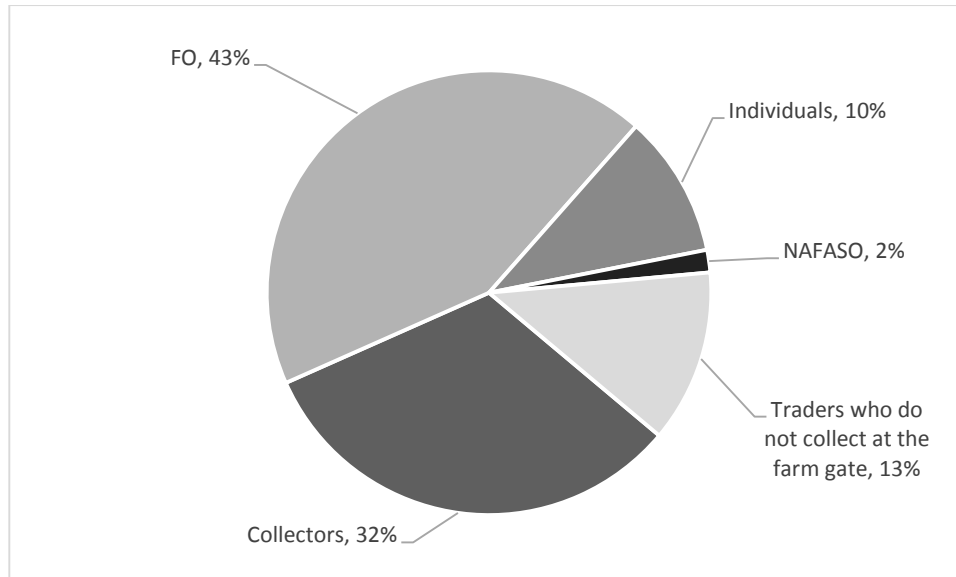
**Figure 15: Trends in Location of Sales, 2009-2011, Burkina Faso**



Source: Preliminary Follow-up Report, Burkina Faso (WFP and AERC, 2013)

The mini surveys conducted in 2013 suggest that the trend toward the FO as a marketing channel continued. Respondents reported their FOs as the buyer in 43 percent of the major P4P commodity sales over the previous 12 months, while the collector share dropped to 32 percent (Figure 16). Individual households, non-collector traders, and NAFASO rounded out the purchases.

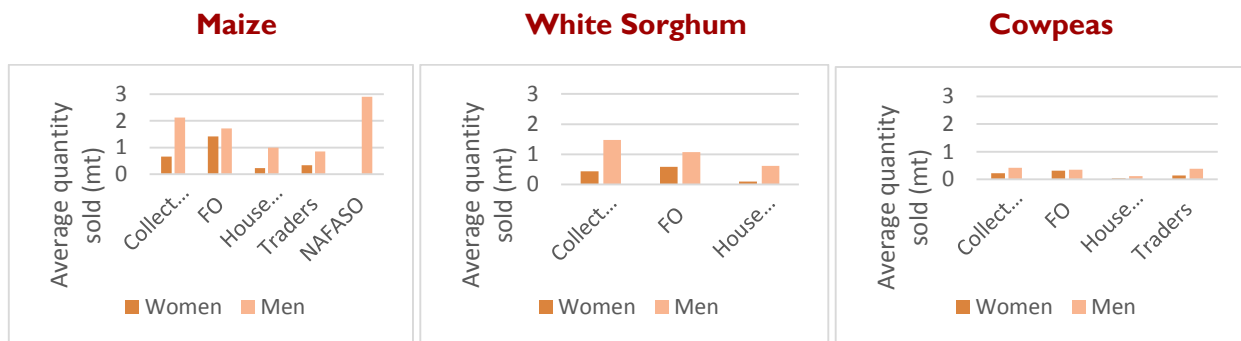
**Figure 16: Percentage of Transactions by Buyer, 2013, Burkina Faso**



Source: Field visit mini-survey

Figure 17 displays the average volumes sold to different buyers, disaggregated by gender of seller. Among respondents, only men sold on the lucrative NAFASO market, and men sold three times more than women, on average, to traders and households. The disparity in average volume transacted between men and women was lowest when selling to the FO. Though attention has been drawn to the low volumes women sell to FOs relative to men (Somé, 2014), Figures 17 and 14 suggest that the FO is emerging as a preferred marketing channel for women in Burkina Faso.

**Figure 17: Average Transaction Size by Buyer and Sex of Seller, Burkina Faso**



Source: Field visit mini-survey

Members discussed the advantages and disadvantages of selling to particular buyers in FGDs. Appealing features of selling to traders included their ability to pay in full with cash and the lack of stringent (or extant) quality standards. In addition, traders who buy at the farm gate, were able to purchase multiple commodities at once, had an extended buying season, and did not have packaging/bagging requirements. On the other hand, small traders were limited to amassing small quantities at a time, offered credit to farmers on unfavorable terms, and were frequently accused of using inaccurate scales.

Respondents reported that selling to the FO was helpful to members in terms of budgeting and receipt of a lump sum payment in the future. Unlike traders, the FO could absorb as much as members chose to sell, though members of UPPA Houet noted that the FO did not have sufficient contracts for quality



commodities to satisfy the marketing needs of members. In addition to a relatively large absorption capacity and the possibility of a higher price or dividend, the FO weighed accurately and was considered a trustworthy and reliable partner.

The primary challenges cited in selling through FOs were the delay in payment and the emphasis on quality which, for many, required planting selected seed and extensive effort in cleaning compared to selling basic-grade commodities to traders. Additional challenges included transporting commodities to FO headquarters or collection point, packaging/bagging requirements, minimum volume requirements, and not knowing what variety of commodities the FOs would buy at the time when farmers were making planting decisions.

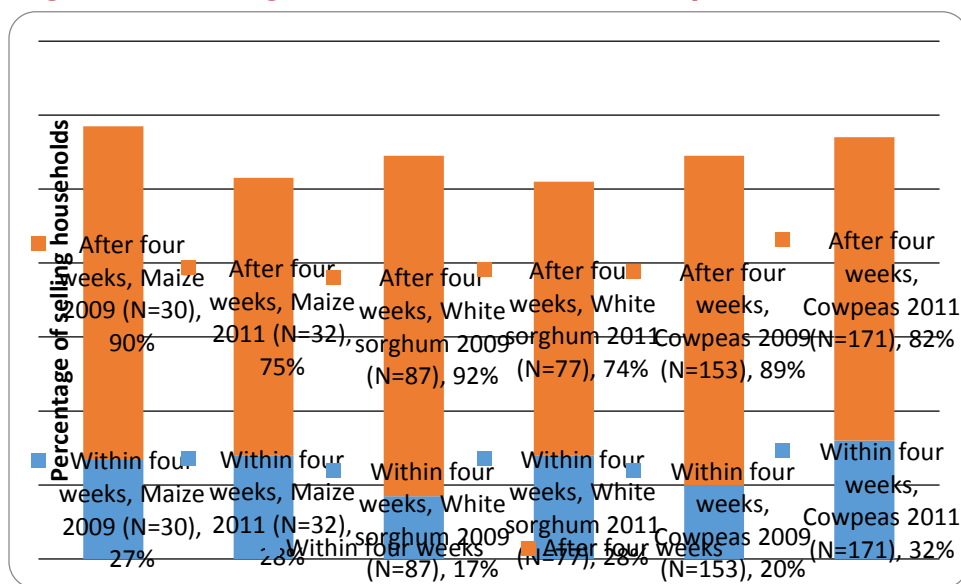
Selling to households, individuals, and artisanal brewers (categorized in the above figure as “Household”) was considered a social, as opposed to a business, exchange. These small quantity sales helped producers cover immediate expenses and did not require travel.

Only two mini-survey respondents sold selected maize seed to NAFASO, though the average quantities sold were high, as shown in Figure 17. Though NAFASO quality standards were stringent, the prices were twice the market price of basic grade commodities. However, sellers did not receive partial payment upon delivery, and the weighted payment delay was 113 days. The exact requirements for NAFASO production were not investigated, however this market is beyond the means of the typical SHF.

### Timing of Household Sales

As indicated in the report for the follow-up survey, the timing of sales reflects households’ capacity to manage their harvest and to access rewarding markets. At the time of the 2009 baseline survey, the majority of households (between 75 and 92 percent depending on the crop and period) reported selling four weeks after harvest, however these proportions decreased between the baseline and follow up for all three crops (Figure 18).

**Figure 18: Timing of Households’ Sales of Staples, Burkina Faso**



Source: Preliminary Follow-up Report, Burkina Faso (WFP and AERC, 2013)

Note: “N” represents the number of households that reported selling the crop in a particular period.

The mini-survey captured information regarding the timing of sales as well. As presented in Figure 19, the main marketing season ran from December through February. Respondents reported the largest number of sales in December, while average sale volumes were highest for most sellers in January and February.

**Figure 19: Timing and Value of Major P4P Commodity Sales over the Last 12 Months, Burkina Faso**

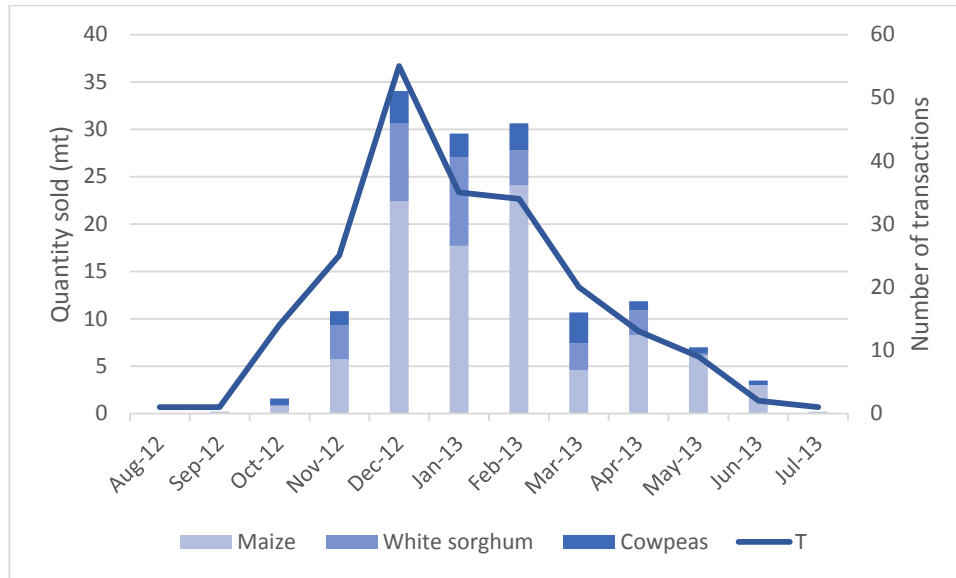
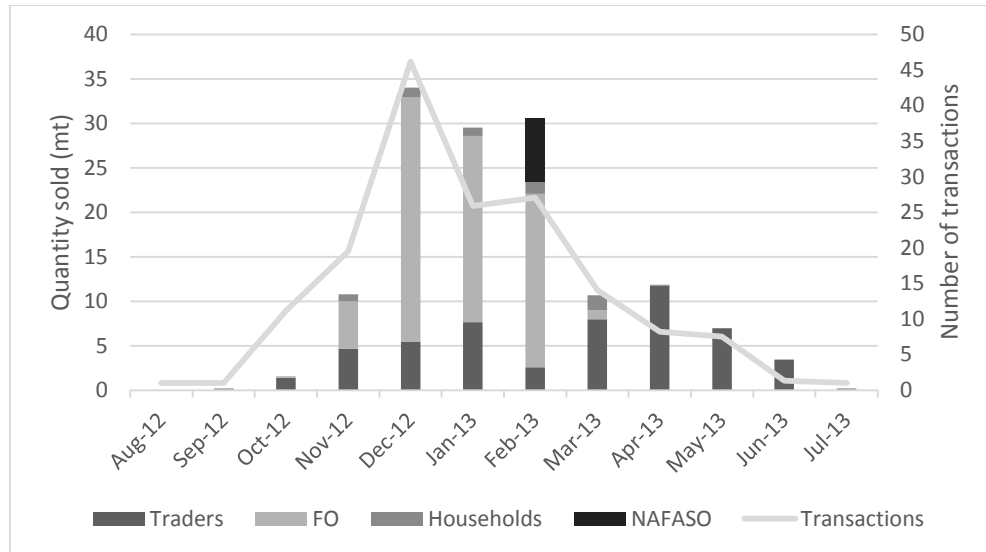


Figure 20 recasts the data in Figure 19, with the stacked bars representing different buyers, rather than different P4P commodity. From November to February, FOs purchased the largest quantities from respondents, followed by traders. The quantity sold to traders increased in March through June, after the FO purchasing season closed. Sales to households comprised a steady but small component of sales

from August through March, and the three high volume sales by two households to NAFASO, all occurred in February.

**Figure 20: Timing and Value of Sales to Different Buyers over the Last 12 Months, Burkina Faso**



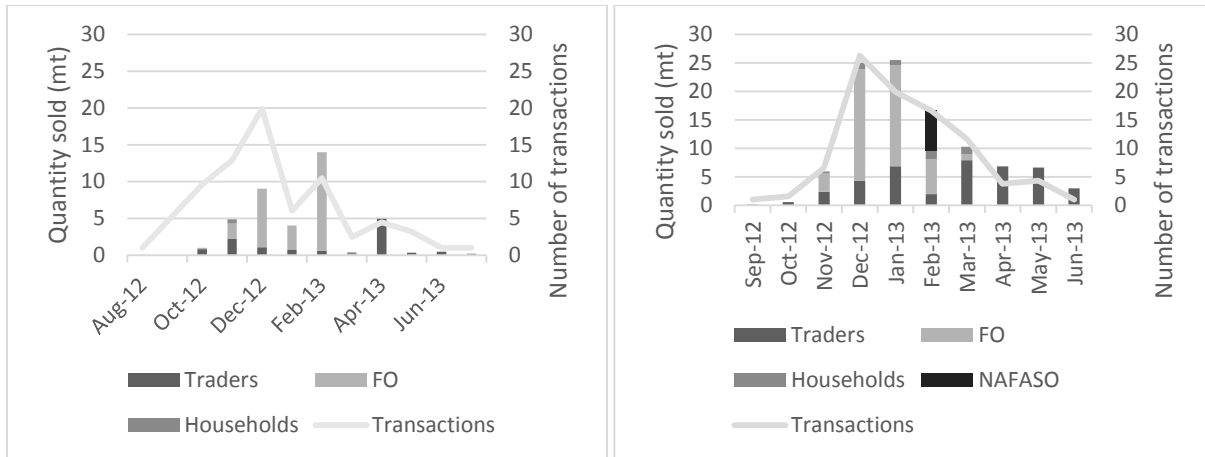
Source: Field visit mini-survey

Disaggregating Figure 20 by gender reveals that women sold earlier and in smaller quantities than men (Figure 21). This may reflect more immediate expenses managed by women and that cowpeas is harvested earlier than grains. Women sold a larger proportion of their marketed surplus to FOs than men, a smaller proportion to traders, and did not sell on the lucrative NAFASO market.

**Figure 21: Numbers and Volume of Transactions by Buyer and Sex of Seller, Burkina Faso**

**Women**

**Men**



Source: Field visit mini-survey

### Marketing Strategy of a “Typical” FO Member

Asked to describe a “typical” marketing strategy, members in FGDs described the following three sales:

1. The first, 15-20 percent of marketed surplus, immediately after harvest to farm-gate traders to address urgent cash needs. They sold to collectors because of transaction ease, immediate payment, and the ability to sell just enough to cover urgent needs.
2. The second, 50-60 percent of marketed surplus, through the FO sometime in November-January. They sold to the FO in anticipation of a large payment and to repay credit received from the FO.
3. The third sale, 20-35 percent of marketed surplus, to traders in April or June, who mop up any surplus remaining after household expenses have been assured. The third sale was driven by the need to finance inputs for the coming season, when marketing options were limited as the FO buying season has ended.

While sales to individuals, households, and small-scale processors were not uncommon (19 of 85 mini-survey respondents reported at least one such sale), these transactions were notably absent from the marketing strategy description. Rather than drawing upon marketable surplus, these volumes were extracted from the household reserve. Though competitively priced, these small quantity sales were considered social in nature.

While the three sales outlined above may represent what members consider to be a “typical” marketing strategy, it should be noted that just over 70 percent of respondents in both UGCPA and UGPCER, and almost 50 percent of UPPA Houet respondents, reported less than three sales of P4P commodities from August 2012 through July 2013. Despite this incongruence, the sales strategy outlined above is reflected in Figures 19-21, with small sales to traders at the beginning of the marketing season, followed by large sales primarily to the FO, and smaller-volume sales to traders at the tail end of the marketing season.

# RWANDA FINDINGS

This chapter explores FO-level and household-level findings emerging from the Rwanda data.

## Farmers' Organization Findings, Rwanda

### FO Experience with Contract Marketing

At the time of the 2009 baseline, 83 percent of the 24 P4P-assisted FOs reported selling maize and mixed beans on behalf of their members. Only one reported experience with contract marketing. None of the FOs visited during the field work reported participating in contract marketing prior to 2010.

Table 14 shows FO leaders' estimates of the distribution of FO sales between quality and basic grade commodity. Basic-grade commodity was primarily destined for Kigali, and FOs selling on this market behaved as traders, buying with cash at farm-gate prices without regard for quality.

**Table 14: Distribution of FO Sales by Grade, Rwanda**

FO	Quality commodities	Basic-grade commodities
COACMU	80%	20%
COTU	90%	10%
UNICOPROMANYA	60%	40%

Source: FGDs with FO leaders

While COACMU sent their truck into the fields to collect basic-grade commodity after harvest, neither UNICOPROMANYA nor COTU had transport, so they used alternate means. UNICOPROMANYA sent traders to pick up basic-grade commodities from the storage facilities of their base groups, and base groups directly negotiated sales with traders as well. COTU sold limited amounts of basic-grade commodities to traders from their warehouse. However, FO leaders reported that few members contributed to these sales due to the margins captured by COTU and their strict policies regulating sales from communal plots.

Regarding contracts with SHF stipulations, leaders of UNICOPROMANYA and COACMU acknowledged experiencing challenges when aggregating from SHF due to payment delays and fluctuating farm-gate prices (COTU does not engage in contract sales beyond the selected seed market). On average, these FOs aggregated 60-70 percent of the contracted commodity from SHF members, and purchased the remainder from traders. The traders bought basic-grade commodity, cleaning and drying to attain the quality standards of their buyers. FO members and leaders alike confirmed that traders did not pay for quality.

### FOs' Utilization of Credit

At the time of the 2009 baseline survey, only 8 of the 24 P4P FOs in Rwanda (33 percent) reported applying for loans during the previous two years; seven applications were approved.

Though forward contracts proved effective for facilitating FOs' access to credit in Burkina Faso, FOs' access to pre-harvest credit in Rwanda was more limited, partly due to P4P's reliance upon direct and competitive contracts, according to the DCD. Some successes emerged from FOs visited during the field work, including COTU's 20,000,000RWF loan for the construction of a warehouse, and the 5,000,000RWF line of credit with BPR that UNICOPROMANYA negotiated for each of its 20 base groups. WFP did not have a direct role in either of these loans.

## Prices Paid by FOs and Payments to Members

As in Burkina Faso, the FOs visited during the field work varied in the margins they received and the prices offered to members on collective sales to WFP. Similarly, all members received the same price, regardless of their credit status with the FO. Table 15 explores the distribution of sale revenue between FOs and members on P4P contracts over the last three years.

**Table 15: P4P Premiums and Distribution of Sale Revenue, 2010-2013, Rwanda**

FO	Number of P4P contracts	Imputed market price per 100kg (RWF)	P4P price per 100kg (RWF)	P4P premium per 100kg (RWF)	P4P premium as a % of market price	FO share (RWF)	Member share (RWF)
COACMU	1	180,000	260,000	80,000	44%	60,000 (23%)	200,000 (77%)
COTU	1	180,000	190,000	10,000	5.3%	114,000 (60%)	76,000 (40%)
UNICOPR OMANYA	4	210,000	250,000	40,000	19%	20,000 (8%)	230,000 (92%)

Source: FGDs with FO leaders and FO records

The share of sale revenue retained by the organization varied widely across the three FOs. While COACMU captured a 23 percent share on its P4P contract, the FO was responsible for approximately 35 percent of the cleaning, hiring members at 400RWF per day to complete cleaning of commodities delivered by members. FO leaders explained that accepting partially cleaned commodities was necessary in order to compete with collectors. They estimated the cost for cleaning to be 55,000RWF/mt, leaving the organization with a 5,000RWF/mt profit (1.9 percent) on the P4P contract.

COACMU reported retaining 20 percent of the revenue from contracts for selected seed to cover the costs of transport, site managers, bags, loading, tax, and profit and 6 percent of revenue on sales of basic-grade commodities to recuperate the cost of transport, leaving a profit of just less than 1 percent. The slim margin on basic-grade commodities was necessary in order to compete with collectors.

COTU claimed a particularly large share of revenue on the sale of contracted commodities – 60 percent as reported to P4P in FO records. FO leaders explained their large share as an attempt to aggressively pay down their 5-year, 17.25 percent per annum, 20,000,000RWF loan as quickly as possible. However, members in FGDs, particularly the women, were not aware of management’s plan and described COTU’s pricing strategy as arbitrary and predatory. The low member share may explain COTU’s partial default, as well as why they did not engage in contract marketing beyond selected seeds. COTU claimed a 25 percent share on seed contracts, a figure substantiated by mini-surveys with members. Unlike the other surveyed FOs, COTU was not able to provide a breakdown of their expenses and profits.

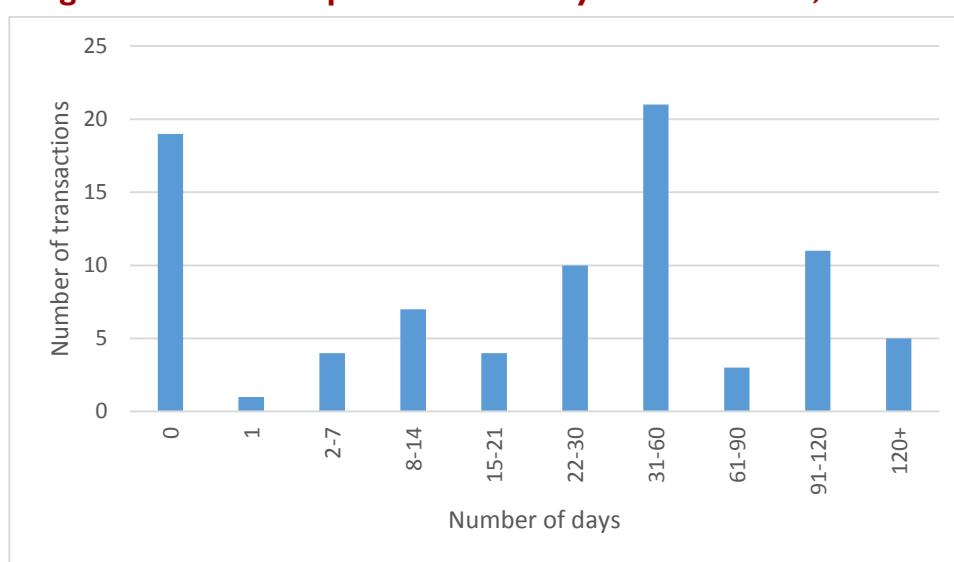
The UNICOPROMANYA share of revenue included 10,000RWF/mt for UNICOPROMANYA and 10,000RWF/mt for the base group. FO leaders estimated that half of the union share covered costs incurred, including transport, bagging, and cleaning, leaving the organization with a 5,000RWF/mt profit (2 percent). When asked if the union could increase their share in order to generate working capital to facilitate aggregation, the response from UNICOPROMANYA leaders and representatives of their base groups was a resounding “no” – the role of the union was to facilitate members’ access to markets, not to generate profit.

The price offered to members by FOs must be considered against farm-gate prices offered by collectors, which FO leaders and members reported to be highly unstable in FGDs. Though unverifiable without systematically collected prices, members referred to extremely high farm-gate price volatility in FGDs, with all

three FOs reporting the price of beans doubling in the course of two weeks. According to monthly retail price data collected by the CO Vulnerability Analysis and Mapping (VAM) Unit between 2010 and 2012, in three markets close to the surveyed FOs there were reported price increases of 25 percent occurring over a one-month period; these increases occurred 5 percent of the time for beans and 15 percent of the time for maize. Given that these prices were captured in major markets, it is likely that farm-gate prices, especially for producers in remote areas, are even more volatile. Charts compiling the VAM price data can be found in Annex J.

When considering the 141 major sales of P4P commodities reported by mini-survey respondents, 85 (60 percent) were to the FO. Though 22 percent had no wait times for payment, the remaining 78 percent incurred an average delay of 60 days between commodity deposit and final payment. This aligns with the DCD’s estimate of six weeks between signing a P4P contract and delivery, and two to four additional weeks for payment. The distribution of wait times reported by respondents is presented in Figure 22, below.

**Figure 22: Time Required for Full Payment from FO, Rwanda**



Source: Field visit mini-surveys

As in Burkina Faso, the average payment delay of 60 days poses problems for aggregation against a backdrop of volatile prices. Annexes K and L illustrate the problems using an actual and a hypothetical example. Annex K places two P4P contracts signed by UNICOPROMANYA in the context of prices available to FO members. While the first contract was completed in full, the second resulted in a partial default, with 29 percent delivery after 126 days. Given the substantial increase in farm-gate price during that time, the eventual delivery of 29 percent represents commitment and tenacity on the part of FO management, as FO leaders recounted that members clamored to reclaim their deposits. This example illustrates the challenges in aggregation arising when FOs do not have sufficient capital to purchase commodities outright, a problem which could be ameliorated with forward direct contracts when FOs are able to use them to access credit. In addition, the examples show that the generous selected seed premium was able to keep the contract price above the upper bound of fluctuating farm-gate prices, suggesting that traders are not direct competitors for RAB and Harvest Plus commodities. Annex L uses conservative estimates to build a hypothetical example, illustrating the point that price volatility can affect the likelihood of contract fulfillment even after the aggregation has been completed.

## Household Findings, Rwanda

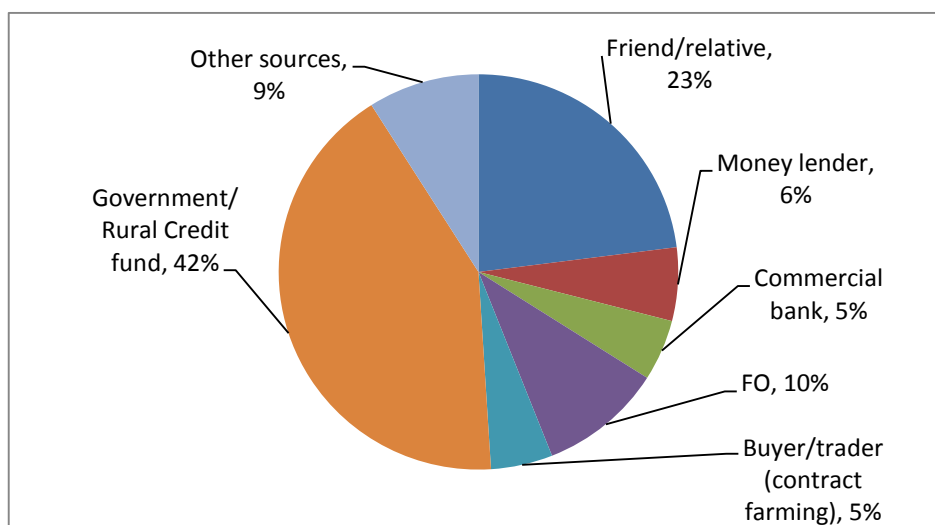
### Household Production and Marketable Surplus

The 2009 baseline survey of households established that while 36 percent of 411 surveyed P4P households produced beans and 30 percent produced maize, only about half of these produced marketable surpluses, averaging 129kg and 282kg for beans and maize, respectively (AERC and WFP, 2013b).

### Household Access to Credit

The baseline survey further revealed that while 13 of the 24 surveyed P4P FOs offered cash loans to members, only 10 percent of survey respondents accessed loans from their FO in the previous two years. As seen in Figure 23, the rural credit fund and friends and family were prominent sources of credit for members at the time of the baseline.

**Figure 23: Sources of Household Credit, Rwanda**



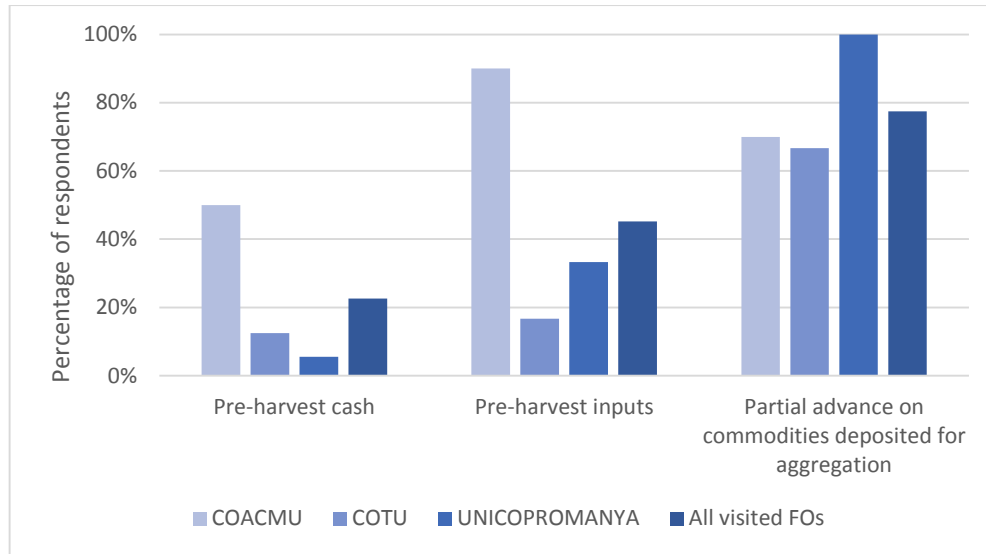
Source: Revised P4P Baseline Survey Report, Rwanda (AERC & WFP, 2013)

Of the 62 FO members participating in the mini-survey, 42 (68 percent) reported accessing credit from their FO prior to harvest, including 14 (23 percent) who received credit in cash, and 28 (45 percent) who received credit in-kind. The average loan in cash was significantly greater than the average value of inputs received on credit, 138,154RWF compared to 25,111RWF, as was the average landholdings of cash loan recipients (1.85 ha) relative to those of the average member receiving input credit (1.38 ha). The 62 respondents reported average landholdings of 1.28 ha, suggesting that those borrowing from the FO, particularly those receiving loans in cash, had more land than the average respondent, mirroring findings in Burkina Faso.

Forty-eight members (77 percent) reported receiving a partial pre-payment on their commodity delivered to the FO. Figure 24 illustrates the distribution across FOs.



**Figure 24: Types of Credit Received by FO Members, Rwanda**



Source: Field visit mini-surveys

Unlike in Burkina Faso, the respondents in Rwanda did not report that access to credit influenced their decision to sell through the FO, reflecting a context where other entities (MINAGRI for subsidized fertilizer and RAB/Harvest Plus for seeds) provide input credits.

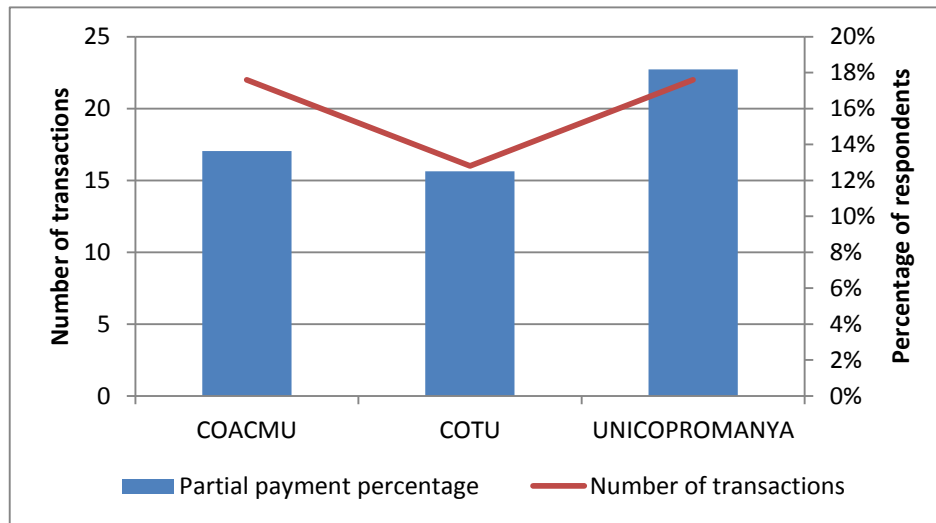
Depending on member need and FO liquidity, leaders of both COACMU and UNICOPROMANYA explained that their organizations can offer limited cash loans at 5 percent interest before the harvest and zero percent after the harvest. The FOs also extend in-kind loans to members free of interest. Loan payments are made in-kind at harvest. In FGDs, COTU leaders stated that members with deposited commodities can utilize a receipt to access Savings and Credit Cooperative (SACCO) loans against the deposit, which COTU pays off upon sale. Alternately, COTU leaders can broker loans between members in surplus and deficit cash positions, though members in FGDs claimed that the terms of this type of credit were not favorable.

Of the 86 transactions reported by mini-survey respondents in which the FO purchased P4P commodity, 66 (83 percent) involved a delay in payment, and 60 (70 percent) involved a delay of payment of 14 days or more. Of payments delayed two weeks or more, the average wait was 70 days, about a month longer than in Burkina Faso. Recall that analysis focused upon delays of two or more weeks to ensure that the sale is for contracted commodities, as opposed to basic-grade commodities transacted on the spot market.

Figure 25 displays the number of transactions involving payment delays of more than 14 days, as well as the percentage taking partial pre-payments against their deposited commodities. Only 15 percent of those eligible received partial payments upon delivery. The value of transactions averaged 71,910RWF at COACMU, 133,655RWF at UNICOPROMANYA, and 150,862RWF at COTU.<sup>8</sup>As with UGCPA and UPPA Houet members in Burkina Faso, members engaging in contract sales of quality commodity were able to bear significant payment delays, many without smoothing income by accepting partial pre-prepayments.

<sup>8</sup> Using the exchange rate at the time of the field visit (1USD = 641RWF), these amount correspond to \$112, \$208, and \$235. GDP per capita in Rwanda is \$620 (World Bank, 2013)

**Figure 25: Farmers Receiving Partial Pre-Payment, Rwanda**



Source: Field visit mini-surveys

### Households' Major Transactions of P4P Commodities

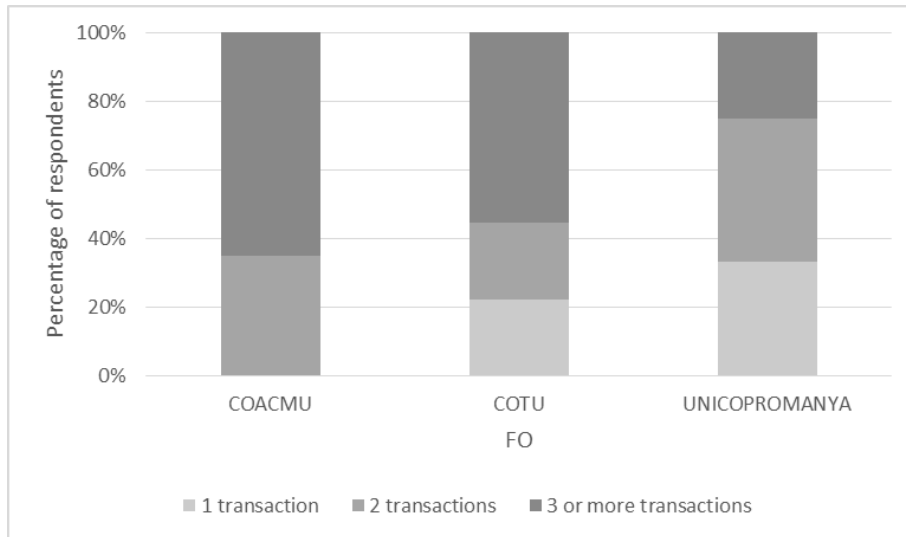
This sub-section explores the responses of mini-survey participants to describe the volumes, locations, prices, and costs associated with up to three major transactions<sup>9</sup> of P4P commodities within the 12 months preceding the field visit.

As presented in Figure 26, nearly half the respondents (29 of 62) reported three or more maize and mixed beans transactions over the 12 months preceding the field visit, while 34 percent (21 members) reported two sales, and 19 percent (12 members) reported only one sale. This is slightly more diversified than the case of Burkina Faso, as would be expected with two seasons instead of one. Of the 12 respondents who sold P4P commodities only once during the previous year, 83 percent (10 members) selected the FO as their sole marketing channel.

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<sup>9</sup>As in Burkina Faso, a transaction was defined as an exchange of commodity in a particular location to a specific buyer (or set of similar buyers such as “traders” or “neighbors”) which occurred at a point or a period in time. In this context, the sale of 1.0 mt on a specific date to a specific trader or the sale of small quantities to neighbors over a three-month period, were considered one transaction.

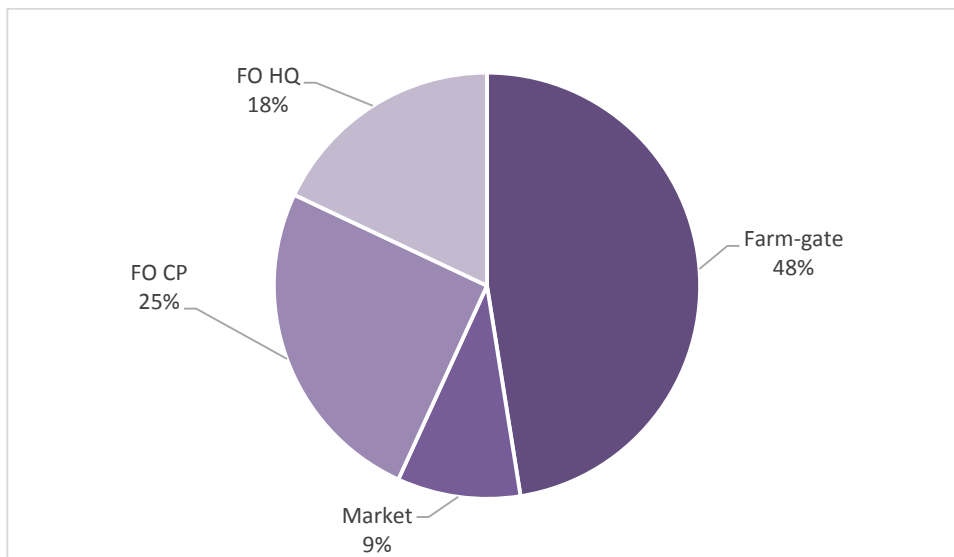
**Figure 26: Number of Transactions, Rwanda**



Source: Field visit mini-surveys

These sales were primarily conducted at the farm gate, with the FO (including deliveries to both CPs and headquarters) accounting for 43 percent of major transactions (Figure 27). Less than one in ten of the major P4P commodity sales conducted in the last year occurred in the marketplace.

**Figure 27: Location of Transactions, Rwanda**



Source: Field visit mini-surveys

Table 16 presents the average sales quantity reported by mini-survey respondents by commodity, gender, and location of sale. Across locations, women sold mixed beans in average quantities as least as large as men. For both maize and mixed beans, the average size of transaction was smaller in Rwanda than in Burkina Faso,

reflecting smaller land holdings; an average of 1.05 hectares cultivated compared to an average of 4.40 hectares in Burkina Faso according to the baseline surveys.

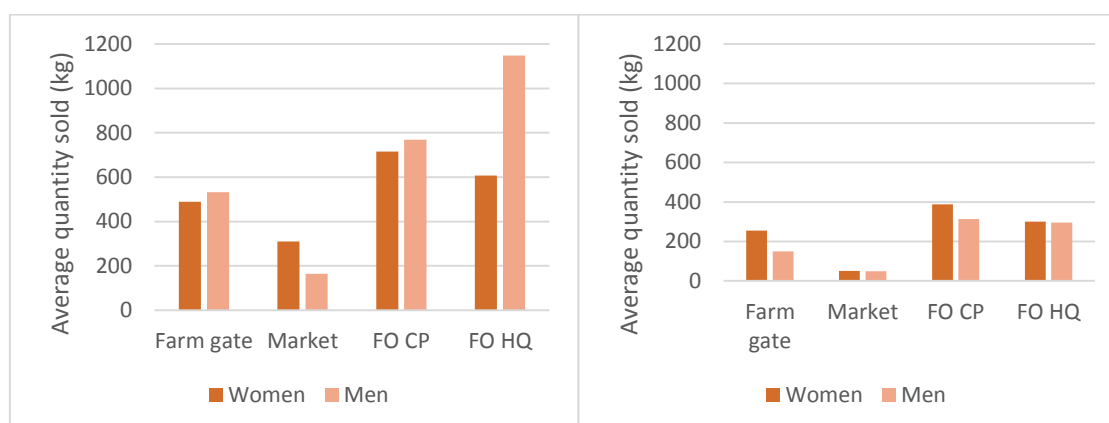
**Table 16: Average Quantity Sold by Location, Sex, and Commodity, Burkina Faso**

Commodity	Respondent sex and ratio of average sales volume	Transaction Location				Across locations
		Farm gate	Market	FO CP	FO HQ	
Maize	Women	489	310	716	607	559
	Men	532	164	768	1149	663
	Women's average sales volumes as a % of men's	92%	189%	93%	53%	84%
Mixed beans	Women	254	50	388	300	275
	Men	150	50	314	295	227
	Women's average sales volumes as a % of men's	169%	100%	124%	102%	121%
Total P4P Commodity	Women	406	223	629	569	474
	Men	437	118	562	797	507
	Women's average sales volumes as a % of men's	93%	189%	112%	71%	93%

Source: Field visit mini-survey

Compared to the Burkina Faso case, women's average transaction quantities were comparable to, and in cases surpassed, men's across location and P4P commodity. However, the case of maize sales at FO headquarters was an important exception, where men sold an average quantity nearly twice that of women, as seen in Figure 28.

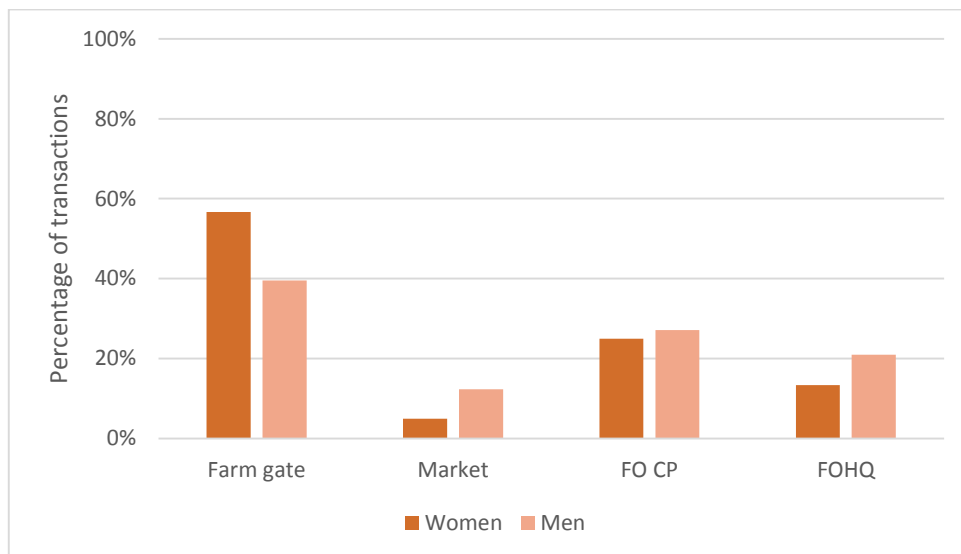
**Figure 28: Average Transaction Size, by Location and Sex of Seller, Rwanda**



Source: Field visit mini-surveys

Furthermore, male mini-respondents were more likely to sell at FO headquarters and collection points, as well as at markets, whereas women transacted with greater frequency at the farm gate, where lower prices are offered (Figure 29).

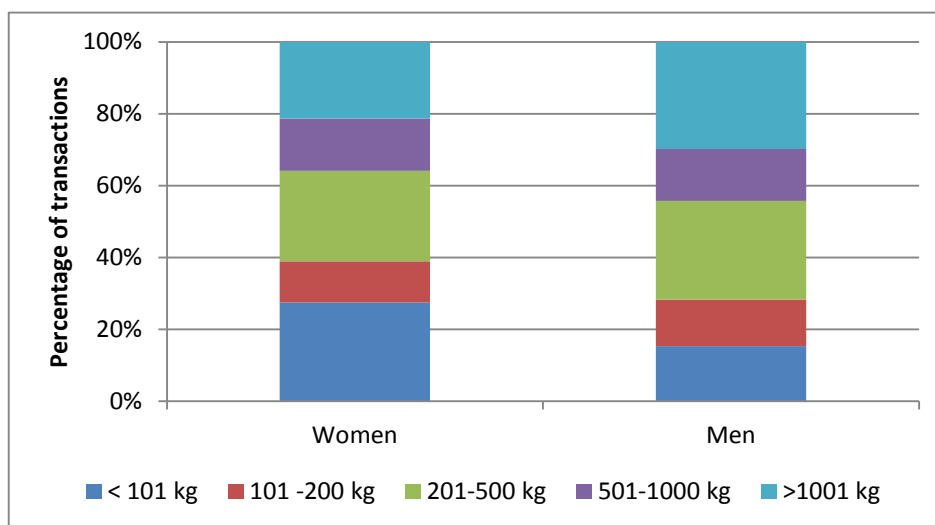
**Figure 29: Sales of Staples by Location and Sex of Seller, Rwanda**



Source: Field visit mini-surveys

Discussions with the DCD, the (acting) P4P Coordinator, and the Senior P4P Program Assistant revealed that despite the relative equity captured in the mini-survey, only 15-29 percent of P4P sales are from women. To explore this phenomenon, the 2013 *Gender Dimensions of P4P, Rwanda* report gathered evidence from 33 P4P FOs in Bugesera, Kirehe, and Nyagatare Districts, finding that women were most likely to sell smaller quantities (under 101kg), while men were most likely to sell larger quantities (greater than 1mt) (UN Rwanda, WFP, & UN Women, 2013). Figure 30 shows the percentages of men’s and women’s sales transactions by quantity.

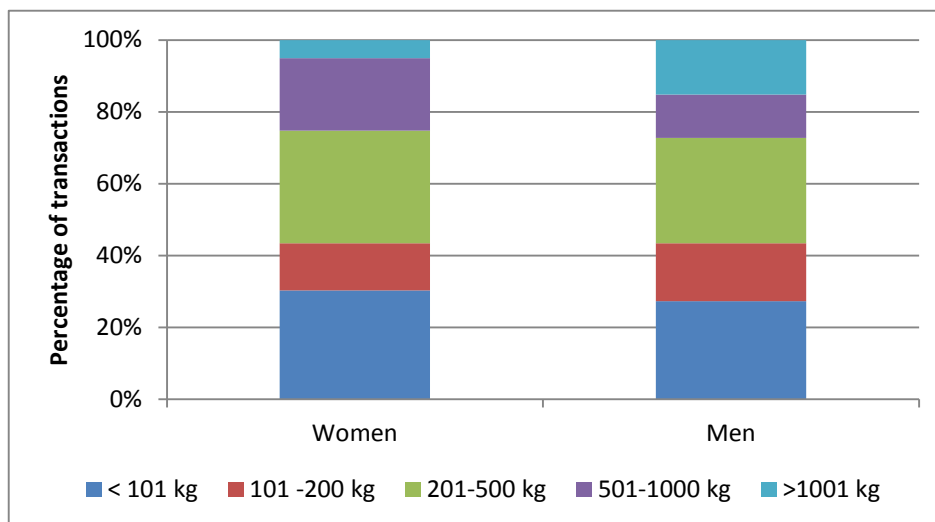
**Figure 30: Distribution of Transactions by Size and Sex of Supplier**



Source: Gender Dimensions in the P4P Program (UN Rwanda et al., 2013)

Figure 31 replicates Figure 30 with mini-survey data and considering all buyers, not just WFP. Though the percentages of men and women selling less than 101kg were comparable in this sample, men were almost three times as likely to engage in transactions greater than 1mt, a greater disparity than that identified in the Gender Dimensions report.

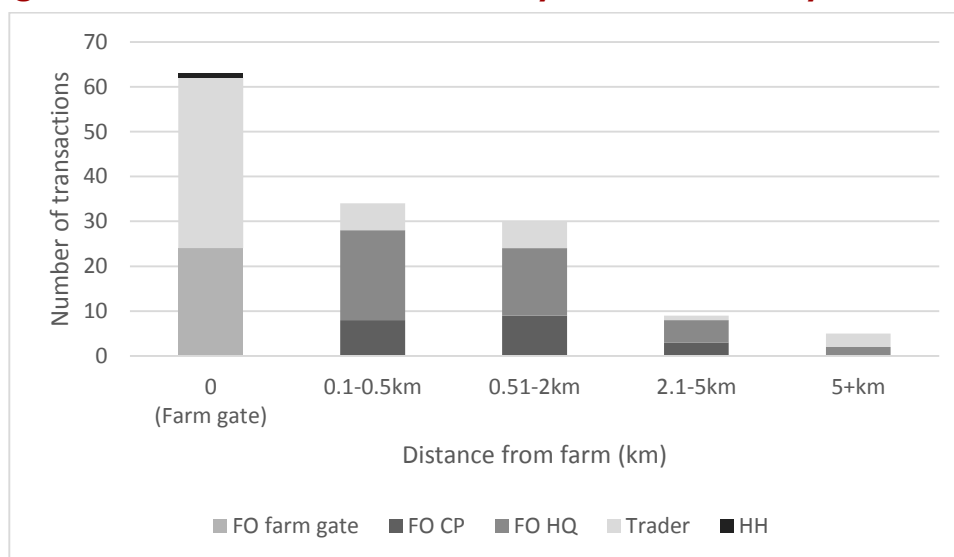
**Figure 31: Distribution of Transactions by Size and Sex of Supplier, Rwanda**



Source: Field visit mini-surveys

A greater emphasis on farm-gate sales and fewer large quantity sales may reflect not only gendered differences in access to productive assets, but also transportation. The distances between the household and alternative buyers factor into SHFs' marketing strategy with the greatest number of transactions occurring at the farm gate (no distance from the farm) and the number of transactions declining with increasing distance (Figure 32).

**Figure 32: Number of Transactions by Distance and Buyer, Rwanda**

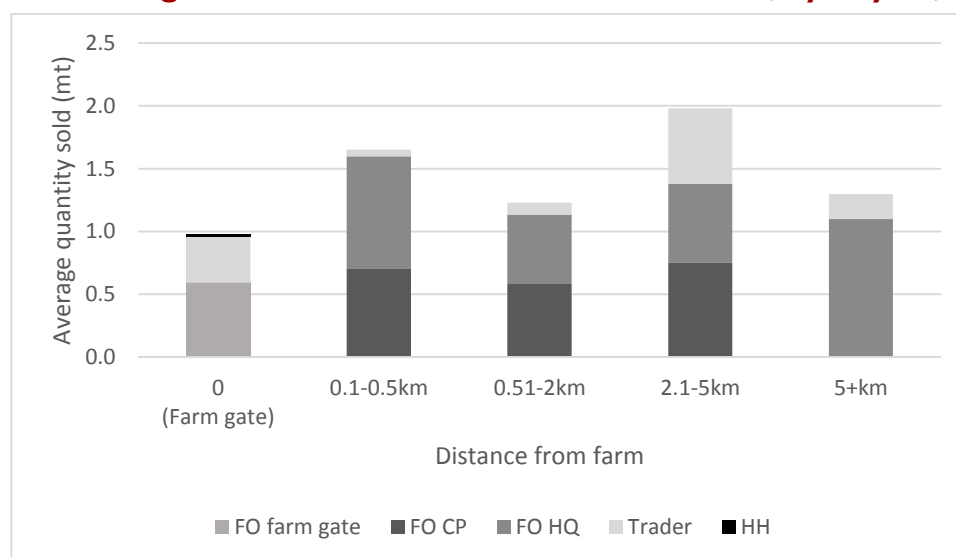


Source: Field visit mini-surveys

Farm-gate buyers were primarily traders (collectors), however the FOs purchased in 38 percent of farm-gate transactions (24 sales). In three of these sales, the buyer was a member of UNICOPROMANYA, while COACMU was the buyer in the remaining 21 transactions. Respondents reported only one sale to households, occurring at the farm gate. For transactions involving travel up to 5km from the farm, the FO accounted for 82 percent of sales, with traders purchasing the remainder. When considering distances greater than 5km (n=5), the trader share increased to 60 percent of transactions.

The farther distance transactions tended to be larger volume sales to the FO, as seen in Figure 33, below. Seven of the nine sales involving travel greater than 5km were effected by men, reflecting the finding that women’s participation in long-distance marketing activities is limited by time constraints imposed by household duties coupled with men’s control of rural transport means (UN Rwanda et al., 2013).

**Figure 33: Average Volumes Transacted across Distances, by Buyers, Rwanda**



Source: Field visit mini-surveys

Though traders accounted for 60 percent of farm-gate sales, the average volumes they purchased were 62 percent of the average FO farm-gate sale. Relative to the average volumes of FO purchases, trader volumes were quite small. Unlike the Burkina Faso case, there were no apparent differences in the number of transactions or volumes transacted between FO CPs and headquarters, suggesting that the CPs of COACMU and UNICOPROMANYA are more functional than those of UGCPA and UPPA Houet.

As in Burkina Faso, the average volumes sold to traders were largest at the farm gate, and generally diminished with distance. In FGDs, members reiterated the point about the cost of transport prohibiting market sales. This is further reinforced by the small volumes sold at markets in Rwanda (Figure 28).

The prices offered by different buyers remained relatively constant across distances. Charts of average prices received across distance travelled to make the sale can be found in Annex M. The charts confirm members’ claim made in FGDs that producers are not rewarded for undertaking travel to sell their staples, and further show that across distances travelled, respondents received better prices from FOs compared to traders. This is likely due to the price distinction between quality and basic-grade commodities.

In FGDs, FO members stated that local market price is equivalent to consumer market (Kigali) price minus the per-unit cost of large-scale transport and trader margins. They further asserted that local markets do not compensate for small-scale transport costs incurred by producers. As in Burkina Faso, relatively stable prices received across distance travelled coupled with transport costs increasing with distance (Annex N),

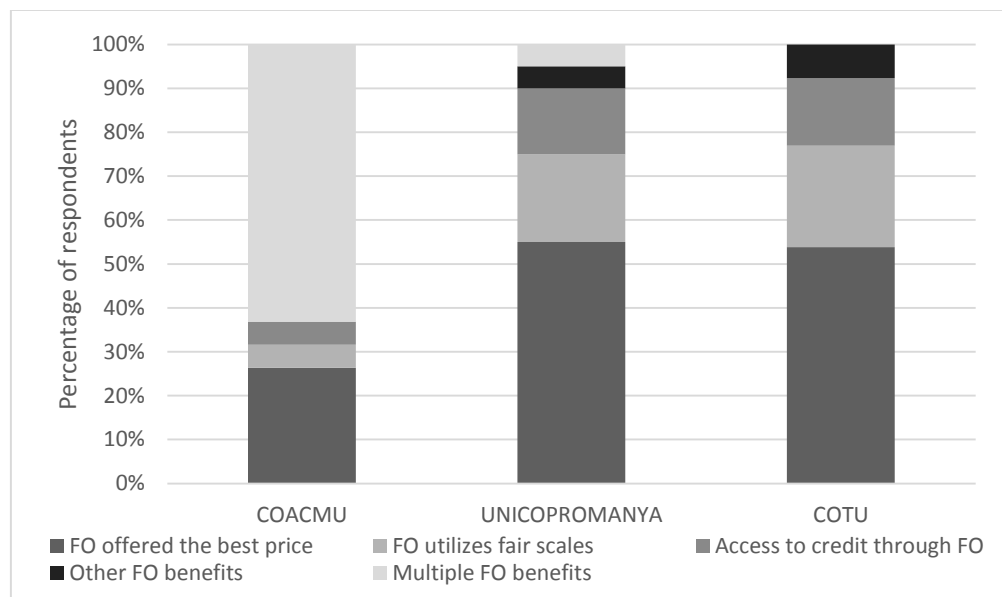
corroborates their claim. Two distinctions emerge between the countries with regards to transport: the ready availability of bicycles for hire in Rwanda, and the availability of porters to carry commodities on foot. Neither phenomenon was widely reported in Burkina Faso.

**Household Sales to FOs**

Regarding members’ marketing conduct, all mini-survey respondents reported selling to or through the FO in the five years preceding the field visit. Only seven of the 62 respondents who sold to the FO (11 percent) considered it a poor choice, primarily due to payment delays. All members dissatisfied with their FO sale belonged to UNICOPROMANYA or COTU.

Of the 89 percent of respondents satisfied with their FO sale, good prices, fair scales, and access to inputs were the most commonly cited reasons driving their belief that selling to the FO was a good choice relative to the other marketing options available at the moment (Figure 34).

**Figure 34: Reasons for Satisfaction with Sales to/through FO, Rwanda**

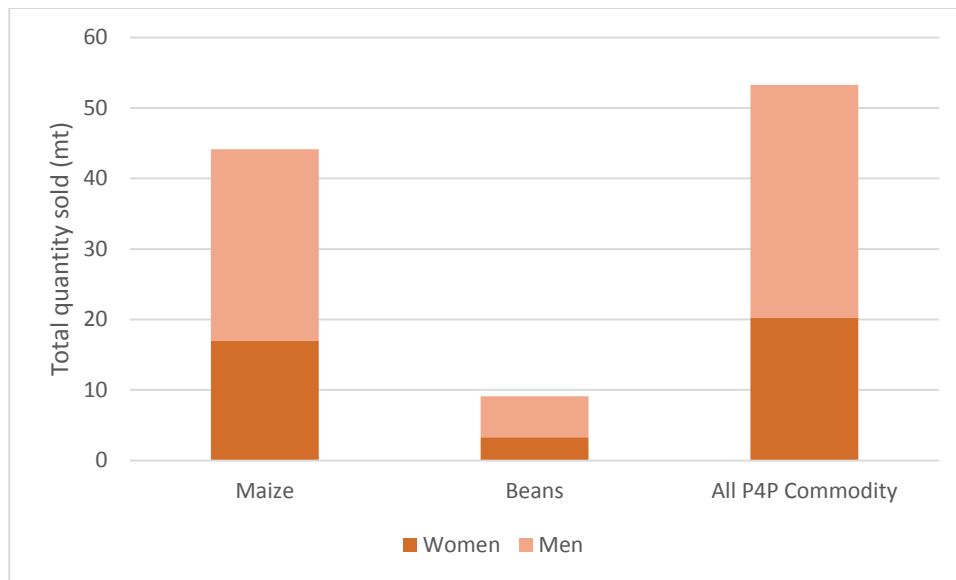


Source: Field visit mini-surveys

Mini-survey respondents reported selling four times more maize than mixed beans to/through the FO during the year preceding the field visit (Figure 35). Sales from women accounted for 38 percent of the maize volume reported as sold to FOs by mini-survey respondents, and 36 percent of the mixed beans volume.



**Figure 35: Quantities Sold to FOs by Sex of Seller, Rwanda**



Source: Field visit mini-surveys

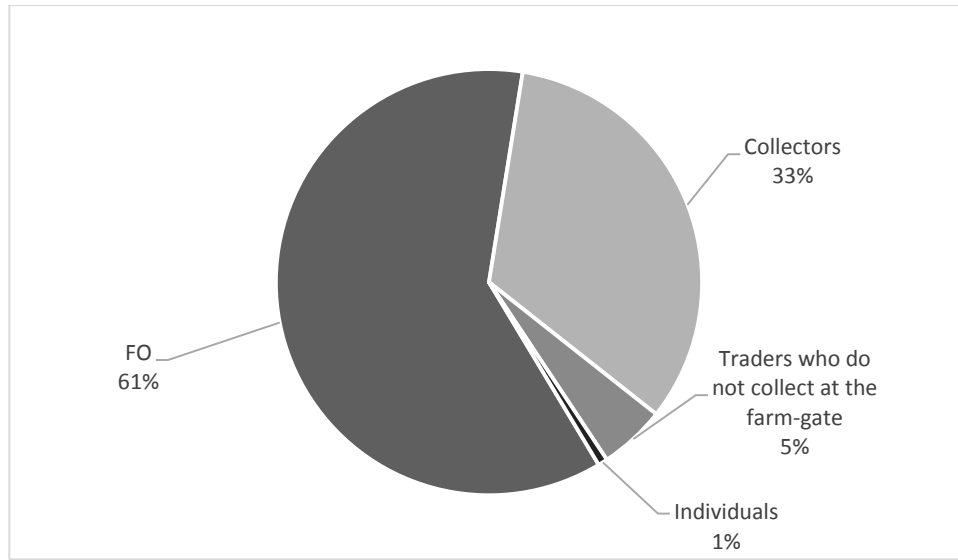
Of the 62 mini-survey respondents, 57 (92 percent) reported at least one sale of P4P commodities to or through the FO in the year preceding the field visit. While most respondents (61 percent) sold only once to or through the FO, 15 (26 percent) reported two separate transactions and 7 (12 percent) reported three or more sales to the FO.

When asked in FGDs what differentiates members who sell to the FO from those who do not, members of COACMU offered anecdotes of colleagues who were unable to obtain credit from the FO, obliging them to obtain credit from traders who then monopolized their marketable surplus, at prices estimated at 50 percent of market price upon harvest. While this may happen, the five FO members who had not sold through the FO in the previous year did not report obtaining credit from traders. Four of these members were from UNICOPROMANYA, and one was from COTU. They shared no discernable characteristics, though the instrument was not designed to collect extensive demographic data, and specifically did not capture distance from FO headquarters or nearest CP.

#### ***Household Distribution of Marketable Surplus Across Marketing Channels***

The mini-survey revealed that of the major P4P commodity sales, FOs were the buyer in 61 percent of the transactions, collectors in 33 percent, and non-collector traders and individual households in the remainder (Figure 36).

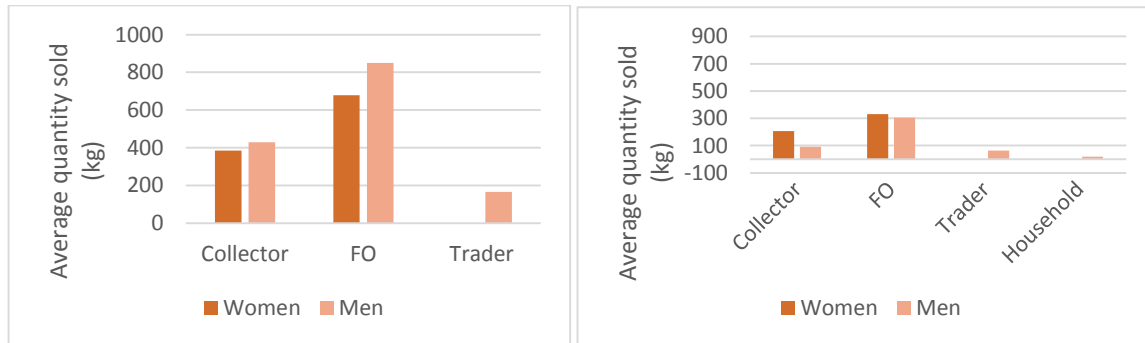
**Figure 36: Percentage of Transactions by Buyer, 2013, Rwanda**



Source: Field visit mini-surveys

Figure 37 displays the average volumes transacted with different buyers, disaggregated by the sex of the seller. Only men sold to households (n=1) and non-collector traders. The average volumes men and women sold to collectors were comparable, however men sold slightly larger volumes to FOs.

**Figure 37: Average Transaction Size by Buyer and Sex of Seller, Rwanda**



Source: Field visit mini-surveys

In FGDs, members discussed the advantages and disadvantages of selling to particular buyers. Appealing features of selling to traders included their ability to pay in full with cash and lack of stringent (or extant) quality standards. Disadvantages include perceived proclivity toward measurement error. Trader ability to collect at the farm gate was less of an advantage as it was in Burkina Faso, as COACMU and members of UNICOPROMANYA will collect from the farm-gate.

Members cited access to credit, the price premium, and ability to have a large lump sum payment as the benefits of selling through the FO. Given that FOs purchase basic-grade commodities at collector prices, the advantage of selling to the FO included accurate weights and, for the members of COACMU, the possibility of a year-end dividend.

The primary challenge respondents cited in selling through FOs was the delay in payment in a context of highly variable farm-gate prices. They did not cite quality as frequently as respondents in Burkina Faso,

perhaps because FOs and members were accustomed to achieving more stringent quality standards for selected seed.

In FGDs, FO leaders of UNICOPROMANYA and representatives from four of the union’s 20 base groups estimated the average share of marketable surplus their members sold through the FO (Table 17).<sup>10</sup> The estimates diverged widely ranging from 82 percent at COTEBARU to 20 percent at AWASHINGASOKA. The 20 percent AWASHINGASOKA markets is from the harvest on communal lands, which are necessarily marketed through the FO. Like the members of COTU, AWASHINGASOKA members prefer to sell basic-grade commodity produced on household plots directly to traders.

**Table 17: Estimates of the Distribution of Members’ Marketed Surplus, Rwanda**

Surveyed FO	UNICOPROMANYA base group	Members average % of marketed surplus sold to/through FO	Members average % of marketed surplus sold to traders
COACMU	n/a	70	30
COTU	n/a	30	70
UNICOPROMANYA	AWASHINGASOKA	20	80
	COAMUSIRO	30	70
	CODEMATA	45	55
	COTEBARU	82	18

Source: FGDs with FO leaders

The FGDs with FO leaders explored the differences in marketing behaviors across the base groups represented. The representatives of AWASHINGASOKA said that they did not have the opportunity to fill P4P contracts through UNICOPROMANYA, and that even if the opportunity existed, they would not be able to participate because of difficulties in transporting their commodities to the union warehouse and the long wait period. They described their members as impatient due to urgent household needs.

Representatives of COAMUSIRO claimed that UNICOPROMANYA did offer them viable opportunities to engage in contract marketing, however they concurred with their AWASHINGASOKA colleagues in asserting that their members were unable to accept less than immediate payment in full.

The 5,000,000RWF credit line, available to all base groups of UNICOPROMANYA, enabled them to offer 70 percent partial pre-payment on contracted commodities. After probing about the sufficiency of a 70 percent partial pre-payment, the representatives of COAMUSIRO and AWASHINGASOKA divulged that the problem was the wait period combined with an insufficient premium. Utilizing the current market price of maize (210RWF/kg), a 19 percent premium (250RWF/kg, of which the FO captures 10RWF/kg, leaving the member 230RWF/kg) was not sufficient to entice members to wait a month or more for payment. These representatives believed that their members would be willing to wait through the contracting process at a price of 270RWF/kg, a 29 percent premium over market price.

At this point, FO leaders of UNICOPROMANYA offered an example of signing a P4P contract for 255RWF/kg when the trader price was 210RWF/kg. By the time they received payment however, the trader price was 300RWF/kg, however they completed the contract nonetheless.

<sup>10</sup> This table includes estimates offered by COACMU and COTU FO leaders as well.

Representatives of CODEMATA stated that while their members were interested in contract marketing and could endure payment delays, opportunities were limited as base groups physically close to UNICOPROMANYA quickly claim the available shares when the union divides contracts between base groups.

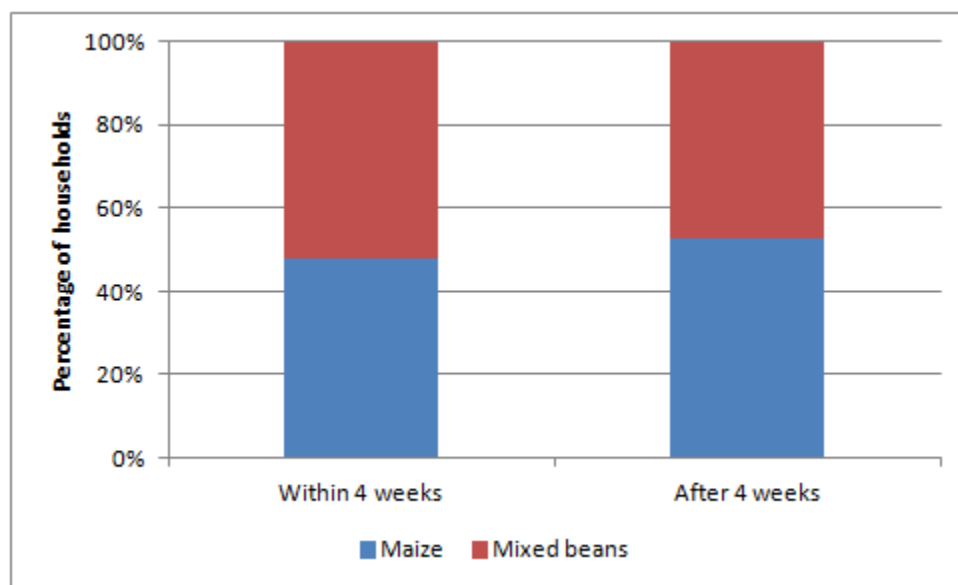
Finally, COTEBARU, with headquarters abutting UNICOPROMANYA's, is itself a P4P FO which has independently fulfilled a 200mt P4P contract. COTEBARU representatives mentioned that they participate in UNICOPROMANYA contracts only to gain access to the storage provided by the union. In the absence of storage constraints, they prefer to negotiate contracts directly.

The FO leaders described members who market contracted commodities through UNICOPROMANYA as producers of a variety of crops, with a diversified diet and income stream. They described members as not under constant duress to meet household needs. In Ubudehe terms<sup>11</sup>, these members may be considered Category 3 or 4. Those who cannot participate in contract marketing were described as renters of land (as opposed to land owners), in need of food, and unable to wait for payment because their needs are perennially urgent. These members may be considered Category 2. As elegantly stated by an FO leader, "Patience depends on capacity to manage household problems."

### ***Timing of Household Sales***

The 2009 baseline household survey established that the quantities of maize and mixed beans marketed by FO members within four weeks of harvest was roughly equivalent to the quantities sold a month or more after harvest (Figure 38). Compared to FO members surveyed at baseline in Burkina Faso, the Rwandan counterparts were less likely to wait to market their staples.

**Figure 38: Timing of Household Sales, 2009, Rwanda**



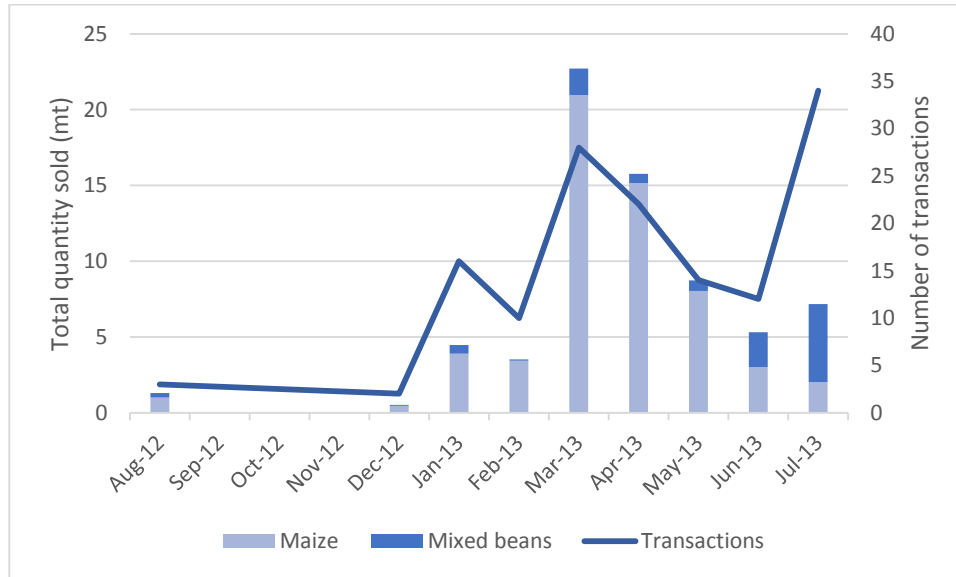
Source: Revised P4P Baseline Survey Report, Rwanda (AERC & WFP, 2013)

The field visit mini-surveys captured additional information regarding the timing of sales in the 12 months preceding the field visit. The main marketing season for maize ran from March through April, while beans

<sup>11</sup> The Ubudehe Program enables communities to self-identify member households within six economic classes, ranging from Category 1, the poorest of the poor, to Category 6, the rich (Gahigi, 2013). Categorization determines each household's financial contributions to education, health insurance, and taxes.

were marketed immediately after harvest in June and July (Figure 39). Among the mini-survey respondents the largest number of sales occurred in July, constituting multiple sales of small quantities of beans. The greatest value of sales occurred in March-April, with sales of large quantities of maize during the lean season.

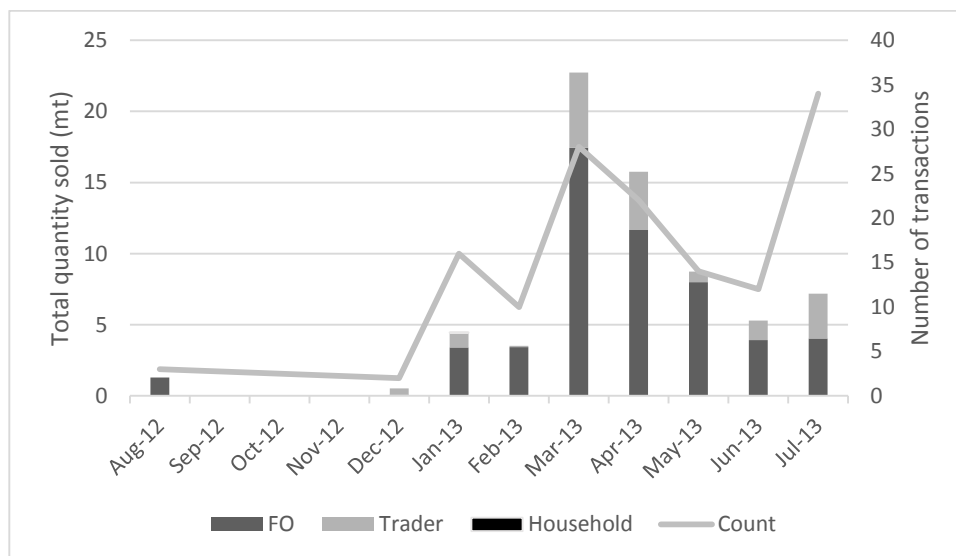
**Figure 39: Timing and Value of Major P4P Commodity Sales over the Last 12 Months, Rwanda**



Source: Field visit mini-surveys

In contrast to Burkina Faso, mini-survey respondents in Rwanda reported an extended FO purchasing period, nearly matching the buying window of traders, as illustrated in Figure 40.

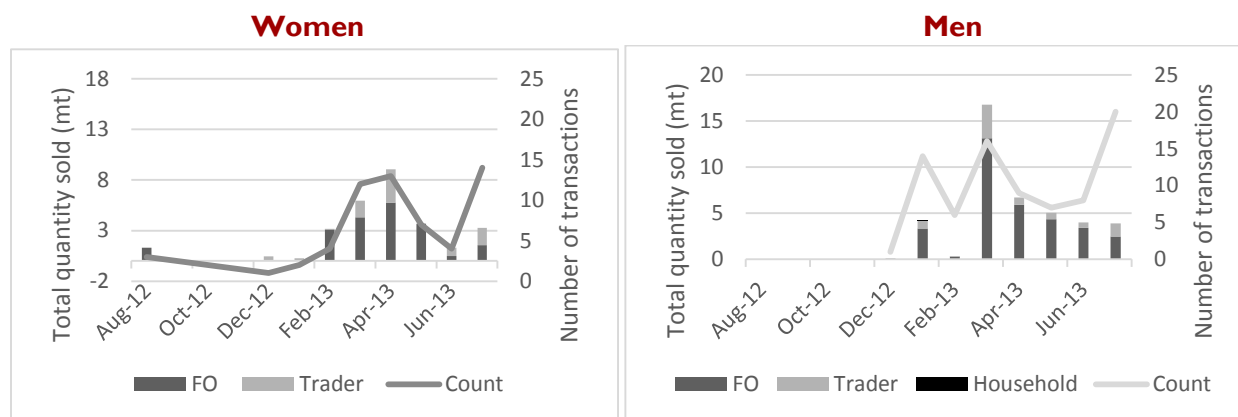
**Figure 40: Timing and Value of Sales to Different Buyers over the Last 12 Months, Rwanda**



Source: Field visit mini-surveys

Figure 41 disaggregates Figure 40 by sex of the seller, and though women sold in smaller amounts than men, they did not sell earlier than men as in Burkina Faso. However, female respondents did not exhibit the surge in large volume maize sales in March 2013 that men did.

**Figure 41: Number of Sales and Quantities Sold by Buyer and Sex of Seller, Rwanda**



Source: Field visit mini-surveys

### Description of the Marketing Strategy of a “Typical” FO Member

In general, two different marketing strategies emerged in Rwanda. For members of FOs such as COTU and AWASHINGASOKA (a base group of UNICOPROMANYA), members marketed their harvest from communal plots through the FO as required, but sold their basic-grade commodities from household plots directly to traders. For members of COACMU and COTEBARU, members chose the FO as their primary marketing outlet, selling only small quantities to traders to cover immediate cash needs.

Members’ willingness and ability to market through the FO was affected by distance to the sale location and capacity to wait for payment. While both COACMU and COTEBARU are located along paved roads and near market cents, COTU and AWASHINGASOKA are in remote locations far from paved roads. Less than 15 percent of those eligible for partial pre-payments on the deposit of contracted commodities accepted the partial payment at COACMU, however, the AWASHINGASOKA representatives believed that their members would not be able to endure a prolonged payment delay even if they received 70 percent upon delivery.

Trust and feelings of good will toward the FO impact aggregation capacity. While leaders from COACMU and UNICOPROMANYA described their costs and margins with great clarity, COTU leaders displayed no such transparency, contributing to member mistrust and ill will.

Though the origin stories of the FOs were not solicited during the field visit, the (acting) P4P Coordinator and the Sub-office Field Monitor suggested that the manner of FO formation may impact performance. When voluntarily united by a shared purpose, members have the opportunity to grow together and build trust. When brought together by official mandate, members and leaders may struggle to generate social capital and a shared vision.

# CONCLUSIONS

By providing a market for high quality, aggregated commodities, P4P expanded the range of marketing options available to FO members who, prior to selling through the FO, were constrained to farm-gate and market sales. Of the 138 FO members interviewed in the mini-surveys in Burkina Faso and Rwanda, 130 reported selling through the FO in the five years preceding the field visit and over 90 percent expressed satisfaction with the experience. Though various government entities and NGOs purchased on contract from FOs, private entities have not emerged as significant buyers of high quality commodities from FOs in either Burkina Faso or Rwanda. The conclusions are organized around the two study questions:

1. How do the characteristics of the different marketing channels available to smallholder farmers affect their allocation of marketed surpluses across the available channels?
2. What factors affect households' decisions of how much to sell through the FO? What factors affect households' decisions of how much to sell through the FO? Are farmers' sales through the FO constrained by limited demand or by limited ability or willingness to sell through the FO?

## Marketing Options and Characteristics

Table 16 summarizes the marketing channels available to smallholder farmers and their salient characteristics.

**Table 18: Characteristics of Marketing Channels Available to Smallholder Farmers**

Marketing channel	Characteristics
Farm-gate sales to households	Retail prices, small quantities, social in nature and drawn from household stock rather than marketable surplus. Prevalent in Burkina Faso, not Rwanda.
Farm-gate sales to traders (collectors)	Lower prices paid on limited quantities. Payment upon receipt, limited (or absence of) quality standards, simultaneous purchase of multiple commodities, no packaging or transportation costs incurred by producer, long buying season.
Market sales to traders	Transportation effort, with potential for accrued costs, results in smaller quantities transacted compared to sales through other marketing channels. Higher gross revenue compared to collector sales, though lower net revenue when paying for transport, as prices do not compensate for transport costs.
Sales of basic grade commodities to FO	Prices and terms are equivalent to collectors, short buying period. In Rwanda, FOs (COACMU and members of UNICOPROMANYA) purchase at the farm gate, while in Burkina Faso, members bring commodities to collection points or headquarters. Same day payment in full (or a short wait time), large absorption capacity, fair scales, supporting FO, dividend potential.
Sales of quality commodity through FO	Uncertain wait for full payment, risk of price volatility while awaiting payment (minimized in Burkina Faso with P4P forward direct contracts), high quality standards requiring additional costs and effort, minimum quantities (not all buyers), producers bear responsibility for transportation to FO headquarters or collection points. Sales opportunities dependent upon contract. Large quantities, price premiums, contract facilitates access to credit including inputs to increase production, proper storage assured.
Sales of selected seed through FO	Not available to smallholders in Burkina Faso.

Marketing channel	Characteristics
	<p>In Rwanda:</p> <ul style="list-style-type: none"> <li>• Stringent quality standards (especially for maize), particularly long wait periods for payment completion.</li> <li>• Significant price premium over quality commodities contracted by WFP, flexible contracts with regards to volume fulfillment.</li> </ul>

## Impact of Characteristics upon Marketing Choices

**Farm-Gate Sales to Households:** Given the social nature of sales, these were not considered part of producers' marketing strategy in Burkina Faso. Allocations to this marketing channel were dependent upon the needs of neighbors and the status of household stocks. These sales were trivial in Rwanda (n=1).

**Farm-Gate Sales to Traders (collectors):** Farm-gate traders and collectors who provided immediate cash payment represented the primary alternative to collective sales. Additional benefits of selling basic-grade commodities to traders included the absence of quality standards and packaging requirements, a long buying season (particularly in Burkina Faso), the simultaneous sale of multiple commodities, the convenience and reduced costs of selling at the farm gate, and the ability to sell just enough to cover household needs. In FGDs with members, producers cited low and volatile prices, the high cost of credit from traders, and perceived propensity toward weighing error as disadvantages of selling to traders. Traders were unwilling to pay for commodities differentiated by quality, likely due to lack of demand, coupled with trader inability to test for quality and to manage different grades simultaneously. Depending on the timing of the sale and particularly in the immediate aftermath of the harvest, producers can view prices offered by traders as exploitative.

**Market Sales to Traders:** Members used this channel less frequently than farm-gate sales as prices did not differ substantially from farm-gate prices and did not justify the cost of transporting commodities to markets.

**Sales of Basic-Grade Commodity to FOs:** Along this marketing channel, the FO behaved like a trader, paying in full upon receipt of commodities (or shortly thereafter) at collector prices without regard for quality. The FO mopped up excess commodities for transport to main markets or for sale to traders. Advantages to SHF of selling through this channel included assurance of accurate scales and, if applicable, payment of FO debts, maintaining future access to FO credit, and the possibility of a quantity-based FO dividend. The FOs purchasing at the farm gate captured larger volumes than collectors, reflecting members' preference for selling to the FO over traders at the same price point.

**Sales of Quality Commodities through FO:** This marketing channel has the potential to be lucrative, but interconnections between credit, length of contract process, and price premium became problematic against the backdrop of volatile farm-gate prices. Limited price premium, additional investment and effort required to achieve quality standards, and the wait for payment amid price volatility rendered P4P contracts only marginally attractive to members. Those utilizing this channel appreciated the ability to access a large sum at once, and many opted to forego partial pre-payments upon delivery. Payment delays of uncertain lengths limited sales through this channel to those who can afford to wait.

**Sales of Selected Seed through the FO:** In Rwanda, selected seed has emerged as the preferred quality market for FOs and their members. Though quality standards are exacting, especially for maize, the significant price premiums rendered RAB and Harvest Plus the buyers of choice, despite prolonged payment delays.



## Factors Impacting Contract Sales through FOs

Several factors impact members' incentives to market quality commodity through the FO:

**Availability of Basic Equipment and Storage Capacity:** Some FOs were stymied in their efforts to aggregate high quality commodities by lack of basic implements such as drying areas, shelling tools, and cleaning equipment. Storage was another limiting factor for some FOs, with capacity unevenly distributed across base groups and FOs.

**Support for and Loyalty to the FO:** A challenge identified by FO management in FGDs was how to limit "side-selling" by members to traders. FOs exhibiting transparency, providing members with credit and other valued services, and cultivating a sense of community were in a better position to aggregate commodities. In Rwanda, the manner in which the FO was formed may also impact ability to generate social capital, to foster trust, and to aggregate.

**Distance:** Anecdotal evidence suggests that members situated close to the FO warehouse, (typically located in towns or peri-urban areas) were the most likely to sell contracted commodities through the FO. For base groups vying for a share of a union contract, the proclivity to participate seemed negatively correlated with distance from the union. The sharp decline in the number of transactions with increasing distance supports the importance of distance as a factor in household marketing decisions. FOs could ameliorate this constraint by collecting commodities from farmers at the farm gate.

**Availability of Credit:** Though insufficient access to credit is considered an obstacle to aggregation, FGDs with members revealed, and mini-surveys confirmed, that a significant proportion of members who sold high quality commodities through the FO refused the partial pre-payment, opting rather to wait a month or two for a large lump-sum payment. Their revealed preference reflects a low discount rate, a luxury many SHF cannot afford, suggesting that those who choose to sell quality commodities through the FO may not be typical smallholder producers.

The experience of members who opt out of partial pre-payments on contracted commodities contrasts with the experience of members who choose not to sell quality commodities through the FO, due to their inability to wait through the contract process even when partial pre-payments of up to 70 percent of total value are available. As stated in FGDs with FO leaders of UNICOPROMANYA, "patience depends on capacity to manage household problems."

**Length of the Aggregation/Certification/Payment Process:** The average delay between members' delivery on the contract and payment was one month in Burkina Faso and two months in Rwanda. Many households were unable to wait this period for full payment, and those who were able to endure the delay were described in FGDs as having more assets, diversified crops, and multiple streams of income. In Rwanda, those who were able to sell quality commodities through the FO can be classified as Category 3 or 4 in the Ubudehe system. As FOs gain access to credit and are able to pay greater percentages upon delivery, the need to wait through the process will be alleviated and a greater percentage of households may begin marketing through the FO.

**Price Premium:** Quality requirements did not pose a formidable hurdle for contract participation, with the exception of challenges frequently encountered on the first sale. The price premium, however, must be considered in the context of basic grade price volatility, which FO leaders and members claimed to be high, particularly in Rwanda. In Rwanda, the price premium offered by P4P was much lower than that of selected seed companies.

The interconnections between credit, length of the contract process, and price premium became problematic when direct contracts were used in the context of volatile farm-gate prices. Though farm-gate price data were not available, FO members and leaders in FGDs consistently reported high variability, particularly for beans (which have high perishability and a short marketing season) in remote locations lacking spatial market integration between producer and consumer markets. During the extended process of

aggregation/certification/payment, the premium negotiated at the time of contract was often whittled away by rising farm-gate prices, and all the visited FOs, with the exception of COACMU, reported either defaulting due to price fluctuations, or fulfilling a P4P contract at a price lower than the farm-gate price upon payment.

In Burkina Faso, forward contracts (with an option to negotiate the price upward if the market price has risen beyond the contracted price) coupled with relationships between FOs and financial institutions alleviated this problem. Nonetheless, the surveyed FOs all encountered challenges with the length of the contract process and price volatility. In Rwanda, where forward contracts have yet to be implemented, the P4P contract process offered no protection against the risk of upward farm-gate price movements.

Physical proximity to the FO and the capacity to wait for payment through the contractual process influence the likelihood of marketing high quality commodities through the FO, highlighting the vulnerability of contract sales to capture by the relatively wealthy and those situated close to FO headquarters or a collection point. Internal organization and FO management, including a transparent process for dividing contracted quantities across sub-groups, are factors that can facilitate an equitable distribution of the FO market opportunity across members. Though this issue deserves further exploration, new markets tend to be developed by innovators who can afford the risk of participating beyond the known horizon (Barrett, 2008; Dercon & Christiaensen, 2011; Mitchell & Leturque, 2011). This phenomenon highlights the tradeoffs between P4P as a procurement modality and P4P as a development tool.

In five of the six FOs visited by the study team, FO leaders and members agreed that selling through the FO was limited by member ability and willingness to participate in quality contract markets. The combination of a limited price premium, the additional investment and effort required to achieve quality standards, and the wait for payment amid price volatility rendered P4P contracts only marginally appealing. The preference of members in Rwanda to fulfill high quality selected seed contracts, at prices 25-60 percent higher than P4P prices, suggests that additional effort required to attain high quality standards and lengthy delays in payment, of four to eight months, can be justified if the price premium is sufficiently high.

Only the leaders and members of UPPA Houet expressed interest in additional P4P contracts, explaining that members' commitment to quality combined with traders' unwillingness to pay for quality resulted in the sale of quality commodities to traders at basic-grade prices. This commitment to quality was strongly expressed in FGDs with female members located close to headquarters, less pronounced among men close to headquarters, and not existent among the members of rural base groups. The women's internalization of quality standards likely reflects the efforts of the female field monitor. Additional FO demand for quality commodities would compensate quality-conscious UPPA Houet members for efforts expended in assuring the food safety of the end consumer. Members of the other FOs surveyed did not express in FGDs a commitment or interest in pursuing quality standards in the absence of an assured market.

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# ANNEXES

## Annex A: List of Key Informants

Country	Group	Representative
Burkina Faso	WFP CO	P4P Team
	UGPCER	FO Leaders
		FO Members
	UGCPA	FO Leaders
		FO Members
	UPPA Houet	FO Leaders
		FO Members
Womens' Field Monitor		
FAO	P4P FO Training Coordinator	
Rwanda	WFP CO	P4P Team
		DCD
		SO Staff
	COACMU	FO Leaders
		FO Members
	UNICOPROMANYA	FO Leaders
		FO Members
	COTU	FO Leaders
FO Members		

## Annex B: FO Members Interviewed in Mini-Survey

Country	FO	Women interviewed	Men interviewed	Total interviewed
Burkina Faso	UGCPA	12	18	30
	UGPCER	11	10	21
	UPPA Houet	19	15	34
	<b>Total Burkina</b>	<b>42</b>	<b>43</b>	<b>85</b>
Rwanda	COACMU	10	10	20
	COTU	3	15	18
	UNICOPROMANYA	13	11	24
	<b>Total Rwanda</b>	<b>26</b>	<b>36</b>	<b>62</b>
<i>Total members interviewed</i>		<i>68</i>	<i>79</i>	<i>147</i>

## Annex C: Mini-Survey Instrument

# Household Marketing Choices Survey (Country)

## Introduction

My name is \_\_\_\_\_ and I am working for the World Food Programme here in (country). We are conducting a survey of smallholder farmers. Let me first ask a few questions to determine whether you are the person I need to speak with.

**Enumerator: Ask the verification questions at the bottom of the following box and follow the instructions to determine whether to continue the interview.**

The World Food Programme is an international organization that distributes food to those in need. WFP wants to begin buying more of the food it distributes from smallholder farmers. We are talking with smallholder farmers so we can better understand the challenges they face marketing crops and how WFP might best address these issues.

You were selected to participate in the survey because you are a smallholder farmer and a member of a Farmers Organization that WFP works with. The survey is voluntary and we will not share the information you give us with anyone else. We will never use the information in a way that identifies you. Your participation is voluntary and you can choose not to answer any or all of the questions if you want. However, we hope that you will participate since your views are important.

**Your decision to participate in this interview, or not, will in no way affect, either positively or negatively, your chances of selling commodities to WFP. This study is conducted by WFP, and the data collected is the property of WFP. No identifying information will be shared outside of WFP.**

The survey should take about one hour. Are you willing to participate in the survey? Do you have any questions?



Identifying information			
Questionnaire number: <b>(Pre-filled)</b>		□□□□	
Country name : Rwanda		Country code	16
District name:		District code:	□□□□
Sector name:		Sector code:	□□□□
Cell name:		Cell name:	□□□□
Village name:		Village code:	□□□□
Urban/rural	(Urban = 1, Rural = 2)		□
Group information			
Name of cooperative:	□□□□□□□□□□		
Code of cooperative:	□□□□□□□□		
Verification information			
Is the respondent a registered member of the farmers' organization listed above?		Yes	No
<b>(If "No", TERMINATE INTERVIEW)</b>			

### Screening questions

(Read aloud) The first set of questions is about your household. By **household** I mean a group of people who live together, not necessarily in the same building; who usually eat from the same pot; and who pool their incomes and other resources to purchase or produce food. A household member is any person who, in the past 12 months, has lived with the household for at least 6 months regardless of whether they have intentions to stay or not. It also includes persons who have lived in the household for less than six months if they are a) attending school away from home, b) newly born babies, c) persons who are newly wedded into the household, or d) persons who have been in the household for less than 6 months but have come to stay permanently.

How many people are in your household?	□□□	
Did your household plant any maize or beans during the past 12 months? <b>(If "No", END INTERVIEW)</b>	□	1 = Yes 0 = No
Did your household sell any maize or beans during the last 12 months? <b>(If "Yes", skip to the next page and begin interview)</b>	□	1 = Yes 0 = No

Why did your household not sell any maize or beans during the past 12 months?  <i>(tick all that apply)</i>  <b>(END INTERVIEW)</b>	Did not produce enough for sale	<input type="checkbox"/>	Did not like the price offered	<input type="checkbox"/>
	Crop did not store well	<input type="checkbox"/>	Did not like the modality/terms offered	<input type="checkbox"/>
	Could not find a buyer	<input type="checkbox"/>	Other: Specify <i>(write-in)</i>	<input type="checkbox"/>

## BEGIN INTERVIEW

Name of respondent						Sex (1 = Female, 2 = Male)	<input type="checkbox"/>
Name of household head			Relationship to household head				<input type="checkbox"/>
			01 = Household head 02 = Spouse 04 = Child/stepchild 05 = Grandparent/grandchild 06 = Parent	07 = In-law 08 = Other relative (brother, sister, cousin, etc.) 09 = Worker 10 = Other (write-in _____)			
Date of interview	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	20 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Time of interview start:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Enumerator name	
	Day	Month	Year	Time of interview end:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Enumerator code	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Signature of supervisor							

The following asks about your sales of maize and beans to or through the cooperative **over the last four years**.

A1.			
1	Did you have an opportunity to sell to/through the cooperative? (0 = No, 1 = Yes)	<input type="checkbox"/>	If 1, skip to 3
2	Why did you not have an opportunity to sell to/through the cooperative? (write in, and continue to Table B1)		
3	Did you choose to sell to/through the cooperative? (0 = No, 1 = Yes)	<input type="checkbox"/>	If 1, skip to 5
4	Why not? (write in, and continue to Table B1)		
5	Did you want to sell more to/through the cooperative? (0 = No, 1 = Yes)	<input type="checkbox"/>	

6	Why or why not?		
7	Was selling to the cooperative a good choice compared to the other marketing options available at the moment?  <b>(0 = No, 1 = Yes)</b>  Why or why not? (write in)	<input type="checkbox"/>	

The next questions ask about the land your household accessed over the last twelve months.

B1.		In hectares	OR	In meters/steps (m) x (m)			
		a		b	c	d	e
1	What is the total amount of land that your household owns?	<input type="text"/>		x	x	x	x
2	During the last year, how much land did your household use for agriculture (including land that is owned, rented/leased in, and borrowed, i.e., used without payment)?	<input type="text"/>		x	x	x	x

B3.		Did you plant these crops? <b>0 = No</b> <b>1 = Yes</b> <i>If 0, skip the row</i>	If yes, how much area did you plant to this crop?				How much _____ did you harvest?		What quantity of the harvested _____ did you sell?		
			Hectares	Plots in (m) x (m) (as identified in Table B1)				Quantity harvested	Weight units (See codes below)	Quantity sold	Weight units (See codes below)
				Plot b	Plot c	Plot d	Plot e	<b>0 = None</b> <i>If 0, skip the row</i>		<b>0 = None</b> <i>If 0, skip the row</i>	
		a	b	c	d	e	f	g	h	i	j
Season B (Feb - July 2013)											
1	Maize	<input type="checkbox"/>		x	x	x	x		<input type="text"/>		<input type="text"/>
2	Beans	<input type="checkbox"/>		x	x	x	x		<input type="text"/>		<input type="text"/>
Season A (Sep 2012 – Feb 2013)											

3	Maize	<input type="checkbox"/>		x	x	x	x		<input type="checkbox"/>		<input type="checkbox"/>
4	Beans	<input type="checkbox"/>		x	x	x	x		<input type="checkbox"/>		<input type="checkbox"/>
Season C (Jun 12 – Sept 12)											
5	Maize	<input type="checkbox"/>		x	x	x	x		<input type="checkbox"/>		<input type="checkbox"/>
6	Beans	<input type="checkbox"/>		x	x	x	x		<input type="checkbox"/>		<input type="checkbox"/>

The following questions ask about your sales of maize and beans over the **last 12 months**.

The next section focuses on the buyers you sold to and sales location during the last 12 months.

B4.	<ul style="list-style-type: none"> <li>For each combination of buyer, location, and season where the ownership of commodity was transferred, write <b>“M” for maize and “B” for beans</b>.</li> <li>Draw three circles around the combinations of commodity, buyer, and location that were the most significant in terms of quantity sold.</li> <li>Label each circle drawn with a “1”, “2”, or “3” according their ranking in terms of quantity sold. For the remainder of the questionnaire, we will refer to the combinations indicated by the circles as Transaction 1, Transaction 2, and Transaction 3.</li> </ul>												
			Season A				Season B				Season C		
		Farm gate	Market	Co-op collection	Co-op w.house	Farm gate	Market	Co-op collection	Co-op w.house	Farm gate	Market	Co-op collection	Co-op w.house
	<b>aa</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>f</b>	<b>g</b>	<b>h</b>	<b>i</b>	<b>j</b>	<b>k</b>	<b>l</b>
1	Individuals/HH (final consumers)												
2	Small collectors who sell at local markets												
3	Large collectors who sell to large businesses												
4	Traders who don't go to farm gate												
5	Institutions (schools, hospitals, prisons, ...)												
6	Millers/brewers												
7	Cooperative												
8	Retail stores/shops												
9	Food reserve/government												

**B3 et C1: Weight unit codes**

- |                       |                 |                |
|-----------------------|-----------------|----------------|
| 2 = kilograms         | 3 = 100 kg bags | 6 = metric ton |
| 11 = ingemeri/mironko | 5 = 50 kg bags  |                |
|                       | 9 = 120 kg bags |                |

B5. For the three transactions identified in Table B4 (and any sale to or through the FO, even if it is not a ranked transaction), verify the commodity, buyer, location where ownership was transferred, For locations other than <i>farm gate</i> , write in the name of the location and the distance to the household.							
		Crop (1 = Maize 2 = Beans)	Buyer (1-9, corresponding to the first column of Table B4)	Location of transaction		For locations other than farm gate	
				1 = Farm gate 2 = Market	3 = Co-op collection point 4 = Co-op warehouse	Name of location	Distance to HH storage point(km)
	aa	a	b	c		d	e
1	Transaction 1	_	_	_			
2	Transaction 2	_	_	_			
3	Transaction 3	_	_	_			
4	Cooperative (if applicable, and if not in the first 3)	_	7	_			

The remaining tables (C1-C5) explore the characteristics of the three principle transactions identified in Table B5, as well as any sales to/through the FO beyond those 3.

C1. For the transactions identified in Table B5, and those to/through the FO, describe the sales.							<b>B3et C1: Weight unit codes</b>  1 1 = ingemeri/mironko 2 =kilograms 3 =100 kg bags 4 = 90 kg bags 5 =50 kg bags 6 = mt 9 = 120 kg bag
		Start date Month/Year	End date Month/Year	How much _____ did you sell to this buyer ?		Total received (RWF)	
				Quantity	Weight units (See codes to the right)		
	aa	a	b	c	d	f	
1	Transaction 1	_ _ / _ _	_ _ / _ _				
2	Transaction 2	_ _ / _ _	_ _ / _ _				
3	Transaction 3	_ _ / _ _	_ _ / _ _				
4	Cooperative (if applicable)	_ _ / _ _	_ _ / _ _				

C2.		Payment terms						ADD COLUMNS (a-e) TO VERIFY THE TOTAL RECEIVED
		Before the harvest		During delivery		After delivery		
		Credit in cash If No, write "0" If yes, write in the amount received (RWF)	Credit in inputs If No, write "0" If yes, write the value (RWF) of the inputs received on credit	Cash upon exchange If No, write "0" If yes, write in the amount received (RWF)	Bartered goods upon exchange If No, write "0" If yes, write the value (RWF) of the bartered goods exchanged	Credit upon delivery If No, write "0" If yes, write the value (RWF) of the credit	Payment _____ days after delivery	
aa	a	b	c	d	e	f	g	
1	Transaction 1						□□□	
2	Transaction 2						□□□	
3	Transaction 3						□□□	
4	Cooperative						□□□	

C3.		Type of transaction (0 = No, 1 = Yes)						
		Informal			Formal		Other	Specify: Other (write in)
		Verbal contract before harvest	Cash in exchange for commodity	Written contract before harvest	Written contract after harvest			
		aa	a	b	c	d	e	f
1	Transaction 1	□	□	□	□	□		
2	Transaction 2	□	□	□	□	□		
3	Transaction 3	□	□	□	□	□		
4	Cooperative	□	□	□	□	□		

C4.		Did the buyer check your commodity for the following quality standards? (0 = No, 1 = Yes) Did you make an effort to achieve the buyer's standards in addition to your normal practices? (0 = No, 1 = Yes)										
		Quality standards								Did the price received reflect the quality of your commodity?	Did the price compensate your efforts to achieve the buyer's quality standards?	Why or why not?
		Humidity		Foreign matter (stones, sticks, ...)		Broken grains (discolored, shrunken, ...)		Insect infestation				
		Buyer check	Your efforts above normal	Buyer check	Your efforts above normal	Buyer check	Your efforts above normal	Buyer check	Your efforts above normal	0 = No 1 = Yes	0 = No 1 = Yes	
aa	a	b	c	d	e	f	g	h	i	j	k	
1	Transaction 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Transaction 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Transaction 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Cooperative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

C5.		Value-added costs of marketing (in addition to standard practices) incurred for each transaction (RWF)									
		Drying/Cleaning	Shelling	Fumigation	Packaging / Bagging	Transportation	Mode of transport (Use codes below)	Loading/Unloading	Market fees	Other fees	Specify "Other" (write in)
		aa	a	b	c	d	e	f	g	h	i
1	Transaction 1										
2	Transaction 2										
3	Transaction 3										
4	Cooperative										

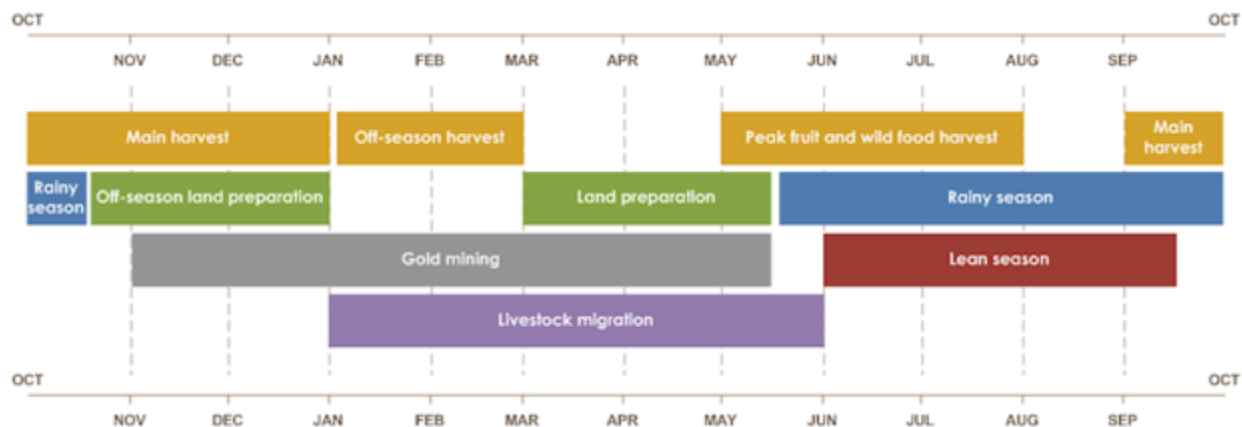


**C5: Transport codes**

1 = Carried (head or back)	5 = Motorcycle	9 = Public transport
2 = Bicycle	6 = Car	10 = Boat/canoe
3 = Hand cart/wheelbarrow	7 = Small truck/pickup	11 = Tractor
4 = Ox-cart/donkey	8 = Large truck/lorry	-8 = Not applicable/don't transport

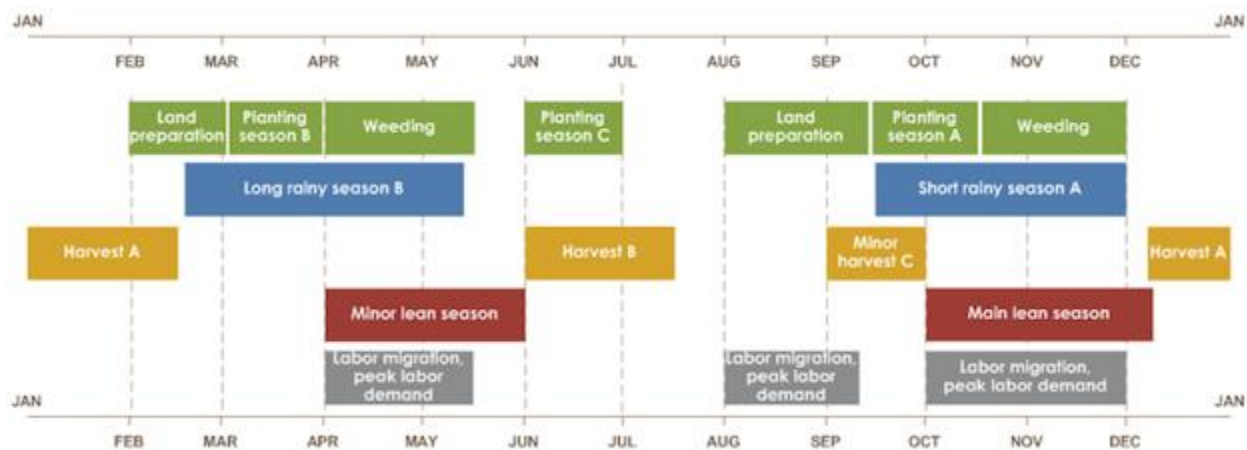
## Annex D: Seasonal Calendars

### Seasonal Calendar, Burkina Faso



Source: FEWS NET, <http://www.fews.net/west-africa/burkina-faso>, accessed 17 Dec 13.

### Seasonal Calendar, Rwanda



Source: FEWS NET. Accessed from <http://www.fews.net/east-africa/rwanda/seasonal-calendar/tue-2013-12-17>, on 17 Dec 13.

## Annex E: Surveyed-FO P4P Contract History

Country	FO	Year	Commodity	Contract Type*	Quantity Contracted (mt)	Quantity Delivered (mt)	% Default	Reason for default
Burkina Faso	UGCPA	2010	Cowpea	FC	50	50	0%	
		2010	W. Sorghum	DC	500	500	0%	
		2010	Maize	DC	385	385	0%	
		2010	W. Sorghum	FC	213	213	0%	
		2011	Cowpea	FC	17.1	17.1	0%	
		2013	Maize	FC	201.5	201.5	0%	
	UGPCER	2009	Maize	DC	56	56	0%	
		2009	W. Sorghum	DC	200	25	88%	Could not accumulate required quantity
		2010	W. Sorghum	DC	80	80	0%	
		2010	Cowpea	DC	33	33	0%	
		2010	Maize	FC	80	80	0%	
		2011	W. Sorghum	FC	200	200	0%	
		2011	Maize	FC	50	0	100%	Commodity did not meet buyer's specifications
	UPPA Houet	2009	W. Sorghum	DC	100	50	50%	Could not accumulate required quantity
		2010	Maize	FC	92	92	0%	
		2012	Maize	MCT	210	210	0%	
		2013	Maize	FC	110	110	0%	
		2013	Maize	FC	35	35	0%	
	* DC = Direct Contract; FC = Forward Contract; MCT = Modified Competitive Tender							

Country	FO	Year	Commodity	Contract Type*	Quantity Contracted (mt)	Quantity Delivered (mt)	% Default	Reason for default
Rwanda	COACMU	2011	Beans	DC	100	100	0%	
	COTU	2011	Maize	DC	250	99	60%	Did not have access to required quantity
	UNICOPROMANYA	2011	Beans	DC	297.09	197.9	33%	The price offered was no longer attractive at the time of delivery
		2011	Beans	DC	100	100	0%	
		2011	Maize	DC	300	214	29%	Could not accumulate required quantity
		2011	Maize	DC	100	100	0%	
* DC = Direct Contract; FC = Forward Contract; MCT = Modified Competitive Tender								

Source: FO records

## **Annex F: Prices Available to Surveyed-FO Members, Burkina Faso**

The below series of charts attempts an approximation of average P4P commodity prices prevalent in the surveyed FOs' areas from roughly October 2012 through May 2013. Some temporal and spatial variability is lost in these figures, as the prices have been grouped into months and members' affiliated FO. However they do compare average prices members received from traders and FOs by drawing upon surveyed members' experiences, discussions with FO leaders, and FO records. Average prices offered by traders were drawn from mini-surveys with FO members. FO prices were also extracted from the mini-surveys, and buttressed with FO records (if available) and FGDs. Specifically, the price of maize offered by UPPA Houet was gleaned from FO records, and the prices offered by UGCPA<sup>12</sup> were extracted from focus groups with FO leaders.

When examining the price charts, there are several caveats to bear in mind:

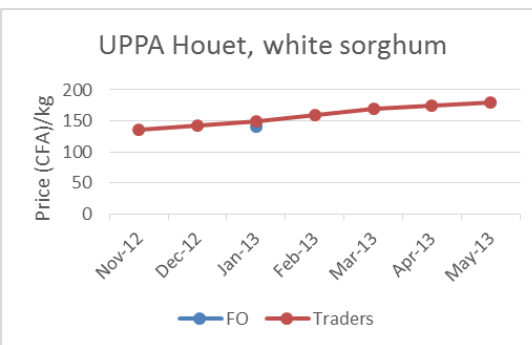
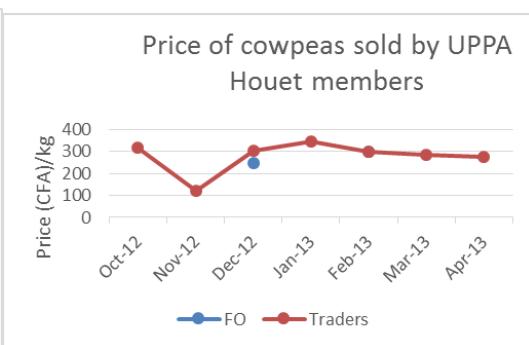
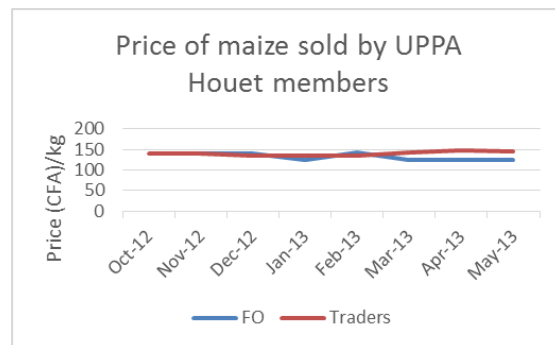
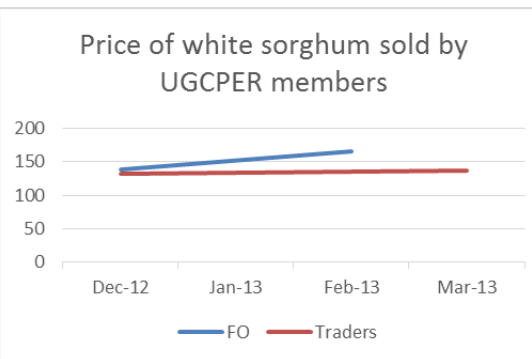
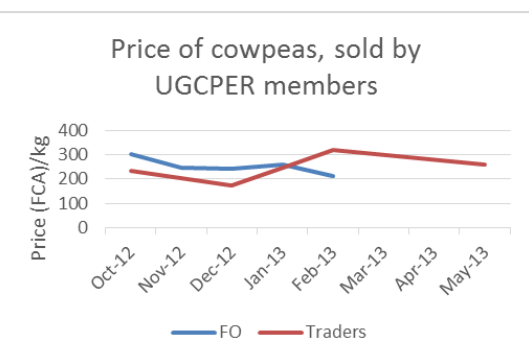
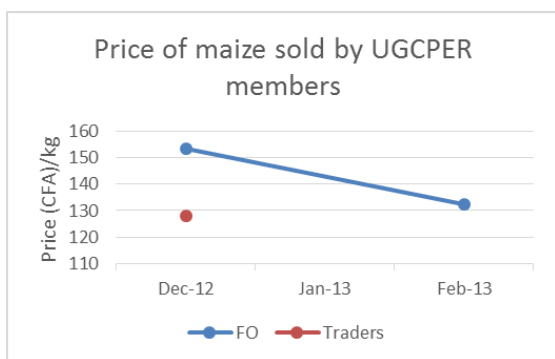
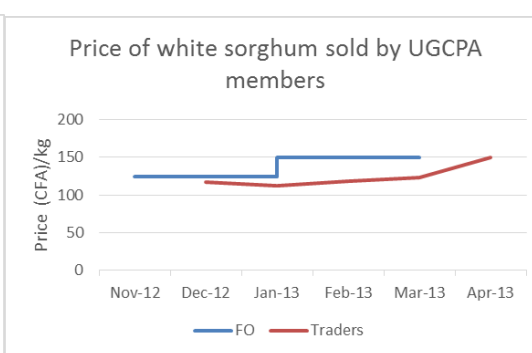
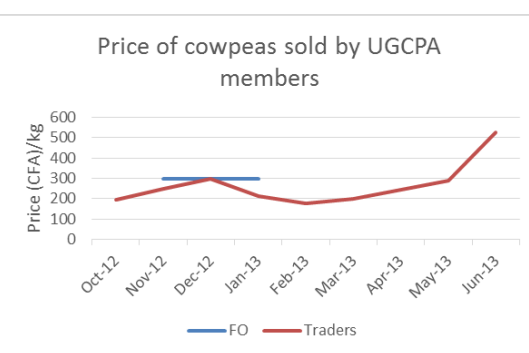
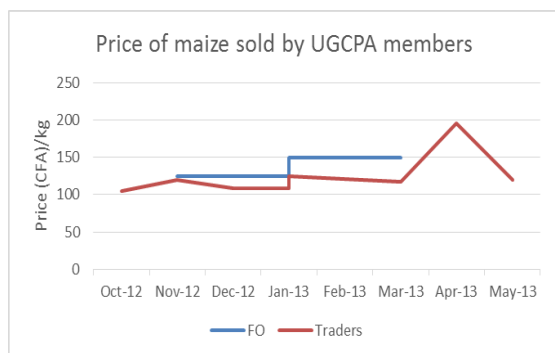
- Trader prices do not differentiate between collectors and other traders (who presumably offer better prices).
- Some charts reflect more observations than others, and some lack observations across time.
- The price observations reported by mini-survey respondents reflect only those received from the three largest transactions of P4P commodities over the last year.
- Time has been aggregated into one-month intervals, therefore intra-month variation is not captured.
- The price observations do not account for different volumes or qualities sold.
- The price observations do not differentiate between prices offered to members of the same FO in different locations. For example, members of UPPA Houet reported per kilogram maize prices ranging from 130 to 155 CFA in January 2013, depending on the location of the sale.

Despite these limitations, the pricing information is instructive as it highlights certain lessons such as the implications of the FO's short buying season and the challenges posed by delay of payment on contracted commodities.

Reviewing the charts reveals that in some cases, such as the average price of maize for UPPA Houet members, FO prices closely tracked trader prices. In other cases, such as the average price of white sorghum in UGCPA and UGPCER, the FO prices were clearly above those offered by traders. FOs tend to have relatively short buying windows as opposed to traders, as illustrated in the cases of cowpeas purchased by UGCPA and UPPA Houet, and white sorghum at UGPCER and UPPA Houet.

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<sup>12</sup> For maize and white sorghum, UGCPA sets 2 prices specific to sub-regions, as explained by FO leaders in FGDs. The harvest price (prix de la récolte) is set at harvest and effective from mid-November through mid-January. The session price (prix de la session) runs from mid-January through the end of March. Though the session price is higher than the harvest price, members who sell early (such as those with credits from UGCPA who are contractually obliged to sell at harvest) are compensated at the end of marketing season with 65% of the difference between harvest and session price.

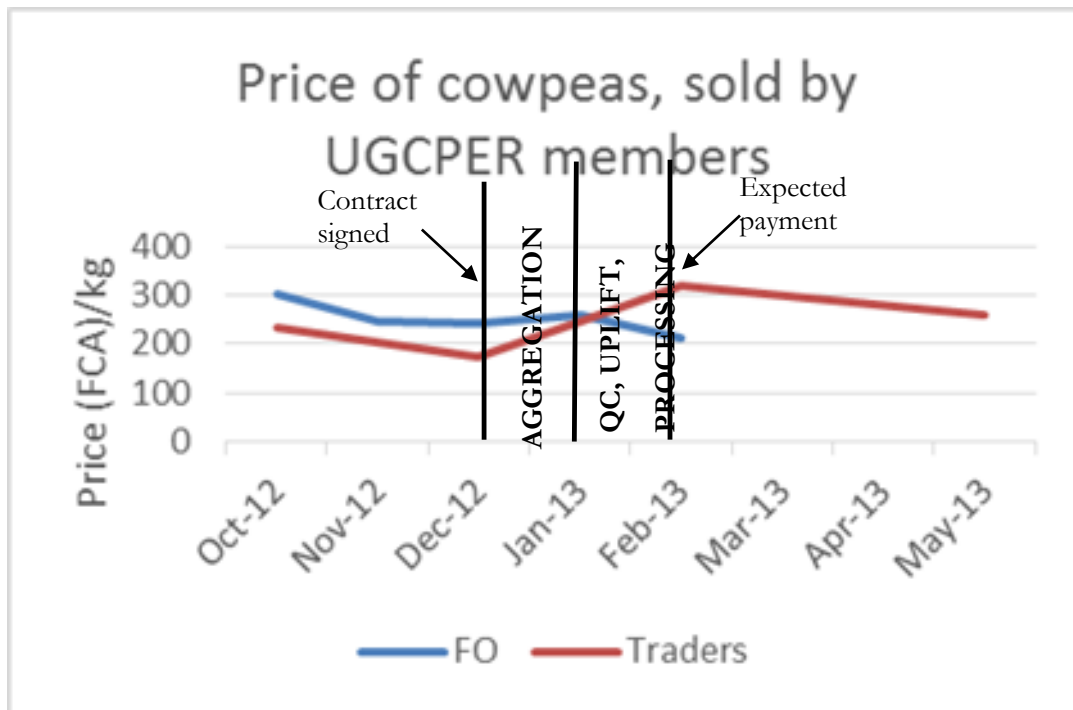


Sources: Field visit mini-surveys with FO members, FO records, FGDs with FO leaders

## Annex G: Hypothetical Example of a P4P Contract, Imposed over UGPCER Prices

This chart draws on the price analysis from Annex F.

Of the 17 transactions which recorded a delay in payment for members of UGPCER, the average wait time between delivery and payment completion was 30 days. Consider a P4P cowpeas contract signed in mid-November at 250 CFA/kg, when the FO price for cowpeas was well above the trader price of 200 CFA/kg. Aggregation would likely be complete by mid-December. However at that point the trader price is trending upward, and members know that they will likely not be paid until at least mid-January, assuming the commodity passes the quality inspection. When trader prices rise above the contract price, members have a strong incentive to withdraw their commodity from the FO warehouse and sell to traders who will pay in full an amount above the contracted price.

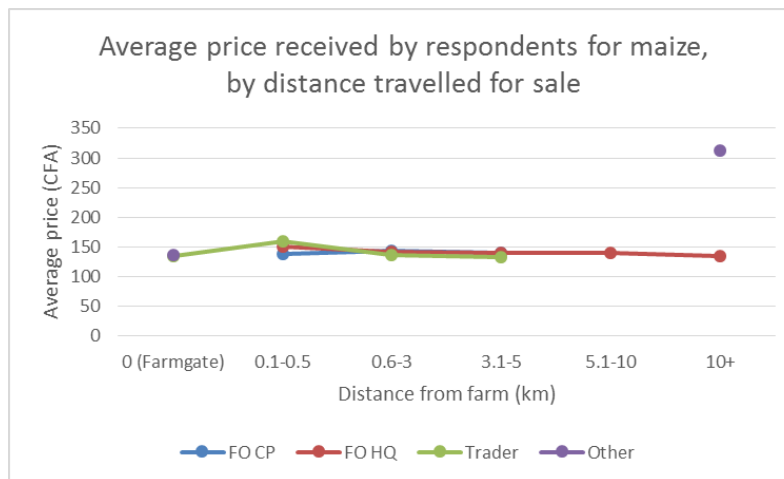


Source: Field visit mini-surveys

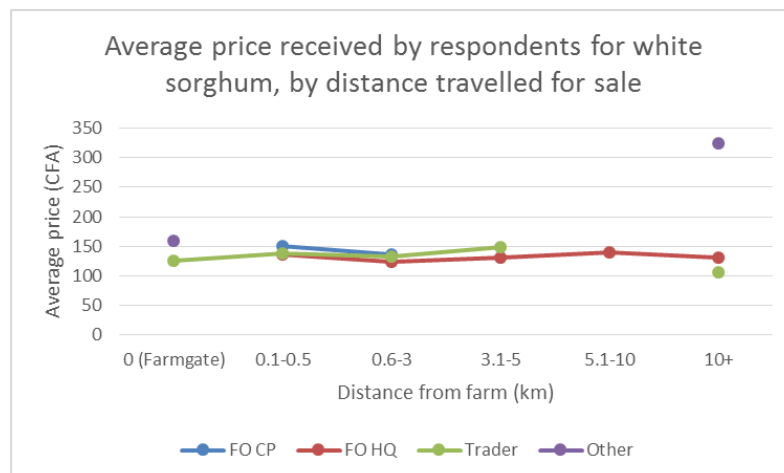
## Annex H: Prices Received by Respondents Across Distances Travelled for Sale, Burkina Faso

Prices offered by different buyers for respondents' maize and white sorghum transactions remained relatively constant across distances, though prices for cowpeas showed more variation. Long distance seed sales to Others (NAFASO) were an exception, as the prices offered were about double FO and trader prices, seen in Figures 1 and 2 below as the purple point in the upper right-hand corner of the charts. As with the price information presented in Annex F, these prices do not capture the intricacies of time, nor do they reflect a distance from any particular point. Rather, they capture prices accessed by FO members across time, and the distance reported is relative to the respondents' farms. That being said, there is not a great deal of price variation in maize and white sorghum prices over distance, though there is some variation in the price of cowpeas (Figure 3). Unfortunately, the limited number of observations made it impossible to tease out what variation is due to timing of sale and what is attributable to distance from transaction location.

**Figure 1: Average price received by surveyed-FO members for maize, across distance travelled for sale, Burkina Faso**

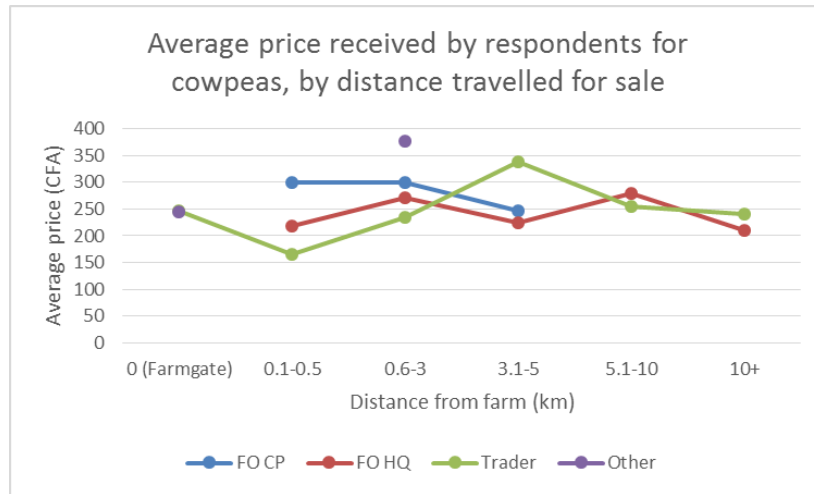


**Figure 2: Average price received by surveyed-FO members for white sorghum, across distance travelled for sale, Burkina Faso**





**Figure 3: Average price received by surveyed-FO members for cowpeas, across distance travelled for sale, Burkina Faso**



Source: Field visit mini-surveys

## Annex I: Average Costs of Transporting P4P Commodities to Sale, Burkina Faso

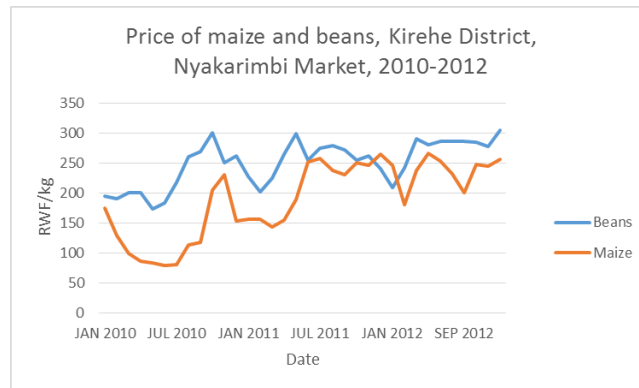
Means of transport	Distance of transaction from farm (in km) (and average transport costs incurred (in CFA))					
	0 (Farm gate)	0.1-.5	0.6-3	3.1-5	5.1-10	10+
n/a	54 (0)					
Carry on head	1 (0)	7 (0)	4 (0)	3 (0)		
Bicycle		2 (0)	6 (83)		1 (0)	6 (0)
Wheelbarrow	1 (0)	9 (89)	11 (436)	2 (0)		1 (0)
Oxcart	2 (0)	6 (383)	14 (989)	15 (643)	1 (0)	2 (625)
Motorcycle		3 (200)		2 (2,250)		6 (1,417)
Truck		2 (2,000)	3 (6,333)		2 (15,000)	10 (15,110)
<b>Total</b>	<b>59 (0)</b>	<b>30 (257)</b>	<b>38 (1,004)</b>	<b>22 (643)</b>	<b>4 (7,500)</b>	<b>25 (6,434)</b>

Source: Field visit mini-surveys

## Annex J: Retail Prices of Maize and Beans in Nyakarimbi, Ruhango, and Nyagatare Markets

These charts reflect maize and beans retail prices collected by the Rwanda VAM Unit.

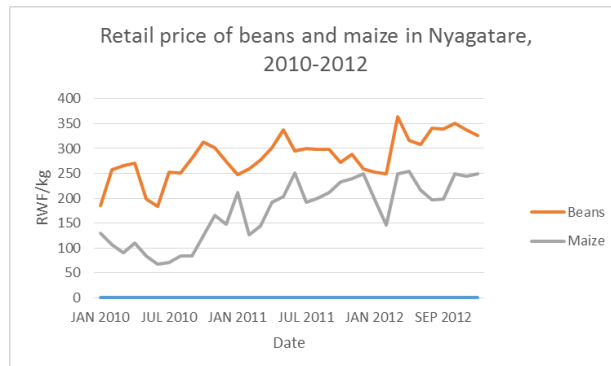
### Retail price of maize and beans, Nyakarambi Market, Kirehe District, 2012-2012



### Retail price of maize and beans, Ruhango Market, 2010-2012



### Retail price of maize and beans, Nyagatare Market, 2010-2012



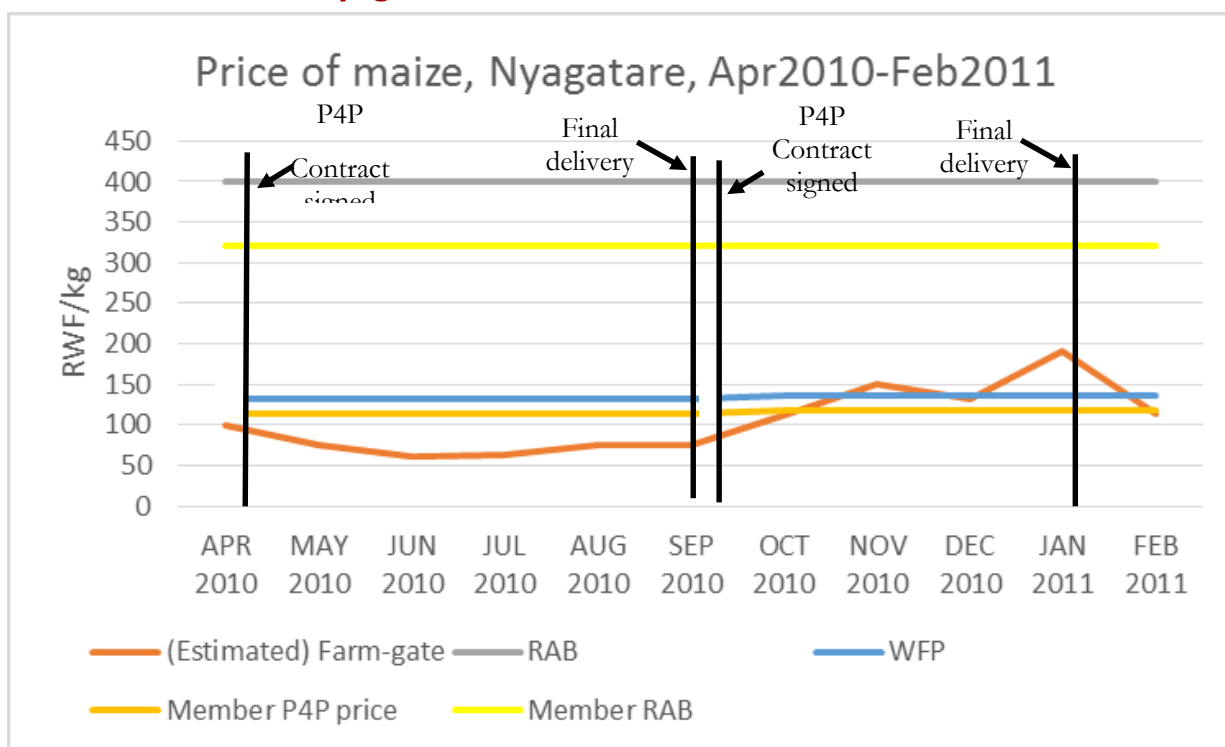
Source: WFP CO VAM Unit

## Annex K: P4P Contracts in the Context of Prices Faced by UNICOPROMANYA Members

In the absence of farm-gate prices, this analysis utilizes retail prices collected by VAM (Annex J), with a 10 percent reduction to estimate the margins captured by traders. In reality, the trader margin is likely to be higher, especially in more remote areas with less access to market.

The figure below illustrates the prices of maize in Nyagatare from April 2010 through February 2011. The timeframe was chosen for convenience to explore the marketing choices faced by UNICOPROMANYA members during this period when the FO signed two P4P contracts. The estimated farm-gate price data is equivalent to 90 percent of the Nyagatare market price as recorded by VAM. The WFP price represents the contract price, reported in FO records, and the member price is the contract price minus the FO margins reported in FGDs and triangulated with FO records. The RAB price for selected seed and the RAB price paid to members was extracted from FGDs. Despite appearances, the WFP and RAB prices are not available throughout the entire period, but rather only between the signing and final delivery on a contract. There was a slight increase in the price between the first and second P4P contract depicted in the first figure (From 133 to 137RWF/kg).

### Price of maize in Nyagatare and UNICOPROMANYA P4P contracts, Rwanda



Source: WFP CO VAM price data, FO records, and FGDs with FO leaders

Between April 2010 and January 2011, UNICOPROMANYA signed two P4P contracts for maize, the first for 100mt and the second for 300mt. Though 145 days passed between signing the first contract and final delivery, the farm-gate price did not threaten the competitiveness of the contract as both the WFP price as well as the member price stayed above the farm-gate price. The contracted amount was delivered in full. A new P4P contract was issued 10 days after the first was completed, and shortly thereafter, the farm-gate price rose above both the member price and the contract price. A partial default was recorded, with only 29percent

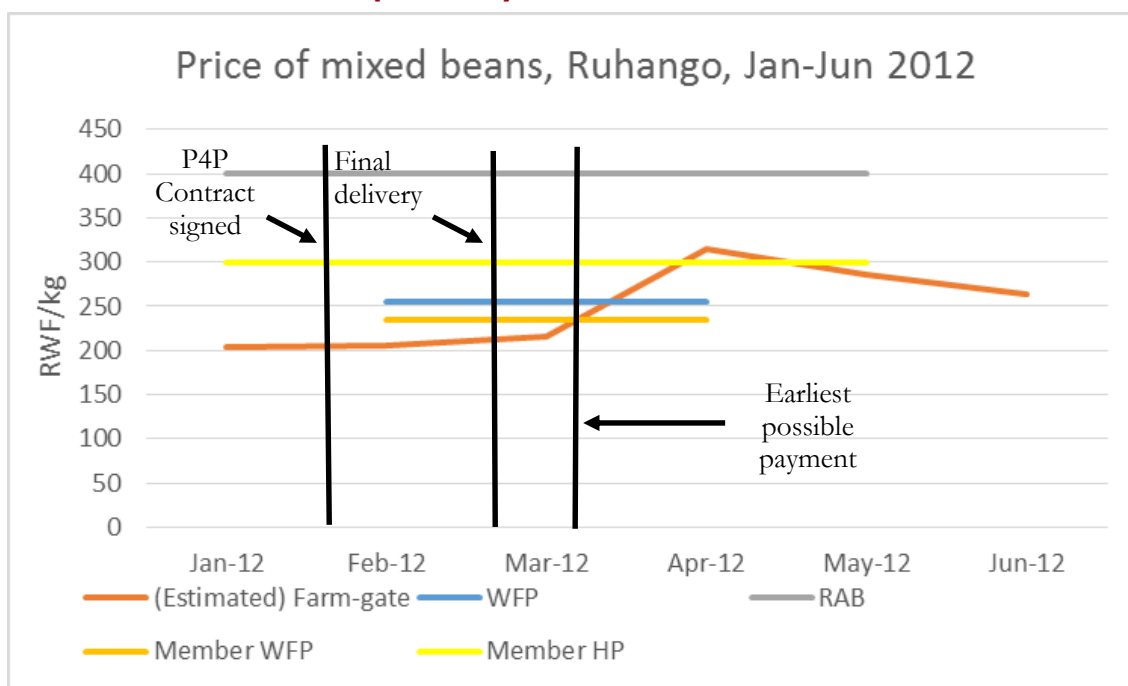
of the contracted quantity delivered 126 days after the contract was signed. Given the substantial increase in farm-gate price, the eventual delivery of 29 percent represents commitment and tenacity on the part of the FO management, for members were clamoring to retract their commodity deposited, as explained in FGs with FO leaders. This example illustrates the challenges in aggregation which occur when FOs do not have sufficient capital to purchase commodity outright, a problem which could be ameliorated with forward direct contracts. In addition, it shows that the generous premium offered by the selected seed companies, keeps the price beyond the upper bound of the farm-gate price fluctuations, suggesting that traders are not direct competitors for RAB and Harvest Plus commodity.

## Annex L: Hypothetical P4P Contract in the Context of Actual Prices Faced by COTU Members

This example utilizes retail price information from VAM (Annex J) discounted by 10 percent as an estimate of farm-gate prices and RAB price information gleaned from FGDs as the backdrop for exploring a hypothetical example of a P4P contract with price volatility occurring after final delivery. The WFP price was calculated based upon a 25 percent premium over the estimated farm-gate price, which is generous given that the weighted average premium offered on the six P4P contracts extended to the surveyed FOs was 17 percent above farm-gate price. As in Annex K, member price reflects the P4P contract price minus an FO margin (in this case, 7.8 percent, which is conservative, given that the weighted average of margins captured on the six P4P contracts of surveyed FOs was 22 percent). The Harvest Plus prices include those paid to FOs, and those paid to COTU members.

In this example, aggregation is not drawn out, occurring in one month's time. However, even in the best case scenario of immediate testing by RBS and passing the quality inspection, followed by prompt uplift and payment, the farm gate price has increased above the contract price in the idealized two-week time frame. Longer delays in payment, of up to three months, only exacerbate the problem, and though not shown on the graph, the retail price (minus 10 percent) never fell below the hypothetical contract price until the following January, seven months beyond the timeframe of the graph. Though this example is constructed, it makes conservative assumptions, and illustrates the point that price volatility can impact the likelihood of contract fulfillment even after the aggregation process has been completed. It also illustrates that the selected seed price paid to members is not entirely beyond the range of farm-gate price fluctuations, though the margin COTU captured was large in comparison to the other surveyed FOs.

### Hypothetical example of a P4P contract, imposed over prices recorded by VAM and reported by FO members, Rwanda.



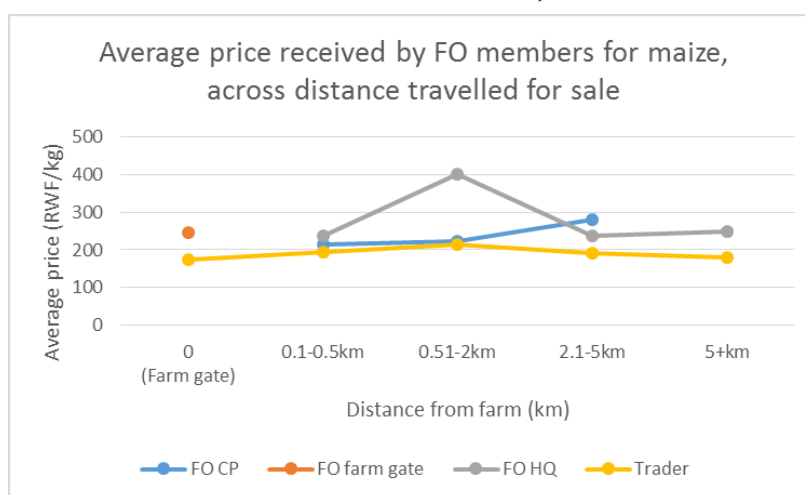
Source: WFP CO VAM retail price data and FGDs with FO members and leaders

## Annex M: Prices Received by Respondents Across Distances Travelled for Sale, Rwanda

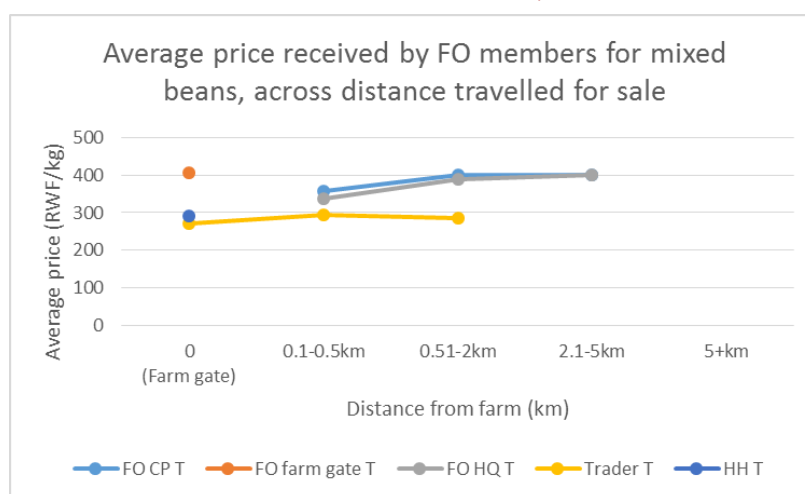
As with the price information presented in Annex H, these prices do not capture the intricacies of time, nor do they reflect a distance from any particular point. Rather, they capture prices accessed by FO members across time, and the distance reported is relative to the respondents' farms.

Though not mentioned in FGDs, mini-surveys revealed that COACMU also picks up seed quality beans and maize at the farm gate, which drives the average price received at the farm gate from FOs above the trader price in Figures 1 and 2, below.

**Figure 1: Average price received by surveyed-FO members for maize, across distance travelled for sale, Rwanda**



**Figure 2: Average price received by surveyed-FO members for mixed beans, across distance travelled for sale, Rwanda**



Source: Field visit mini-surveys

## Annex N: Average Costs of Transporting P4P Commodities to Sale, Rwanda

Means of transport	Distance of transaction from farm (in km) (and average transport costs incurred (in RWF))				
	0 (Farm gate)	0.1-0.5	0.51-2	2.1-5	5+
n/a	42 (0)				
Carry on head	3 (0)	16 (813)	13 (177)	3 (333)	
Bicycle	14 (1,500)	18 (2,117)	16 (475)	3 (500)	4 (1,875)
Wheelbarrow	1 (0)				
Oxcart				1 (300)	
Car					1 (7,000)
Truck				1 (20,000)	
<b>Total</b>	<b>60 (350)</b>	<b>34 (1503)</b>	<b>29 (341)</b>	<b>8 (2,850)</b>	<b>4 (2,900)</b>

Source: Field visit mini-surveys





Photo front cover: WFP/Jake Lyell

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**20 P4P pilot countries**

**Asia:** Afghanistan

**Africa:** Burkina Faso, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Liberia, Malawi, Mali, Mozambique, Rwanda, Sierra Leone, South Sudan, Tanzania, Uganda, Zambia

**Latin America:** El Salvador, Guatemala, Honduras, Nicaragua