

Emergency Market Mapping and Analysis (EMMA)

Wheat Flour Market System, Kyrgyzstan

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Executive Summary

The wheat flour market system is functioning poorly. Producers, who face production limitations due to limited access to adequate machinery, are beset with steep yield losses due to this year's dry and windy weather. Border closures and the flight of Uzbek casual farm labor has pushed up the cost of the important agriculture inputs of pesticide and labor, among others. Value-adding market actors like mills and bakers have been negatively impacted by the violence. Many bakeries, especially large-volume commercial bakeries are closed or operating at significantly reduced capacity, their client base fractured and their transportation links dysfunctional.

Kazakh wheat flour plays an important role in the Kyrgyz flour market system: up to 90% of the wheat processed at local mills is from Kazakhstan, and is used in nearly all baked goods. The closure of the Kazakh border has pushed prices up from 750 to 950 KGS or more for a 50kg sack of flour. The increase in the prices for flour, gas and charcoal has reduced the purchasing and production capacity of the small, mahala-based bakers that serve important bread needs of vulnerable ethnic Kyrgyz and Uzbek urban households. Sales of bread at the small bakeries are down around 50%, mostly because the high cost of fruit and vegetables sold at the expanding mahala-based markets reduces the amount of goods each household can afford to buy.

In rural areas, villagers are beginning to collect wheat and store it for the winter so that they can mill it into flour as needed during the cold months in which they anticipate of shortage of flour in the market. The high yield loss facing producers, the closure of the Uzbek and Kazakh borders, the breakdown of the transport and distribution system, along with the anticipated rise in wheat prices due to scarcity compounded by a drought and wildfires in Russia, threatens the nutrition of vulnerable consumers and the livelihoods of many actors in the wheat market system.

Emergency Context

In June 2010, following April's political upheaval¹, the Central Asian state of Kyrgyzstan experienced ethnic violence and rapid displacement in the southern districts bordering Uzbekistan. Nearly 3,000 homes and businesses were damaged or destroyed in a 3 day period. Although the origins and perpetrators of the violence remain unclear, the violence predominantly targeted the Uzbek ethnic group². Government estimates of the number of fatalities are 330, although unofficial sources quote that number to be significantly higher. At the height of the unrest approximately 375,000 individuals were internally displaced and a further 92,000 crossed the border to Uzbekistan. At present about 2,000 households, or 30,000 individuals remain displaced.³

¹ On 7 April 2010, violent civil protests erupted in the capital city Bishkek and provoked the dismissal of the President, Bakiev. An interim 'caretaker' government was instituted headed by Rosa Otunbaeva, but tensions continued, leading to a vacuum of national counterparts in many institutions at central and local levels, freezing of bank assets, and closure of borders, and disruption of the spring planting season.

² Kyrgyzstan: Ensuring Security and Human Rights Required to Put Country Back on Course, Refugees International 29/07/2010.

³ Kyrgyzstan Complex Emergency; Factsheet #13, Fiscal Year (FY) 2010, Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA), Office of U.S. Foreign Disaster Assistance (OFDA), 12/08/2010.

The violence against Uzbek neighborhoods in Osh and Jalal-Abad districts in southern Kyrgyzstan was accompanied by the looting and burning of houses, businesses and schools serving that population. Destruction in Uzbek-neighborhoods is pervasive. Homes have been destroyed, assets stolen or lost, public services damaged, and social and market linkages disrupted. Returnees are faced with critical near-term assistance needs in shelter, NFIs⁴, protection, and emergency economic interventions, as well as medium-term needs in education system rehabilitation and economic recovery and development.

Economic Development and Livelihoods Context

The economic impact of the June events has been immediate. The overall damage to the local economy is as follows: 170 shops, six markets and more than 100 cafes and other sites damaged or destroyed in Osh alone.⁵ In addition to the direct damage to business sites, fear of reprisals has immobilized most sectors in and outside of the metropolitan areas. Transport of goods to and from the Southern regions of Kyrgyzstan has halted for most of June, and July from other regions of the country, and from neighboring countries like China, Russia and Uzbekistan. This has had a severe impact on the agricultural sector, which contributed to 27% of GDP in 2008 and remains an essential component of the economy as it employs 46% of the working population.⁶

Kyrgyzstan's population suffered from chronic food insecurity before the June events. The rise of cash and pension levels in early 2009 was not sufficient to ensure food security for the food insecure. Food prices at the neighborhood level may not have come down significantly despite downward price trends noted in central markets. Growth stunting affected almost one out of three children below 5 years of age in 2008. The prevalence of stunting among under-5 children was higher in rural areas (35.9%) and seemed also higher in Jalal-Abad and Osh oblasts, the two Oblast's which were the hardest hit by the June events. The population is very vulnerable to changes in prices on basic food stuffs such as potatoes and wheat flour. The share of food expenditures remains high at 60% of total expenditures across all food security groups, reflecting widespread poverty. The absolute amount of food expenditures of food insecure households is well below the cost of the official food basket.

The WFP prediction in April that exports should pick up as demand recovers in Kyrgyz Republic's main export markets (Russia, Kazakhstan) has unfortunately not held true for the months following the June violence. The export markets remained closed as of July 28th, in addition to the closing of the Uzbek border, products like CGI originating from China, are not moving freely due to fears of instability in the South. It is also important to note that both Russia and Kazakhstan will no longer allow certain commodities through their border due to the newly signed Customs Union Accord between Russia, Kazakhstan and Belarus to which Kyrgyzstan is not a signatory. The disturbance of market linkages, namely in the transport of goods domestically and to and from foreign markets and lack of information available to farmers about market prices in other regions, the pervasive fear which is discouraged farmers and laborers from clearing the early harvests from April until July, and finally the high costs of inputs such as fertilizer, pesticides, and fuel have all contributed to the glut in the early potato market in the Osh and Jalal-Abad Oblast and are now delaying the second planting of the crops in the Southern regions which have two planting seasons. This in the end may also have an impact on the following wheat planting and next year's harvest.

⁴ Non-food items.

⁵ Rebuilding Southern Kyrgyzstan, IWPR, July 31, 2010: <http://www.reliefweb.int/rw/rwb.nsf/db900SID/AZHU-87VNUX?OpenDocument>.

⁶ Duhr, Agnes, "Food Security Update and Nutrition Situation In the Kyrgyz republic" UNWFP April 2010.

EMMA Methodology

The EMMA is a rapid market analysis designed to be used immediately after a sudden onset crisis. Its rationale is that a better understanding of the most critical markets in an emergency situation enables decision makers (i.e. donors, NGOs, government, other humanitarian actors) to consider a broader range of responses. It is not intended to replace existing emergency assessments or more thorough household and economic analyses such as the HEA, but instead should add to the body of knowledge after a crisis.

The EMMA assessment on the ground in Kyrgyzstan focused on early recovery needs for four selected critical markets (wheat flour, potatoes, CGI and cement), and the impact of humanitarian aid to date on the local market. The IRC EMMA team led by Benjamin Barrows and Eugenia Gusev arrived on the ground several weeks after the initial June violence events. Four other local team members were trained and carried out the assessment from three organizations (1 INGO and 2 local NGOs) : Mercy Corps, Mehr-Shavkat and TES center. The wheat flour assessment focused on Osh city, farmers in Aravan district (distinct because of 2 planting seasons) and Jalal-Abad oblast (city and surrounding villages). It should be noted that a large interagency livelihoods assessment has been conducted with ACTED, GTZ, German Agro Action (Welt Hunger Hilfe) in collaboration with local NGOs AMFIK and TES. The assessment interviewed 300 business owners, 300 MFI clients and 300 farmers/producers. The EMMA team has coordinated closely with ACTED to avoid geographic and programmatic overlap and ensure complementarity. Data from the assessment was not available at the time of the EMMA writing.

The Target Population

The EMMA team selected farmers and bakers as the target population. Families with damaged or destroyed houses and urban small businessmen whose shops were damaged or destroyed were not selected because those populations, although the most directly affected by the violence, were to be thoroughly covered by the large joint assessment efforts undertaken by the ACTED, GTZ, German Agro Action, TES and AMFIK alliance. Therefore the EMMA team selected a target population and geographic coverage in its fieldwork that would complement the assessments already underway at the time the EMMA began.

Target Group	Location	Essential Characteristics
Farmers	Rural and suburban areas of Osh and Jalal-Abad oblasts	Small-holding farmers that plant a variety of seasonal crops; Wheat is grown by both ethnic Kyrgyz and Uzbek farmers
Bakers	Aravan village, Osh city and Jalal-Abad city	Large scale production. Use domestic and imported flour. Sell the bread to small retailers. Some cannot access their previous place of business, sales down.

Many farmers need immediate assistance – many are facing a drop in income. The cash earned in the summer harvest is used to pay debts and buy inputs for the second planting, which is the food security crop mostly stored and consumed over the winter months.

Critical Market System

The critical market systems were selected after giving consideration to seasonality, the survival and livelihood needs of the affected population, current international interventions and other ongoing livelihood-oriented assessments.



Wheat flour was selected as a critical market system because bread is a staple food item and an important source of income for producers. Wheat stored over the winter is a key survival foodstuff, even though production in Kyrgyzstan is limited by a lack of machinery, especially combines, and key inputs to help the exhausted soil.

In a typical year, producers will lose around 10% of their harvest to natural elements, but the

especially dry and windy summer of this year has pushed expected yield losses up to 40%. On top of the yield loss, farmers also give 10% of their crop to pay for the machinery to harvest and transport their crops to market. Villages are coping with the anticipated food shortage by attempting to collect and store wheat, purchased at about 7 KGS per kilogram. The government has in the past purchased a certain amount of the harvest at 8 KGS per kilogram, but currently producers must depend on the market chain for the sale of most of their wheat.

Farmers in food production areas have less of a food security threat from the poor harvest. It is the vulnerable urban populations that are most affected. Prices for wheat in newly expanded mahala market areas are often double those found in large bazaars or when purchasing from farmers directly. The high flour prices also negatively affect small local bakers servicing micro markets in local neighborhoods who can purchase less of the ingredients for baking.

Although wheat is a critical food in Kyrgyzstan, its low price and low profit margin means it is not a popular crop for small farm producers. Neighboring Kazakhstan produces a large amount of wheat, exporting to the region and many other countries, including Korea, Japan and China. Indeed, Kazakh wheat plays an important role in the Kyrgyz wheat flour market system. Kazakh wheat produces flour of a finer texture, and is favored by bakers, who mix it with the coarser Kyrgyz wheat in the milling process. Most bread and sweets consumed in Kyrgyzstan contain Kazakh flour.



The Kyrgyz economy is based primarily in

agriculture. Kyrgyzstan has about 1.4 million hectares of arable land, which is only about 7 % of the nation's total area. Grain production is concentrated in the lower valleys, largely in the south of the country. Wheat is a critical food staple for people in Kyrgyzstan, usually processed into flour and used for baking bread. In its unprocessed form, the husks are used for animal feed. Kyrgyzstan does not produce enough wheat to satisfy all of the national demand, and must therefore import wheat. Since April, Kazakhstan has banned wheat/flour exports into Kyrgyzstan, and Kyrgyz authorities turned to Russia as an alternative exporter. At the same time land being planted in Kyrgyzstan was expanded from 360,000 hectares last year to 400,000 in 2008. According to officials, in order to grow enough wheat for domestic consumption, Kyrgyzstan must plant 500,000 hectares. Wheat flour was part of the emergency distribution package given out within a few weeks of the conflict. Therefore, the EMMA team felt it was important to see how if at all, the market has been impacted by the flour distribution in Osh and Jalal-Abad.

Key Market Actors:

Farmers: Most farmers in Kyrgyzstan have relatively small amounts of land – the government has allocated one ‘are’ of a hectare (100 square meters) per family member. Therefore, some families have less than a hectare while a hectare or more. Since the end of collectivization farmers have tried to diversify their crops. Few, if any, have only one crop culture planted in their field. Most grow several crops, including cucumbers, tomatoes, leafy greens, onions and occasionally cash crops such as cotton,



rice and tobacco. When land was allocated after the end of the Soviet Union, many did not have farming skills. Lack of skills and inadequate structures for irrigation, planting, harvesting and storage have all contributed negatively to harvests and income generation.

For one hectare a farmer’s average costs are 13,000 KGS for land cultivation (plowing, harrowing), 4,000 KGS for fertilizers and 5,000 KGS for seeds. Renting a combine to harvest wheat this year has cost each farmer 10 % of the harvest plus fuel (25 liters/acre). Irrigation infrastructure within the boundaries of the former farms

has been affected by poor maintenance. More than 70 % of the arable area depends on irrigation for its productivity, but since the dissolution of the U.S.S.R lack of funding for maintenance has resulted in the deterioration of irrigation dams as well as reduced capacity of the primary and secondary irrigation systems. Many pumping stations have slowed or stopped operations, and the clogging of drainage systems is leading to increased water logging and soil salinization.

Importers: Prior to the crisis the closing of the borders with Kazakhstan had already impacted the availability of wheat imports. The EMMA team was not able to identify and interview anyone who dealt directly with imports after the June conflict due to fear possibly tied to recent events and possibly also tax avoidance. However, through the interviews conducted in Osh and Jalal-Abad, it was established that importers sell their grain to the mills (large and small) which then process it and sell the flour to the market, and bread factories and small bakeries. On the baseline market map below, importers have

been marked with a red slash to demonstrate the border issue that existed before the June emergency. Farmers also sell their grain to the mills. In addition to flour, the mills also produce and sell the by product of milled wheat for animal feed which is then stored all through winter by owners of livestock.

Flour Retailers: Market retailers maintain stalls in markets and typically sell as little as less than a ton or up to three tons of flour a day. Their customer base prior to the June events was both ethnic Kyrgyz and Uzbeks. They sell to individual consumers, small bakeries, restaurants and cafes. Other retailers hold small stores, and super markets also sell bread purchased from the bakeries.

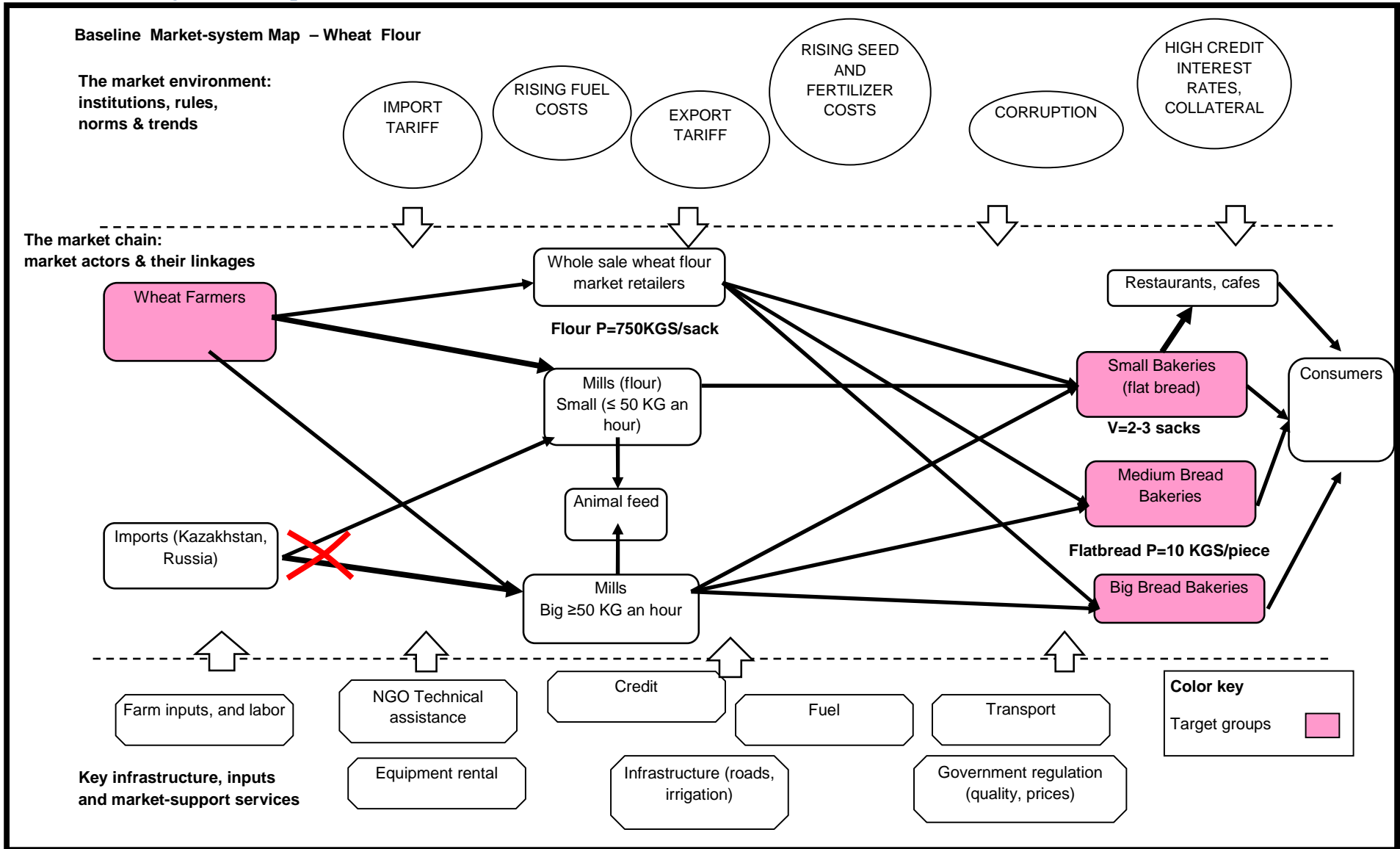
Bakers: The bakers purchase their flour from the flour mills. Several types of bakers exist, but there are two industrial sizes. The small industrial bakeries produce 2,500 loaves of bread per day, which requires seven to ten 50 kg bags of flour and big bakeries, which produce at least twice as much. According to the Statistics Department of Osh city, there is 1 big bakery, 4 small industrial and 134 home-based, bakeries in the city. Jalal-Abad most likely has about 50⁷ small scale bakers in the city, if the population of the cities (Osh city 253,000 and Jalal-Abad city 77,000) is taken into account. The so-called home-based bakeries often bake as much bread as can be made from one sack of flour, and usually bake traditional flat-bread. Many mahala-based bakeries used 2-3 sacks of flour a day, but a decrease in business that reaches up to 50% has dropped their flour needs to one sack of flour. One 50kg sack of flour, which costs between 925 and 975 KGS, makes 300-500 pieces of flatbread that retail at 8-12 KGS each.

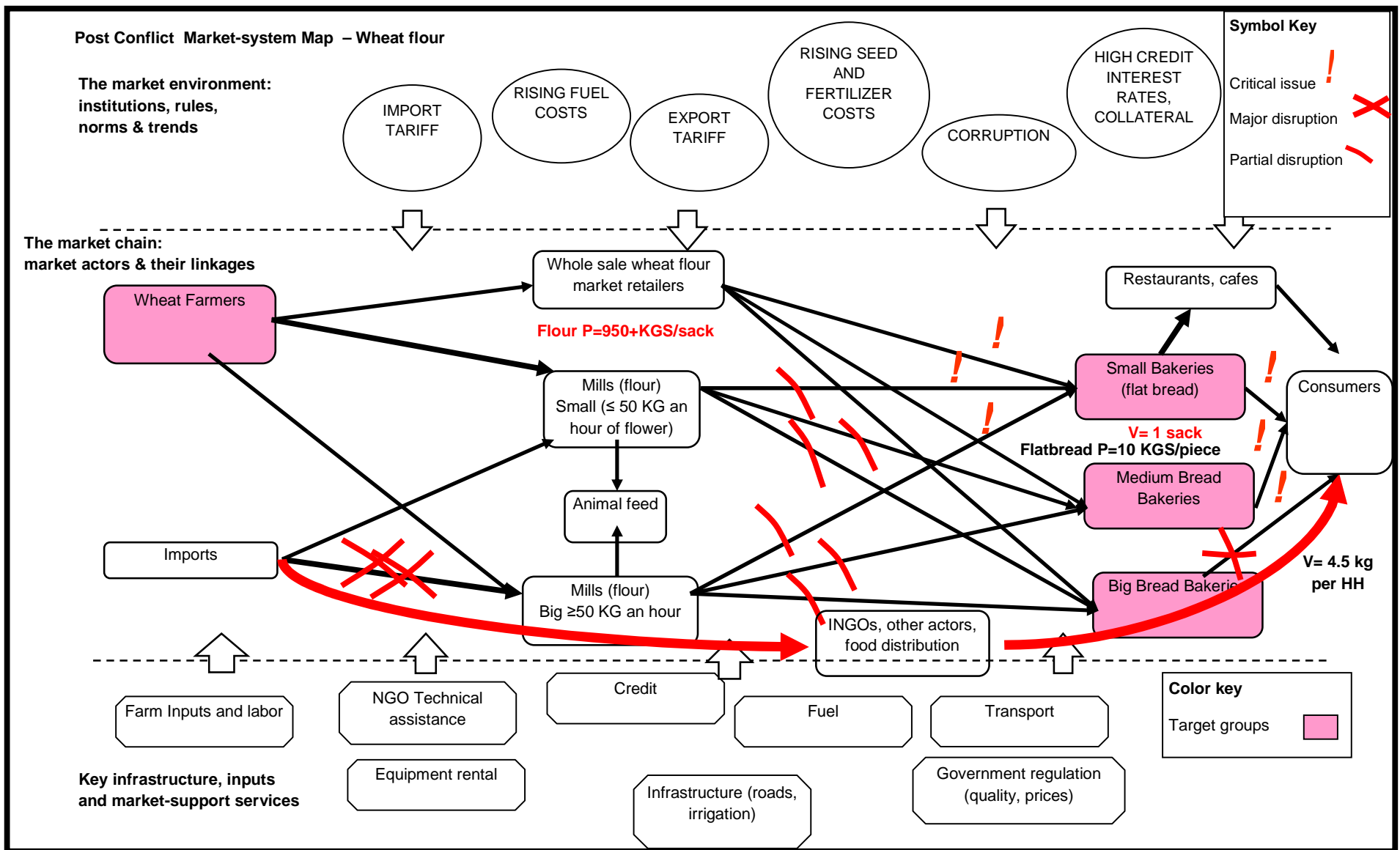
The demand for bread is usually higher in the winter, requiring to 15 sacks of flour a day for production at the small industrial bakeries. Across the regions and different retailers the price of bread has remained stable, but the cost of the charcoal used to fire the ovens has increased from 4-5 to over 5 KGS per kilo. Small bakeries usually buy the coal by the ton. Five to 8 tons will last for about 2 months at average production levels. Since the retail price for a piece of 10 KGS for a piece of flatbread is mostly the same from all bakeries, the margins for smaller bakeries are narrower than those for the big bakeries, who enjoy more efficiencies of scale in their operations.

Mills: Both Osh city and Jalal-Abad city have big and small mills – there are five small mills in Osh city alone. The small mills can process up to 50 kg of wheat into flour per hour. Mills also produce animal feed, which is a by-product of wheat processing. Mills sell the feed to grain retailers or directly to farmers.

⁷ WFP rapid survey small scale bakers 26-07-10.

Market-system Maps





Main market actors:

How the Market System has changed since the June events:

The EMMA illustrates these observations through the market map which shows different linkages between consumers, producers, retailers, middle men and processors. Two market maps are used to compare pre-emergency baseline and post-emergency information. The first map in this report shows the baseline market situation for wheat flour in Southern Kyrgyzstan. Thick black lines demonstrate strong links/higher volumes of commerce between two market actors, thinner lines show weaker links.

As the red markings show on the map above, the wheat flour market has suffered several broken linkages, price spikes, and shortages of stock that are concerning for the near future. The situation is made more worrisome by the recent decision by the Russian Federation to stop all wheat grain exports until December due to low crop output this year following a severe drought. Compounded by the closure of the border with Kazakhstan and the high yield losses this season, it is likely that there will be a shortage of wheat flour in the Kyrgyzstan market in the coming months.

Parts of the chain have been fractured due to the accumulation of several factors like the fear of violence, price rises for gas and fertilizer, and the disappearance of part of the client base to which wheat and wheat flour were being sold. With the exception of a lack of inexpensive labor, the wheat harvest has been more affected by weather conditions than it has by the June events, which transpired in predominately urban environs. Wheat flour has also been part of the food distributions by the international community and in some cases by the local authorities.

Imports: The biggest disturbance in the wheat flour market stems from the closing of the border in April, but also a continued lack of supplies following the June events. This is particularly true for Osh,



where mills and bakeries purchased their flour from Bishkek or from Kazakhstan directly. The rise in cost of Kazakh flour, from +/- 750 KGS to 950-1000 KGS per 50kg has been observed on the Osh, Aravan and Jalal-Abad markets since June. The increase is most likely due to the combined effects of the border closings with Kazakhstan, slowed imports with Russia, and the negative impact of the June events have had on demand, and on deliveries of goods to the South. It is important to note that as of August 5th, Russia has declared a border block on all grain exports until December 2010 due to a severe drought.

Mills: Four out of five mills in Osh have no stocks and are not open for business. Certain retailers who usually sourced their flour from the Osh markets, had to look to the neighboring market town of Karasu (40-60 minute drive from Osh City) to purchase flour, increasing overhead costs. Deliveries of most goods to Osh city and its surroundings from the North of the country have slowed down significantly, especially for wheat and wheat flour. It is notable that information is lacking for most

retailers who may not know where flour is available or where the prices may be lower. It is also possible that owners of mills prefer not to build up stocks for fear of losing it if violence returns.

Bakeries:

There are 13 “bread factories” (production bakeries) In Osh city alone, out of which only 4 are operating. Some have been damaged or burned or lost stocks to looters, while others closed down because their personnel were too scared to return to work. Critically, the persons hired to transport the bread from the bakeries to bread retail locations have not returned to work.

The demand for bread has also fallen due to the closure of many cafes and restaurants in Osh city and some in Jalal-Abad city. The flatbread bakers have also suffered drastic changes in their client base. Some have either lost their clientele, or currently can only sell in Uzbeks neighborhoods if they are Uzbek, and Kyrgyz neighborhoods if they are Kyrgyz.

Increases in Price:

1. The price increase of 200-250 KGS per 50 kg sack of flower has been traced back to the processors and wholesalers who exert control over prices. Retailers and small vendors who sell flour have complained that their customers are unhappy with this rise in costs, and that the government should exert some control on this price rise. However, given that the supply of the flour has been cut with the Kazakh and now Russian border, the price rise is most likely due to the scarcity of supply which hasn't been offset by the drop in the demand.
2. There has not been an increase in bread prices as of the day the EMMA analysis was completed. Until July, most people were still baking out of their flour stocks they had from June. Depleting stocks can be a worrisome practice for the most vulnerable, since some are already most likely using their winter supply of wheat to bake bread for eating and selling, and therefore will suffer a shortage in the winter when their stock may be depleted.
3. Bakers and mills owners have expressed concern over flour distributions undertaken as part of the international emergency response, blaming it on the partial drop in demand. The rising prices on flour would soon also impact the price of bread for the consumer, which would be harmful in a situation where the majority of the population in Southern Kyrgyzstan is currently struggling to regain their livelihoods.

Key:	
Crop season:	Includes Harvest (H) and Planting (PI). Specific about crop culture, for example PI, Wh= Planted Wheat/ or H, Rice (Harvest Rice). Harvested Wheat and Potatoes (H, Wh,P).
Snow seasons:	Mountain (Mt), Valley
Holidays	Wedding (W), Religious (R)
Household expenses	Construction (const), W (weddings), S (school fees), w.prp (winter preparation)
Cost of Fuel	High Price (H\$) and High Demand (HD)

Seasonal Calendar

Activity, Food or Income Source	Who?/ Where?	J	J	A	S	O	N	D	J	F	M	A	M
Seasons		Hot	Hot	Hot	Hot	cool	cool	cold	cold	cold	cool	cool	Hot
Rainy season						Rain	Rain				Rain	Flood	Flood
Dry season		Dry	Dry	Dry									
Snow seasons							Mt.	Mt/Valley	Valley	Valley	Valley		
1 st crop season	3 regions in S KYR	H Wh, P				P, Wh				P 1 st crops Veggies (Aravan)	P 1 st crops Veggies (Aravan)		H, Potatoes
2 nd crop season	3 regions in S KYR	P	P			H, Rice, Corn	H, Veg						
Crop seasons	All of KYR		H, Tom	H, Tom	H	H						P	P
Fertilizer	All of KYR	F	F										
Fertilizer 1 crop season												F	F
Fertilizer 2 nd crop season			F	F									
Holidays				W, R	W, R	W	W						
Household expenses				\$ W, S, const	\$ W, S, const	\$ w.prp	\$ w.prp						
Labor (\$\$ when hot, effected by border closings), P 2/3 days, H 2 weeks		\$	\$	\$									
Food Prices (L: Low, H: High)			L	L	L	L	L			H	H	H	H
Hungry time											H	H	
Home improvement													
Credit: for S, W. Demand is high, suppliers have to take credit to buy stocks													
Seeds							Low \$	Low \$	Low \$			H \$\$	H \$\$
Fuel High \$ and High Demand				H \$ HD	H \$ HD	H \$ HD					H \$, HD	H \$ HD	
Flour					Mill		Gr imp	Gr imp					

Key Findings

- 1) Weather conditions are causing an expected yield loss of up to 40% of the wheat harvest.
- 2) Long-term problems like inadequate/aged machinery, poorly functioning irrigation systems are compounded by the rising cost of fertilizer and pesticides as a result of the emergency, negatively affecting wheat producers.
- 3) Many high-production bakeries are closed – bread retail outlets are closed and transport linkages between bakers and retailers are broken.
- 4) Drought, wildfires, Russia's ban on wheat grain exports and hoarding will likely create scarcity and drive up wheat prices across the region.
- 5) Rising flour prices will affect bakers, especially the small, marginal bakeries operating in mahalas.
- 6) It is likely that some of the small bakers and market actors who lost business, or whose stores were damaged will be not able to re-enter the market chain. Without stimulating demand at the retail level, some retail outlets will either not reopen, or those that are currently open may close down because of low revenue and high operating costs.
- 7) Distributing flour directly to households will mean that no capital will enter the local value chain beyond the importer/wholesaler, further weakening critical parts of the market chain.

Main Conclusions and Recommendations

Response Options

	Response Option	Feasibility & Timing	Advantages	Disadvantages
1	Cash allocation to most affected farmers	-High Feasibility: Needs are fairly simple to assess with basic gap analysis. Logistically and administratively simple to implement. Assistance is easy to track and disburse, and monitoring receipt of funds straightforward. -Needs to be implemented immediately. Would most likely take 3-4 weeks to design and operationalize.	-Beneficiaries have control over use of funds, which is an empowering flexibility. -Can be implemented rapidly. -Would not require prolonged program to effectively serve immediate needs.	-Higher risk of misuse, and may exacerbate inter-ethnic tension and increase risk to most vulnerable. -Difficult to monitor use of funds. -Does not have any benefit for other parts of wheat market system.
2	Public information system for crops and markets	Moderately Feasible likely take 3-4 months.	-Could make good use of existing local NGO capacity. -Good for preventing/mitigating market fragmentation in future emergencies -greater connectivity reduces enmity between producers and downstream market actors.	-Cannot be implemented as rapidly as direct interventions; will not ameliorate immediate needs. -May face administrative barriers from gov't.
3	Vouchers for bakers, retailers and/or vulnerable households	Feasible; can be implemented through local NGOs and existing INGO programs.	-Reduces amount of income vulnerable HHs spend on food. -incentivizes market actors to resume/continue operation -lowers financial risk to vulnerable bakers and retailers, many of whom are women -increases volume of commerce and efficiencies of scale.	-May be of limited utility as flour prices rise.

4	Cash for work for farmers to clear irrigation and other farm systems, and crews to clean up markets and businesses	High feasibility; can be implemented very rapidly through local NGOs and newly established INGO CFW structures.	<ul style="list-style-type: none"> -provides livelihood support to vulnerable populations. -increases beneficiary purchasing power for self-help, including crop inputs and winterization. -increases ability of beneficiaries to purchase staples necessary for nutrition and survival. 	-does not have positive effect on bakers, retailers or affected households.
5	Advocacy with Kyrgyz government to purchase certain volume of wheat from farmers	Low feasibility; timing donor dependant.	-subsequent sales would provide critical income to vulnerable farmers.	<ul style="list-style-type: none"> -will probably not be an option until after window of maximum utility (purchasing inputs, etc) has passed for vulnerable farmers. -if purchased wheat not made available locally, could increase scarcity.