NAFAKA STAPLES VALUE CHAIN ACTIVITY

Phase One Market Survey Briefing *(February 2014)*

February 18, 2014

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1. Executive Summary

This market survey report is intended to provide an update in the general market dynamics characterizing the maize and paddy supply chains in NAFAKA's Zone of Influence. The report focuses largely on sales made and prices received by smallholder farmers served by NAFAKA during the 2012/2013 growing cycle.

This market survey updates NAFAKA's 2nd NAFAKA Annual Outcome Survey, conducted in August/September, 2013 and reported in our Annual Report for the period October, 2012 thru September, 2013. Interviews were conducted with the same beneficiaries. The 2nd Outcome Survey was conducted immediately after harvest, when prices are normally at their lowest due given the large quantities of product released onto the market. By January, most farmers had sold their surplus commodity, which they are not retaining for consumption, which normally brings better prices than immediately post-harvest. As such, this market survey update was geared towards securing a more accurate picture of sales and prices at the farm-gate, in order to enable the project to better understand the market which farmers normally engage. A 2nd phase of this market survey will be conducted in March of 2014 focusing on stakeholder interviews with associations engaging in collective marketing, traders/middlemen, millers, buyers and other higher value chain actors. It will also include a review of price points for different varieties of paddy (and rice). This will enable NAFAKA to continue to refine a marketing strategy which benefits the majority of farmer-clients with whom we work.

This briefing will be further updated after the 2nd phase of the market survey is completed, and shared with stakeholders as a Final Market Report.

2. Overview of Results

Overall, prices of both maize and paddy in 2013/14 dropped dramatically from December, 2013 levels – with a significant fall reported in rice. However, it should be noted that prices for rice in 2012 were exceptionally high due to poor harvests in rice growing areas in 2011. The tables below highlight NAFAKA's main findings on gross margins (Table 1) and incremental sales (Table 2):

[1] Gross Margins are calculated per definitions of Feed the Future Indicator 4.5-16 (September 2013 edition)
[2] Incremental Sales are calculated per definitions of Feed the Future Indicator 4.5.2-23 (September 2013 edition)

Table 1. Rice and Maize price variation from December, 2012 through January, 2014

Variable	December 2012	August 2013	January 2014	Adjusted (Blended) Figures for 2013 Season
Paddy				
Average Price (USD/kg)	USD 0.62	USD 0.346	USD 0.297	USD 0.32
Gross Margin (USD)	543	545	396	448
Yield (kg/ha)	2,370	2,999	2,999	2,999
Maize				
Average Price (USD/kg)	USD 0.24	USD 0.287	USD 0.22	USD 0.25
Gross Margin	106	103	56	94
Yield (kg/ha)	976	704	704	704

Table 2: Value of Incremental Sales between August 2013 and January 2014

	August 2013	January 2014	% Change
Paddy			
Value of Incremental Sales	$2,276,335	$11,556,448	+408%
Baseline Sales (USD)	$3,654,687	$3,654,687	N/A
Total Reported Sales	$5,931,022	$15,211,135	+158%
MT Sold	17,096	48,318	+183%
Number of direct beneficiaries	17,891	17,891	NA
Maize			
Value of Incremental Sales	$2,752,058	$3,243,295	+18%
Baseline Sales (USD)	$41,664	$41,664	NA
Total Reported Sales	$2,793,722	$3,284,959	+18%
MT Sold	9,676	11,923	+23%
Number of direct beneficiaries	9,156	9,156	NA

Gross margin is calculated using the following formula:

[(Total Production X Value of Sales/Quantity of Sales) – Total Input Costs] / Units of Production

NAFAKA has applied the August and January average prices to a corresponding percentage of MT sold for the time period between June-August, using reported prices and MT sold from the August Outcome Survey, and the period between September-January, using reported prices and MT sold from January Market Survey update. The blended rate provides us with a more accurate average price for the years' sales.

In rice, while NAFAKA client farmers significantly increased the MT sold, they did not realize a higher gross margin due to the dramatic reduction in price per kg, as gross margins are calculated against the total production.

In maize, the majority of sales were made around harvest time, as prices were higher than average due to the lack of supply of maize (per drought and other issues, as highlighted in NAFAKA's Annual Outcome Survey). Sales patterns for maize are also different than for rice, as maize is also a main food-source for most farmers, who maintain a signification stock of their production for consumption during the year.

3. Highlights of Main Findings of Market Trends

1st Outcome Survey Findings: The NAFAKA first Annual Outcome Survey, conducted in December 2012 found the average price of paddy to be USD $0.62 per kg, whereas the average price of maize was USD $0.24 per kg. Based on these relatively high prices for the two staples in 2012, the average gross margins for the two crops were USD $593 for paddy and USD $106 for maize.

2nd Outcome Survey Findings: The second NAFAKA Annual Outcome Survey in August 2013 was not yet a full year after the first survey but reflected the harvest in June/July from the 2013 production season. The price for rice during this period of time tumbled to USD 0.346 for paddy, representing a 46% decrease in price. NAFAKA hypothesizes that this is due to duty free imports of rice coming into the market in the interim, coupled with a general increase in production across project areas. Additional information will be included in the full NAFAKA Market Survey, which will be finalized in March of 2014, after additional surveys and research at higher levels of the value chain are conducted (associations, middle men, millers, traders/buyers, amongst others).

Meanwhile, during this same period the price of maize increased to USAID 0.3506, representing an increase of 21.4% for maize. This may be attributed to factors of drought and disease in maize growing areas, reducing the supply significantly – which is discussed in more detail in the NAFAKA Annual Outcome Survey (October 2013) and will be followed up with additional studies throughout the next two years on climatic trends in maize growing regions.

Table 1 above shows that, despite relatively lower average prices for the two crops in August 2013 as compared with 2012 prices, the average margins remained somewhat stable at USD 545 for paddy and USD103 for maize, against USD 543 and USD 106 respectively registered during the 2011/12 growing season. The minimal variation of paddy gross margins against a backdrop of declining prices can be explained by the fact that there was a corresponding increase in productivity as measured by yields per hectares (kg/ha). Meanwhile, the increase in maize prices was offset by the low productivity due to drought and associated plant diseases and pests.

Updated Market Outcome Survey - January 2014: The market survey conducted in January 2014 shows that the average prices of both staples have since declined, dramatically so in rice. Specifically, the findings show that the maize price dropped from USD 0.28/Kg in August 2013 to USD 0.22/Kg in January 2014; whereas the average price of paddy dropped from USD 0.346/Kg in August 2013 to USD 0.29/Kg in January 2014, compared to USD 0.62/Kg in December, 2012.

In paddy, the percentage of farmers who have sold their crops has increased from 60% who had sold their paddy in August 2013 to 90% in January 2014 – which contributed to an increase of 183% in MT sold.

A slight increase was observed in the percentage of farmers who had sold their maize crop by the time of the 2nd Outcome Survey survey in August 2013 (58%); whereas the percentage of farmers who had sold their maize crop as of January 2014 was 67%, representing only a 23% increase in MT sold.

Gender concerns: It was also noted that women maize farmers are realizing roughly 1/3 of the gross margins men are realizing (42 versus 142 respectively). This type of discrepancy has not been found in paddy gross margins. Further analysis on this phenomenon will be conducted.

Reasons for Low Prices of Paddy and Maize

Generally, seasonal price variation is normal given the harvest schedule, though there is considerable variation from year to year. Price differences also follow expectations, with traders and more informed or less-vulnerable farm households storing their produce in anticipation of higher prices in the months of December and February. Normally harvesting of both paddy and maize happens between June – September for most of the NAFAKA project areas – with a surplus of produce on the market immediately after harvest (July-early October). However, 2013 saw the supply of these staples in the market continue to be stable from the harvest period in June-September 2013 through January 2014.

Paddy prices are reported to be their lowest in ten years. While lower prices are a blessing to consumers, if not properly managed, they adversely hurt farmers and discourage investment in agriculture. The big question is what causes this phenomenon?

One of the most cited problems related to marketing of paddy is price instability. Most of the farmers interviewed (94%) said that the main challenge facing farmers in their efforts to sell their produce is the lack of reliable markets, which in turn results in lower prices for their produce. The absence of reliable sources of markets renders the farmers vulnerable to middlemen and rent-seeking money lenders. The latter (money lenders) capitalize on the lack of reliable sources of credit to lend money at prohibitive, usurious rates of interest rate of up to 100%. Normally farmers take these expensive loans at the start of each growing season in order to buy agricultural inputs. The loans are normally repaid during harvest time, mostly in terms of crops, at a rate/measure agreed upfront, with little regard, if any, to prevailing market prices will actually be during harvest time. However, this issue is true for most seasons, and does not explain the significant price drop in 2013.

The most likely contributing cause for low prices involves duty-free imports that flooded the market early 2013, just at the time when prices are usually at their peak. The decision to allow importation of rice came at a time when farmers/traders were holding stocks of both rice and paddy. When the government eventually stopped the imports, most thought that the effect of this would be short-lived. However, this seems not to be the case as some big traders and importers continue to maintain huge stocks of imported-rice in their warehouses. In January 2014, NAFAKA farmers in Mvomero district, for example, held 2,290 bags of paddy in different warehouses operated by farmer associations. All these crops are held in anticipation of price increases that normally occur this time of year, but which they have not seen to date. These farmers are now facing substantial losses considering the cost of storage and the current downward trend in prices – with continuing to hold on to their stocks. NAFAKA farmers in Ifakara with similar stocks (over 7,000 bags of paddy) have now sold, despite realizing a lower price per bag than had they sold at the beginning of the harvest season.

The study found that prices of paddy in some areas, notably in Mvomero district, declined even further when farmers harvested their off-season paddy plots towards the end of December 2013. NAFAKA staff observed farmers at Mgongola selling ten tins (140 Kgs) of paddy at USD 25(3).

Anecdotally, NAFAKA is hearing in interviews from traders that the two main buyers/processors in Tanzania were given licenses to import rice duty free, when the government determined that there were food shortages. Further, these interviews suggest that many of the traders associated with these companies have unsold stocks in their warehouses. This information is difficult to confirm, as traders often would not want to reveal this information in a formal setting – though these concerns will be followed up during the 2nd phase of the Market Survey.

Further, with little access to cross-border or regional markets, this glut is likely to continue for months to come. However, most of the paddy is now out of farmers' hands, with traders having bought off at very low prices. With finance not being a major problem to the traders, they have milled and are holding stocks, speculating that prices will rise.

Although the majority of farmers interviewed could neither articulate nor understand the rationale for this government decision, they were nonetheless able to clearly link the lower prices received for their produce to competition posed by low-cost rice imported duty-free. They further believe that some traders are now mixing imported rice with domestic high quality rice and are selling the mixed rice at average prices.

[3] Other NAFAKA intervention regions do not see an off-season rice production, due to rain variability.

Spatial Variations of Prices across Districts

Most of the farmers interviewed in this survey (about 96%) reported to have sold their produce at farm gate prices. The prices received by farmers also vary across districts. For example, the survey found that the average price received by farmers for a kilo of maize in Kongwa district was USD 0.24 whereas a kilogram of maize in Kiteto fetched USD 0.21. Similarly, the survey found that a kilogram of paddy in Kilombero district was selling at USD 0.25 whereas the average price realized by farmers for kg of paddy in Mvomero USD 0.42 /=.

The price differentials across districts are influenced by a number of factors, including proximity to urban centers, which offer good markets for agricultural produces; road conditions, which affect transport costs and thus inflate prices. For example, Mvomero which is located a few kilometers from the highly populated Morogoro municipality recorded a higher average sales price of both paddy and maize compared to other districts/clusters.

4. Next Steps

This briefing, submitted in conjunction with updated Gross Margin and Value of Incremental Sales data to USAID, represents preliminary findings. NAFAKA will be complementing this farm level data with a 2nd phase Market Survey – as noted above. A full Market Report is scheduled for completion during the 2nd quarter of FY14, and will contribute to NAFAKA's marketing strategy moving forward.

Throughout this and upcoming seasons, NAFAKA also be looking at climatic conditions affecting maize productivity (which will be coordinated with similar research being conducted by iAgri and local research institutions), gender differentials in market prices, and price variations per paddy and rice varieties.

NAFAKA will also coordinate with the SERA project to identify potential follow-up research, such as a more rigorous economic analysis, of the short and long term effects of the duty-free imports.