

# Evaluation of the Ghana Rice Campaign

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## Available At:

- ★ Yoona GRIB Rice at Kalsuliduyili Nyohini  
0242377767
- ★ Bolga Quality Rice at Single Mothers' Association,  
Zuarungu, 0243341806
- ★ Ofram's Polished Rice at Ofram Supermarket,  
Tamale
- ★ Yahaya Sagua Rice from Alima Jarijaa,  
Lamashegu, 0249582470
- ★ Tuyumba Quality Rice from Afa Mary,  
Dohanayili, 0245250165
- ★ Lowlandi Special Rice at MoFA Group Rice Processing & Marketing  
Centre  
Tamale, 0246811045

### For More Information:

**Ministry of Food & Agriculture, Tamale, Northern Region, Telephone 071-22983**

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A marketing campaign implemented by Engineers Without Borders and the Ghana Ministry of Food and Agriculture to stimulate the rice value chain.

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## **Executive Summary**

The purpose of this document is to provide an evaluation of the Ghana Rice campaign, a marketing campaign implemented by Engineers Without Borders Canada (EWB) and the Ministry of Food and Agriculture in the Northern Region (MoFA).

From December 2008 – February 2009, EWB and MoFA, Northern Region implemented an intensive campaign to promote Ghana rice to consumers in Northern Ghana. The campaign is a pilot initiative to compliment the Government's initiatives increasing rice production and improving on the quality of Ghana Rice towards making Ghana rice more profitable for farmers in Northern Ghana.

The campaign was a success. In four short weeks the marketing strategies reached an average of 57% of people. Of those people 26% reporting buying quality Ghana rice because of the campaign. Due to the initial success, this implies that with enough resources to run the campaign over a longer period of time consumers could be convinced to shift their preferences away from imported rice towards quality Ghana Rice. This shift in consumer preference would result in an increase in market incentive for the rice producers and processors. The rice producers and processors who have been trained and have the resources would respond by increasing production and quality of production and begin to see rice farming as a profitable business.

The results collected indicate a few areas where the campaign should be improved when it is implemented on a National scale and for at least once growing season. The results indicate that running the radio jingle was almost three times more successful in bringing about consumer behaviour change when weighted by reach and cost as compared with the visuals (stickers, posters and signboards). The return on investment for implementing both the radio and the visuals is roughly equal to the ROI for the radio jingle alone. This could be due to a higher economy of scale with visuals that was not overcome from the pilot campaign.

For the future campaign, innovative and cost-effective strategies should be implemented including spreading the Ghana Rice jingle through ring tones on cellular phones.

## Study Methodology

The key question this evaluation tries to answer is:

*How effective was the Ghana Rice campaign as a strategy to improve the profitability of rice farming for small-scale farmers and processors in Northern Ghana?*

In order to answer this question, the evaluation of the campaign covers three major areas:

1. Process
2. Exposure
3. Adoption

From addressing these three areas, recommendations are presented for future interventions in the rice value chain.

The evaluation of the Ghana Rice campaign covers three main areas. Within these areas specific questions are asked. A baseline survey was collected from May – August 2008 to determine consumer knowledge, preferences and behaviours around both local and imported rice. During the campaign surveys were conducted on a weekly basis to monitor the exposure and adoption areas of the campaign. It is from this information that an evaluation of the campaign is being conducted.

Due to budgetary considerations the baseline survey and monitoring surveys which were conducted are only for a small sample size (200 people each time). However, it was determined that this amount is appropriate for the preliminary nature of this intervention where a proof of concept is all that is necessary.

Area	Questions Asked
1. <b>Strategy</b> of the intervention.	“How strategic was the marketing campaign?”
2. <b>Exposure</b> to the campaign	“Who was reached by the campaign?” “Which marketing strategies reached the largest market?” “How are people making sense of the campaign?”
3. <b>Adoption</b> of the best practices suggested in the campaign	“What knowledge, skills and attitudes were changed as a result of the campaign?” “What behaviours were changed as a result of the strategy?” “Which marketing strategy was more effective at behaviour change?”

## Strategy

The strategy for the intervention is distinct in two ways. First, because it focused only on rice as the commodity which will inevitably only assist those involved in the rice value chain or those who have the assets to enter into rice farming, processing, milling, or marketing. Second, because the intervention is a departure from the typical interventions employed to increase wealth and productivity for small-scale farmers, it is a marketing campaign aimed at influencing consumer demand for local rice.

### Why rice?

EWB analysed the various commodities that farmers in Northern Ghana are engaged in based on three criteria:

1. Engages women
2. Has a competitive or comparative advantage in Northern Ghana
3. Lower level of risk

Criteria	Rational	Example Commodities
Lower level of risk	To engage the poor, which in Northern Ghana are small-scale farmers, the commodities should not be prohibitive to small-scale farmers. That is, they should be commodities with small amount of capital required and should be able to marketed in the local market.	<ul style="list-style-type: none"> <li>▪ Staple crops</li> </ul>
Competitive or comparative advantage	We want to engage in private sector development by leveraging the competitive and comparative advantages of Northern Ghana. “demand for what northern Ghana can produce is there” <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ Rice</li> <li>▪ Cashew</li> <li>▪ Mango</li> <li>▪ Yam</li> </ul>
Engage women	Women are noted as being key to development. Supporting an income generating activity that is typically conducted by women brings more money into women’s pockets. It is noted that women typically spend their income on things that will benefit the household such as children’s education, health care and nutritious food. <sup>2</sup>	<ul style="list-style-type: none"> <li>▪ Shea nut</li> <li>▪ Processing of: rice, groundnuts, soyabeans</li> <li>▪ Bambara bean production</li> <li>▪ Groundnut production</li> </ul>

Rice was decided because it meets all three criteria more than any other commodity. As a staple crop, it can be grown for household consumption and as a source of income. Depending on the technologies applied by the farmer it requires relatively low amounts of capital. As compared with other staple crops, it has a very high market potential. Regionally, Northern Ghana produces 38%<sup>3</sup> of the country’s production. Rice is being under produced. Nationally, imports account for 64% of domestic supply<sup>4</sup>. In 2008, Ghana recorded bumper harvests in all staple crops except rice. Rice is also among the commodities where men typically produce it while women process it. With rice, women typically parboil it and also market.

<sup>1</sup> Economic Growth in Northern Ghana. Prepared by ODI and the Centre for Policy Analysis, Accra. 2005

<sup>2</sup> Gender – WB Sourcebook

<sup>3</sup> Source: MoFA SRID. 2006.

<sup>4</sup> Source: FAOSTAT. 2002.

## **Why a marketing campaign?**

In the past 30 years, the demand for rice has increased significantly, while supply has not kept up. Currently, Ghana imports 70% of rice demand.

The increase in imports has diverted consumers away from local rice, establishing their preferences for milled white rice over the more nutritious local brown grains, and reduced any financial incentive for investors to upgrade the country's mills and improve the quality that could be achieved at home.

Farmers in Northern Ghana have the most potential to benefit from improvements in the status of Ghana rice.

EWB and MoFA's economic analysis of the rice value chain revealed that the strategy to improve the status of rice in Ghana for the benefit of farmers is not simple.

*"Ask five different people in the green revolution debate and you get seven different answers. Africa needs private agricultural suppliers. Africa needs water. Africa needs roads. Africa needs GM crops. Africa needs big farms. Africa needs small farms. The reality seems to be that in such a diverse continent, Africa is likely to need all of them - and more." Seeds of change. Alan Beattie.*

### **Both quantity and quality must be increased**

The above analysis of the rice value chain argues for an increase in quantity of Ghana Rice to offset the importation of rice. However, without an increase in quality, the urban population who typically consumes more rice than rural consumers due to the convenience, will continue to buy imported rice. This is currently the situation despite the fact that Ghana Rice is typically 60-70% lower in price than imported rice<sup>5</sup>.

There have been numerous efforts to improve the quantity of rice produced in Ghana. These include:

- Research into improved varieties of seed (high yielding, can grow on alternate terrain, drought resistant, pest resistant, etc.)
- Provision of subsidized inputs to farmers (fertilizer, tractors, seeds, pesticides)
- Provision of low-interest loans to farmers and processors
- Extension services to encourage farmers to adopt technologies that will bring higher yields

All of these strategies on their own have not been sufficient. Farmers are rational decision makers and decide what and how to grow based on profitability. If rice is not profitable then they won't be encouraged to expand their land. If technologies are not profitable then they won't be encouraged to adopt them. Essentially, farmers make decisions based ultimately on market prices.

This realization has led MoFA and the development industry to adopt more market oriented strategies in agriculture. These include:

- Linking actors in the value chain so they can forge stronger relationships that will reduce inefficiencies and increase profits along the chain.
- Providing not only producers but processors, millers, etc. with information and training to provide the quality demanded by the market

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<sup>5</sup> SRID. Tamale Market. 2007.

**Example** from farmers around Tamale. Producers have been trained in the proper techniques to produce quality rice. They know that using tarpaulins when threshing the rice will reduce the amount of rocks and other foreign material. However, when they go to sell this higher quality rice, the processors refuse to give them a higher price saying that they can not afford to pay a higher price since they won't receive a higher price in the market. The farmers end up selling their paddy at the same price as lower quality paddy just to get rid of it.

Ultimately these strategies are only effective if, there is the market incentive to provide both the quality and quantity.

**Price must be kept low and profitable**

Any intervention aimed at improving the status of a commodity must balance the need to keep food prices low for urban consumers and for the sake of food security while ensuring that the commodity remains profitable for all actors in the market chain. In the first instance, urban consumers will stop purchasing the item (divert to other commodities or imported commodities). In the second instance, actors in the value chain such as producers and processors will divert to alternate sources of income.

A marketing strategy was designed to accomplish both of these objectives. Currently, only a few producers and processors are producing high quality Ghana Rice. They are selling it at prices that are comparable to imported rice.

Rice type	Ofram Supermarket	Tamale Market
Grade 1 Ghanaian Rice	3 GHC/bowl	
Grade 2 Ghanaian Rice	2.5 GHC/bowl	
US rice	3 GHC/bowl	3.5 GHC/bowl
Thai Rice	1.5 GHC/Kg	
Sultan Rice	1.53 GHC/Kg	
Bolga Rice		1.5 GHC/bowl
Tamale Rice		1.3 GHC/bowl

Source: EWB Survey March 2007.

This intervention was initiated under the assumption that the producers, processors, millers and marketers involved in this high quality Ghana Rice are making a profit and that if this is the case then this best practice needs to be encouraged. The campaign was initiated under the hypothesis that consumers are in the best place to encourage it by providing the market stimulus. Or, interventions to provide capital, knowledge and market access to inputs existed while output markets are an area that is not currently being addressed by the development industry.

The campaign aimed to address the market demand. The campaign highlighted the few people who are processing and marketing quality rice to the public. However, it was recognized at the outset that supply of quality rice is already a challenge and bringing about an increase in demand for quality rice will lead to a bigger gap between supply and demand. The women marketers who were also processors were made aware of the campaign and asked to commit to it only if they agreed to increase the amount they processed to be prepared for the increase in market demand.

**Recommendations on Strategy**

The campaign was not implemented long enough to cause a significant enough shift in the market demand that would result in the required changes in the supply of quality and quantity rice that is both profitable to produce/process and low-cost to consumers.

As predicted, supply of quality rice from the identified marketers was a problem through-out the campaign. One processor in particular did not have any rice on hand through-out the campaign due to a total lack of supply of paddy. This break in supply was caused by dam constructions. On average, supply was provided 75% of the time during the campaign with the lower scale women processor groups able to keep up with demand 80% of the time and the single women processors able to keep up with demand only 20% of the time. Reasons expressed for this include:

- Lack of adequately priced quality paddy
- Lack of credit to purchase enough paddy

It should be noted that due to the scope of the campaign, the validity of the strategy itself would not be able to rigorously evaluated. For significant results to emerge a national scale campaign that runs for multiple years is required.

## Exposure

The marketing campaign was designed based on the results from the baseline study conducted from May – August 2008.

The first question we sought to answer from the baseline study was:

### **1. Who are the major consumers of rice that we want to influence?**

No statistical data exists on the consumption patterns of rice so anecdotal data was collected. The results of the study revealed the following:

- Men and women in urban centres with a steady income are the main consumers of rice. This is due both to the convenience of rice and their disposable income which is often spent at chop bars and restaurants on dishes such as watche, jollof rice, fried rice and plain rice. It was noted by chop bar and restaurant owners that these dishes are more popular than the other dishes offered at chop bars and restaurants: banku, fufu, TZ and kenke.
- School-age children consume a lot of rice. For children it is conveniently sold near their schools and their parents are often working and often cook rice due to the convenience and their children’s request.
- Farming families typically only consume rice during celebrations.
- There is generally a larger amount of rice consumed after harvest due to the low cost of rice and the holidays and celebrations which coincide with this time.

Based on the consumer study, it was determined that this campaign should focus on marketing Ghana rice to working class women and men in Tamale. Below is the breakdown of consumer behaviour around rice: *To insert graph...*

Purchase only local rice	24%
Purchase both	36%
Purchase only imported rice	40%

### **2. What factors influence them to purchase local rice and imported rice?**

A baseline study was compiled of the knowledge and perceptions this target audience has towards both Ghana rice and imported rice so that an appropriate marketing strategy could be developed.

Hypothesis	Survey Results
Consumers don't buy local rice because they aren't aware it is more nutritious (parboiled rice has variable proportions of vitamin B-complex, calcium, iron, proteins and fats)	67% of those surveyed are aware that Ghana rice is more nutritious
Consumers aren't aware that they can purchase high quality rice. There are very few marketing locations for quality Ghana rice.	81% of consumers surveyed were not aware of the marketing locations selected for the campaign
Perceptions about quality are highly influenced by the marketing conducted by companies that import foreign rice	In the survey most complaints of Ghana rice stated stones, and impure look as the biggest factors preventing them from purchasing and cooking it. <i>To insert graph...</i>

### Marketing Angle

Based on the target audience and their current perceptions the marketing strategy was developed. The strategy assumed three main principles of influencing consumer behaviour.

1. Consumers must be made **aware** of what they don't know
2. Consumers must be made to **care** enough to do something
3. It must be made **easy** for consumers to do what we're telling them

#### 1. "Awareness" Messages:

- You can buy quality Ghana rice.

#### 2. "Caring" messages:

- Local rice is Ghanaian which supports our own development. The black star used as logo.
- Local rice is nutritious which will make you strong and healthy which is something we all value for ourselves and our children.
- Local rice is more fresh and tasty than imported rice so you will enjoy it more.

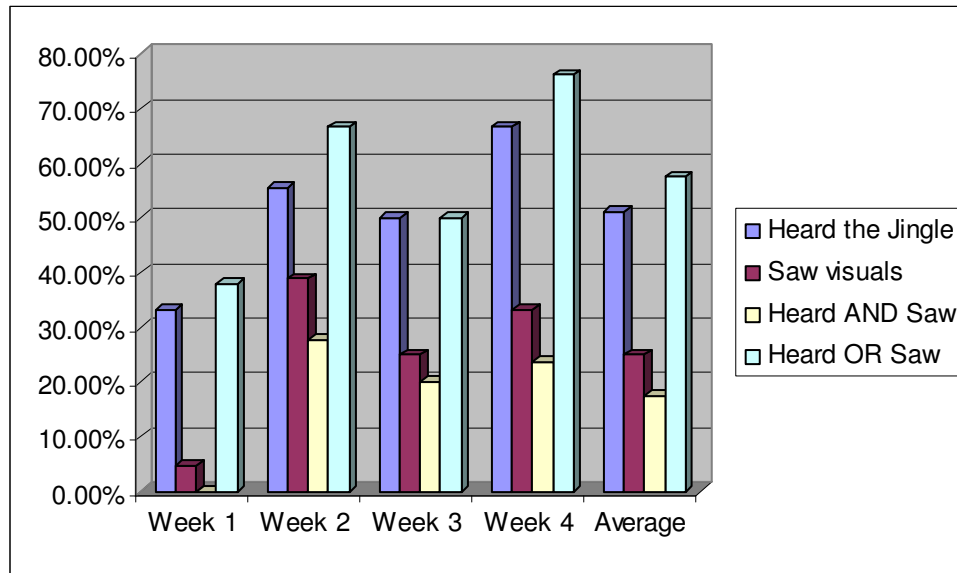
#### 3. "Made easy" messages:

- The locations of quality rice and telephone numbers of the women were provided on posters and in the radio jingle.

## Comparing exposure from the jingle and visuals

### 1. How far did the campaign propagate?

Campaign propagation through-out the first four weeks:



It was expected that as the campaign was implemented an increasing number of people were exposed. However, viewing the data shows that week two saw greater exposure than the week that immediately followed. This could be in part due to the fact that week two fell on December 21 – 27, when more people were exposed to the campaign due to vacation.

By the end of the four weeks the campaign had reached 24% of those surveyed. The radio jingle reached twice the number of people than were reached by the visuals. The campaign reached 65% of people through the radio jingle and 30% through the visuals (stickers, signboards and posters). An analysis of the cost effectiveness of these two strategies is reserved until the following section where data on behaviour change from each strategy is also included in the analysis.

### 2. Did people like the campaign?

Based on the survey conducted during the four weeks, on average 88% of people surveyed like the jingle and 95% of people like the visuals.

Anecdotal data provided suggests that many people took an immediate liking to the Ghana rice jingle. It's catchy and upbeat nature had people easily singing it and children dancing to it. However, the visuals seem to have been less enjoyable. There is a lot of text on the signboard and posters which reduces the attractiveness. The signboards and posters also went up during the end of the election which meant that there was a lot of visual clutter during the four weeks. The visuals all had a white background which is appealing.

## Recommendations on Exposure

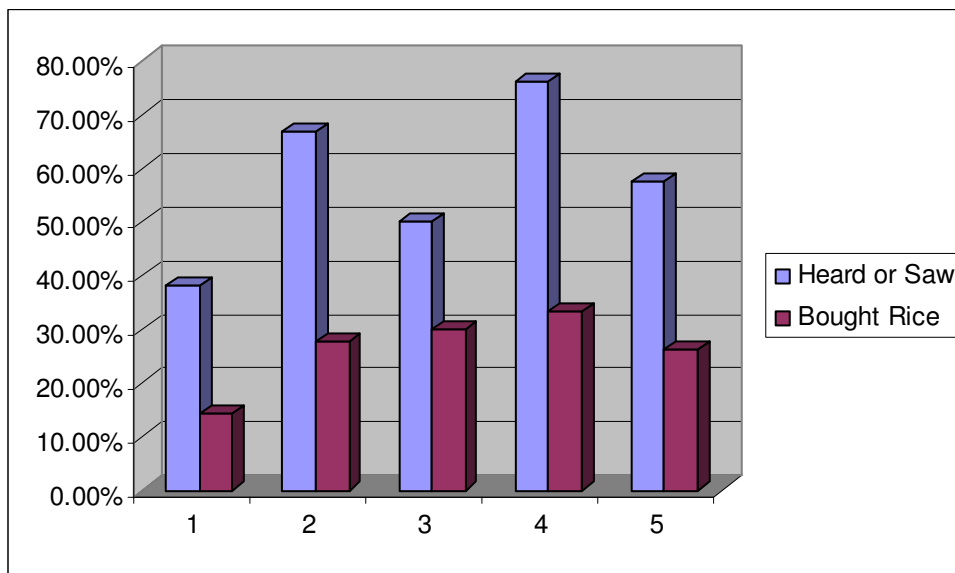
Based on the positive response to both the jingle and visuals and the positive trend in propagation that was attained in only four weeks, the strategies employed were appropriate for the target audience. It appears that the radio jingle was more effectively at propagating faster. However, the visuals are much more lasting. Three months after completion of the campaign, the signboards are still in full view and stickers and posters can be seen around Tamale. However, the stickers and posters

are starting to look worn so it would appear that it is only the two signboards which provide a more lasting message.

## Adoption

### Behaviour Changes in Consumers

As the campaign propagated consumers responded positively. In the first week of the campaign only 15% of those surveyed bought rice because of the campaign while as the campaign progressed that amount increased to 33%.



### Comparing changes brought about by the radio vs. visuals

Campaign Medium	Propagation	Behaviour Change	Cost (GHC)	ROI
Radio Jingle and Visuals	17.50%	71.43%	4,862.25	608
Only Radio Jingle	51.25%	45.45%	2,571.00	599
Only Visuals	25%	20.00%	2,291.25	115

From the analysis on the return on investment, which was calculated by the cost weighted by the behaviour change and propagation, it appears that running a campaign that includes both the radio jingle and the visuals is most cost effective at promoting behaviour change. However, this strategy is only marginally more cost effective than the running the campaign solely as the radio jingle alone.

### Behaviour Changes in Rice Farmers

The campaign was not only driving towards behaviour change in consumers but that this change in behaviour would provide a market incentive that those earning a living from local rice would respond positively to. While the campaign was being implemented women processors informally surveyed those who came to purchase their rice during the campaign. It was noted that there was an increase in number of people who came to purchase and that the major of these new buyers were coming because of the campaign.

Due to the short duration of the campaign and corresponding minimal change in consumer behaviour rice producers and processors did have not altered their behaviours. It is expected that a campaign of greater scope and timeframe is required to achieve behaviour changes at this level.

## Recommendations on Adoption

Based on the effectiveness of the various campaign strategies – namely the radio jingle and the visuals – it is recommended that the future campaign place a larger emphasis on radio and engage only in one type of visual. For the visuals, either the signboards or stickers should be invested in since they are most lasting.

## Recommendations Overall

Behaviour change through social marketing is not simple especially not within agricultural value chains where the responses of individual actors depend on a variety of variables. Although this campaign was only intensively implemented for four weeks, the positive response to it clearly indicates that this is a positive strategy and worthwhile of continued investment.

Therefore, it is recommended that the marketing campaign be scaled up nationally and be implemented for a minimum of two years in order for the behaviour changes in consumers to be sustained and allow actors in the rice value chain to respond to them. Such a strategy will be a positive compliment to current development initiatives in the rice value chain which include subsidizing inputs, research into improved varieties and continued training to value chain actors on how to supply quality rice that the market demands.

Below is the simple outline of what an effective marketing campaign could achieve.

	<b>Impact</b>	<b>Outcomes</b>	<b>Outputs</b>
<b>Desired changes</b>	Increased profitability of rice production and processing for rice farmers	More people consume Ghana rice	More people aware of benefits of local rice and think about purchasing local rice
<b>Indicators of change</b>	<ul style="list-style-type: none"> <li>- Increase in marketing stations of quality Ghana Rice</li> <li>- Consistent availability of quality Ghana rice</li> <li>- Decrease of rice imported</li> <li>- Continual competitiveness of Ghana Rice</li> </ul>	<ul style="list-style-type: none"> <li>- Restaurants and workshops start to offer local rice</li> <li>- Of those reached by the campaign, 40% choose to cook and buy only local rice and 50% choose both, 10% choose only imported</li> </ul>	<ul style="list-style-type: none"> <li>- 100% of people reached by campaign aware that you can buy quality Ghana rice</li> <li>- In a survey of 100 people, 80% should have been reached by the campaign</li> </ul>