

Emergency Market Mapping & Analysis (EMMA) report

The Market System for Rice in Haiti

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Save the Children, Mercy Corps, Oxfam GB, ACDI/VOCA,
World Food Program and FEWS/NET.**

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EMMA Final Report Sections

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Executive summary or brief

Before the earthquake, 6 importers based in Port au Prince (PaP) were importing around 70% of the imported rice equivalent to 15,000 to 20,000 MT / month (for PaP market and part of the Province), the remaining 30% being imported by 14 smaller importers from smaller ports. These PaP importers were selling the rice to 8 main wholesalers (trading 1000 bag / day) who, in turn, were selling it to around 200 small wholesalers (trading 100 bags per day) supplying a network of 10,000 “PaP Madam Sara’s” and small retailers. These small retailers were the end of the market chain, selling the rice to PaP households. Locally produced rice was transported by a network of 8,000 “rural Madam Sara’s” to “PaP Madam Sara’s” and retailers, particularly between June and September after the main rice harvest in the Artibonite region.

Market prices were set to some extent by the few importers / main wholesalers controlling the imports, but were mostly dependant on international rice market price evolutions. The actors along the market chain were mostly dependent on rolling funds, particularly for the smaller actors (Madam Sara’s and retailers) with limited access to low cost credit facilities. Those small actors were also the most exposed to the rising insecurity in the country, with the Madam Sara’s particularly exposed to looting and violence.

Importers have for the most part stopped their importing activities following the earthquake, with very little indication as to when they might restart. In fact, since the earthquake hit only 2,495 MT of rice has been imported according to the Administration generale des douanes (AGD). None of the importers have clear information about the quantity of rice that will be distributed by aid agencies in PaP. Excessive anticipation of massive distributions by aid agencies are discouraging them to restart imports. PaP port is badly damaged and relief imports have priority, however importers were confident that they could deal with the same quantity through other ports. Only 4 main wholesalers could restart business after the earthquake, the others 4 having lost their storing facilities. However, the main market disruption is at the small wholesaler level. 80% of them lost their storing facilities and “PaP Madam Sara” are now dealing directly with the main wholesalers who were usually refusing to deal with small orders. As a coping strategy to high insecurity in PaP markets, the PaP Madam Sara and retailers purchase smaller quantity to reduce the stocks left overnight.

After the earthquake, government pulled water from the main ‘water stocking’ dam in Pelic to distribute to the affected population in PaP. The earthquake may also have caused physical damage to both main dams, leading to lack of water for Artibonite crops. Major dysfunction in the local rice market is mainly due to insecurity: very few rural Madam Sara are still coming to PaP markets, and the urban Madam Sara cannot keep high amount of products in stock because of looting and also because of the major purchase disruptions. Local rice producers and wholesalers have increased their prices by 10 to 25% because of the lack of production means; however, local rice retailers in PaP could hardly keep prices high because of the gap in sales.

Some rice donated by aid agency can rarely be found on the main market places, at a price of 100 HTG per ‘marmite’ instead of at least 150 HTG for imported rice (33% less).

CNSA estimation of food aid to be distributed in-kind (for whole country)			
Likely gap duration	Target groups	HH in need	Household shortfall
January to June	Affected HH in PaP and in Province	2 million in PaP and province	17,000 Cereal-Equivalent Tonnes (CET)per month
June to December	Affected HH in PaP and in Province	2 million in PaP and province	9,000 CET per month

The potential for the recovery of the rice market chain is highly dependent on the recovery of the smaller actors along the middle of the chain: the small wholesalers, retailers and Madame Sarahs. Even though the damage of the earthquake also had its impact on the importers, they have greater resilience as they are fairly large actors with easy access to credit and can rebuild their warehousing and ensure security easier than the smaller actors along the chain. Nonetheless, there are certain risks related to food assistance interventions that could adversely impact the full recovery of the rice market chain, particularly in relation to the resumption of normal level of commercial imports. In fact, following the earthquake and the subsequent energetic response by the humanitarian community in ensuring that the over 2 million people impacted by the earthquake were able to have enough to eat in the short-term meant that the stocks of the major importers were those used for initial food response to the crisis.

In fact, in the longer term it is suggested that a National Food Reserve is put into place to avoid a negative impact on the in-country commercial stocks and continued imports, which are the lifeline of Haiti.

As the initial phases of the response come to an end, it is important to ensure that further interventions strive to enhance market recovery, and at the same time ensure that the affected population are able to eat sufficient quantities of food as they invest in livelihoods recovery. The recovery time is as of yet unsure given the extensive destruction to important market-place infrastructure and the relative disappearance of liquidity of the smaller actors in the chain and among consumers. In fact, as recovery takes off it will be important to enhance current market price monitoring activities, already underway and well-developed within the country, to include market functioning indicators to track the major recovery of the major bottlenecks in the chain and inform food assistance interventions over the next 3-6 months.

The following are the major points that would provide a framework to ensure minimum impact on markets while investing in the best interest of the affected population:

- *Ensure transparency and communication between market actors and the humanitarian community:* Importers are a very important link in the chain in ensuring sufficient overall availability of rice, not only in Port-au-Prince, but to a large portion of the country. Currently, importers are making decisions based on rumours of massive flows of aid into the country, which risks creating a larger gap than the humanitarian community might expect in food supplies.
- *Enhance market-place security:* The inability of traders on the market to securely store their stocks risks including further volatility on the markets, and as such jeopardizing households' stable access to necessary food supplies.
- *Targeted, and diversified food distribution:* As the 'surge' operation of general food distribution comes to an end, it will nonetheless be necessary to continue with targeted food distributions. In order to avoid the selling of rice on the market by beneficiaries, it is advised to ensure a more complete ration is envisaged for beneficiaries. Food distribution in Port-au-Prince could likely be phased out beginning in May/June, when the lean season ends.
- *Monitor market recovery and potential bottlenecks* were actors are particularly affected (small wholesalers and Madam Sara)
- *Simultaneous Cash-for-Work and Food-for-Work:* The greatest impact has been on the income and livelihoods of households. In an effort to support livelihood recovery, it is important that CFW and FFW activities are started up, and should continue even as food

distributions are phased out. The decision between CFW and FFW should be based on market recovery assessment, CFW being more appropriate in well functioning markets.

- *Cash grants/Cash transfers:* The unconditional transfers of cash to households and most affected market chain actors (particularly small wholesalers) are important in ensuring the start-up of livelihoods activities and market chain recovery while avoiding further indebtedness. Furthermore, there are likely to be households who are unable to take part in CFW/FFW activities, and are among the most vulnerable.

Section 1. Emergency context

On January 12, 2010 an earthquake of 7.0 magnitude hit the island of Haiti, approximately 25 km (16 miles) west of Port au Prince. The earthquake occurred at 16:53 local time. The Haitian government estimated that up to 230,000 died country-wide in the quake, and another 300,000 were injured. According to IOM 692,000 have been displaced in Port au Prince, many of whom are living in spontaneous urban camps. Approximately 38% of all buildings in greater Port au Prince have been damaged or destroyed according to the UN. WFP has distributed food to more than 2.5 million people in Port au Prince and outlying areas.

EMMA methodology

The EMMA is a rapid market analysis designed to be used in the first 2-3 weeks of 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.

In Haiti the EMMA team was made up of 18 staff members from 11 organizations including: International Rescue Committee (Lead), American Red Cross, Haitian Red Cross, International Federation of the Red Cross, Save the Children, Mercy Corps, Oxfam GB, World Food Program, ACDI/VOCA, ACF and FEWS/NET. While EMMA is designed to be used by those without economic training, this team had a mix of those with significant market experience and those with none. Approximately two days of training was provided, with additional training throughout the course of the assessment on various aspects of the tool.

Field work primarily took place in Port au Prince, with secondary sources and desk-based research used to maximize use of available information. Interviews were held with key players in the market system, as well as support players.

Section 2. The target population

The target population for all market chains studied through the EMMA process was earthquake-affected population of greater Port au Prince. Market chains were selected based on their applicability to the widest number of affected people.

More than 2 million people in greater Port au Prince were affected by the earthquake. The impact was spread across wealth groups, although many homes of the wealthiest were constructed in a manner that prevented significant damage. However, many assets from this group were lost, which will affect the pace of reconstruction. Middle classes invested much of their wealth in building their homes over a relatively long period of time, and are unlikely to have access to funds for immediate rebuilding. The poor and very poor had sub-standard homes and proportionally fewer investments to

lose, but have suffered greatly from the loss of income. The EMMA team chose not to disaggregate the target population, due to the widespread needs across the city and all wealth groups.

The seasonal calendar below shows the timing of various activities that relate to food security, shelter, or income needs and opportunities for the target population.

Section 3. Critical market systems

The market systems selected were chosen because they affect large sections of the target population. Participants were asked prior to the start of the EMMA to identify markets that they felt would be important to consider. On the second day of the EMMA training, a brainstorming session was kicked off with these initial suggestions, followed by additional suggestions from the participants. The group looked at market systems that fell into three categories: emergency needs, income potential, and longer term livelihood support. Six market systems were shortlisted: beans, rice, water vendors, construction labor, shelter materials, and cooking fuel.

Due to the size of the group it was necessary to select only four markets to analyze. After much discussion, and with Participants considered the market systems that would be of greatest interest to their organizations, and after much discussion, two food markets were selected (beans and rice), one income market (construction labor), and one type of shelter material (corrugated iron sheeting (CGI)). This report refers to the Rice market, but the findings are linked with those of the Beans group, as far as market-place environment and infrastructure are concerned.

Section 4. Rice market system before the earthquake

Background :

Food production in 2008 covered only 43% of the population's needs; imports covered 52% and food aid 5%. Due to higher investments in agriculture following the cyclones Gustav, Hannahand and Ike in 2008, local food production in 2009 increased by 25% to cover 50% of the population's needs; imports covered 47% and food aid 3%. Currently, food aid is covering a higher percentage although exact numbers are not yet known.

Rice is the staple food of Haiti and up until the 1980s Haiti was self-sufficient in its production. In the mid-1980s Haiti's domestic rice production decreased rapidly. By the 1990s rice imports outpaced domestic rice production. This displaced many Haitian farmers, traders, and millers whose employment opportunities are extremely limited. Two factors are identified as being the most significant causes for the decline in Haitian rice production: the adoption of trade liberalization policies and environmental degradation. The trade liberalization policies at their core have involved the lowering of Haiti's already low tariffs on rice imports. Currently the rice import tariff is 3%, which is much lower than rice import tariffs of all other nations in the Caribbean Community. Haiti became highly dependant on rice imports (mostly from the US), that have up to 80% of the local market share (90 to 95% in Port au Prince). Haiti's rice consumption is of 400,000 MT per year out of which an average of 60,000 to 80,000 MT are produced in Haiti (125,000 MT in 2009)

Four market chains can be found in Haiti:

1. A small market chain around the production areas of St Raphaël, Grison-Garde, Maribahoux, Torbeck where the rice produced is consumed locally. This represent around 8% of the rice produced in Haiti.

2. A second market chain imports two types of rice from the Dominican Republic: processing rice scrap (cabecit) sold on the local markets of département du Centre and on the border area, and long rice (Milly). This accounts for less than 1% of the rice consumed in Haiti.
3. The third market chain is the one starting in Vallée de l'Artibonite. Here, producers are selling the rice to a network of Madam Sara¹ that organise the processing and delivery of the rice to main urban areas. This accounts for around 12 % of the rice consumed in Haiti.
4. The last market chain is the one of the rice imported in bulk and bagged in the main ports. This represents 75 to 80% of the rice consumed in Haiti. However, up to 10,000 MT are typically re-exported to the Dominican Republic.

The last two market chains studied in this report are those supplying rice to the target group (affected households of Port au Prince)

Market chain actors

The map (Annex 2) synthesizes three levels:

1. The institutional environment that influences the actors in the rice market system, e.g. the tax and customs environment, and the seasonal calendar
2. The relationships between the principal actors in the supply chain: importers, wholesalers, local and regional retailers, growers and household-level consumers who are often the same as the growers especially in rural areas.
3. The impact of key infrastructure and services on the system, e.g. storage, transport and formal and informal credit.

The team discovered that the pre-earthquake two market chains for rice: import vs. domestic:

Market chain actors for imported rice

Importers

80% of the rice consumed in Haiti is imported, mostly through PaP (65% of the imported rice), Cap-Haïtien (25%), Miragoane, St-Marc, Gonaïves, Petit-Goave, Port de Paix. Rice is typically shipped in bulk and bagged in the ports. The volume of rice imported in the country in 2008 was of 25,620 MT per month in average, which represents an average importation of 16,000 to 17,000 MT per month in PaP², according to IDB estimates of the value chain in 2005³. However, key informant interviews for the EMMA suggest that the PaP market has likely grown since then, attracting 80-85% of total imports, thus putting the potential estimates of volumes on the PaP market in 2008 between 20,000 and 21,777 MT.

Around six importers can be found in PaP, but three seem to be the main importers and control the market. Importers tend to change regularly and the rice importation was described as oligarchic by several key informants. Importantly, the importers tend to work on a commission basis, and are linked with exporting partners in the United States. Thus, the characterization of the import market is one that responds directly to effective demand, rather than importing a pre-established amount

¹ Trading between main cities and rural areas is done by a network of "Madam Sara" transporting local products (such as local rice) from production area to Port au Prince, and transporting imported products (such as imported rice) from Port au Prince to the province.

² Bilan alimentaire 2008, CNSA

³ Identification de Creneaux Potentiels dans les filieres rurales Haitienne 2005, IDB and Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural

of rice and then look for buyers afterwards. In fact, one importer identified that the way that it functions is through commissions from large wholesalers, typically imported in 50 kg bags; whereas about 15-20% of the imports are in 25 kg bags to cater to the smaller wholesalers that cater directly to the markets in PaP.

Wholesalers:

Around ten main wholesalers (dealing with up to 1000 rice bag per day) can be found in PaP mostly in industrial zones. They are selling the rice to smaller wholesalers and don't deal with orders below 50 bags. According to the research done by IDB, they are the imported rice market chain actors whose margins are the highest. This is a particularly important point as it means that wholesalers are also the most likely to speculate on the market. They are also the actors who are holding a larger amount of stock that serves the market directly, thus with an ability to impact the retail prices much more than importers can. Finally, due to the fact that they purchase their orders in US Dollars and sell in Gourdes means that, on the one hand, they face uncertainty due to fluctuating exchange rates; but, on the other, and especially if they rely on the informal exchange rate, they have further opportunity to contribute to price volatility.

PaP small Wholesalers

200 small wholesalers (dealing with up to 100 bags of 50 kg of rice per day) purchase the rice to the big wholesalers. These small wholesalers can be found mostly in PaP downtown and sell it to a network of 10,000 urban Madam Sara and retailers who are also dealing with locally produced rice.

Market chain actors for the domestic production:

Producers, millers, assembling market, Madame Sara:

A survey in 2005 estimated the number of producers to be around 60,000 in Artibonite, employing 30,000 agricultural labourers⁴. A network of 8,000 rural Madam Sara collect the rice after harvest, sub contract the processing to around 350 millers and transport the rice to rural collectors or urban Madam Sara. Their margins are low, their access to credit is very limited and their business is mostly based on their personal savings (10,000 to 15,000 gourdes in 2004).

Rural collectors buy the processed rice either from the Madam Sara or directly to producers associations. As for producers, access to credit is very difficult, because of the seasonal risks (hurricanes, droughts...).

A survey⁵ conducted by the MARNDR (Ministry of Agriculture), the PIA (Agricultural intensification Programme) and ODVA (Development authority for Vallée de l'Artibonite) has figured out the number of stocks through the Artibonite Valley as follows:

- Number of mills : 221
- Number of Warehouses : 116
- Number of Large producers : 226
- Number of Women retailer groups : 31

⁴ Etude de la filiere riz – IDB, 2005

⁵ *Résultats de l'enquête sur l'inventaire de stocks de produits agricoles (riz, maïs, petit mil) disponible dans la Vallée de l'Artibonite*, MARNDR – PIA – ODVA, February 2010.

- Total : 594

End of PaP rice market chain (common for imported and locally produced rice):

Urban Madam Sara and retailers

Urban Madam Sara are the intermediaries transporting local rice and acting as wholesalers in imported rice to the PaP retailers.

Urban Madam Sara link the markets in Artibonite, l'Estère, Pont Sondé, Liancourt with PaP market (such as Croix-des-Bossales), collecting rice from rural Madam Sara and rural collectors and selling it to PaP retailers. They have followed the evolution of the rice market and are now mostly trading imported rice that they buy from the small wholesalers.

Before the earthquake, they were already facing major constraints (mostly insecurity and lack of access to formal credit, lack of access to storing facilities after the destruction of many stores in Croix-des-Bossales). Urban Madam Sara have personal savings of 25,000 gourdes in average and make a margin of around 10%.

The number of local rice retailers in PaP has been slowly decreasing since 1986. Local rice is becoming quite rare on the PaP market, mainly because of its price, which is quite higher than for imported rice. Locally produced rice is preferred due to its quality, though it has recently declined due to a lack of investment in production means.

Retailers of local rice can be found in the South section of Croix des Bossales, and in other smaller markets throughout PaP and the metropolitan zone.

Households

Rice has always been the most easily accessible staple food of most, if not all, households in Port-au-Prince, making rice one of the most important rice market systems to study. Typically, households purchase rice on the market by 'marmite' – 6 lb measurements – while better off households buy 25kg bags at a time directly from wholesalers. Furthermore, it is typically the women within the household who are responsible for the purchasing of food items from the markets.

It has been calculated that a 6 person household normally ate approximately 4 'marmites' per week. Few households received food aid prior to the earthquake, and would buy food with their own revenues (own business benefits, wages, remittances). They used to buy mainly imported rice because of its competitive price.

Infrastructure and services

▪ *Transporters (from Artibonite to PaP)*

In 2004, 120 trucks engaged in rice transport to PaP were found in the Valley de l'Artibonite. This profitable service is mostly managed by Haitians from the diaspora.

In terms of availability of trucks and transport means, key informants suggested that this was not a great obstacle to their trade. However, the increase in fuel prices following the earthquake has led to increased transport costs.

- *Rural banks and other credit providers*⁶

For the past two decades, access to credit has been really difficult for local rice market actors. Because of climatic issues in Haïti (hurricanes, droughts...), banks mostly considered the agricultural sector too risky, and thus would not be willing to invest in it. An agricultural credit bank had been created, but because of corruption it quickly went out of service.

In 2007, creation of a guarantee fund has been proposed by producers' organisations to the government to allow banks and microfinance institutions to give credit to local producers. Although the government has approved the proposal, implementation has of yet to be forthcoming.

Competition and integration

In local rice market chain, the financial services provided by the collectors to the producers and the rural Madam Sara create a dependency relationship that can lead to the procurement of rice at an unfair low price.

Further investigation is required to identify if there are any points in the supply chain where one or two market actors are able to dominate or control the supply and thus set the price of goods. In relation to imported rice, this is especially a point of investigation to be taken at the wholesaler level.

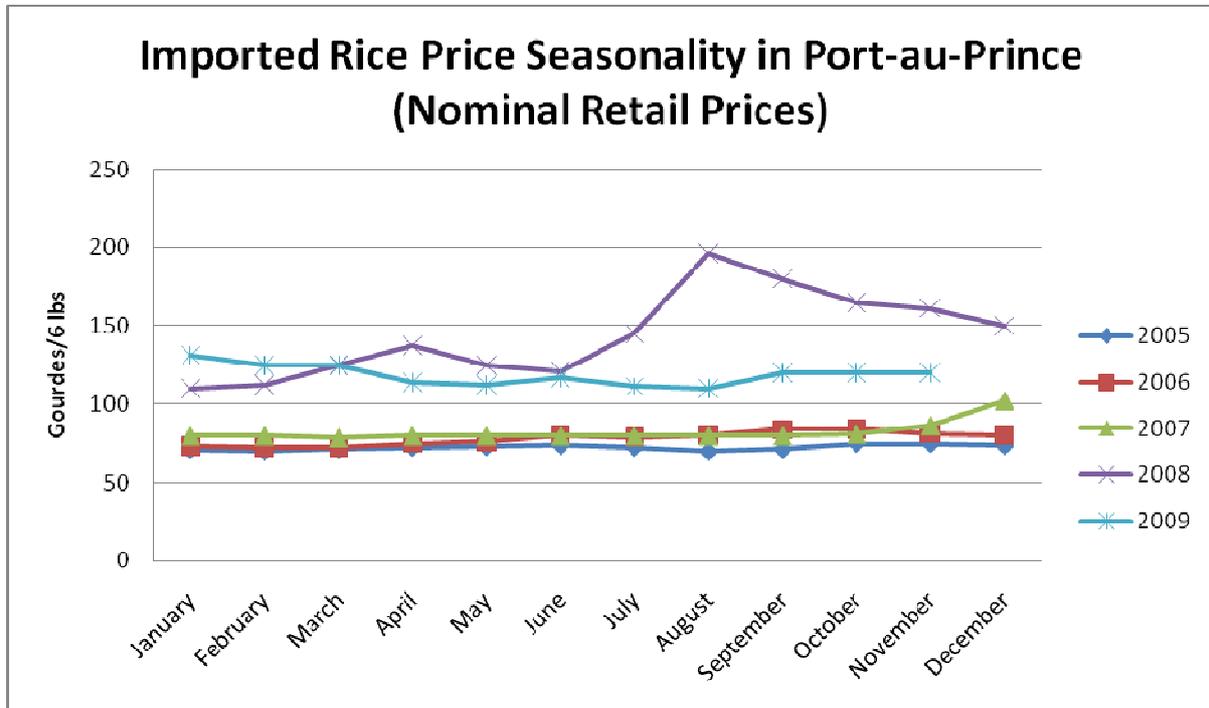
If EMMA on rice are carried out in other areas of Haiti, they should eventually be consolidated to ensure a study on market integration, which is a spatial analysis of the movement of goods between various locations, and provides another indicator of market functioning. This will be especially important in looking at the impact of the disruption of the PaP market systems in the rural and provincial areas.

⁶ For further information, see :

NORVILUS Marcelin, *Diagnostic complémentaire sur le financement des activités rurales dans la Vallée de l'Artibonite*, MARNDR – BID – PIA, June 2006.

Seasonality of the rice market system

As shown in the graphic below, the imported rice price does not have a particular seasonal pattern according to nominal retail prices. The lack of a seasonal pattern indicates that the potential for rice substitution impact is considerably low -- in other words, even with the influx of local rice production on the market, the lack of a change in prices of imported rice seems to imply stable supply and demand position (with obvious exception of 2008/2009, which is reflecting more the influence of external factors, of the international market than of internal influences).



Data Source: CNSA/FEWS

Further investigation is needed to analyse the impact of international rice market price on local rice prices, taking into consideration the possibility of substitution among the two or even with other staple foods including maize and wheat flour.

Gender and the rice market system

Specialised gender roles were observed in the rice market system: men dominated in the transport and handling of beans (and other agricultural produce) while women exercised the primary responsibility in distribution, buying and selling.

Rice production is mainly carried out by men who own the land and women are involved in activities such as planting, weeding and harvesting. However, once the product is sold in local markets, close to production areas, the profit is managed mainly by men, even if it is the women who trade at market.

The "Madame Saras" (women traders) are key intermediaries in the market system. They buy in quantity from the growers at harvest time, transporting the commodity to urban markets, especially Port-au-Prince. When demand rises, they ensure that the supply chain is reversed. Madame Saras face many difficulties and risks: poor roads, several days travel outside their home, risk of truck accident and loss of produce during the voyage, insecurity on the roads, aggressiveness of drivers, insecurity in cities (theft, loss of money, murder, etc.).

Section 5. Rice market system after the earthquake (annex 2)

Market chain actors

Market chain actors for the domestic production:

The Artibonite Valley Authority (ODVA) led an assessment after the earthquake to evaluate the quantity of cereal available. 9 000 MT of locally produced un-milled rice and 3 000 MT of milled rice were estimated to be stored in the warehouses in the valley de l'Artibonite. This corresponds to a normal quantity of rice available at this time of the year, if we compare those figures to findings of previous years.

It is important to note that the high number of displaced people from the metropolitan zone to rural areas will have an impact on local rice consumption. Several key informants mentioned that seeds kept for next plantation are already being eaten in rural zones. According to estimations of major local actors, that might mean that local rice supply should not be relied on for Port-au-Prince in the next few weeks.

So far, food distributions have not impacted negatively the local producers by decreasing rice market prices. But as 170,000 persons have left PaP to migrate to the Artibonite (60% to 70% of them moving to Bas Artibonite), high pressure on local markets is expected, including the use of seeds for food instead of planting.

Market monitoring should be put in place with a particular focus on food aid impacts on local production, including impact on market prices and impact of migration on rice and seed stocks.

Key informants also mentioned that many rural Madam Sara were not willing anymore to transport goods to main market places due to the high insecurity on the roads. Moreover, urban Madam Sara would not supply their stocks as often as before because of the insecurity for stocks over the market in Port-au-Prince, and also because of the lack of demand directly due to the earthquake.

Thus, Madam Sara and producers in rural areas have to stock their products in warehouses on rural markets, which lead to increasing insecurity because of the risk of stealing and looting.

Market chain actors for imported rice

Importers

The main importers interviewed mentioned that they had cancelled their imports after the earthquake, though a couple of importers did have ships that were due to arrive in Haiti, as they were contracts that had been arranged before the earthquake. In the days following the earthquake, importers liquidated their stock, either to wholesalers or to aid agencies. According to the Administration generale des douanes (AGD) the total volume of rice imported in the country (including all ports) in the month that followed the earthquake was of around 2,495 MT, far below the average (25,000 MT/month), and it has so far only arrived through the port of Cap Haitien.

There are however a couple of importers who indicated that they will be importing at the end of February – beginning of March. The figures from the importers seemed to indicate that 4000-6000 MT would be arriving into Cap Haitien, most of which is food aid; and another approximately 2,000 MT would be imported into Port-au-Prince. However, at the time of the discussion with the AGD, this was not verified as these had not yet arrived into Port at the time of the data collection.

The main reasons for this drop in the imports are the damage to the port of PaP and the lack of market visibility:

- » While PaP port has been temporarily fixed and re-opened less than a month after the earthquake, it is yet not clear yet how many commercial actors will have access to the port. Currently, relief shipments are being prioritized and the rice importers are working on alternative solutions (using other ports such as Lafito and Varreux and moving the bagging equipment to these places), or diverting their ships to Cap Haitien and loading rice onto trucks to be brought into PaP.
- » Importers were confident that alternative solutions could easily be found, but they all mentioned that they were expecting very large quantities of food aid to be imported in the country in March, resulting in a drop of demand for marketed rice and a drop in the prices. At the time of the interview, the lack of market visibility had become the main factor limiting import recovery. Importers are not currently part of the coordination mechanism (food cluster and other meetings where food aid plans are being shared) but need to be invited in these meeting and consulted in order to speed up the market recovery (see response framework).
- » It is also important to keep in mind that even as coordination with the food aid community and private traders is enhanced to ensure market visibility for the importers, infrastructure and logistical problems are likely to constrain the volumes they will be able to import in the coming months.

Wholesalers

Half of the 10 main wholesalers are not active anymore due to loss of warehouses and storing facilities. However, the wholesalers interviewed were not anticipating a bottleneck at this level of the market chain, once the imports will have recovered their initial level. Due to the dramatic decrease in number of small wholesalers active (see below), big wholesalers are now directly selling to Madam Sara, dealing with small quantity (one or two bags) when they used to refuse to deal with order below 50 bags. This has led to an increase in their operating costs, as they are losing their economies of scale to a certain extent.

Small wholesalers and Madam Sara

Small wholesalers are the market chain actors that were the most affected by the earthquake. Several wholesalers and retailers estimated that 80 % of the 200 small wholesalers are now inactive. Most of them were located in downtown, an area that was badly hit by the earthquake and many died or lost their storage facilities. This is expected to be the main constraint for the market recovery and the lack of small wholesalers is likely to create a bottleneck in the market chain, even as importers begin their activities.

Retailers and small street traders

Due to the loss of many stocks for small wholesalers and Madam Sara, retailers do not have much choice for supplying. Supply prices remain quite high, and retailers can hardly cope with the decreasing demand from households.

Households

Rice has always been the most easily accessible staple food of most, if not all, households in Port-au-Prince, making rice one of the most important rice market systems to study. Typically, households purchase rice on the market by 'marmite' – 6 lb measurements – while better off households buy 25kg bags at a time directly from wholesalers. Furthermore, it is typically the women within the household who are responsible for the purchasing of food items from the markets.

Immediately following the earthquake physical access to markets was most affected by the lack of transport and steep increases in fuel costs. After a few weeks, transport was essentially restored to its pre-earthquake levels, easing households' access problems to the markets in Port-au-Prince.

The earthquake has led to a huge loss of earnings amongst the population: many people who survived lost their houses, their job and/or their own small business, entailing a critical decrease of household income in particular, and of livelihoods more generally. This has affected men and women, rich and poor without discrimination. However, many women who ran small businesses lost their stocks and stores, leading to a serious loss in purchasing power. In addition, all sections of the population have witnessed a considerable increase in prices after the earthquake, which have since stabilised, yet remain 25% above pre-earthquake prices.

The major loss of earnings for people who survived has led to a significant reduction not only in rice but all food consumption. While transportation has essentially been restored, transport costs remain high, thus continuing to cause constraints in households' physical access to markets. Furthermore, and more significantly, households no longer have sufficient purchasing power, and thus no effective demand on the markets. Another important factor that has diminished effective demand on the markets is the fact that there has been significant out-migration from Port-au-Prince to the rural areas.

Men who lost their wives in the earthquake have now been left with the task of ensuring there is sufficient food in the household, and are thus going to the markets themselves to buy food, while families living in camps have developed a coping strategy based on sharing the only food items they have with others. Some people who received rice through general food distributions have tried to sell some on the market in order to buy other food or non-food items. While this has not been widely reported, it is likely that there are certain constraining factors including the lack of liquidity in the markets, but also due to the fact that selling aid on the market is forbidden by local authorities. Often times, aid is sold on the market in the guise of 'local rice' at a much lower price, even though local rice prices are considerably higher than that of imported rice.

Discussions with several households has led to the general conclusion that food distribution should only be phased out when people can get sufficient cash (through work) to buy food and spare for their small businesses recovery. According to target group preferences, food distribution has been helpful as a rapid emergency response but that continued food-based interventions should take care in meeting household nutritional needs through the diversification of the ration from just one commodity.

Finally, it is important to note that psychological trauma as a result of the earthquake has caused just as much pain as physical injuries. People still fear aftershocks, those who still have a house still do not want to sleep in them, many have lost family members and friends. In other words, there are a greater variety of issues that need due attention besides the loss of income, which the humanitarian community should also consider.

Infrastructure and services

The capacity to ensure large cargo ships to enter the port has been disrupted as a result of extensive damage to the North and South piers of the port. In the medium-term, a temporary solution has been worked out by the United States Military, with the replacement of the North Pier with two barges and 2 mobile cranes. In fact, large cargo ships should be able to more directly access the port for offloading, though congestion might continue as the South Pier is still extensively damaged.

The only potential constraint is the prioritization in terms of the use of the port. The port had been typically used only for commercial purposes, and with the emergency operations being put in place by the humanitarian and military communities, the space left for docking, offloading and storing is quite limited. The waiting time for humanitarian cargo seems to not be a problem, and even for commercial ships, it is reported by Port Authorities that the wait time is not more than 1 or 2 days. However, this is not altogether the impression that is in fact provided by the importers, who expressed certain bottlenecks relating to the logistics of easily importing the same volumes that they used to. In fact, although the temporary solution that is currently being implemented is likely to ease the congestion, it remains true that the port cannot service the large cargo that it once used to – so the size of the ships that can actually dock are of lower capacity, and therefore the volumes that can be imported through the port of Port-au-Prince will be limited as reconstruction efforts in the port continue.

There are daily coordination meetings between the various counterparts who are currently using the port in post-earthquake Port-au-Prince. As such, there are lines of communication open between the various actors, which will enable a smooth transition back to the prioritization of commercial activities in the near future. The main problem in terms of capacity of the port is actually in relation to warehousing and storage space, which is quite limited. So even though cargo can be fairly easily off-loaded even now, the problem is one of what happens once the cargo leaves the port.

Aid in the markets

Across the market chain, it has become evident that there is a minimal amount of food aid that is entering the market through beneficiary sales. There has, nonetheless, been anecdotal evidence of aid being sold in the markets at 15 gourdes/small marmite and 100 gourdes/big marmite (compared to approx. 150 HTG for imported rice). Currently, the sale of food aid is not a problem. In fact, the lack of liquidity in the markets means that even though the price of aid is undercutting that of local and imported rice, it is difficult to sell food aid. In fact, there is also strict monitoring by the security forces in the markets to ensure that aid is not being sold, with the repercussion being confiscation of the product. This could become more of a problem with continued large scale general mono-commodity distributions, which is unlikely to continue given that the 'Surge' operation has been scaled down and will be discontinued by the end of February.

Section 6. Key findings – results of the gap and market analyses

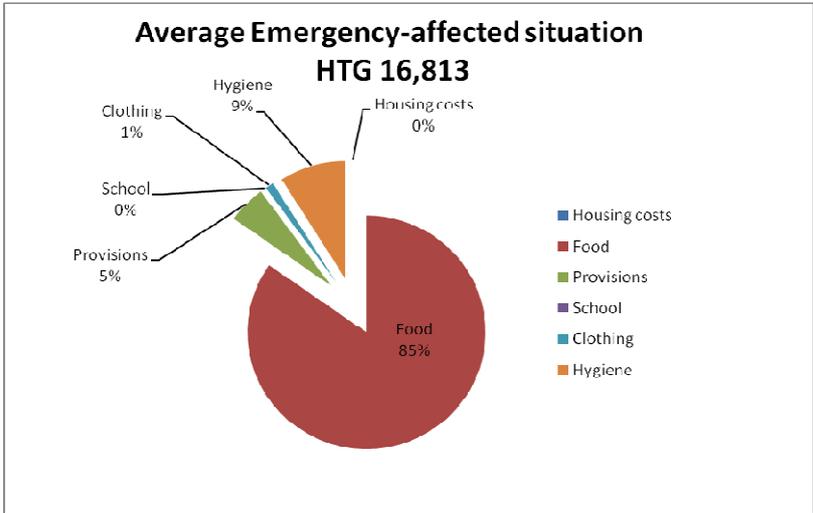
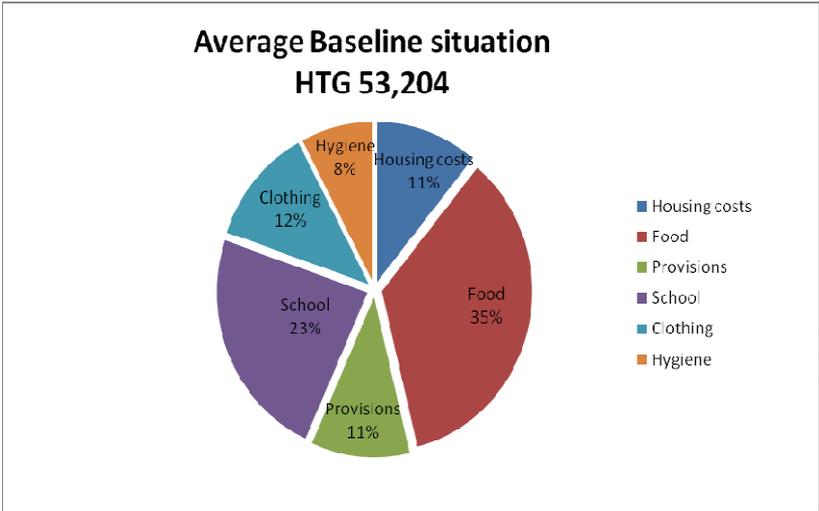
At the time of the assessment, no household economy analysis of affected people in PaP was available. It was not possible to estimate confidently how much purchasing power has been affected. A quick case study was undertaken to have some indication as to the evolution of household expenditures since the earthquake.

Several household interviews have led to the conclusion that the impact of the earthquake on their normal consumption has been fairly significant. They have not had the access to basic needs, on the one hand, and on the other, they are attempting to economize on their expenses in order to take care of their family. Currently, these families have identified that there is a large gap in their consumption.

For example, one family of 6 that was interviewed had typically consumed 4 marmites per week, amounting to an expenditure of 400 gourdes (100 gourdes/marmite). However, following the earthquake they have only been consuming 1 marmite per week, excluding aid.

The impact of the earthquake on their consumption, in particular for rice, is due to the fact that there has been a decrease in availability of rice on the market and has been accompanied by an increase in prices. These families, in fact, rely more on rice distributed as food aid rather than imported rice, which they would typically be able to buy on the market.

A case study of 4 families in different parts of greater PaP (Camp in Martin Luther King, Camp in Impasse Jeancott, Camp in Canape Vert, and Camp in Sante Marie (haute)), has provided an indication that, while there has been a decrease in overall expenditure, there has been an increase in the proportion of spending on food in household budgets by between 60 and 400% (see Annex 4 for more detailed information). The average situation across the 4 households is given in the charts below:



Furthermore, initial results from Focus Group Discussions of the Emergency Food Security Assessment (CNSA, forthcoming) indicate that there has been a severe increase in the coping strategies with communities that had typically been dependent on salaried employment or commercial trade having to rely on solidarity with other families in their community, or camp; depletion of their savings or stocks ; begging ; and, food aid. The impact on the income-side has been significant, and livelihood recovery is likely to take longer than market chain recovery, implying that demand-side interventions will be equally important to jump-start market activity across the board (see Response Recommendations Framework).

As such, the gap analysis below is based on the estimation done by the Coordination Nationale de la Securite Alimentaire (CNSA). This estimation was done in January 2010 after the earthquake and estimated the total volume of food aid in cereal tonne equivalent that would be required to cover national needs towards recovery from the earthquake:

CNSA estimation of food aid to be distributed in-kind (for whole country)			
Likely gap duration	Target groups	HH in need	Household shortfall
January to June	Affected HH in PaP and in Province	2 million in PaP and province	17,000 Cereal-Equivalent Tonnes (CET)per month
June to December	Affected HH in PaP and in Province	2 million in PaP and province	9,000 CET per month

In addition to these volumes of food aid, the CNSA recommended that an emergency stock of 90,000 CET be constituted from July to November with up to 53% of locally produced food (depending on local food production levels)

From January to June the CNSA recommended that the food aid be of 102,000 TEC (equivalent to 4.8% of the 2008 overall food consumption for Haiti). This must be compared with the 2008 food aid volume (116,063 TEC), and also consider the fact that aid volumes in 2010 will be considerably higher as Port-au-Prince was not typically an area receiving food aid.

Section 7. Main recommendations and conclusions

Response logic

The potential for the recovery of the rice market chain is highly dependent on the recovery of the smaller actors along the middle of the chain: the small wholesalers, retailers and Madame Sarahs. Even though the damage of the earthquake also had its impact on the importers, they have greater resilience as they are fairly large actors with easy access to credit and can rebuild their warehousing and ensure security easier than the smaller actors along the chain. Nonetheless, there are certain risks related to food assistance interventions that could adversely impact the full recovery of the rice market chain, particularly in relation to the resumption of normal level of commercial imports. In fact, following the earthquake and the subsequent energetic response by the humanitarian community in ensuring that the over 2 million people impacted by the earthquake were able to have enough to eat in the short-term meant that the stocks of the major importers were those used for initial food response to the crisis. However, the projected aid imports in the coming months will not be of the magnitude as was implemented during 'the Surge'.

In fact, in the longer term it is suggested that a National Food Reserve is put into place to avoid a negative impact on the in-country commercial stocks and continued imports, which are the lifeline of Haiti.

As the initial phases of the response come to an end, it is important to ensure that further interventions strive to enhance market recovery, and at the same time ensure that the affected populations are able to eat sufficient quantities of food as they continue to invest in livelihoods recovery. The recovery time is as of yet unsure given the extensive destruction to important market-place infrastructure and the relative disappearance of liquidity along the higher-end of the market chain. In fact, as recovery takes off it will be important to enhance current market price monitoring activities, already underway and well-developed within the country, to include market functioning indicators to track the major recovery of the major bottlenecks in the chain and inform food assistance interventions over the next 3-6 months.

The basic framework proposed for the response options has various threads, requiring a great deal of coordination but also careful calibration given the number of humanitarian actors that are operational in the Port-au-Prince area. Indeed, flexibility is likely to be crucial in the organizational response given the level of uncertainty regarding the recovery time in terms of infrastructure, and with regards to the re-entry into the market of the many actors (mainly small wholesalers) who have been forced to stop their trading activities.

Response options

The following are the major points that would provide a framework to ensure minimum impact on markets while investing in the best interest of the affected population:

- *Ensure transparency and communication between market actors and the humanitarian community:* Importers are a very important link in the chain in ensuring sufficient overall availability of rice, not only in Port-au-Prince, but to a large portion of the country. Currently, importers are making decisions based on potential flows of aid into the country, which risks creating a larger gap than the humanitarian community might expect in food supplies.
- *Enhance market-place security:* The inability of traders on the market to securely store their stocks risks including further volatility on the markets, and as such jeopardizing households' stable access to necessary food supplies.
- *Targeted, and diversified food distribution:* As the 'surge' operation of general food distribution comes to an end, it will nonetheless be necessary to continue with targeted food distributions. In order to avoid the selling of rice on the market by beneficiaries, it is advised to ensure a more complete ration is envisaged for beneficiaries. Food distribution in Port-au-Prince could likely be decreased in May/June, when the lean season ends, though the CNSA

recommends continued food distribution until the end of the year at lower levels, targeting the most vulnerable population.

- *Monitor market recovery and potential bottlenecks* were actors are particularly affected (small wholesalers and Madam Sara)
- *Simultaneous Cash-for-Work and Food-for-Work*: The greatest impact has been on the income and livelihoods of households. In an effort to support livelihood recovery, it is important that CFW and FFW activities are started up depending on the market recovery, and should continue even as food distributions are phased out. CFW is more appropriate in situation where markets are functioning. However, as highlighted in the market analysis, bottleneck can be expected, particularly at the small wholesaler level. If the market can not supply food in sufficient quantity, FFW will be a viable alternative.
- *Cash grants/Cash transfers*: The unconditional transfers of cash to households are important in ensuring start-up livelihoods activities while avoiding further indebtedness. Furthermore, there are likely to be households who are unable to take part in CFW/FFW activities, and are among the most vulnerable. Conditional cash transfer for small wholesalers are also recommended to support the market chain recovery. Cash transfer should be used to rebuild storing facility.

Response recommendations

Given the complexity of the impact of the earthquake it is essential to make sure that a multi-pronged response is undertaken by the various stakeholders including NGOs, International organizations, private actors and government. As such the key response recommendations that should be focused on in the coming months are as follows:

Response-recommendations framework

Response activities or combinations		Key risks and assumptions	Likely effect on market system and target groups	Timing	Implementation
Market Environment/Laws and Regulations	Creation of National Food Reserve (Stock de Securite)	<p>Management and storage costs and facilities (stock management rules)</p> <p>Requires skilled personnel</p> <p>Requires strong policy/regulation to govern the management of the turnover of the reserves to ensure transparency and avoid negatively impacting commercial activity through uncertainty</p> <p>Requires coordination with the private traders</p> <p>Rules of release should be publicly available</p> <p>Infrastructure</p>	<p>Ability to rapidly respond to sudden shocks to food availability</p> <p>In case of sudden on-set crises pressure is released off the commercial stocks in the country, thus avoiding liquidation of commercial stocks</p> <p>A governmental institution already exists through which to proceed with the creation of such a stock (MoA/ CNSA)</p>	3-5 years	<p>Ministry of Agriculture and CNSA in the first instance require an evaluation on the amount of stocks that would be optimal (2010)</p> <p>1-2 years: Conceptualization and legislation required on food security policy to establish rules governing the management of the Reserves and training of skilled personnel for stock management (2011-12)</p> <p>1-2 Launching of the Stock system and evaluating stock rotation, management and costs (2012-13)</p>
	Establish communication between aid agencies and private sector (importers in particular)	<p>Creating trust and transparency between the actors.</p> <p>Requires organization of importers/traders into a cooperative or coordinated group.</p>	<p>Resumption of imports to capacity possible given infrastructure and logistical bottlenecks.</p> <p>Provides input for jump-start of normalized market activity and availability of food on the market, given infrastructure and logistic constraints.</p>	Now and throughout humanitarian intervention	<p>Coordination of a meeting with all players around the table, preferably through the Food Aid cluster to agree upon future communication channels and modalities.</p>

Response-recommendations framework

Response activities or combinations	Key risks and assumptions	Likely effect on market system and target groups	Timing	Implementation	
	Ensure increased security on markets	Available resources from Security forces already deployed in the country (MINUSTAH and Haitian security forces) Sustainability related to resourcing.	Decreases security and operating costs for traders in the market. Restores traders' ability to store goods. Increase supply and demand on the market. Decreases volatility. Likely to have a direct impact especially on the small wholesalers, retails and Madame Sara in the market	1-3 months	Coordination required with MINUSTAH and Haitian Security Forces -- this should be further explored.
	Targeted distributions with more complete food baskets + simultaneous CFW or FFW	Food baskets do not meet households needs. Distortions on markets, local production affected. Target population well targeted.	Give time for markets to recover, and at the same time ensure that population can eat and has the liquidity to meet their non food needs	initial scale down in June/ July, while CFW still going on and ensuring that markets have developed response capacity	Number of beneficiaries reached.
	Monitoring of market system recovery and follow up of securization measures	Market monitoring system already in place, thus only a marginal cost in monitoring additional indicators.	Can provide dynamic feedback as to the evolution of market recovery and functioning in real-time to inform the phasing out of food aid, and to inform impact of cash interventions on the market (ex. reporting on inflation) Indirect impact on markets, but direct impact on the proper calibration of programmes in the next year.	Can be started in 1 month. Continuous	Inclusion of market functioning indicators in collaboration with CNSA and FEWS such as: Turnover of retailer/wholesaler stocks (number of days/weeks) Storage capacity recovery Credit available to traders and consumers Number of traders on market

Response-recommendations framework

Response activities or combinations		Key risks and assumptions	Likely effect on market system and target groups	Timing	Implementation
	Infrastructure recovery	Requires access to sufficient credit to invest in re-building Requires availability of technical know-how for rebuilding proper storage infrastructure.	Eases the existing bottlenecks along the supply chain, which have suffered mainly from a loss of warehousing and depots.	1-10 years	
	Ports : ensure prioritization of commercial activities	Requires simultaneous intervention in infrastructure in terms of storage, which if ports come back online to capacity or greater bottlenecks along the chain might be exacerbated.	Ensures continued access to the necessary lifeline of food security in Port-au-Prince	1-3 months	Ensure effective coordination between humanitarian, military and commercial actors -- modalities to be identified
	Ensure access to credit and micro-credit to small business owners and traders	Increases level of indebtedness in an economy which functions on rolling funds. Microfinance institutions may need support after the earthquake (lost agencies, staff...)	Ensure trader access to liquidity in order to recover their businesses and cover their start-up costs.	Starting from June after initial recovery has started.	
Supply-side levers	Feasibility study on local purchases of rice	More expensive than importing or buying from local importers Need to ensure that large amounts of local purchases do not negatively impact the food security of the populations who would typically have benefited from that supply of rice.	Reinforce local capacity Provide more specific recommendations on modalities and volumes recommended of local purchases	Before June/July harvest	Requires cost-benefit analysis for agencies interested in local purchases from local production.

Response-recommendations framework

Response activities or combinations		Key risks and assumptions	Likely effect on market system and target groups	Timing	Implementation
	Continued targeted distributions with more complete food baskets	Requires identification of appropriate targeting criteria, difficult given the urban context and that homeless/displaced persons are from all socio-economic groups. Full food basket could potentially compete further with the local market (especially beans, oil, sugar etc...)	Prevent selling of food aid by beneficiaries who need complementary products. Provides a type of household budgetary support, allowing households to spend their cash on necessary non-food items, and towards livelihoods recovery.	Initially until May-June. Situation should be re-evaluated given monitoring results on the market.	Targeting should be directed towards those who spent and continue to spend the greatest proportion of their incomes on food, typically the poorest. Targeting should also take into consideration those who might be unable to take part in Cash-for-Work or Food-for-Work activities including single-parent households, disabled, elderly etc...
Supply- and Demand-Side Levers	CFW/ FFW	Make sure that beneficiaries that cannot work can have access to targeted food distributions and cash grants. Risks of fraud. Security risks. If CFW/FFW is not accompanied by targeted distribution it risks excluding the most vulnerable populations. The decision between CFW or FFW should depend on market recovery assessment so as to avoid inflationary impact.	Recapitalization of households. Ensure food is distributed to those who otherwise have no access to food.	3-6 months to ensure livelihood recovery impact. Start now, but scale-up in 2-3 months time once markets have recovered a bit for CFW. Immediately for FFW projects.	Projects can link FFW/CFW projects to rubble clearing, construction and also the building of fuel efficient stoves. It is also advisable to consider those parts of the affected population that were salaried and skilled workers (teachers, doctors, government officials) who might have lost their workplaces.

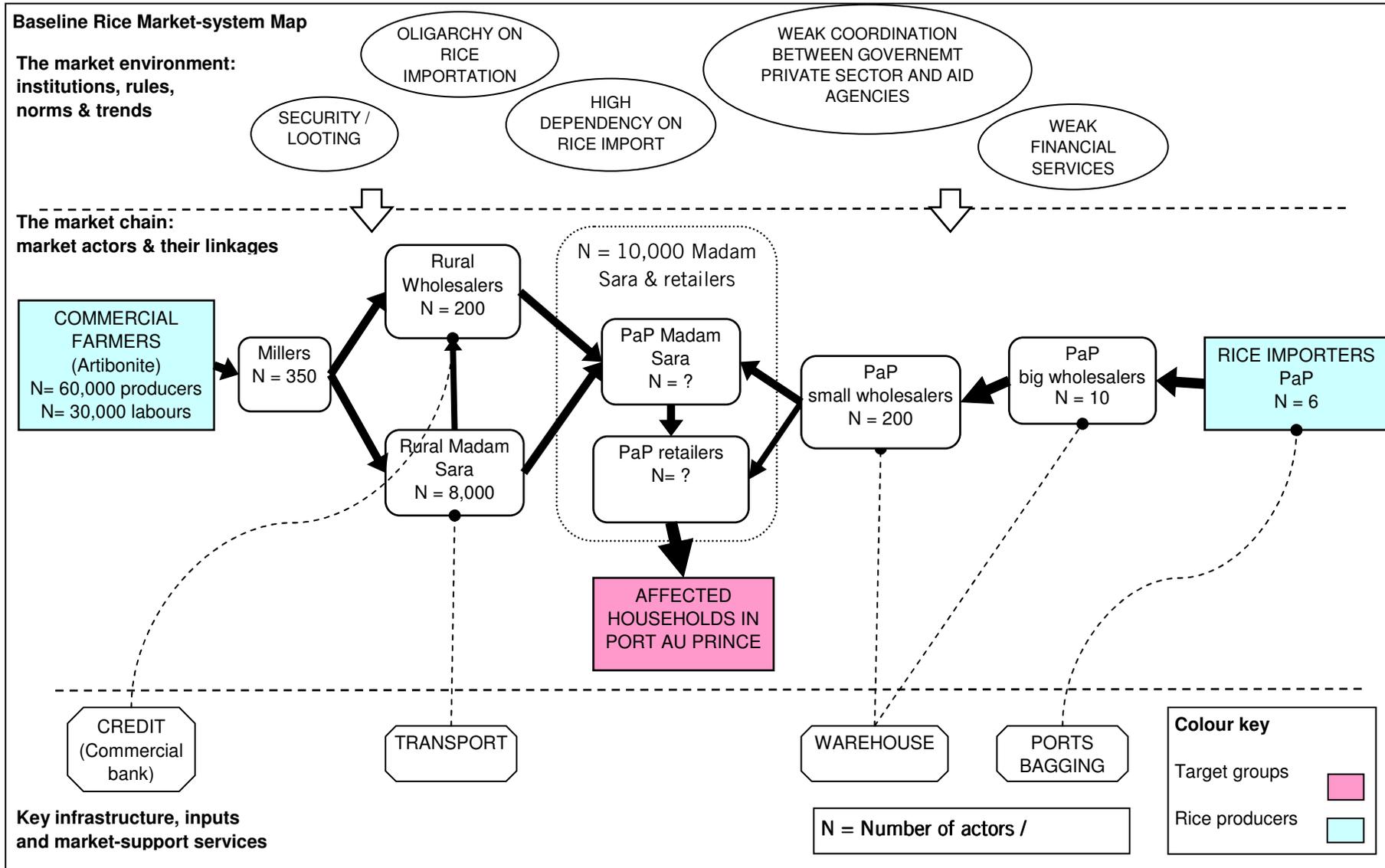
Response-recommendations framework

Response activities or combinations		Key risks and assumptions	Likely effect on market system and target groups	Timing	Implementation
	Food vouchers	Highly dependent on the recovery of markets -- of the small retailers and traders on the market. Assumes easy modality of providing access to cash for the traders. If proper voucher system is not established risks creating a parallel currency, that might lose value in time.	Stimulation of local markets while boosting effective demand. Nutritionally targeted programming can decrease malnutrition in households.	Dependent on initial recovery of markets, and should start when markets have sufficiently recovered. 3-6 months.	Feasibility and analysis is required
	Cash grants	Risks of fraud and insecurity. Inflation. Assume that most vulnerable populations have safe access to financial institutions.	Recapitalization for most vulnerable people Recapitalization of small wholesalers and market actors who have been most affected	Should continue until the end of the year, until livelihood recovery	Feasibility study is required

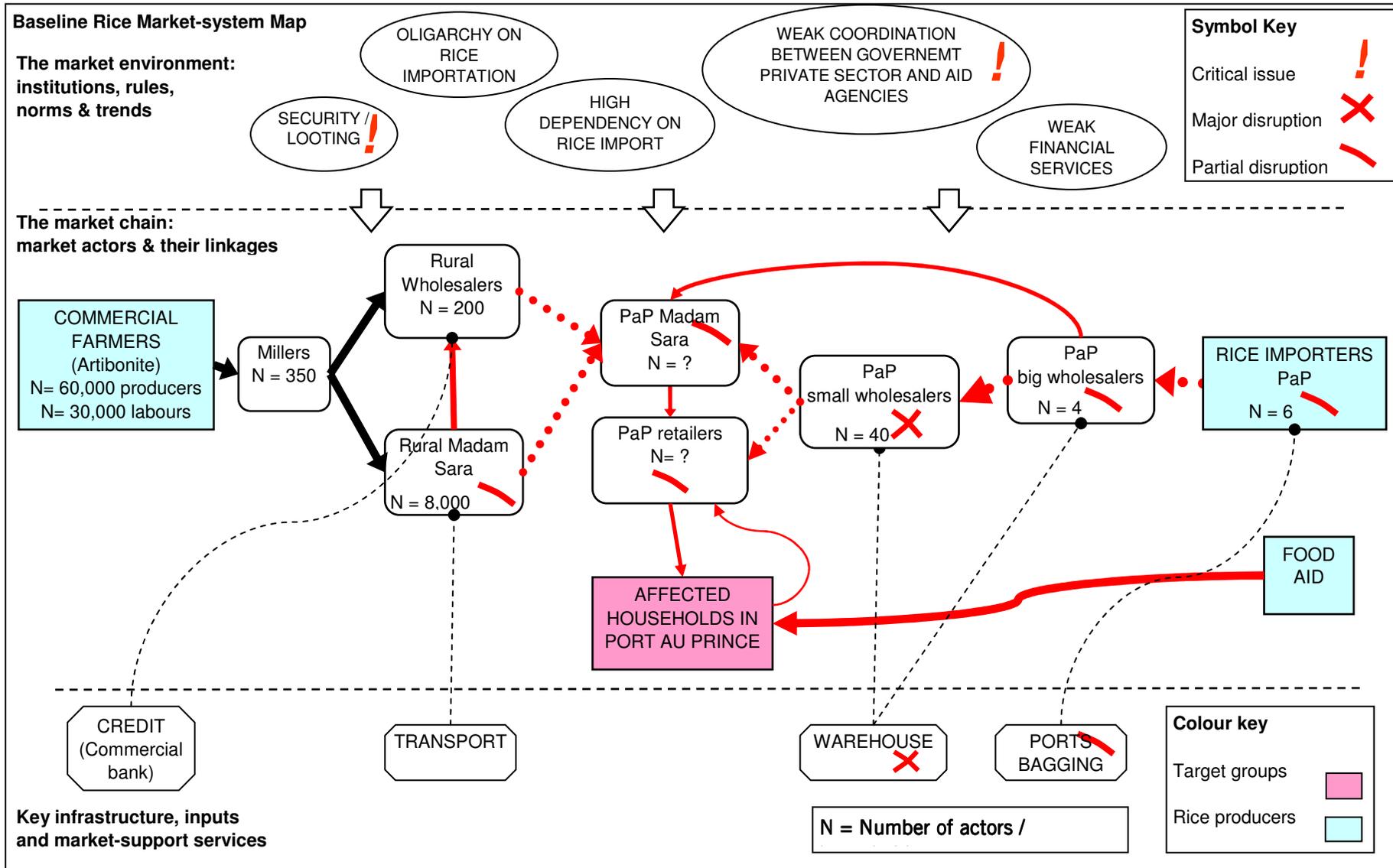
Annex 1: Seasonal Calendar: Rice Market System

HAITI - SEASONAL CALENDAR												
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Rains												
Road Conditions	OK			BAD			OK		BAD		OK	
Cyclones												
Hungry Period												
Food Prices												
Education			Education costs				Holidays	Education costs			Education costs	
Remittances increase												
Planting Beans		highlands					highlands			lowlands		
Harvest Corn/Beans												
Planting Rice												
Harvest Rice			small season				big season					
Holidays	King's Day	Carneval		Easter								Christmas/ Marriage Season

Annex 2: Rice market system before the earthquake



Annex 3: Rice market system after the earthquake



Annex 4 – Household Expenditure Case Study

HOUSEHOLD EXPENDITURES (HTG)								
		Baseline situation		Emergency-affected situation		Gap	Change in percentage of expenditure	Change in level of expenditure
		Amount	% of total expenditures	Amount	% of total expenditures			
HH1	Housing costs	4,167	5%	0	0%	-100%	-100%	-100%
	Food	45,000	55%	42,000	88%	-7%	59%	-7%
	Provisions	7,500	9%	0	0%	-100%	-100%	-100%
	School	13,500	17%	0	0%	-100%	-100%	-100%
	Clothing	3,000	4%	750	2%	-75%	-58%	-75%
	Hygiene	8,000	10%	5,000	10%	-38%	6%	-38%
	TOTAL	81,167	100%	47,750	100%	-41%	0%	-41%
HH2	Housing costs	10,400	21%	0	0%	-100%	-100%	-100%
	Food	10,000	20%	5,000	100%	-50%	404%	-50%
	Provisions	6,000	12%	0	0%	-100%	-100%	-100%
	School	14,000	28%	0	0%	-100%	-100%	-100%
	Clothing	5,000	10%	0	0%	-100%	-100%	-100%
	Hygiene	5,000	10%	0	0%	-100%	-100%	-100%
	TOTAL	50,400	100%	5,000	100%	-90%	0%	-90%
HH3	Housing costs	3,750	8%	0	0%	-100%	-100%	-100%
	Food	15,000	31%	5,000	100%	-67%	222%	-67%
	Provisions	5,000	10%	0	0%	-100%	-100%	-100%
	School	15,000	31%	0	0%	-100%	-100%	-100%
	Clothing	7,500	16%	0	0%	-100%	-100%	-100%
	Hygiene	2,000	4%	0	0%	-100%	-100%	-100%
	TOTAL	48,250	100%	5,000	100%	-90%	0%	-90%
HH4	Housing costs	5,000	15%	0	0%	-100%	-100%	-100%

	Food	5,000	15%	5,000	53%	0%	247%	0%
	Provisions	4,000	12%	3,500	37%	-13%	204%	-13%
	School	7,500	23%	0	0%	-100%	-100%	-100%
	Clothing	10,000	30%	0	0%	-100%	-100%	-100%
	Hygiene	1,500	5%	1,000	11%	-33%	132%	-33%
	TOTAL	33,000	100%	9,500	100%	-71%	0%	-71%
Average	Housing costs	5,829	11%	0	0%	-100%	-100%	-100%
	Food	18,750	35%	14,250	85%	-24%	141%	-24%
	Provisions	5,625	11%	875	5%	-84%	-51%	-84%
	School	12,500	23%	0	0%	-100%	-100%	-100%
	Clothing	6,375	12%	188	1%	-97%	-91%	-97%
	Hygiene	4,125	8%	1,500	9%	-64%	15%	-64%
	TOTAL	53,204	100%	16,813	100%	-68%	0%	-68%