


EMERGENCY MARKET ANALYSIS: SUPPLEMENTING AND ADAPTING THE EMMA[1] AND GEM[2] METHODOLOGIES in Guatemala,

Chiquimula, July 2013

Coffee: labour and production
Basic grains (maize and beans): consumption and production

Identified threats that may lead to a crisis: climate change, drought, coffee leaf rust, chronic poverty and high basic food (basic grain) prices.

[1] http://emma-toolkit.org/
[2] http://growsellthrive.org/our-work/gem

1. Introduction

Oxfam has been present in Guatemala for several years, responding to various long-term and rapid-onset crises**.** In Guatemala's "dry corridor", and specifically in the Chiquimula department, Oxfam has responded to various crises in the last few years, including droughts, the effects of coffee leaf rust and the rise in the price of basic grains, in addition to chronic poverty. In this region, the most vulnerable people are in a situation of chronic poverty, facing cyclical crises. These people, who represent 70-80% of the population (Fewsnet[3]), depend on the market to meet their food needs, suffer seasonal hunger each year, which gets worse in crisis years, and depend on seasonal work on coffee plantations as practically their sole source of income. This leaves them in a precarious situation, with adaptation strategies that are used more and more frequently, and are therefore more limited.

The Oxfam team has therefore been thinking about how to respond to the immediate food and livelihood needs of the poorest and most vulnerable in a crisis, as well as considering which interventions would be best in the medium and long term with a view to focusing on the causes of this chronic poverty, which makes the men, women and children of the region more vulnerable. The team has also taken into account gender aspects and programmes that can increase the resilience of the most vulnerable, bearing in mind the range of risks and threats that they face, including climate change. In order to make its current and future programmes as well informed as possible and understand which actions are the most suitable, having already begun a pilot cash transfer programme, the Oxfam team is keen to get a better understanding of key market systems for vulnerable people and to enhance its market analysis skills. This led to the performance of this emergency market analysis, alongside development and personnel training.

Given its focus, this market analysis paved the way for the first ever exploration of the opportunities to adapt and supplement the Emergency Market Mapping and Analysis (EMMA) toolkit and that of the Gendered Enterprise and Markets (GEM) programme[4], which analyses developing markets, paying special attention to climate change and gender.

The market study focused on basic grains (production and purchase) and on the coffee market (production and labour market). The study was conducted between 10 and 20 July 2013. It involved four days of training and preparation, four days of field work in Chiquimula, and two days of analysis. A total of 17 people took part in the study, including representatives of national and local government, national and international NGOs, the OCHA and the WFP. For the full list of participants, please see Annex 2.

[3] Fewsnet, Guatemala: Perfiles de medios de vida [Guatemala: livelihood profiles], 2007. http://www.fews.net/docs/Publications/gt_profile_es.pdf

[4] http://growsellthrive.org/our-work/gem

Summary

The results of the market analysis have revealed that, in the area of the Chiquimula department covered by the study, which focused in particular on the municipalities of Chiquimula, Jocotán and Olopa, the maize market is self-sufficient at harvest times, but in times of seasonal hunger, supplies are taken from the region, other districts and even international markets (if there is demand and a price incentive for wholesalers in the department, who seem to be the entry and exit point).

As regards the target group, the vulnerable, they live off their own produce and buy produce from the village shop (where there is a village shop and it provides maize), but mainly buy it in the municipality. This - in many cases - is far away from the villages, and the cost of transportation from home to the centre of the municipality is a strong barrier for these families. In villages that are far away from the centre of the municipality, it is usually the men's job to go to the market to buy food; in villages that are closer, it is a task for the women. The barrier is therefore economic access to maize, rather than its availability.

With regards to production, the greatest barrier is economic access to the ability to invest in land and inputs, which has other consequences. Land ownership and land quality, as well as the lack of technical support for suitable, affordable and sustainable farming practices, affect the production of basic grains.

The coffee labour market, which is for the most part seasonal, fails to provide sufficient employment to cover people's needs in both normal times and times of crisis.

With a view to tackling the problems of malnutrition and food security - throughout the cycle, from emergency response to recovery and development - the recommendations of this market analysis target access to food, maize and bean production, employment on coffee plantations and coffee production, with short- and long-term actions at both micro and macro level. In the short term, we recommend cash transfer programmes (with terms varying according to the context) at times of crisis and seasonal hunger, in order to meet basic food needs and protect livelihoods, as well as working with different actors in the market system to bring products and services to the vulnerable and those located far away.

In the medium and long term, the food security and livelihood recommendations are based on using and taking advantage of existing conditional social-protection systems, but transforming them (in terms of socio-economic selection criteria, duration/flexibility, conditions, coverage, etc.) so that they can allow the most vulnerable to be helped with dignity and aim to reduce poverty and build resilience. We recommend flexible systems that can adapt to people's needs at times of seasonal hunger and in years of crisis. These systems should operate in conjunction with early-warning systems at all levels that include market indicators and perform periodic vulnerability and risk analyses. The possibility of grain reserves at various levels should also be explored, as well as the diversification of livelihoods. Other recommendations are based on political advocacy, governance and working with the various stakeholders of the market system so that the most vulnerable can have access to inputs, food, other basic products, basic services, critical markets and the means for their voices to be heard and taken into account.

2. Context

Justification for the market study

Oxfam has been present in the Chiquimula region for several years, responding to cyclical and chronic emergencies. To date, responses to food insecurity have usually been based on help in kind, and have focused on short-term measures that do not seem to meet families' chronic needs and increasingly fragile situations. In addition to the basic-grain production crisis, there is another factor that has made the region's poorest people even more vulnerable and affected their biggest source of income. Coffee leaf rust has affected the need for unskilled labour and, therefore, the source of income on which the poorest people depend to gain access to food and other basic needs. In order to be able to respond to the needs of the poorest and most vulnerable families, the study aimed to:

- Understand the markets that are important for their food security and livelihoods, so as to know where to act to have a positive impact in both the short and the long term;
- Understand whether the markets are capable of supplying food in order to be able to implement cash transfer programmes, and whether such programmes are suitable and viable;
- Supplement and verify existing information;
- Create a basis for beginning integrated political advocacy work;
- Train key people in market analysis, so as to inform the early-warning systems and future responses.

Situation analysis

The area covered by the study is located in Zone 8 according to the Fewsnet classification of Guatemalan regions by livelihood (Table 1 and Annex 3). Zone 8 is classified as "Basic grains, border region with Honduras and El Salvador". It is located in Guatemala's dry corridor, which is characterised by very little rainfall and has been severely affected by climate change in recent years, with rising temperatures, more erratic rainfall and a longer period of very hot weather. These conditions appear to have favoured the diseases that blight basic crops such as maize, beans and sorghum, and have also had a severe impact on a crop that many rely on for income: coffee (coffee leaf rust is the most widespread and damaging disease). Geographically, the area is mountainous and not very conducive to the cultivation of maize, which is grown here and forms the basis of many families' diet. The region's most important market is at Chiquimula, which serves as a supply centre. Each municipality has a centre, a basic town with markets every Sunday and a variety of shops. The infrastructure leading to the municipalities is good.
The region produces and exports coffee, while the maize and beans grown are primarily for subsistence.

Table 1: Map of Guatemala showing Fewsnet's livelihood zones, and detailed map of the Chiquimula department

Livelihoods and household profiles

In Livelihoods Zone 8 (see Annex 3 and the table below), poor families represent 90% of the population and suffer malnutrition levels that are much higher than the average, according to Fewsnet. These levels reach their peak during times of seasonal hunger and crisis[5]. The poorest people live off maize and bean subsistence farming and depend on the income they can earn by offering their unskilled labour to buy essential foods and other basic goods. These people face various external socio-economic and climatic risks (see Annex 9). They are in a state of chronic poverty and suffer seasonal hunger even in a normal year. The more comfortably off usually grow coffee and provide jobs for the other groups.

Table 2: Characteristics of socio-economic groups (source: Fewsnet, 2007).

Distribución en la zona		Características de Grupos Socioeconómicos					
% Población		Tamaño del hogar	Tenencia de tierra	Activos	Reservas de granos básicos	Actividades productivas	Tenencia animales
Extremadamente pobres	60%	5 a 9	0-2 ha de tierra propia. 0.70-1.40 ha de tierra alquilada a medias	Herramientas básicas (azagón, piocha, pala). No cuentan con estructuras para almacenamiento post-cosecha.	3-4 meses	Agricultura de subsistencia de granos básicos y venta de mano de obra no calificada en actividades agrícolas	8-10 gallinas, 1 cerdo
Pobres	30%	5 a 6	1.40-3.50 ha de tierra propia. 0.70-1.40 ha de tierra alquilada a medias	Herramientas básicas, bomba de fumigación	3-4 meses	Agricultura de subsistencia de granos básicos y venta de mano de obra no calificada en actividades agrícolas	1-2 bovinos de doble propósito, 2 cerdos, 10-15 gallinas, 1 caballo
Medios	4%	3 a 4	3.50-63.55 ha de tierra propia	Tractor, vehículo, sistema de riego, motosierras	-	Ganadería, agricultores productores de tomate, piña, okra, plátano y hule. Actividades forestales	20-100 bovinos de doble propósito, 1 cerdo, 25-30 gallinas, 5 caballos
Acomodados	6%	3 a 4	> 63.55 ha de tierra propia	Tractor, vehículo, sistema de riego, avionetas para fumigación, sistemas de drenaje mecanizado, maquinaria pesada e invernaderos	-	Ganadería, productores de palma africana, banano y hule. Actividades forestales.	200-300 bovinos de doble propósito, 10 caballos

[5] Guatemalan Ministry of Health

Seasonal hunger and crisis - impacts on food security and livelihoods

In this region, the poorest families are in a situation of chronic seasonal hunger between June and September. In a year of crisis, this can go on until February, lasting for up to nine months. In a normal year, a family's limited production/subsistence growing of maize, sorghum and beans (which the most vulnerable families depend on, if they have it) can cover its food needs for no more than four months. This means that such families depend on the market to buy basic foods, and their main source of income is working as unskilled labour, usually on coffee plantations, but also in other segments, such as sugar. The months of seasonal hunger also coincide with a scarcity of work for unskilled labour (since this labour market is generally seasonal and provides few jobs) and with the months when food stocks have run out, basic-food prices are high, there is no harvest, and inputs (and therefore money) are needed in order to sow crops, which leads to a chronic negative cycle (see Annex 6 for the seasonal calendar).

There are various different crises, which affect the production of basic grains, the availability of unskilled labour, coffee production (which is directly linked to the unskilled-labour market) and access to food. The crises of the last few years are as follows:

- Hurricane Mitch, 2010: Affected regional basic-grain prices, which rose by up to 70% at a time of seasonal hunger.
- Drought, 2011-2012: Had a negative effect on the production of basic grains, which fell by between 60% and 90% in the Chiquimula region, one of the poorest areas.
- Coffee leaf rust, 2012-2013: Anacafé (the Guatemalan national coffee association) estimates that the disease will affect 70% of coffee plantations, which will result in a fall in production, with 13-21 million working days lost throughout the country (see Annex 14 for the figures).

Desired change and target groups

The Oxfam team and the agencies participating in the study wanted to know how best to meet the needs of the poor and vulnerable, both in times of crisis and in the long term, so as to have a sustainable positive effect on the lives of the most vulnerable families and the places they live in. They were aware that the responses provided to date had been short-term ones, and the market was not usually analysed. This is what paved the way for the idea of carrying out an emergency market analysis for markets that are critical for food security and livelihoods.
In order to identify the critical markets, as well as the focus of the study, the changes that people hoped the programmes and responses of the participating organisations could help to bring about, either directly or indirectly, were defined, together with the participants.

The **desired change** was “to guarantee food security and sustainable livelihoods for the extremely poor and vulnerable in the Chiquimula region, with a special focus on women and girls”. This means achieving greater food security, higher income, more sustainable usage of natural resources, reduced vulnerability and improved wellbeing for the most vulnerable groups in the region (the target groups), thereby boosting their resilience.

The **target groups** are very poor families who do not have any land or do not cultivate many tareas, and depend on work on coffee plantations as their sole source of income (Groups A, B and C described below). These are usually the groups that suffer from seasonal hunger and are in a cycle of chronic poverty from which they cannot seem to escape. They are therefore more

severely affected when a crisis occurs and find it harder to recover from crises, given their frequency and scale.

Information needed to design the response

In order to be able to design an informed response, the team needed to know: whether the local basic-food market had sufficient capacity to cover seasonal and crisis-time food needs; whether the labour market offered sufficient employment to meet the income needs of vulnerable groups; whether these markets were integrated; who the key actors within the market chain were and where the power lay; and how the target groups connected with the market, so as to understand whether the problem of access to food and income was a problem of demand or of supply from the market, with a view to knowing how and where to act.

The above information was needed in order to design a market-based response which, rather than harming economic activities, would optimise them for an effective response in terms of impact and cost, and examine the viability of market support programmes and cash transfers. The team also wanted to know how coffee leaf rust would affect the poorest families, whether the disease had had a profound impact on the unskilled-labour market and, if so, what this impact was and how a market-based response to it could be designed.

Selection of key markets

Given that our target groups live off subsistence growing of basic grains (maize, beans and sorghum), their diet is based on consumption of these grains and they buy the grains, it was deemed necessary to select the production and purchase of maize and beans. The teams initially thought that both markets (maize and beans) were very similar, but as the study developed, they realised that there were differences between them and drew up market maps with a view to performing a market analysis for each crop.

Comment [FT1]: This section was not entirely clear in the source text, but I assumed this was what was meant given the context.

The greatest source of income for our target groups is unskilled labour on coffee plantations, which had been affected by coffee leaf rust, and therefore we wanted to find out what impact this had had on supply. Given that unskilled labour on coffee plantations is directly linked to production, it was also necessary to study coffee production. Other key markets that were examined in terms of resilience and diversification of livelihoods included craftsmanship and labour on sugar farms and other alternative segments. It would be interesting to study these in the near future and look at which other market systems would be relevant.

Key analytical questions posed to guide the study

Key market	Short term	Medium/long term

Basic grains (Maize and beans) Production and consumption	Is food aid affecting the basic-grains market? If so, how? What crisis-response options could benefit the market? What are the population's food preferences? Can the local market satisfy their needs, and what is the most relevant response (quantity, quality, access)?	How viable and sustainable is it to produce "basic grains" as a livelihood? What is needed in order for it to be viable for different households (those that are very poor, poor, average, etc.)? What options are there for these households to be able to access grains at a "fair" price?
Coffee production and labour	How can we classify the different groups of actors affected and identify response options for each group? What investment is necessary for the market to recover? Identify types of access to the coffee labour market.	What potential does the market have to continue requiring labour (potential and limitations)? How can we control shocks so that the market can continue to offer work and so that monitoring mechanisms can allow us to predict future impacts?

3. Process: baseline study and integration between humanitarian aid and development

The Market Baseline Study was conducted between 10 and 20 July 2013. This involved four days of field work preparation and training in Guatemala City, four days of field work in Chiquimula, and two days of analysis in Guatemala City. The process was facilitated by Emily Henderson (Global Humanitarian Food Security and Livelihoods Adviser) and Daniel Morchain (Global Markets and Climate Change Adviser). A total of 17 people took part in the study, including representatives of national and local government, national and international NGOs, the OCHA and the WFP. For the full list of participants, please see Annex 2.
The study focused on the Chiquimula department and the district of Chiquimula, with a particular focus on the municipalities of Chiquimula, Jocotán and Olopa.

This process of conducting a baseline study on selected key markets and training on adapting the EMMA methodology and GEM tools was financed by the ECHO[6] as part of a project that hopes to develop a guide for carrying out market baseline studies that can inform humanitarian responses. In the case of Guatemala, this process provided the first opportunity to carry out an integrated market baseline study involving teams and methodologies from both humanitarian aid

[6] Under ERC (Enhanced Response Capacity) financing from the ECHO

and development. The concept of resilience was explored through practical implementation and the integration of development tools (the GEM methodology used by the development market analysis team) and humanitarian-aid tools (the EMMA methodology and emergency market analyses). For more details on EMMA-GEM integration, as well as the learning involved in the process, please see Annex 8.

4. Categorisation of households

The field work enabled the teams to gain a better understanding of the target group. Both teams worked on separate categorisations, which were then aligned based on amount of land cultivated and sources of income. This categorisation is reflected in the table below. It is similar to the table created by Fewsnet in terms of amount of land cultivated, but goes into more detail with regard to the differences between the poor and the very poor. The teams also realised during the field work that these groups did not seem to have the assets (animals and productive assets) mentioned above in the Fewsnet categorisation created in 2007. It seems that they have declined, although another study focused on this aspect would be necessary to confirm this and find out why (since this was not the main objective of this market study). A specific study is also needed in order to find out current malnutrition levels in the region. According to the results of the market analysis, **the target groups are Groups A, B and C**, and have the following characteristics:

Land and crops: They have no land or a few tareas (either their own or leased). On this land, depending on the region, they usually grow subsistence crops such as maize, sorghum or beans (but in very small amounts) and coffee (for their own consumption and, in small quantities, to sell).
Source of food: The biggest source of food for the poorest families is their own subsistence farming, which consists of growing maize, sorghum and beans (where they can grow the crop). In some villages there are projects run by the local municipalities' association to promote market gardens, but not many people benefit from such schemes. In the rainy season, people harvest wild herbs and, in some areas, bananas.
Diet: This is of limited variety, consisting mainly of tortillas made of maize or sorghum. People consume around 1lb of maize per day each and normally eat three times a day. When beans can be grown or there is sufficient money to buy them, they can be eaten along with other vegetables that have either been bought or grown in the wild. Chilli is used as a condiment.
Purchases: Lime, matches, oil, sugar, coffee, salt and soap are usually bought from the village shop, where such a shop exists. Maize and beans are also bought from the village shop, if it sells them, but this is not usually the case, and therefore they are usually bought from shops in the municipality. This shopping is usually done during the Sunday market. The distance between the villages and the centre of the municipality usually determines who does the shopping (if there is a long way to go, it is the man; if not, it is the woman). The cost of travelling there and back (plus the shopping) is a high one, which means that some women prefer to walk for three hours to get to the market rather than using transportation.

Access to credit: Where there is a village shop that sells basic products, the same shop also usually gives credit in kind to families known to it, knowing that the debt will be repaid

when it is coffee picking time. It is usually women who own the shops and who help other women in difficult situations, such as those who are the head of their family and have a large number of dependants.

Source of income: Most depend on the demand for unskilled labour on the farms of the wealthy as their main source of income. This work is very seasonal, however. There is most demand during the coffee picking season, which is short, meaning the entire family usually works, including children, since wages are paid by quantity harvested (cans). For the rest of the year, work is sporadic and is paid per day. Women who head a family or need to do what work they can find receive less money per day, since the work they do is considered to be less physical. Some heads of family temporarily migrate to find work as unskilled labour, but they usually return to the villages every two weeks to bring money back to their family. Families who meet the selection criteria, which are usually based on number of children, also receive government assistance that is conditional on school attendance and health visits for their children. The "Mi Bono Seguro" programme covers approximately 40% of the target population and in theory provides each family with 300 quetzales every three months, but in practice most families usually receive half that amount. Nevertheless, the families that do receive it say that without this money, they would not know what to do during times of seasonal hunger.

Strategies for adapting to different risks: Each year, during times of seasonal hunger, families seem to reduce their consumption of maize by half and eat fewer times a day. They also stop buying beans and other products (such as vegetables). Families with more resources seem to help the more vulnerable during times of seasonal hunger and crisis. This strategy is very limited, but should be explored in more detail. Village shops grant informal credit in kind to people they know.

Table showing categorisation of households and their connection with the market based on field work, Livelihoods Zone 8, Chiquimula								
Equivalent in Fewsnet categorisation	**Description of the groups based on field work**	**Land ownership**	**Crops**	**Production (in quintals)**	**Access to the market**			
					Basic grains (production and sale)	**Coffee (labour and production)**	**Need for labour**	**Need for contractor for labour**
Very poor	**A. Day labourer and migrant day labourer with no land**	None	None	0	Depend on the basic-grains market for their food all year round. Buy maize from the municipal market or from the village shop, if it sells maize. Transport is a big expense (20-30 quetzales for a return journey and the packages they carry are charged as a person) and many decide to walk. Women usually go to the market to buy food, except for in villages that are very far from the centre of the municipality, in which case the man goes, if there is one).	Depend on coffee production and the coffee market to sell their labour and obtain income with which to buy food.	No	Yes
Very poor	**B. Micro producer of basic grains and day labourer**	< 8 tareas (leased and owned)	Maize, sorghum, beans	1-4 quintals of maize	Depend on the basic-grains market for their food for eight months a year. Buy maize from the municipal market or from the village shop, if it sells maize. Transport is a big expense (20-30 quetzales for a return journey and the packages they carry are charged as a person) and many decide to walk. Depend on the weekly market to sell the small bean harvest they may have in order to buy maize. Women usually go to the market to buy food.	Depend on coffee production and the coffee market to sell their labour and obtain income with which to buy food.	No	Sometimes
Very poor	**C. Small-scale producer of basic grains and coffee, and day labourer**	8-16 tareas (leased and owned)	Maize, beans, coffee	1-4 quintals of maize/ 0-43 quintals of coffee	Buy maize from the municipal market or from the village shop, if it sells maize. Sell either to the village shop or at the weekly municipal market.	Depend on coffee production and the coffee market to sell their labour and obtain income with which to buy food. Sell part of their coffee harvest to obtain income and buy maize and beans, as well as other basic foods.	No	Sometimes
Poor	**D. Medium-sized coffee producer**	2-5 manzanas (owned and leased)	Maize, beans, coffee		Buy maize on the municipal or district market.	Sell coffee at either municipal or district level.	Sometimes	No
Middle earners and well off	**E. Large-scale coffee producer**	> 5 manzanas (owned)	Coffee	> 1,740 quintals	Buy maize on the municipal or district market.	Sell their coffee in the district or to the municipal wholesaler.	Yes	No

Comment [FT2]: I have used the > symbol here (instead of the < used in the source text), as it seemed to make more sense in the context.

5. Market systems study: results and implications for responses

a) Maize (and beans) market

CONSUMPTION	
Description of results	**Implications for the response**
Consumers: depend on the market for their food security Maize is grown almost exclusively for family consumption. The harvest covers three to four months of annual family consumption and, from May/June onwards, the family depends on market purchases to meet its basic maize needs. Families that grow beans sell or exchange small quantities of the crop to obtain access to maize. In terms of volume, families from categories A (Day labourer and migrant day labourer with no land) and B (Micro producer of basic grains and day labourer) depend on the local market for 40-60% of their access to maize and beans, and therefore depend on their buying power for their consumption of these crops. <u>Seasonal hunger:</u> From May/June onwards, their harvest reserves have been used up and their access to food depends on their income. For the most vulnerable families, income comes exclusively from the sale of their unskilled labour. Sources of income for these families are mainly limited to coffee picking work or other jobs related to coffee growing. At that time of year, opportunities for work are scarce, since the market is seasonal, meaning that these families are in a precarious situation. Between June and October, their buying power is very limited. Families headed by women have to work and do any kind of work, even if it is badly paid, in order to have a source of income and be able to buy food, or "survive", as they put it. This leads them to reduce the amount of maize they consume by between 0.5 and 1lb per person per day. This means that this time of year is a period of seasonal hunger. During this period, families' eating habits change: they reduce their consumption of maize by half, drastically reduce their consumption of beans (some do not even eat any), eat fewer times a day (as little as once a day), eat sorghum if they can access it (sorghum is generally the least-preferred grain and is normally thought of as animal food), and harvest wild tubers and herbs, as well as bananas, if there are any in the region. Malnutrition rates in the region are high, and at times of seasonal hunger the number of cases of malnutrition recorded in children under give increases each year (according to data from the Ministry of Health). Although we do not have recent exact data on malnutrition levels, this is an indicator of seasonal hunger.	In terms of obtaining access to maize during periods of seasonal hunger, **families** in categories A (Day labourer and migrant day labourer with no land) and B (Micro producer of basic grains and day labourer) **are limited both by their harvest and by their buying power.** In a situation of crisis, their ability to buy maize from the market is reduced further still, since they lose almost all their harvest (up to 90% in 2011-2012), prices rise (up to 250 quetzales/quintal) and job opportunities become scarcer. **The "Mi Bono Seguro" programme has had a positive impact on food security** for many families, who would have had even less food during times of seasonal hunger without it. However, it only covers 40% of the population and its selection criteria are linked to the age and number of a family's children (since the objective of the programme is to ensure that children benefit from education and healthcare), meaning it is conditional, which limits its impact on the food security and livelihoods of the most vulnerable. **It needs to be modified to have a large-scale impact**. It has great potential, however, both as a cushion at times of seasonal hunger and as a

What can push the most vulnerable families to crisis levels?

At this time, the two greatest threats that affect the maize market and push families in groups A, B and C into crisis situations are rising basic-grain prices (influenced by domestic and international factors) and drought:

- The rise in the price of maize reduces the families' buying power, thereby increasing the intensity of the period of seasonal hunger.
- Drought affects the harvest, thereby drastically reducing the volumes of grains produced, with losses of 60-90%. This reduction in volumes harvested means that the period of seasonal hunger comes early, starting in February-March.

Limited adaptation mechanisms for the most vulnerable families:

- Limited redistribution: In periods of seasonal hunger, and even more so in periods of crisis, small quantities of maize are sold from one family to another at village level, but this practice seems to be very limited. This means that donations or loans (in kind or cash) are very limited between the fairly wealthy families of the villages. Similarly, the communities visited stated that redistribution of the "Mi Bono Seguro" cash between families or within the same extended family is not a common phenomenon.
- The "Mi Bono Seguro" scheme: While this has a strong impact when it is implemented regularly, it currently seems to be irregular and limited in terms of time, coverage and amount. Because its conditions involve child education and health, it does not necessarily cover the most vulnerable.
- Limited credit in kind and cash: Some families, who have a relationship of trust with the owner of the village shop, can obtain a loan in kind during times of crisis, but such loans cover only the products that are sold in the shop and are limited, and most of these shops do not sell maize.
- Women and children work to earn more income: Women who can find work at times of crisis do so in order to provide food for their families, while their children look after their brothers and sisters. During the coffee picking season, children usually accompany their families, since in most cases wages are paid in terms of quantity collected, rather than days worked, and families want to maximise their income. This is also school holiday time.
- Harvesting wild crops: During times of seasonal hunger, families harvest wild tubers and herbs to eat.
- Reduction in the amount of food consumed (quantity per meal, number of meals per day, less-preferred foods, etc.).

Market entry points:

For maize, the main and practically only entry point for families from the villages are small wholesalers and retailers from the municipality. Transportation to the centre of the municipality is expensive, and food (packages) transported is charged as an additional passenger (10-20 quetzales per trip). Some women therefore decide to walk there, system that can be expanded in times of crisis to respond to people's needs. In this respect, it provides support for families so that they can be more resilient to both chronic situations and crises.

Access is the biggest problem for the target group. Lack of income as a result of lack of employment in the region and limited production of food for sale. This production is limited partly as a result of lack of income with which to invest in land and inputs. In addition to the cost of maize, transportation to the market and a lack of storage for families are also barriers to accessing maize.

which can take up to two hours, to save the fare. If the villages are very far away from the centre of the municipality, it is usually the man's job to go and buy maize. The Sunday municipal market serves as a platform for the sale, purchase and exchange of maize and other products. Some village shops (if there is a village shop at all) sell maize, but most decide not to. This is due to a lack of storage capacity, the cost of transportation and low margins, although these reasons need to be examined in more detail. Families buy maize by the quintal, and in lower volumes during the period of seasonal hunger. <u>Calculation of the deficit (this is an estimate and needs to be reviewed and verified; see Annex 5 for more details).</u> <u>The deficit is the difference between a family's needs (based on the Sphere Standards) and what it can cover.</u> • Chronic deficit in a normal year, per family and for the region as a whole: - Per family: calculated at 990 quetzales per year - For the region: calculated at 173,739 quintals of maize • Deficit in times of crisis: it is estimated that this increases to 1,200 quetzales per year for families in categories A, B and C, but this has yet to be verified. **Beans market** The teams decided to separate the study of beans from that of maize, since they observed that both consumption and production of the two crops were different. Beans are grown for family consumption and sale, but in recent years the bean harvest has been bad, since the plants have been affected by a number of diseases. Beans are generally sold to buy maize (or exchanged for maize). When they are bought, they are usually purchased by the pound or arroba (since they are much more expensive), but families in groups A, B and C usually stop eating them during times of seasonal hunger. As regards the market system, there is a cooperative (Chortijol) that buys most local produce at village level and sells it on to a national supermarket or to the WFP. In terms of municipal and district wholesalers, there are far fewer actors in the chain, although the stock exchange in Guatemala City continues to hold power over prices. If there is demand, the price usually acts as an incentive for supply to follow at district and municipal level. **Those who are most affected by seasonal hunger and crises** are groups that do not own land, as well as micro and small-scale growers. Crises take various forms: when there is a drought, production of basic grains falls, and consequently family reserves last for fewer months and prices rise, thereby widening the deficit, whereas intra- and inter-departmental and national prices can rise as a result of road blockages or international price increases.	
The "local" market, a transfer platform Village shops have a very limited capacity to handle maize, due to a lack of storage space and transportation resources and because it is a product with very low margins, which means they would have to sell	The village shops do not have the capacity to provide sufficient supplies to cover the needs of the village populations.

substantial volumes to make it a profitable activity. This would involve investment and levels of capital that most such shops are unable to access. Some shops selling maize were encountered during the study, but these were the exception. The local (municipal) market acts as a platform for carrying flows between the municipalities and the rest of the country, as well as with other countries: • During the harvest period, municipal retailers and wholesalers obtain supplies from the region's harvest (by buying from groups that produce a surplus, albeit in small quantities) and pass them on to departmental actors, which then transfer them to national actors (in Guatemala City). • During periods of seasonal hunger, when the majority of the population depends on the markets, municipal retailers and wholesalers obtain and redistribute the maize that comes from the department (particularly from Ipala and Quezaltepeque) and the rest of the country (the capital and, mainly, Petén). The local market has considerable capacity to expand, since it serves as a centre for continuous flows that adapt to demand: the big departmental wholesalers obtain maize from the department and other parts of the country because of price increases that make it attractive, and supply municipal wholesalers and retailers, as well as ensuring grain availability at the municipal level. During times of crisis the same thing happens, except that, if necessary, maize from other countries also enters the market through both formal and informal channels.	The market entry point for village residents is the municipal market. This involves hours of walking, which means a time opportunity cost, or paying for transportation. The local (municipal) market ensures a continuous flow. **Intervention at any time must be based on the market.** The target group needs access to money in the short and long term to meet its basic food and other needs.
The intra-departmental, inter-departmental, national and international markets: an integrated and opportunistic market When its own harvest is insufficient, the Chiquimula region obtains supplies from the producer regions of the department, Ipala and Quezaltepeque. **The markets are integrated** at all levels at normal times, during seasonal hunger and at times of crisis (if transportation routes are still operational). The departmental market is integrated with the national and international markets. The flows are determined by prices (and price differentials) and by the state of the roads. • During normal times, maize is brought largely from Ipala and Quezaltepeque. • During times of seasonal hunger and crisis, maize is brought mainly from Petén, the capital and neighbouring countries (Honduras, El Salvador, Mexico, etc.). • Cross-border flows represent an important source for balancing national flows. The majority are unofficial, and therefore are difficult to estimate. The departmental wholesalers guarantee supplies for the department, seeking out products where they are available (from the same department, from areas of other departments that have a surplus (mostly Petén) and from the national market). They also control the entry point to the department. When "normal" flows are affected, they obtain maize when prices rise (creating price differentials to incentivise supply).	The departmental market is integrated with the national and international markets. This ensures that the region is well supplied. The availability of maize is limited only by major events affecting road infrastructure and other transportation (and these are very rare). In all other situations, maize is supplied, but prices are higher at times of crisis. Availability is not a limiting factor (when the roads are functional). The market can cover both the chronic deficit and other deficits. The response to the food insecurity crisis can be market based.

Power in the market, and who decides prices

The power in the market is concentrated among departmental wholesalers (those situated in Ipala and Quezaltepeque, since that is where the biggest producer regions of the department are located) that can regulate flows and determine prices. Prices are also determined to a large extent by the market in Guatemala City, where they are influenced by the international price. The departmental levels serves as an entry and exit point for flows, and at times of crisis the actors at this level benefit from an increased flow and higher prices. They can also obtain informal flows of maize from other departments and countries (such as Mexico) if demand requires it. The departmental wholesalers serve as an entry and exit point for the region and exercise power at this level, exerting considerable influence thanks to their small number. Therefore:

- The price of maize is determined by the departmental and international price.
- The departmental wholesalers have the power to bring maize to the region by increasing the price.

Annual maize production in 2012 was 1,424,661 quintals, according to the Chiquimula departmental authorities. Based on this calculation (see Annex 4), assuming a minimum annual consumption, there is a production deficit of 173,739 quintals; compared with the ideal level of consumption, this deficit rises to 943,339 quintals. (These figures are estimates and need to be verified and completed, together with the flows into the region during times of seasonal hunger and years of crisis, but they give an initial idea of the deficits in a normal year and a crisis year). Another year should also be taken as a reference.

Comment [FT3]: I found this part of the sentence (from "que se ve influenciado" onwards) extremely unclear and difficult to understand, so I don't think my translation is correct here. Please check this.

PRODUCTION

Production systems: the systems for maize and beans are for subsistence and, in the case of beans, partly for sale (to a very limited extent).

Small-scale growers' practices:

- Limited capacity due to scarce access to land and land ownership, limited income to invest in "external" inputs and incremental risks.
- Opportunities in existing practices that persist but have been lost, such as sorghum cultivation.
- Cultivation practices are not viable from an environmental and economic perspective.

Learning about support given to production of basic grains (past projects):

- Intensity of "external" rather than organic inputs is not sustainable in the long term at the local level, and creates negative cycles.
- Responses are usually short term in scope, rather than focusing on the medium or long term; this needs to change.

Technical solutions for the production of maize need to consider the nature of the subsistence system. They must be viable for small-scale producers within their means.

Maize production systems need to evolve in order to be viable and sustainable, and to continue contributing to families' self-sufficiency. Given the conditions that apply to accessing land and inputs, maize production is not a realistic option as a main source of income. There is therefore a need to diversify crops grown for consumption, and even more so for income.

Opportunities

- The market seems to be self-regulating:
- Departmental and national wholesalers have the capacity to move flows (if there is a considerable profit to be made on the movement). The market always seems to be well supplied:
- Storage capacity at district level is good;
- Municipal and departmental wholesalers have access to credit;
- The "Bolsa Segura" programme is established in the region and aims to cover 40% of the population;
- There is a high presence of NGOs with experience in the region;
- There is good mobile-phone coverage and widespread general use by other groups.

Risks:

- Flows and prices determined by prices and flows in the department and between countries, rather than by production;
- For our target group, the biggest barrier is access (buying power), not availability;
- Absence of a national reserve that could serve as a cushion in critical periods;
- The flow depends on access routes. These are good up to municipal level, but from the municipality to the place where the majority of our target group lives, the roads are usually bad;
- System of taxes on maize that could push prices up;
- The village shop, which is nearer to our target group, does not have much capacity or access to credit;
- Access and land ownership are a barrier for our target group. This means that the crop system is not profitable or viable for the target group, since they do not have sufficient income to invest in inputs or land;
- The target group has very limited political power.

b) Coffee and coffee production labour market

LABOUR MARKET	
Description of results	**Implications for the response**
Groups that depend on this market to meet their basic food needs: A (Local and migrant day labourer with no land), B (Micro producer of basic grains and day labourer) and C (Small-scale producer of coffee and day labourer, dependent on the market) **Group A:** Actors who do not own any land focus on looking for opportunities for income (at the local level or as a migrant, especially in the Esquipulas region and in Honduras) by working as a day labourer for medium-sized and large coffee growers, as well as by selling their labour for informal chores (in exchange for money or goods (basic grains)). These informal chores are usually carried out when there is no coffee harvest, for lower wages than those paid for day labour. These actors are mainly men, but there is also a large number of women who carry out these activities. These women are usually the head of their family, and have children and elderly people to look after. Chronic (and in some cases acute) food insecurity, combined with seasonal day labour that is not always abundant or well paid, results in volatile, unstable incomes. Scarce or no access to land also increases this group's vulnerability. The incomes earned by these actors fall significantly below the survival threshold, even during normal (non-crisis) times. Insufficient access to government assistance and to opportunities to secure a more stable source of income, by selling labour or producing their own food, reduces the opportunities these actors have to prosper.	**Group A:** Training and specialisation of labour so as to be able to access a broader labour market. Facilitate better labour/pay conditions through advocacy for better wages (compliance with minimum-wage laws) and/or by promoting production that is subject to international standards (e.g. Starbucks, Rainforest Alliance) that require better conditions among the medium-sized and large producers that offer most work. Schemes that allow day labourers to work for longer continuous periods without having to return home to bring cash and/or food. For example, private cash transfers by mobile phone could be introduced, or options could be considered for creating a distribution/sale market for basic grains (by pick-up) in areas where access to food is currently particularly difficult due to their remote location. The flow of information aimed at enabling people to identify day-labour opportunities does not seem to be a major barrier, but this should be studied in more detail, with the examination of channels to facilitate the process for day labourers who may not have access to information (radio, personal contacts) or who live in particularly remote areas. It is also necessary to better understand the work carried out by these actors (either by selling labour or as a form of bartering) in terms of time dedicated and income obtained, in order to recalculate the thresholds.

Comment [FT4]: Not sure whether this is the right term.

Group B: These actors have two main ways of making a living: i. Firstly, they focus on looking for opportunities for income (at the local level, but also as a migrant, especially in the Esquipulas region and in Honduras) by working as a day labourer for medium-sized and large growers, as well as by selling their labour for informal chores (in exchange for money or goods (basic grains)). These informal chores are usually carried out when there is no coffee harvest, for lower wages than those paid for day labour. ii. Secondly, these actors produce basic grains on a fairly limited amount of land (1-4 tareas), but the subsistence produce this generates is insufficient, and therefore needs to be supplemented with other income. This produce is severely affected by climatic conditions, such as drought, which also has a negative impact on soil quality, along with other factors such as deforestation. These actors are mainly men, but there is also a large number of women who carry out these activities. Likewise, it is not unusual for all members of a household to contribute to day labour, particularly if the wage earned depends on volume collected, rather than days worked. Chronic (and in some cases acute) food insecurity, combined with seasonal day labour that is not always abundant or well paid, results in volatile, unstable incomes. The incomes earned by these actors fall significantly below the survival threshold, even during normal (non-crisis) times. Insufficient access to government assistance and to opportunities to secure a more stable source of income, by selling labour or producing their own food, reduces the opportunities these actors have to prosper. **Group C:** Chronic (and in some cases acute) food insecurity, combined with seasonal day labour that is not always abundant or well paid, results in volatile, unstable incomes. The incomes earned by these actors fall significantly below the survival threshold, even during normal (non-crisis) times. Insufficient access to government assistance and to opportunities to secure a more stable source of income, by selling labour or producing their own food, reduces the opportunities these actors have to prosper.	**Group B:** Responses could include those mentioned above, plus: Training in sustainable farming practices with little or no need for inputs (e.g. soil conservation, production of organic fertilisers, agroforestry systems). The problem is making these and other practices sustainable, and for that we need to tackle the structural problems of food insecurity, land ownership (a household owning land on which it can implement long-term sustainable farming practices) and chronic poverty (a household being able to grow subsistence crops for longer than just the short term). Diversification of incomes through the promotion of livelihoods, e.g. new crops with a higher market potential, which could also contribute to food security. Crop diversification. Developing access to markets, among other options, through information and communication technology (ICT) (e.g. creating a mobile-phone-based cash transfer system that would enable day labourers to work for longer periods without returning home with food). Another important aspect of market development is a greater supply of transport and food in the region's remote villages. Improving the profit margin/sale price of self-grown produce sold to intermediaries, e.g. through association-forming (formation of cooperatives, etc.). More sustainable management of natural resources, including farming practices, rainwater harvesting, improved soil fertility. **Group C:** Those mentioned above, plus: Support in the fight against coffee leaf rust (e.g. provision of inputs such as fungicides). Sustainable agricultural conservation practices (e.g. agroforestry systems, conservation farming practices). Provision of coffee seeds that are resistant to coffee leaf rust and drought. Support for access to credit for better management of

Comment [FT5]: Although "semilleros" is technically "seedbeds", I thought "seeds" made more sense.

Similar to the "small-scale producer of maize and day labourer", with the addition of small-scale coffee growing. This produce is affected by infestations and diseases, which have recently intensified, due partly to climate change (e.g. coffee leaf rust, rooster's eye). The impact of such diseases is accentuated by the actors' very limited access to agricultural inputs (fungicides) and restricted ability to renew or improve the management of their plantations. This impact results in coffee production being precarious, and also requiring additional effort due to a series of adverse circumstances (poor soil, disease and malnutrition within households, which can make it difficult to perform arduous tasks). High volatility of coffee prices on international markets and the low price at which intermediaries pay for the coffee produced by these actors.	plantations (e.g. renewal of plants, planting of varieties that are resistant to coffee leaf rust, etc.). Access to agricultural inputs and markets through a fairer system (with appropriate assistance, fairer relations with intermediaries, etc.). Broader and more appropriate support from institutions such as Anacafé. Promotion of association-forming. Development of ties with large growers, thereby eliminating the need for an intermediary where possible (e.g. through association-forming). Diversification of livelihoods and changing practices by recycling the by-products of large-scale growers/coffee processing plants, e.g. organic fertilisers.
Group D: Medium-sized grower who seeks labour and whose production and source of income are affected by climatic conditions and coffee blights Employs groups A, B and C. These actors are vulnerable to coffee diseases and infestations, as well as to climatic conditions such as rising temperatures and heavy rainfall, and are indirectly vulnerable to diseases that attack plants in ecological areas that were previously risk free. This vulnerability is due to the fact that a large proportion (possibly the majority) of coffee plantations consist of old plants, with reduced production, and are not managed in the best way (e.g. in terms of soil treatment and fertiliser application, pruning or renewal of plants). They are also vulnerable to price fluctuation on the international market. (NB: during the field work, we were unable to interview any medium-sized growers.)	Government incentives to improve plantation management could result in more demand for labour at harvest time, as well as during the months of preparation, pruning, fertilisation, etc.
Group E: Large grower who provides most of the coffee growing jobs and is vulnerable to risks, but has more capacity than medium-sized producers to absorb them. Employs groups A, B and C. These actors are partially vulnerable to diseases, infestations and climate change, but have	Facilitate ties between these actors and associations of small growers (which are non-existent as yet) so that they can have direct access to opportunities for labour, technical assistance, etc. Other options to be explored include the recycling of by-products from the coffee processing plants run by some large-scale

considerable capacity to respond and adapt thanks to appropriate plantation management (including renewal, pruning, fertilisation and treatment). They are vulnerable, however, to price fluctuation on the international market, over which they have no power.	growers (e.g. organic fertilisers) by small-scale producers for use on their land and/or the diversification of livelihoods.
The unskilled-labour market and the coffee-production market are inextricably linked, and there are problems of supply and demand. This is a double-edged problem, involving both the supply of unskilled labour and demand for it (unemployment due to lack of demand). **The market does not cover the chronic income deficit** due to insufficient production and its seasonal nature. **At times of crisis, the market cannot cover the deficit** because the chronic insufficiency of supply is exacerbated. The groups most affected are those that do not own any land (day labourers, including those that own a small amount of land)**.** In a normal year, there is a lack of attention to labour rights, a market niche, a lack of skilled labour (training), a lack of demand, a lack of organisation and a lack of access to sales/exports for small growers, At times of crisis there is less demand for labour, but the need to maintain, replant and renew crops increases. **The "local", departmental, national and international markets: an integrated and opportunistic market** The production market and the unskilled-labour market are integrated at all levels. **Power in the market, and who decides prices** Power is concentrated mainly among the "large growers" that export their produce, then pure exporters, the stock exchange (where coffee prices are decided), intermediaries and Anacafé (although Anacafé is currently fulfilling its mandate only partially). The large-scale growers are the ones that have the power over unskilled workers and the wages they are paid. **Some of the obstacles facing this market:** -Scarce or no access to inputs for small growers or access to export markets. In addition to limited land ownership: -Lack of integrated development and response strategies at the municipal level -Limited municipal commitment and lack of integration and coordination with the efforts of NGOs	Better identification of risks and vulnerable communities/households so that the provision of government assistance and the identification of target groups (e.g. by NGOs) can be more precise and effective. Better coordination between different actors on the market. Intervention in coffee production and the demand for labour is required. In theory, the market could form the basis for a solution, but in practice this tends not to happen. More demand could be generated though long-term government strategies and by guaranteeing skilled labour through medium- and long-term market empowerment strategies at the departmental and national levels.

Comment [FT6]: I was really unsure about what "nicho de mercado amistoso" meant in this context, as it doesn't seem to fit in or make sense. Please check my translation here.

-Increased climate variability -Poor circulation of market information -Fragmentation of social fabric and disputes	

6. Conclusion

The target group is characterised by limited or no land ownership, and if they do grow their own crops they are subsistence crops. Their source of income is restricted to the provision of seasonal unskilled labour, and each year they face a period of seasonal hunger, meaning they depend on the market to acquire food and basic grains during times of seasonal hunger and crisis. This means that the prices of basic food products have a big impact on the buying power and food security of these families. The biggest source of income is labour on coffee plantations, which is seasonal and dependent on coffee production, which is now at risk due to coffee leaf rust. These families are also exposed to a variety of economic, climatic and social risks, which they have to face with limited resources/assets, which means that their adaptation strategies are increasingly limited and their situation increasingly precarious.

The production of and markets for maize, beans and coffee (day labour and production) play a crucial role in the food security and livelihoods of the region's poorest and most vulnerable people, but they do not meet all their income or food needs. This means that diversification of sources of income is crucial for these families to have sustainable medium- and long-term livelihoods. Such diversification is currently almost non-existent. With regard to food security, subsistence crops are grown on land that is not suitable for maize and/or is not effectively managed (due to a lack of income), which prevents investment in inputs and results in precarious land ownership.

Various emergency measures are implemented in times of crisis by NGOs and the government, and there are some basic forms of assistance, such as the "Mi Bono Seguro" programme. There is no system in place to capitalise on lessons learned from previous interventions or to ensure coordination between various actors.

In terms of market systems, **the basic-grains market can supply the region with produce at times of seasonal hunger and during a crisis**, although prices do go up. Therefore, in order to meet the basic needs of the target group whilst also respecting their dignity and supporting the market and local economy, cash transfers are both suitable and viable in the context. To date, the preferred method has been assistance in kind, which, due to its limited nature, has not had a big impact on the market, but could do so if it were provided on a larger scale. Since the market operates in times of crisis and seasonal hunger, is self-regulating, is integrated and, if there is a price incentive, supplies the region, an intervention that would not interrupt this mechanism, and that would give the beneficiaries dignity and options, would be the most suitable.

The labour market depends on coffee production, which is expected to fall by approximately 40% over the coming years because of coffee leaf rust, which is related to the effects of climate change on plants. **In normal times, the demand for labour is not sufficient to meet the income needs of the families in the target group. Skilled labour, on the other hand, is required, and is in short supply in the region, which means that there is an opportunity there.**

The (partial) causes of malnutrition in our target group can be set out as follows:

7.Recommendations

Action must be taken on various fronts, through short-term measures (at times of seasonal hunger and crisis) and in the long term, with a view to building resilience at the household, national and international levels.

	Short term	Medium/long term
Access to food	-Access to food: Cash transfer programme in times of seasonal hunger as a safety net and during crises (after having carried out a very quick evaluation/market analysis update). These programmes must take into account transportation costs and include them or find another solution, as well as considering the role that the village shop can play (which would remove the need for transportation costs or walking for several hours to get to the market). -Support for the market: Work with village shops, where feasible, so that they can sell maize, beans and basic products. -Family- or community-run market gardens	-Safety net/social protection: Programmes that provide a cushion at times of seasonal hunger and crisis. -Early-warning system at community level, connected to all other levels, including key market-related indicators.

Production of maize and beans	-Access to inputs through credit/cash to invest in them, if the market can provide them. It must always be taken into account, however, that inputs must be kept at a sustainable level, at both the local and household levels. -Explore grain banks at community and individual level. -Supply and connection to markets. For example, more reserves and grain banks, enabling people to buy and sell at a better price.	-Technical support: explore types of inputs, such as alternative fertiliser, coffee compost, seeds adapted to climate variability. -Land ownership is a key issue for sustainable investment in land, which would involve working with landowners. Look at different options. - Community gardens; look at crops with nutritional value.
Income diversification	-Regulation and information to improve access to work and different labour markets. -Explore the use of market gardens at community and individual level; hens, goats, etc.	-Diversification of income/livelihoods: explore feasible market options and work on vocational education and education/skills needed to access them. -Explore other economically viable markets such as craftsmanship/clothing and facilitate access to them.
Jobs in coffee growing	-Access to cash during times of seasonal hunger and when they would normally find work if demand falls. -Explore and improve payment methods that could facilitate mobility and more days of work. -Incentives for transportation so as to be able to access the workplace. -Create ties between those who provide labour and those who are looking for it.	-Labour conditions: The minimum wage that is not enforced, the inability of day labourers to influence the conditions they are offered, and variable conditions (in terms of time, quantity and security) exacerbate the problem of food insecurity. Work on this. -Employment regulation (wages and minimum conditions (children, etc.)) -Work with authorities, large-scale growers and other stakeholders to improve labour conditions. Possibly promote the use of quality standards that require better labour conditions -Workers'/day labourers' conditions: Work needs to be done on training, more secure access to sources of employment (less dependency on intermediaries), job stability and association-forming.

Coffee production	-Intermediary role (production): The formation of cooperatives or other forms of association and the development of direct channels between small and large producers and/or exporters/distributors could help to obtain a fairer profit margin for small-scale growers, at the expense of the margins of intermediaries, large-scale growers and exporters/distributors.	-The unequal distribution of land (land ownership is scarce among small farmers) accentuates the problems of poverty and malnutrition, since these farmers do not produce enough for subsistence, and it is not realistic or feasible for them to use sustainable farming practices (on leased land) that would yield medium-term benefits. The issue of agricultural reform is extremely sensitive in Guatemala, but it must be broached in one way or another in order to solve the problem of food insecurity for these groups. Institutional support (e.g. from the Ministry of Agriculture, Livestock and Food (MAGA) and municipal authorities) and support from relevant private actors (e.g. Anacafé and COOSAJO (a savings and credit cooperative)) must be much broader and reach extremely vulnerable groups. This would require a risk identification process, as well as a rethink of the plans and coordination systems of these institutions, in coordination with the Ministry of Social Development (MIDES) and the distribution of government assistance.
Political advocacy and governance	- The appropriate identification of differentiated (disaggregated) risks facing communities and households, and of groups that are particularly vulnerable within a community, and the redistribution of aid and planning of targeted measures to reduce risks and strengthen livelihoods, are essential for food security. This is not currently being done (see Action Against Hunger (ACF) comments on the use of governmental indicators as a way of determining the most vulnerable regions/groups). It is also important to identify and design interventions concerning specific risks to groups that may be particularly vulnerable (e.g. widows, female heads of household, children, etc.). -Engage in advocacy aimed at meeting the needs of the most vulnerable based on the principles of dignity and choice, whilst also injecting cash into the local market through cash transfer programmes, where appropriate. -Engage in advocacy aimed at providing a form of year-long cushion/social protection during normal times (during the period of seasonal hunger) that could be stepped up at times of crisis. Capitalise on existing social-protection systems, such as the "Mi Bono Seguro" programme, and engage in advocacy to extend them and change their conditions, objectives, etc. so that they take into account food insecurity and vulnerability. -Better coordination between all actors/stakeholders: all levels of government, cooperatives, the municipalities' association, national NGOs, international NGOs and	

Comment [FT7]: Not sure whether "anual" should be "year-long" here, but "annual" didn't seem to make sense.

	the private sector, taking into account the needs of the most vulnerable. -Early-warning system at all levels that includes institutional market indicators. -Work with the private sector to understand what type of measures would give it an incentive to create more jobs and better conditions. Work with them to create better labour conditions. -Environmental/climatic impacts: The combination of circumstances in this context (drought, coffee leaf rust, poor soil) requires both short- and long-term solutions, as indicated in the tables above. The problem requires the integration and coordination of different actors, as well as policies that take this complexity into account.

8. Future studies and information

This study has been carried out as part of an emergency market analysis training programme, using the adapted EMMA methodology and GEM tools. Both the time period covered and the size of the teams involved were limited, and therefore the study could be supplemented with another that goes into more detail. A food security and nutrition study on the region in question would be required in order to understand its food habits and nutrition situation. In order to understand what type of livelihood diversification is viable, we would need to study the options, select a key market and conduct a study on that market, so we would know where in the system to act. As regards crop diversification, an agricultural analysis could give us a better idea. This emergency key market study gives us an idea of which actors are present, what their relations are with the market, whether the market can provide basic food products and livelihoods, and whether a cash transfer programme in the region is appropriate, The market indicators selected for both key markets should be monitored regularly in order for us to understand changes to the market and thus be able to foresee certain crises and implement an appropriate and timely response.

9. Annexes

Abbreviations and definitions

Bolsa Segura	Government assistance in the form of food provisions
Mi Bono Seguro	Government assistance in the form of cash transfers
EMMA	Emergency Market Mapping and Analysis
GEM	Gendered Enterprise and Markets
WFP	World Food Programme (United Nations)
Quetzal	0.12788 USD at the time of the study (July 2013)
Quintal	100 pounds, 4 arrobas, approx. 46 kilogrammes
Tarea	16 tareas to a manzana [a manzana is equivalent to approximately 1.72 acres in most Central American countries]

Comment [FT8]: I have omitted the item "maicillo/sorgo" from this list since I have translated both of these as "sorghum", so it's superfluous.

Comment [FT9]: I would like to include an explanation of the term "arroba" here, but I'm not sure what its equivalent actually is in Guatemala, since it seems to be different in different countries.

Annex 1 - List of participants

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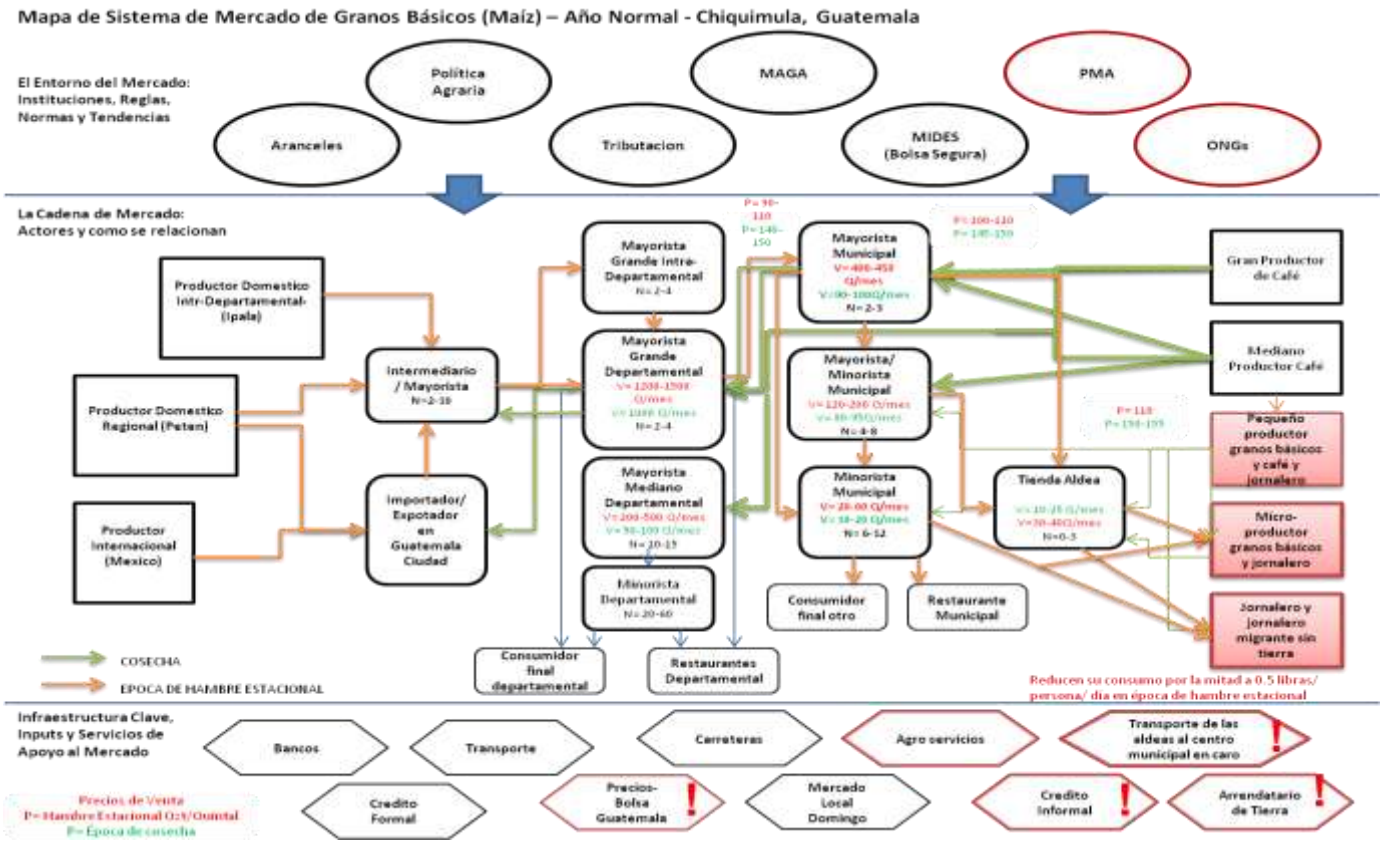
7	Carlos Arenas	Oxfam RD	fmsandydo@intermonoxfam.org
8	Jorge Gudiel	Segeplan	jorgegudiel10@gmail.com
9	Ivan Aguilar	Oxfam	iaguilar@oxfam.org.gt
10	Daniel Morchain	Oxfam	dmorchain@oxfam.org.uk
11	Davina Hayles	Oxfam	dhayles@oxfam.org.uk
12	Ines Camas	REDHUN	inescamas@yahoo.es
13	Nery Perez	MAGA	neryleonel@gmail.com
14	Marco Granados	ADAM	mgranados@adam.org.gt
15	Milton Diaz	Oxfam	mrdiaz@oxfam.org.gt
16	Cristina Monzon	Oxfam	cristina_monzong@hotmail.com
17	Emily Henderson	Oxfam	ehenderson@oxfam.org.uk

Annex 2 - List of interviewees

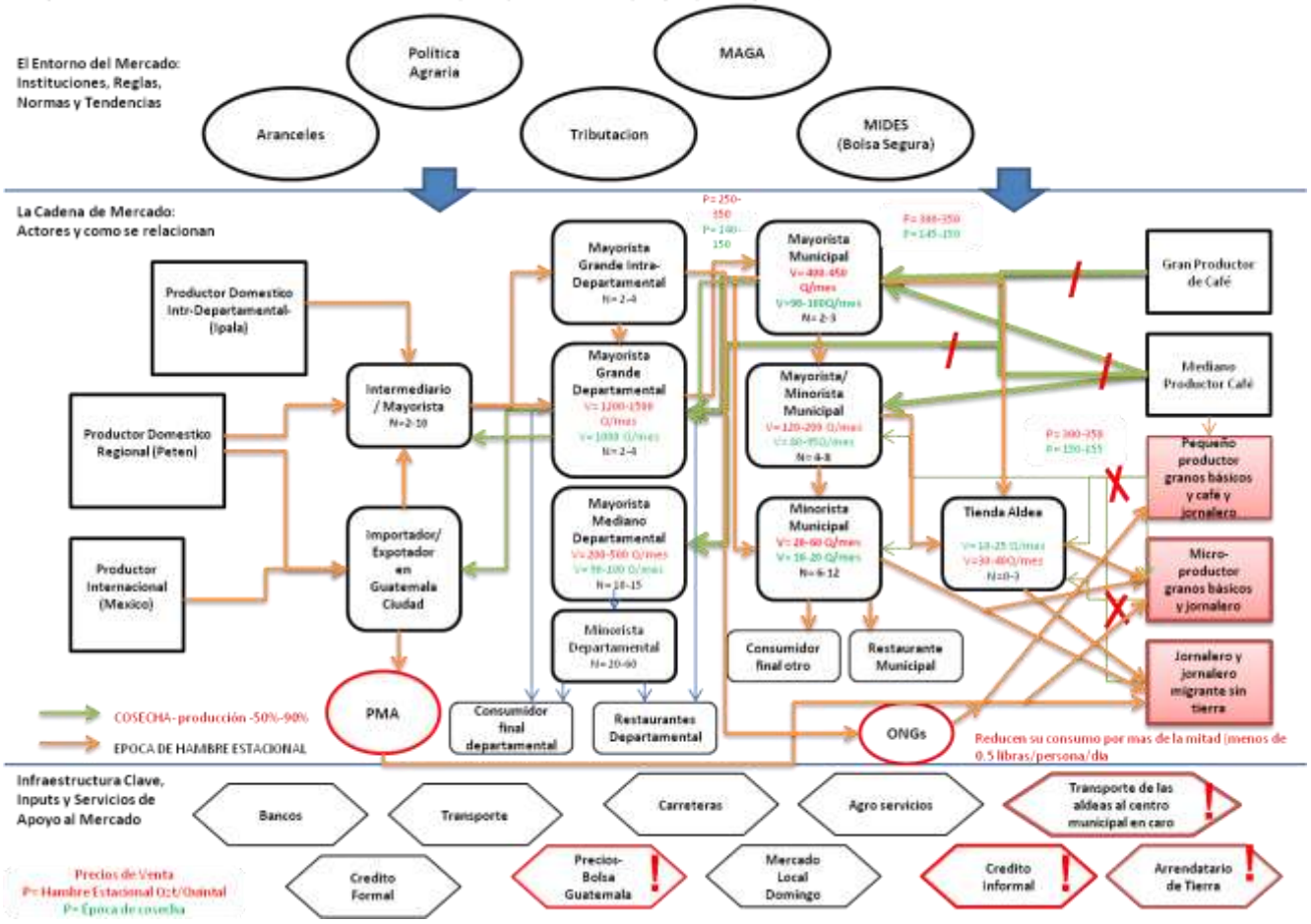
Actors	#	District	Municipality	Village
Communities: (Focus groups of men and women) (Household interviews) (Informal conversation) (Observation)	4	Chiquimula	Olopa Jocotán Jocotán Jocotán	Cerrón Oquen La Mina Cruz de Charma
Village shops (Individual interview)	4	Chiquimula	Olopa Jocotán Jocotán Jocotán	Cerrón Oquen La Mina Cruz de Charma
Municipal wholesalers of basic grains (Individual interview)	5	Chiquimula	Jocotán	
Departmental wholesalers of basic grains (Individual interview)	4	Chiquimula		
Small producer	4	Chiquimula	Olopa Jocotán Jocotán Jocotán	Cerrón Oquen La Mina Cruz de Charma
Coffee labour contractors	1	Chiquimula		
Large producer	1	Chiquimula		
Wet and dry coffee processing plants	2	Chiquimula		
Municipalities' association	2	Chiquimula	Olopa Jocotán	
Municipality	2	Chiquimula	Olopa Jocotán	
MAGA	1	Chiquimula		
MIDES	1	Chiquimula		
NGOs (ACF, Save the Children, Oxfam)	3	Chiquimula		
Anacafé	1	Chiquimula		
Funcafé	1	Chiquimula		

Annex 3 - Map of livelihood zones, Fewsnet 2007

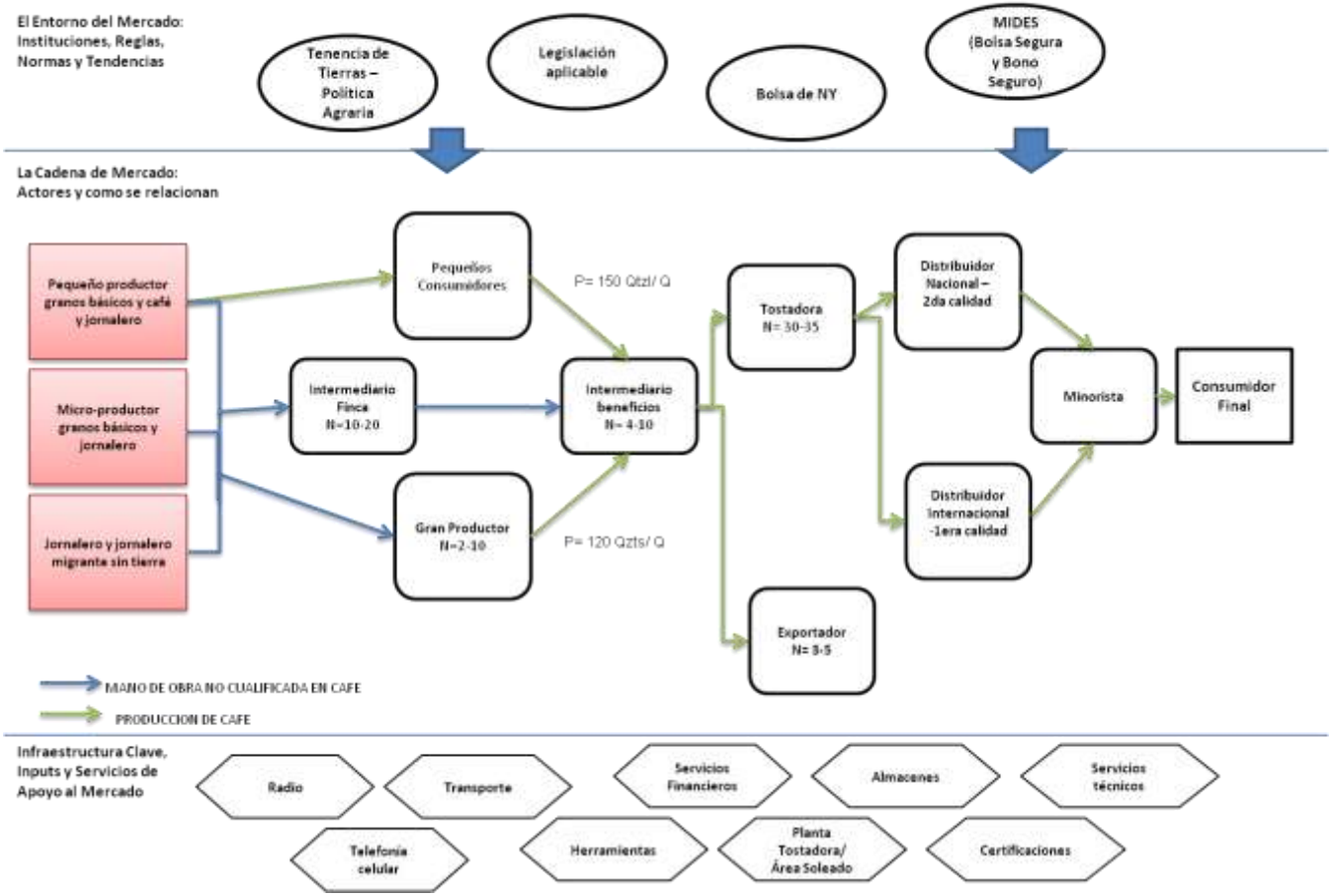
Annex 4 - Market maps



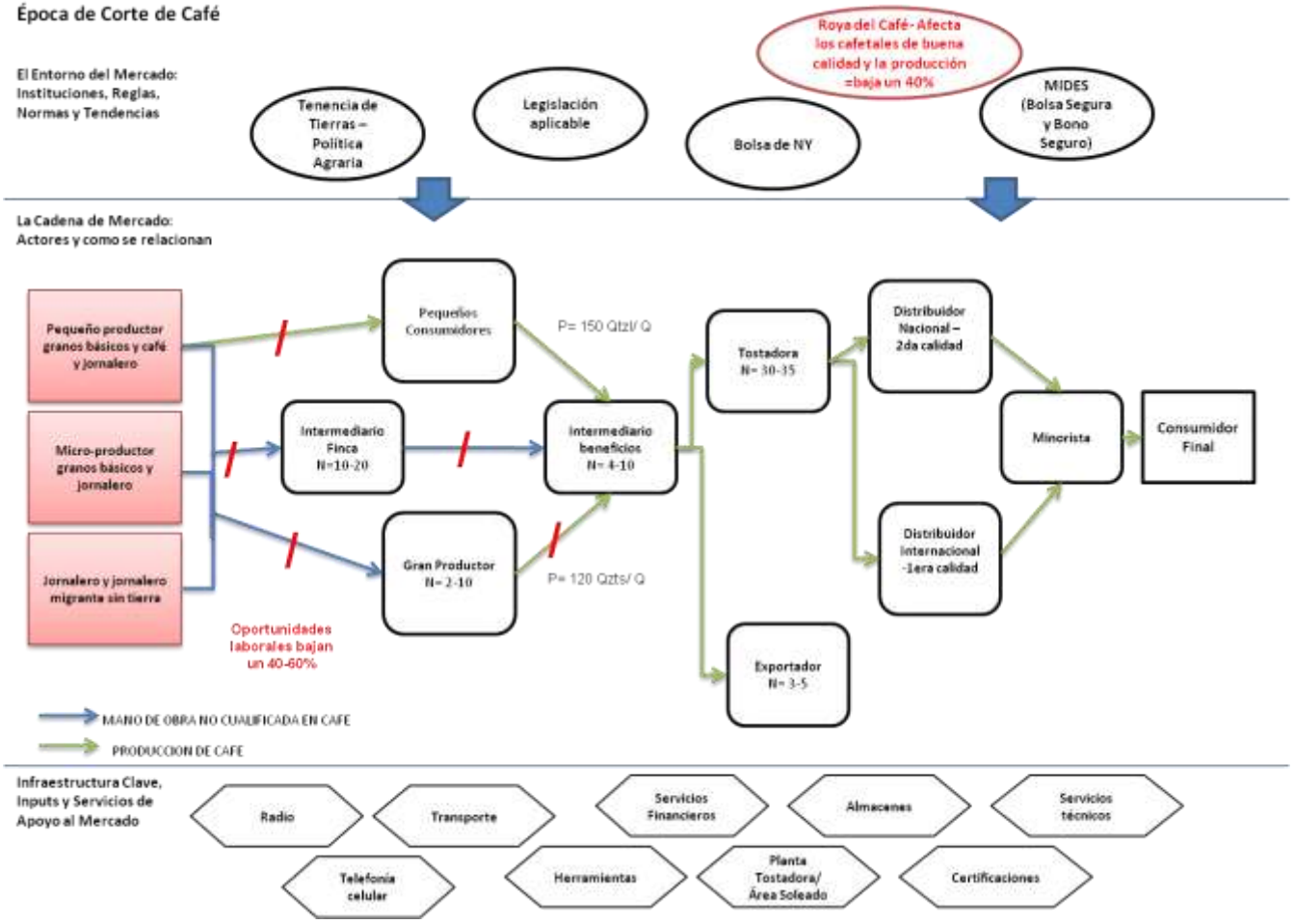
Mapa de Sistema de Mercado de Granos Básicos (Maíz) – Año Crisis (Sequia) - Chiquimula, Guatemala



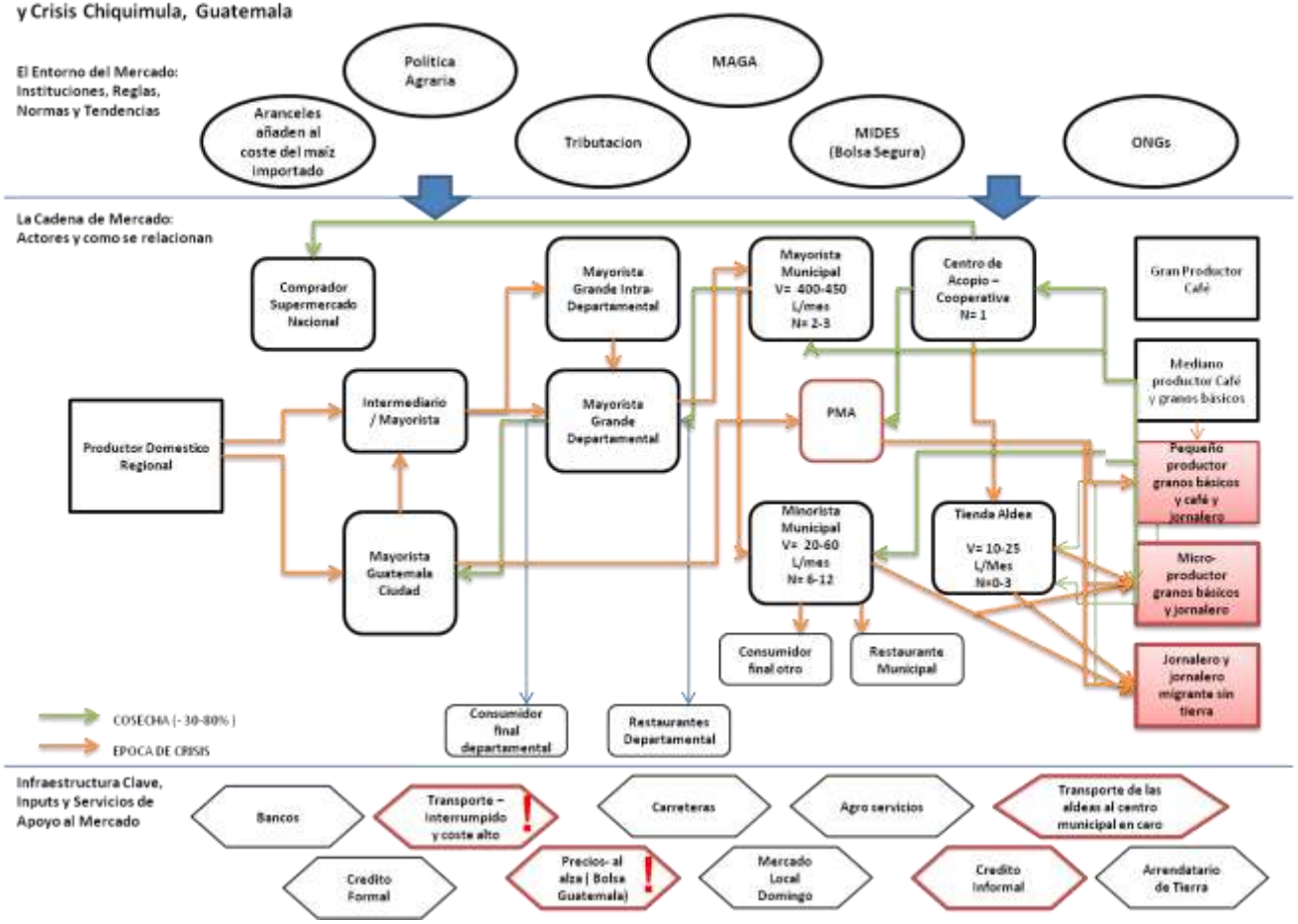
Mapa de Sistema de Mercado de Mano de Obra en el Café y Producción de Café – Año Normal - Chiquimula, Guatemala- Época de Corte de Café



Mapa de Sistema de Mercado de Mano de Obra en el Café y Producción de Café – Año Crisis (Roya del Café) - Chiquimula, Guatemala- Época de Corte de Café



Mapa de Sistema de Mercado de Granos Básicos (Frijol) – Año Normal y Crisis Chiquimula, Guatemala



Annex 5 - Table of actors (behaviour on the basic-grains market)

Actors	Period	Clients	Purchase/sale prices and margins	Conditions of purchase and sale	Storage and transportation capacity	Access to credit	Volumes (see maps)
Target group (For those who do not own land/do not grow crops, look only at the purchase part)	Harvest	Sells mainly self-grown beans and coffee (where applicable) and buys items needed at the village shop, a shop in the centre of the municipality or the weekly market.	Does not have any power over the price and the margin is minimal. Sells only beans and any surplus coffee. Sells to buy maize or exchanges another crop for maize.	Has access to credit only if granted to it by the village shop, and such credit is usually in kind.	Does not have a silo or storehouse at home. Does not have own means of transportation and has to take a local minibus, which costs money, and therefore sometimes chooses to go to the municipal shops on foot (walking for up to three hours).	Has no access to formal credit. Access to informal credit is limited.	Sales volumes are minimal. Purchase volumes are equivalent to 0.5lb of maize/person/day at times of seasonal hunger.
	Seasonal hunger/crisis	Buys maize either from the village shop or from the shops in the centre of the municipality. As transportation is expensive, goes only from time to time, normally on a Sunday (market day).	Does not have any power over the price. The price of maize is high: 150-170 Q/quintal. During a crisis (such as a drought), the price of maize rises to 250-350 Q/quintal.				
Village shop	Harvest	Sells to the villagers and buys from the villagers.	The margin maize is usually 5-7 Q/quintal.	Grants credit, normally in kind, to consumers, especially at times of seasonal hunger.	Has very limited storage capacity and uses either public transport or a small car to go shopping and bring items back to the shop.	Limited, and usually granted by municipal shops in kind.	Most do not sell maize or beans. Those that do sell limited amounts.
	Seasonal hunger	Sells to villagers and buys mainly from the centre of the municipality, but also from the villagers, if they offer it supplies.	At times of seasonal hunger, sells maize at 150Q-155Q/quintal and beans at 4-5 Q/arroba. Its margin is usually 5-10Q/quintal on maize and 1-2Q/arroba on beans. It does not vary much.				
	Crisis						
Municipal wholesaler/ retailer	Harvest	Sells to villagers, people from the centre of the municipality, village shops, municipal retailers (other shops, restaurants, tortilla makers, etc.) and the district wholesaler. Buys from villagers or the municipal retailer. At harvest time, buys more locally, and at times of seasonal hunger or crisis, buys from the district wholesalers.	Its margin is usually 5Q/quintal on maize and 1-2Q/arroba on beans. It does not vary much.	Grants credit, normally in kind, to consumers, especially at times of seasonal hunger.	Has limited storage capacity. Has own means of transport for going to the villages to buy products or to the district centre.	Has access to formal credit.	Sells large volumes of maize. Most do not sell many beans, which are usually bought/sold in large quantities by specialists.
	Seasonal hunger		Its margin is usually 5-10Q/quintal on maize and 1-3Q/arroba on beans.				
	Crisis						
Departmental wholesaler	Harvest	Sells to villagers, municipal wholesalers, retailers and various other clients at district level. Buys from village producers or municipal wholesalers.	Its margin is usually 5Q/quintal on maize and 1-2Q/arroba on beans. It does not vary much.	Gives credit in kind to some clients and in cash to trusted clients.	Considerable storage and transportation capacity. Goes to the villages to collect goods directly from producers and wholesalers. Sometimes stores beans in the hope of getting better prices.	Has access to formal and informal credit.	Sells large volumes of both maize and beans.
	Seasonal hunger	Sells to villagers (including large-scale coffee growers), municipal wholesalers, retailers and various other clients at district level. Buys from regional wholesalers (Ipala Quezaltepeque, etc.) or transporters from Guatemala.	Its margin is usually 5-7Q/quintal on maize and 10-15Q/quintal on beans. Margins increase at times of seasonal hunger and crisis.				
	Crisis						

Annex 6 - Seasonal calendar

Seasonal calendar - Chiquimula, Guatemala (field work, July 2013)

		January	February	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
Weather conditions	Rainy season												
	Drought												
	Very hot season (increasingly long)												
	Hurricane/cyclone season												
Crops, production, prices and other sources of food	Preparation of land for coffee growing												
	Coffee planting												
	Coffee picking/harvesting												
	Maize and sorghum planting												
	Maize and sorghum fertilising												
	Maize and sorghum harvesting										Cosecha verde		
	Maize selling												
	Maize buying												
	Maize (high price)												
	Maize (low price)												
	Bean planting				1era siembra in-usual								
	Bean fertilising												
	Bean harvesting												
	Bean selling												
	Beans (high price)												
	Beans (low price)												
	Banana harvesting												
	Picking wild crops												
Employment	Employment in coffee picking												
	Employment in other agriculture (coffee maintenance)												
	Poor families work their small farm												
	Seasonal hunger		Extensiva hambre estacional en crisis				El consumo de maiz se reduce a la mitad (comen 0.5 libras)						

Comment [FT10]: Not sure what was meant by this.

	School															

Annex 7 - Deficit calculation (this is an estimate; the calculation should take into account factors such as: coverage of assistance (not all the families in that group will benefit), the fact that days worked will vary depending on the year and the family, the variability of prices (of maize and of labour) depending on the year and the period.

HOUSEHOLD INCOME AND BASIC-GRAIN DEFICIT: Region: Chorti, municipality of Chiquimula/ Total population: 74,822 people or 49,000 households/ Socio-economic breakdown: very poor 18%, poor 80%, other (rich and middle earners) 2% (source: Fewsnet)

	INCOME FROM UNSKILLED LABOUR						**GOVERNMENT ASSISTANCE**			**Minimum consumption DEFICIT**			**Annual MAIZE deficit in Q**		
	Group A		**Group B**		**Group C**		**Mi Bono Seguro (1,200Q per year in four payments)**								
	30 days a year of income in Q	Deficit	12 days a year of income in Q	Deficit	12 days a year of income in Q	Deficit	G.A.	G.B.	G.C.	G.A.	G.B.	G.C.	G.A.	G.B.	G.C.
Real family consumption															
Normal year (eight months normal; four crisis)	1,200	-1,050	840	-810	840	-810	1,200	1,200	1,200	-990	-990	-990	-840	-600	-600
Crisis year (five months normal; seven crisis)															

	MAIZE CONSUMPTION										**MAIZE PRODUCTION**								
	Normal months			**Months of seasonal hunger and crisis**			**Total consumption in volume**		**Total consumption in value (quetzales)**			**A. Day labourer and migrant day labourer**			**B. Micro producer and day labourer (in quintals)**			**C. Small producer and day labourer (in quintals)**		
	Pounds/person/day	Pounds/family/day	Pounds/family/month	Pounds/person/day	Pounds/family/day	Pounds/family/month	**Total annual consumption in pounds**	**Total annual consumption in quintals**	Price of maize (Q) in normal times	Price of maize (Q) in crisis	**TOTAL** price of maize consumption	Qs prod	Deficit	Value/cost	Qs prod.	Deficit	Value/cost	Qs prod	Deficit	Value/cost

Real family consumption	**1**	**5**	**150**	**0.5**	**2.5**	**75**			**150**	**200**										
Normal year (eight months normal; four crisis)			**1,200**			**300**	**1,500**	**15**	**1,800**	**600**	**2,400**	**0**	**-15**	**-2,250**	**4**	**-11**	**-1,650**	**4**	**-11**	**,650**
Crisis year (five months normal; seven crisis)			**750**			**525**	**1,275**	**12.75**	**1,125**	**1,050**	**2,175**	**0**	**-12.75**	**-1,913**	**1**	**-11.75**	**-1,762.5**	**1**	**-11.75**	**-1,763**

The OPTIMUM maize consumption per family (five people) per year, IN QUINTALS, according to the FAO, is:	**32**	
The MINIMUM maize consumption per family (five people) per year, according to the FAO, is:	**21.6**	
Difference between recommended optimum consumption and real consumption (the deficit families cannot cover)	**-17 (=32-15)**	**-2,550**
Difference between recommended minimum consumption and real consumption (the deficit families cannot cover)	**-6.6 (=21.6-15)**	**-990**

MAIZE MARKET DEFICIT IN CHIQUIMULA:

Population figures (according to the last census)		**Optimum consumption (according to the FAO)**	**Total in quintals**	**Departmental production deficit in quintals based on the optimum consumption**	**Minimum consumption (according to the FAO)**	**Total in quintals**	**Departmental production deficit in quintals based on the minimum consumption**	**Current consumption** (one pound/person/day in a normal month and half that at times of seasonal hunger)	**Total in quintals**	**Departmental production deficit in quintals based on the current consumption (insufficient)**	**Normal-year production (2012; source: departmental authorities)**
Total population (people)	370,000										
Total households (5 people/household)	74,000	32	2,368,000	-943,339	22	1,598,400	-173,739	15	1,110,000	314,661	**1,424,661**
At times of crisis, 40% of the population affected (people)	148,000										
Households affected	29,600	32	947,200	-947,200	22	639,360	-639,360	13	377,400	-377,400	**0**

20 quintals/manzana (16 tareas in a manzana)
1.25 quintals per tarea

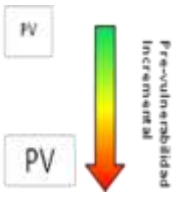
Annex 8 - EMMA (humanitarian aid) and integration with GEM (development)

Steps of the EMMA process	EMMA tools	GEM tools
Step 1: Essential preparation	-Analysis of households: household profiles -Seasonal analysis of households -Analysis of crisis -Desired change -Strategy for achieving the change	-Initial risk and vulnerability analysis
Step 2: Selection of key markets	-Analysis of contextual information and scheduling -Deficit analysis	
Step 3: Beginning with mapping and preliminary analysis	-Initial market maps	-Geographical map of actors -Analysis of power
Steps 4, 5 and 6: Preparation of field work, information gathering, final mapping		-Inclusion of indicators on empowerment of women and women's rights
Steps 7 and 8: Deficit analysis, market analysis	-Map of markets -Seasonal map of households and markets	-Actors and power analysis -Vulnerability and risk analysis -Gender analysis
Step 9: Recommendations for the response		
Step 10: Communication of the results		
Monitoring:	-Selection of indicators to be monitored	

Annex 9 - Vulnerability and risk analysis

N.B.: the information listed below should be reviewed under a common understanding of the definitions, as well as being periodically reviewed and adapted to reflect the variability of the context.

	S3	S2	S1	S0	N/A
E3	3	3	2	2	N/A
E2	3	2	1	1	N/A
E1	2	2	1	0	N/A
E0	2	1	0	0	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	Not relevant to the sector/crop/activity				
PV3	Sector/crop/activity is largely unaffected by negative climatic impacts and other political/economic factors				
PV2	Sector/crop/activity is **partially** affected by climatic impacts and other political/economic factors				
PV1	Sector/crop/activity may be **severely** affected by climatic impacts and other political/economic factors				
PV0	Sector/crop/activity may be **overwhelmingly** affected by climatic impacts and other political/economic factors				



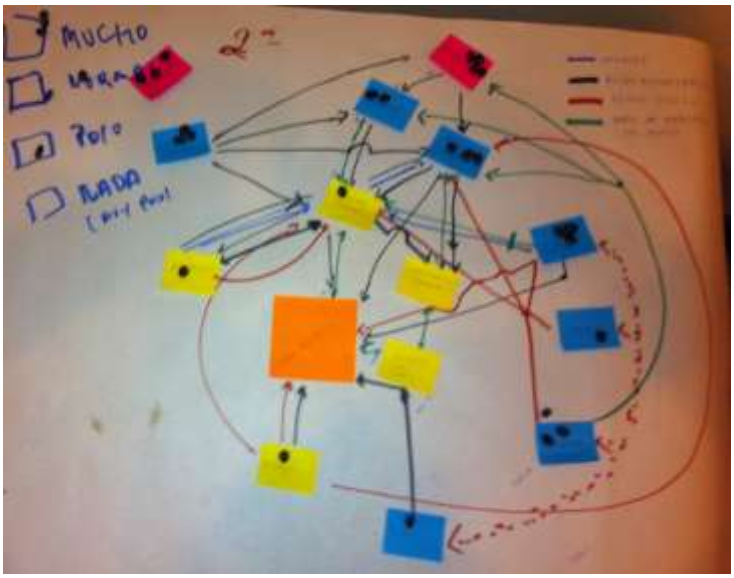
Basic-grains market											
Sector/crop	Activity	Reduction or rural employment	Climate variability	Maize diseases	Bean diseases	Land ownership	Access to inputs/credit	Access to consumption markets	Increase in food price	Violence and drug trafficking	Access to production sale markets
Social group	Local day labourer and migrant local day labourer	0	N/A	N/A	N/A	N/A	N/A	0	0	2	N/A
Social group	Micro producers < 8 tareas + day labourer	0	0	0	0	0	0	0	0	2	3
Social group	Small producers 8 tareas-1 mza	1	0	0	0	0	0	0	0	2	3
Social group	Medium-sized producers 2-5 mza (grains and coffee)	N/A	0	0	0	N/A	1	1	2	2	0
Social group	Large producers > 5 mza (grains and coffee)	N/A	0	1	1	N/A	3	2	N/A	2	0
Social group	Women (heads of family) - micro producers	0	0	0	0	0	2	0	0	2	3
Crop	Maize	2	0	0	N/A	N/A	0	N/A	N/A	N/A	N/A
Crop	Beans	2	0	N/A	0	N/A	0	N/A	N/A	N/A	2

Coffee production and unskilled labour market								
Sector/crop	Activity	Drought	Coffee leaf rust	Temperature increase	Chronic malnutrition	Acute malnutrition	Current land ownership situation	Difficulty in accessing inputs/credit
Social group	**Local day labourer and migrant local day labourer**	1	2	3	0	0	0	0
Social group	**Micro producer + day labourer**	0	2	3	0	1	0	0
Social group	**Small producer + day labourer**	2	0	2	0	1	2	1
Social group	**Medium-sized coffee producer**	3	3	3	N/A	N/A	3	2
Social group	**Large-scale coffee producer**	3	3	3	N/A	N/A	3	3
Social group	**Women**	1	2	3	0	0	0	0
Crop	**Coffee**	2	1	3	N/	N/A	N/A	N/A

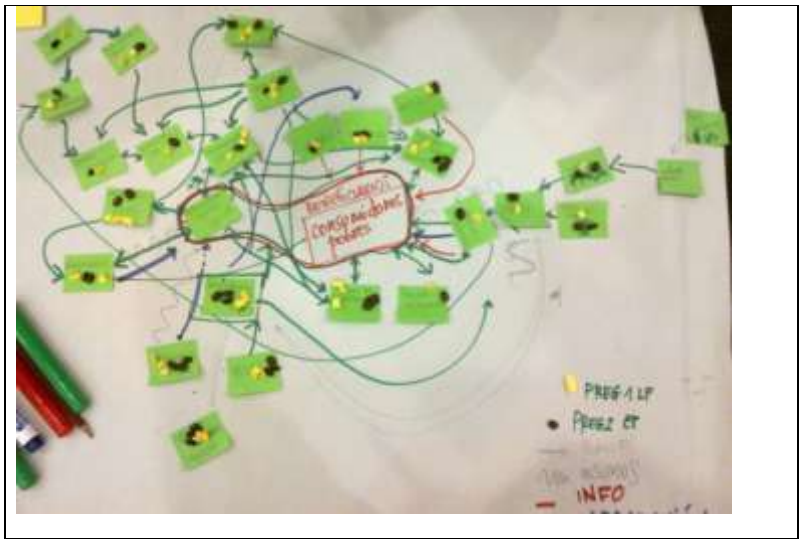
					A			
Social group	**Children, adolescents**	0	2	N/A	0	0	N/A	N/A

Annex 10 - Analysis of power

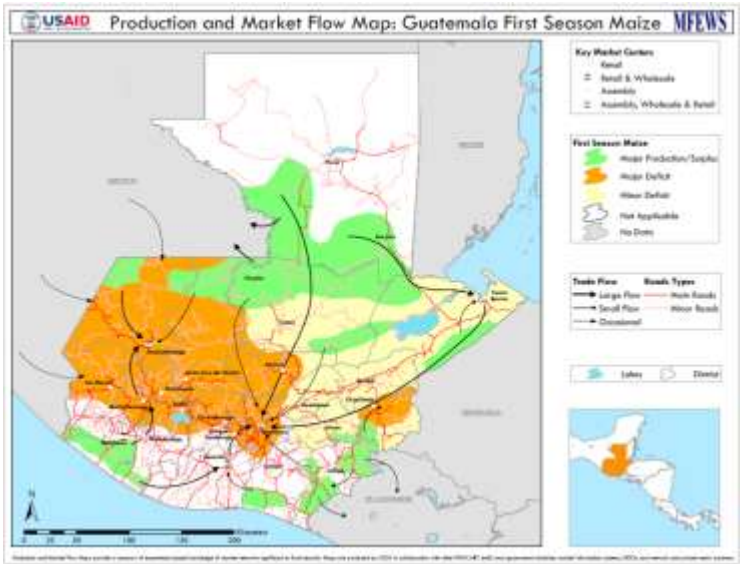
Coffee:

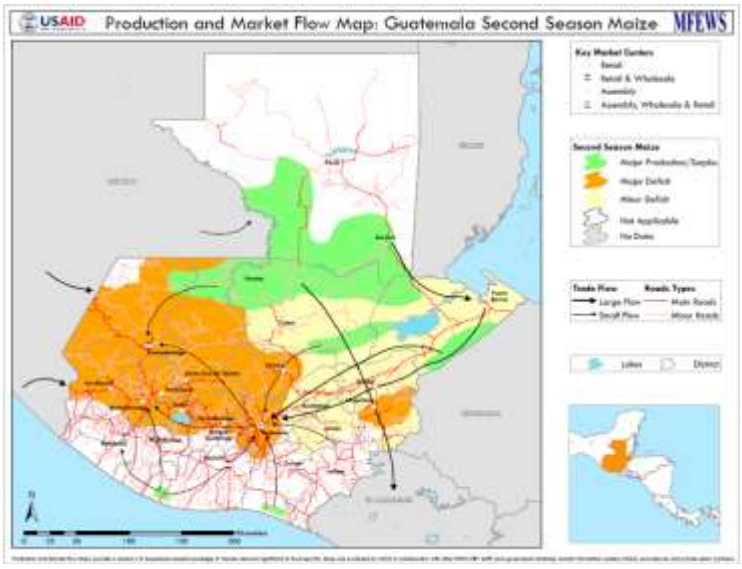


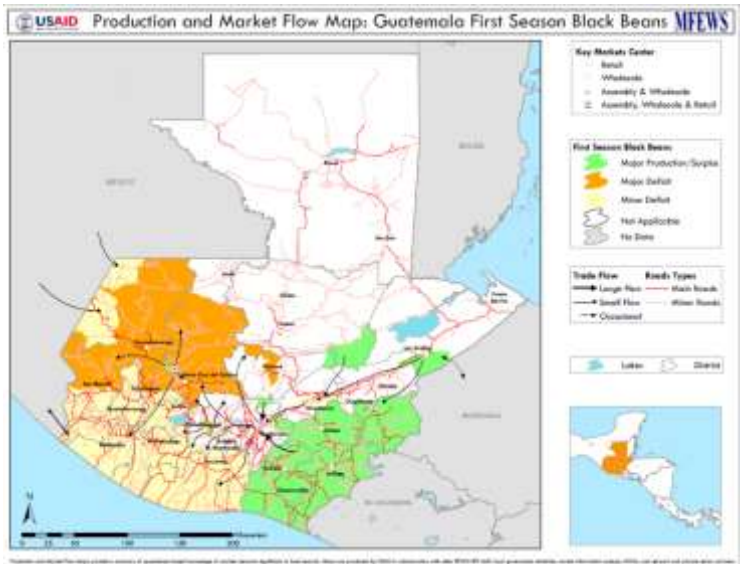
Maize and beans (basic grains):

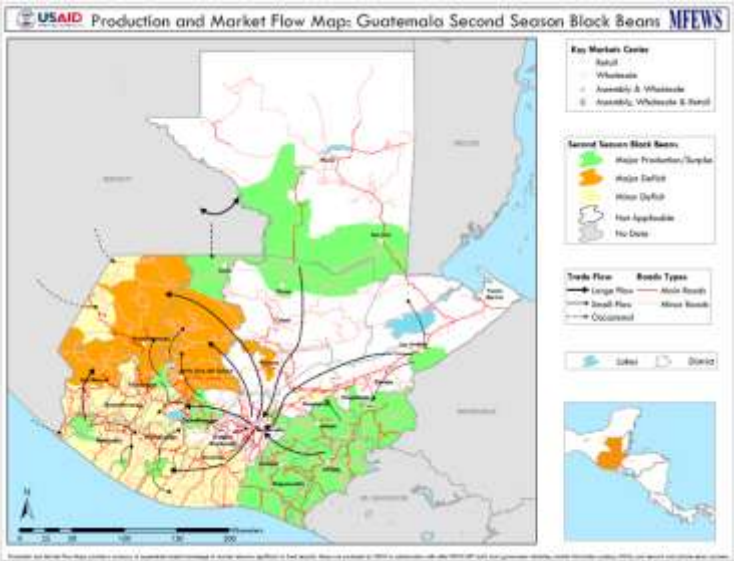


Annex 11 - Production data, map of flows (Fewsnet)




USAID
Production and Market Flow Map: Guatemala Second Season Maize
MFEWS


USAID
Production and Market Flow Map: Guatemala First Season Black Beans
MFEWS



Annex 12 - Comparison and evolution of basic-grain prices

Source: Fewsnet, price bulletin, June 2013

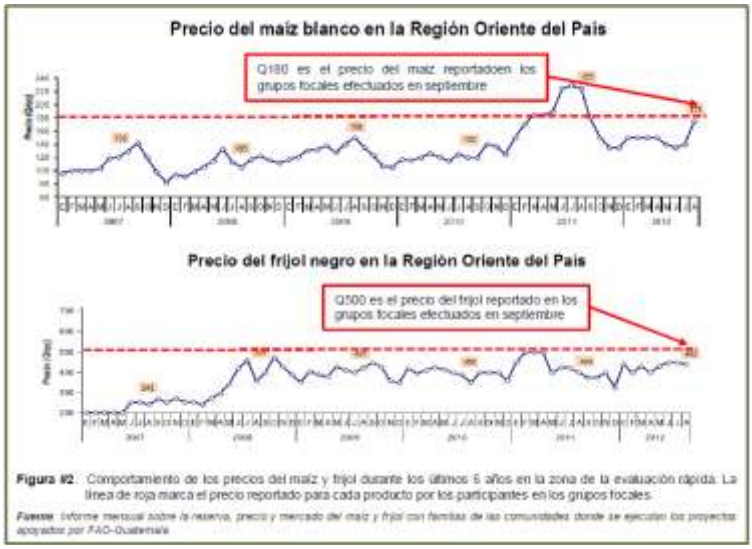


Figura #2: Comportamiento de los precios del maíz y frijol durante los últimos 6 años en la zona de la evaluación rápida. La línea de roja marca el precio reportado para cada producto por los participantes en los grupos focales.

Fuente: Informe mensual sobre la reserva, precio y mercado del maíz y frijol con familias de las comunidades donde se ejecutan los proyectos apoyados por FAO-Guatemala

Annex 13 - Production of basic grains, Chiquimula, 2012

Municipality	White maize			Black beans			Sorghum		
	Mz	Production q	Yield q/Mz	Mz	Production q	Yield q/Mz	Mz	Production q	Yield q/Mz
Camotán	3,900	93,600	24	2,100	31,500	15	630	8,190	13
Chiquimula	7,231	144,620	20	1,652	23,128	14	1,387	18,031	13
Concepción Las Minas	1,832	51,296	28	916	14,656	16			
Esquipulas	3,200	102,400	32	1,400	21,000	15			
Ipala	10,774	344,781	32	6,500	130,000	20	91	1,820	20
Jocotán	6,358	101,728	16	2,543	22,887	9	2,332	27,984	12
Olopa	2,568	61,622	24	1,426	19,964	14			
Quezaltepeque	9,884	276,752	28	5,450	87,200	16	31	620	20
San Jacinto	3,353	93,884	28	2,546	45,828	18	51	816	16
San José La Arada	2,544	81,402	32	1,304	26,080	20	81	1,620	20
San Juan Ermita	3,024	72,576	24	2,172	34,752	16	25	400	16
TOTAL	**54,668**	**1,424,661**	**26**	**28,009**	**456,995**	**16**	**4,628**	**59,481**	**16**

Table: Production of basic grains in Chiquimula, 2012 - source: strategic information, Chiquimula departmental authorities, 2012

Annex 14 - Relationship between coffee production and jobs generated

Desglose	Relación entre producción de café y empleos generados.					
	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Producción nacional	5,285,947	5,382,703	4,905,949	4,892,244	5,164,076	5,020,076
Exportación Rubro	4,885,947	4,982703	4,505,949	4,492,244	4,764,076	4,851,951
Total jornales generados	74,003,258	75,357,842	68,683,286	68,491,409	72,297,068	70,281,064
	Empleos generados					
1.Empleos Temporales	367,464	374,191	341,048	340,095	358,992	373,217
2.Empleos Permanentes	142,903	145,519	132,630	132,259	139,608	111,480
Total Empleos	510,367	519,709	473,678	472,355	498,600	484,697
1.Empleos temporales	Son generados temporalmente para realizar actividades especificas (corte de café, etc.)					
2.Empleos permanentes	Son los contratados por un periodo indefinido y ejecutan todas las actividades culturales que se realizan en el cultivo del café.					

Cuadro No.5. Fuente: ANACAFÉ, 2013.

Annex 15 - Projected coffee production

Escenarios de la cosecha 2013-2014

Proyección de Escenarios de Cosecha 2,013 – 2,014

Escenario	I	II	III
Reducción cosecha	-20%	-30%	-40%
Producción exportable MM qq	3.8	3.4	
Empleos MM jornales	-13.7	-20.4	-27.1
Divisas MM US $	-224	-291	-358

Año base 2,011 – 2,012, 4.8 millones quintales oro exportables, Empleo 72.8 jornales MM. Divisas: US$ 761.2 MM

Cuadro No.6. Fuente: ANACAFÉ, 2013.

Total coffee production and predicted sacks (000)

Year	Guatemala
Average 2007-2008 to 2011-2012	3,902
2012-2013	3,500
	(90%)
2013-2014	2,100
	(54%)
Source: International Coffee Organisation	

Annex 15 – Key questions and answers

Key market	Short term	Medium/long term
Basic grains (maize and	Is food aid affecting the basic-grains market? If so, how? No, because the food aid in the region is not	How viable and sustainable is it to produce "basic grains" as a livelihood? It is viable and sustainable to produce basic grains as subsistence crops, but other

beans) **Production and consumption**	significant. If it were on a larger scale, it could have a negative effect on the village shop and the municipal shops and market, which are essential for the food security of our target groups and others. What response options could benefit the market? -ST: Credit for the village shop, so that it can sell maize and beans. -ST: Access to income for affected households by means of cash so that they can buy basic food and products from the market. What are the population's food preferences? White maize and black beans. Women seem to prefer to receive cash with which to buy the food they need, whereas men appear to prefer food aid in kind. Can the local market satisfy their needs, and what is the most relevant response (quantity, quality, access)? Yes, the market can meet their needs, during both times of seasonal hunger and times of crisis. A response based on food aid via cash transfers is the most suitable with a view to guaranteeing the dignity of the most severely affected and supporting the local market.	options must be explored, as well as tackling the issue of better land (soil) management. What is needed in order for it to be viable for different households (those that are very poor, poor, average, etc.)? More income so as to be able to invest in land, greater security, and access to land in order to assume investment risk. What options are there for these households to be able to access grains at a "fair" price? They have no power on the market, and therefore a response would have to be created that would help to increase their power, such as collective silos, micro-insurance, etc.
Coffee production and labour	How can we classify the different groups of actors affected and identify response options for each group? The answer to this is in the household classification table. What investment is necessary for the market to recover? This question will have to be tackled again, since it is broader than what is covered in this study. Identify types of access to the coffee labour market. These are described in the table above.	What potential does the market have to continue requiring labour (potential and limitations)? We have seen that there is a lack of demand and that everything depends on coffee production, and therefore the risk is high and we must take steps to mitigate it. How can we control shocks so that the market can continue to offer work and so that monitoring mechanisms can allow us to predict future impacts? Systematic ongoing risk analysis and monitoring of specific market indicators can provide a basis for knowing when to act. Structural changes to promote demand for labour will subsequently be necessary.

Annex 16 - Supply and demand decision tree (Jaspars and Creti, Oxfam GB 2006 “Cash Transfer Programming in Emergencies”)

Figure 1: A framework for deciding whether to distribute cash or food