
Integrated Quantitative-Qualitative
Analysis for

GUATEMALA

Ensuring food and nutrition security in a time of volatility

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1 INTRODUCTION

In 2012, Oxfam and IDS initiated “Life in a time of food price volatility”, a four-year joint research project which aims to document poor people’s experience in a time of food price volatility and to generate policy-relevant insights for protecting the vulnerable, the poor, and the food insecure.

In each of the 10 participating countries¹, qualitative research is carried out every year in 2 communities, one rural and one urban. For the case of Guatemala, the participating communities are: Chugüexa Primero (rural) and Santo Tomás Chichicastenango (urban). Both are located in El Quiché province (departamento) in western Guatemala, where poverty and food insecurity is widespread.

In addition, the project incorporates quantitative analyses that feed from and feed into the qualitative research component. The mixed method approach is used in order to contest and triangulate qualitative findings with nationally representative data and to complement the information that only each of the approaches can provide towards a more complete and deeper wider picture.

The purpose of this work is to offer a quantitative complement to the qualitative research work being carried out in Guatemala. More specifically, the quantitative research will:

- Track poverty and food security related data
- Analyze household expenditures and food consumption patterns
- Identify aspects that deserve further research through the qualitative research component

Overall, the analyses aim to explore the impacts of food price volatility on poverty, well being, and food security. The global food crisis from 2007-08 serves as cut off point for exploring the households’ situation before and after well known food price changes.

The present document has the following structure: Chapter 1 includes the research question, methodology, and results from the qualitative analyses which serve as thematic guide for the quantitative analyses. Chapter 2 provides a brief overview of the Latin American context during the past years. Chapters 3, 4, 5, and 6 cover the key major topics emerging from the qualitative analyses. Finally, Chapter 7 presents the conclusions of this work.

Qualitative research results

The qualitative research employed techniques such as in depth interviews with households and key informants (local authorities, leaders, and others), focus groups (men, women, youth), observation, and case studies. Where needed, interviews and focus group discussions were carried out in the local language (K’ich’è). The resulting materials were then traduced to Spanish by a bilingual K’ich’è – Spanish native speaker, member of the research team.

The research sites are located in the Western highlands of Guatemala and about 98% of the population is of mayan K’ich’è origins.

The urban community, Santo Tomás Chichicastenango, has been attractive to national and international tourism due to its local culture and traditional markets. Traditional custom of representation and authority is still exercised in the town. Thursdays and Sundays are especially important days during the week, since most commercial transactions take place in the markets set up these days. It is common to see people coming from nearby communities for trading goods (including textiles and handcrafts) in the markets. The rising levels of violence and insecurity faced by the

¹ Bolivia, Guatemala, Bangladesh, Indonesia, Kenya, Zambia, Burkina Faso, Vietnam, Pakistan, and Ethiopia.

country have negatively impacted the touristic flow to Chichicastenango, affecting the livelihoods and income prospects of a large share of the local population.

Chugüexa Primero (the rural community) is an indigenous community where the local language and customs remain on place. The population is engaged on commerce and on tailoring and textile production. Once key for the community survival, these activities have been seriously undermined by the internal conflict and the increasing competition from clothing (new and used) imported cheaply from the USA. Some agriculture takes place in the area, however due to land fragmentation, low productivity, and engagement in other economic activities; it is not the main income source for the community.

The following list summarizes the main findings from the qualitative research work carried out in 2012 and 2013.

- More than price volatility, people face increasing food prices.
- Prices for basic foods have increased in the past year. Products which are not seasonal, such as meat (beef, chicken, pig, fish), eggs, sugar, coffee, milk, oil, “incaparina” and noodles, increased price and this has not come down to initial levels. Cereals and tortillas (maize) have also increased price.
- Households implement several coping and adapting strategies in face of food high prices, such as reduced consumption (quantity eaten or number of meals), substitution of expensive items by native foods (local herbs and vegetables grown in the yard/ home garden), and consumption of items of reduced quality (purchase of bone instead of lean meat, purchase of lower quality items, purchase of “over ripe” products). Originally inadequate (not diverse) and insufficient food consumption is being reduced at even lower levels.
- The urban population is relatively speaking, better off than the rural population in terms of the type and quality of the diet. However, this population depends on purchased items contrary to a proportion of the rural population which still has the possibility to produce some of the foods eaten at home. Overall, the rural diet is considered more “natural” than the urban diet.
- In general terms, food consumption patterns are changing not only due to food price increases, but also due to other factors affecting the overall country food situation, such as extreme weather events, armed conflict, increased prices in non-food items (fuel, gas, production inputs), and degradation of natural resources.
- Income levels are insufficient for covering basic needs, pushing more household members to engage on multiple income generating activities. Especially vulnerable are households formed by elderly persons, single mothers, large families, or households with sick household members. In times of crisis, women’s situation hardens due to the difficulties of managing household limited resources and duties/chores, and the need to engage on income generating activities.
- Employment opportunities are limited for both young and older persons, irrespective of educational achievements, especially in the rural areas. Tourism, once a very important income source has diminished due to rising levels of violence, insecurity, and conflict. This situation has compromised the livelihoods of many urban and rural families.
- Agriculture is not an option (present or in future perspective) for achieving family’s well being and socioeconomic progress.
- Migration is a frequent alternative for searching employment and better income prospects.
- Formal education for children and the youth is highly valued. Families prioritize children’s education over other basic needs when the household’s economic situation is still bearable. When not, children and youngsters join the labor force in order to contribute to the household income.
- Access to formal social protection is limited and this mainly relates to conditional cash transfers to school children and the school meal/breakfast. Several criticisms exist with

respect to the selection of beneficiaries, the adequacy of the support, and the changes implemented due to the government change (new administration).

- Social solidarity and informal social protection is diminishing from earlier times as people do not have the resources for helping others, there is a need to ensure the own well being before being able to help others, and there is an increased perception of the individual/family responsibility for the own well being. Nonetheless, religious institutions and other organizations (NGOs) provide some highly valued support.

Overall, we observe that Guatemalan households are facing increasing (rather than volatile) food prices and this compromises their food security. A combination of low income, limited employment opportunities, and high prices (also for non food items) is affecting the quantity and quality of their diet, including children's diet. Formal social protection is not considered a support oriented to the neediest. In the other hand, support from religious institutions and other organizations is a concrete reality for some of the poorest, but (unfortunately) focuses mainly on educational support for children, leaving aside other population segments (elderly, the extreme poor, sick persons) in a vulnerability situation.

Research questions

Based on these general findings, the research questions addressed in this work are the following:

- How have households perceived their economic situation in the past years?
- How did households perceive and experienced the 2007-08 food price crisis? How did they cope with it?
- What did households do for a living before and after the crisis?
- How did household income and/or expenditures look like before and after the crisis?
- How is food consumption changing? How did it change after the crisis?
- How affordable is food?
- How are households accessing social protection?

Through these questions, the analyses will identify whether the above mentioned qualitative research results can be generalized to the whole population or whether a different situation is observed at the national scale.

Methodology

The analyses use nationally representative household data and general economic and social information available from the literature and official data sources in Guatemala. Two different periods, one previous and one posterior to the food crisis in 2007-08 are compared.

The following data sources are used:

- Latinobarómetro surveys 2006 – 2010, with a sample size of 1,000 persons per year
- Living conditions household surveys (ENCOVI) 2006 and 2011, with a sample size of 13,686 households for 2006 and 13,482 households for 2011.

The existence of statistical significant differences between the 2006 and 2011 survey results is assessed via independent samples t-test or the Mann-Whitney U test for independent samples, depending on the distribution of the variable.

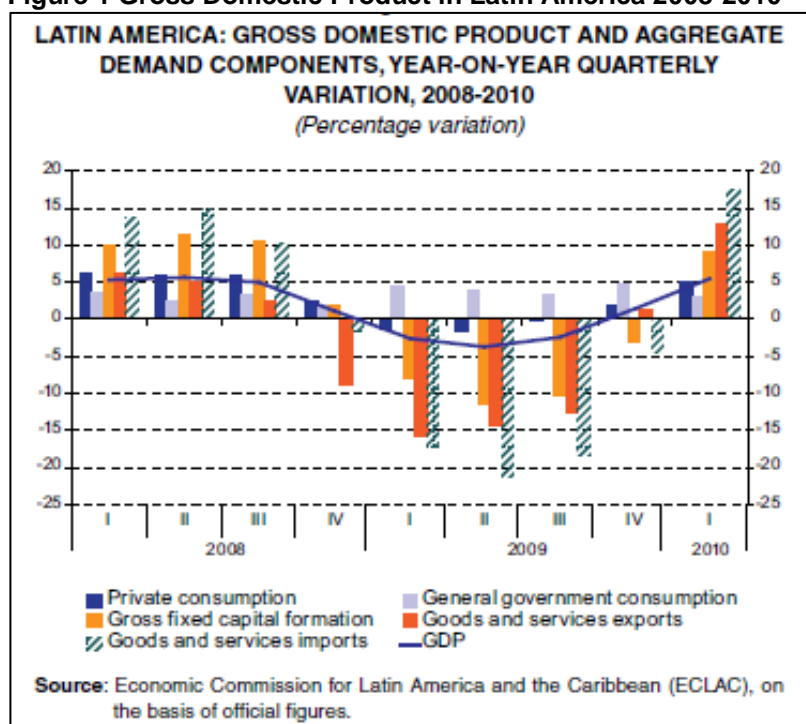
With the purpose of simplifying the results displayed within the document, detailed statistical information is presented in the Annex. In addition, all tables and figures shown in this document are

based on the number of valid cases present in the variables under analyses. That is, for each variable, the cases with missing responses were excluded from analyses².

2 THE LATIN AMERICAN CONTEXT AT THE TIME OF THE 2007-08 CRISIS

The global crisis of 2007-08 hit Latin American and Caribbean countries at hardest in 2009. The regional Gross Domestic Product (GDP) shrank by 1.9% and unemployment rose 0.5 percentage points with respect to 2008. Further, declines in private consumption and investment, as well as in industrial production and commerce were observed (ECLAC, 2010).

Figure 1 Gross Domestic Product in Latin America 2008-2010

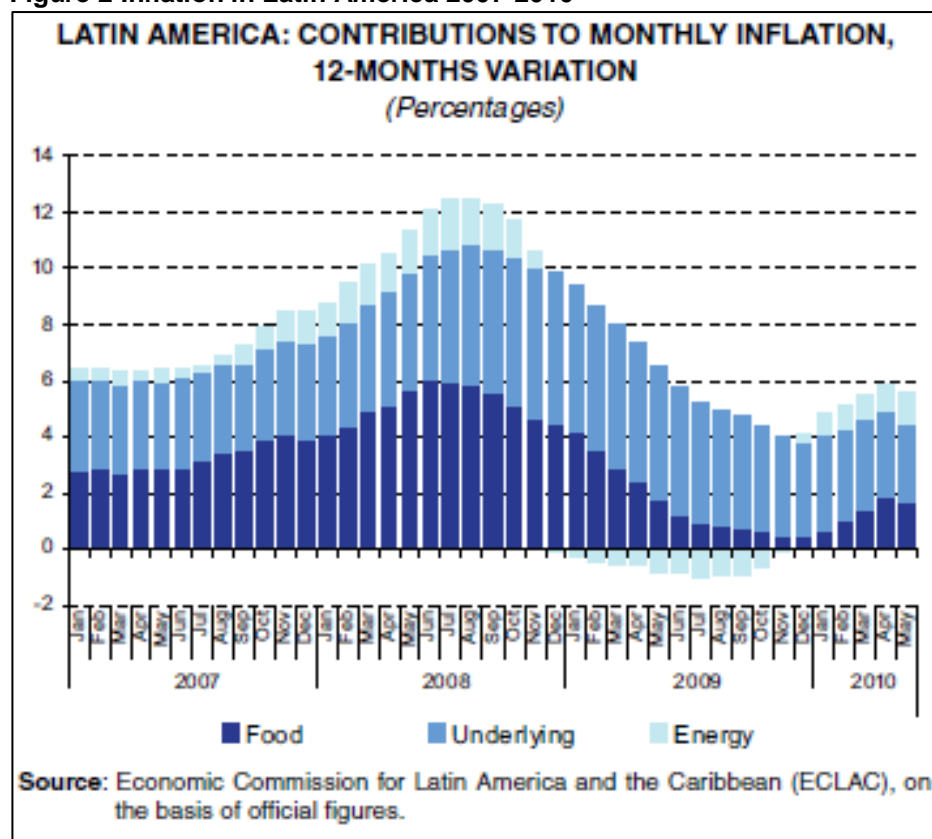


Source: ECLAC, 2010 (extracted from page 18, figure I.3)

Inflation rose significantly during the late 2007 – mid 2008 period. Countries which were net food, fuel, metal, and mineral importers had the greatest difficulties in coping with the high commodity prices, which signified a further stretching in their fiscal situation. The reduction in inflation registered by late 2008 was mainly due to decreasing food and fuel prices. However, during early 2010 a new upward trend in inflation was registered, particularly in Central America, which was driven (again) by rising food and fuel prices (ECLAC, 2010).

² For the variables under analysis, the proportion of missing cases was smaller than 1% of the total sample for information derived from the household surveys and about 5% for information derived from the Latinobarómetro surveys.

Figure 2 Inflation in Latin America 2007-2010



Source: ECLAC, 2010 (extracted from page 22, figure I.11)

Overall, the region rapidly overcame the crisis. By 2010 many national economies had growth rates similar to those observed before the crisis and certain stabilization was achieved. Nonetheless, in 2011 and 2012 the economic growth rate of the region slowed down due to uncertainty in the international economic environment, which affected external trade, and the variability in domestic investment. Continuous increases and volatility in the prices of certain food products have, since 2010, impacted inflation (CEPAL, 2012). Price volatility affects consumption, which for Latin America and the Caribbean, also contributes to poverty. High volatility in consumption increases poverty, since the reduction in consumption leaves those households with income originally close to the poverty line, below it (ECLAC, 2010).

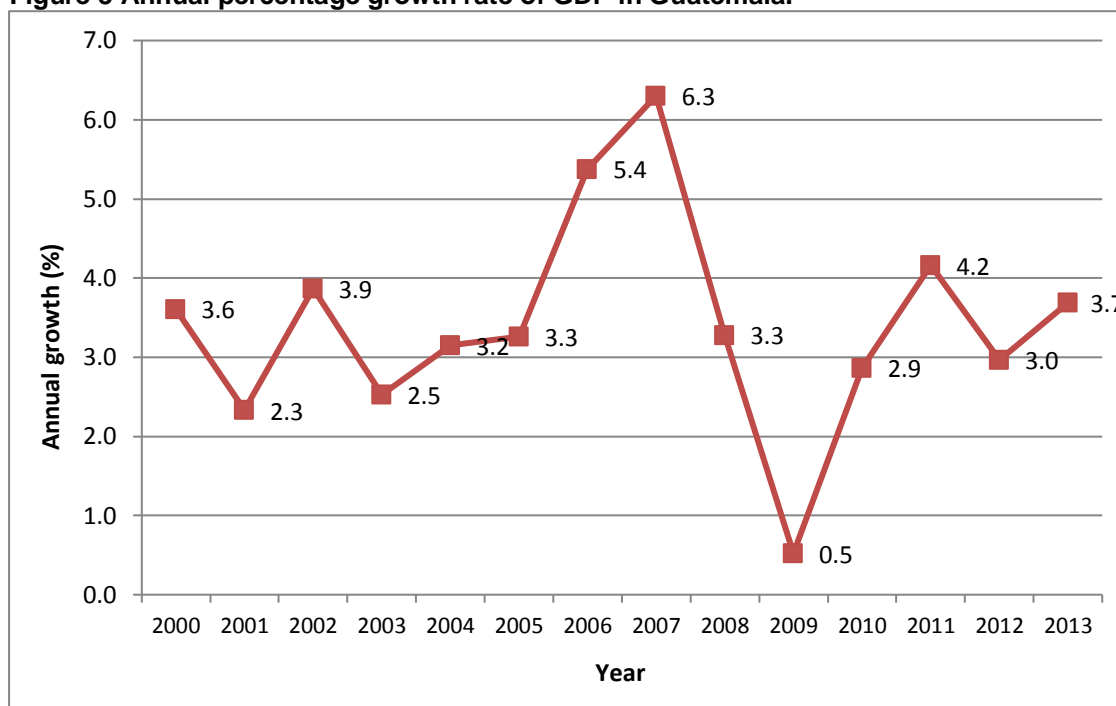
In order to face the effects of the crisis, the social policies implemented by the Latin American governments focused on lessening the impact of the increased food prices on income, and on protecting employment. Among the instruments used to implement such policies were: cash transfers, subsidies, price control, and food distribution programs. Some countries implemented wage increases, trainings, unemployment insurances, youth employment programs, and reductions in working hours and on contributions to social security (CEPAL, 2012).

More specifically, the policies implemented by Central American governments focused on the economic/financial sector and in the strengthening of social protection nets. Economic/financial policies related to the promotion of investment, access to credits, and conservative public spending. Promotion of unskilled employment also took place in some countries. In terms of social protection, greater resources were allocated to emergency, food support, and assistance to vulnerable population programs (KAS and IaRED, 2010).

3 ECONOMIC SITUATION IN GUATEMALA

From 2000 to 2007, Guatemala faced a relatively stable economic growth, with the GDP increasing between 2.3 and 6.3% annually. The world economic crisis in 2007-2008, coupled with a series of natural disasters affected the country's economy significantly. GDP growth rate dropped from 6.3% annual in 2007, to 3.3% in 2008 and to 0.5% in 2009. It was only until 2010 that growth reached similar levels as those observed during the early 2000's (World Bank, 2014).

Figure 3 Annual percentage growth rate of GDP in Guatemala.



Source: World Bank indicators

(<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries?display=default>)

An important contributor to GDP growth is tourism. Between 2003 and 2008 it accounted for about 7% of the GDP. The tourism sector provides employment and a way of living to thousands of persons in the country and links to development in other economic areas (such as construction, real state, food, entertainment, and general services) (Cañada, 2010).

The 2007-08 crisis impacted the Guatemalan and other Central American economies through several channels, namely: the reduction of export revenues, the reduction of foreign direct investment, the reduction in remittances from abroad, the reduction in tourism, and the reduction on credit in the domestic market. These aspects translated into a contraction of the economy (production) in 2008 and especially 2009, which for the population, especially the poorer population segments, meant unemployment, the increase of informality, the reduction of the household income and a consequent reduction on households' purchasing power. The resulting loss in wealth and the challenges faced by the State to provide basic services and safety nets derived on an increase in poverty and inequality (KAS and laRED, 2010; ECLAC, 2010).

By 2011, the poverty headcount reached 53.7%. This level represented an unfortunate reverse in the decreasing trend registered since the 1990's (INE, 2012). As it can be observed in the following table, the increase in the poverty rate was driven by an increase in non-extreme poverty³.

Table 1 Poverty headcount 2000, 2006 and 2011

Poverty status	2000 (%)			2006 (%)			2011 (%)		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Poor	56.1	27.1	74.4	51.0	30.0	70.5	53.7	35.0	71.4
Extreme poor	15.6	2.8	23.8	15.2	5.3	24.4	13.3	5.1	21.1
Non-extreme poor	40.5	24.3	50.6	35.8	24.7	46.1	40.4	29.9	50.2
Non poor	43.8	72.8	25.5	49.0	70.0	29.5	46.3	65.0	28.6

Source: INE, 2002 and Own calculations using survey data (Household surveys 2006 and 2011)

The reduction on extreme poverty coupled to the increase in non-extreme poverty might indicate that in one side, efforts towards the improvement on the living conditions of the neediest have yielded some positive results by moving people out of extreme poverty (into general poverty). In the other side, people with expenditures slightly above the poverty line might have fall into poverty in face of the challenging social and economic context in the country.

Updated official figures on the extent of poverty in the country are lacking. However, given the recent developments in the country (2012-14), poverty levels might have in fact increased. Accountable for this would be the recurrent increases in food prices; the occurrence of adverse climatic events; and the crisis generated by the recent coffee rust (2013), which affected over 65 percent of coffee plantations in the country (World Bank, 2014b).

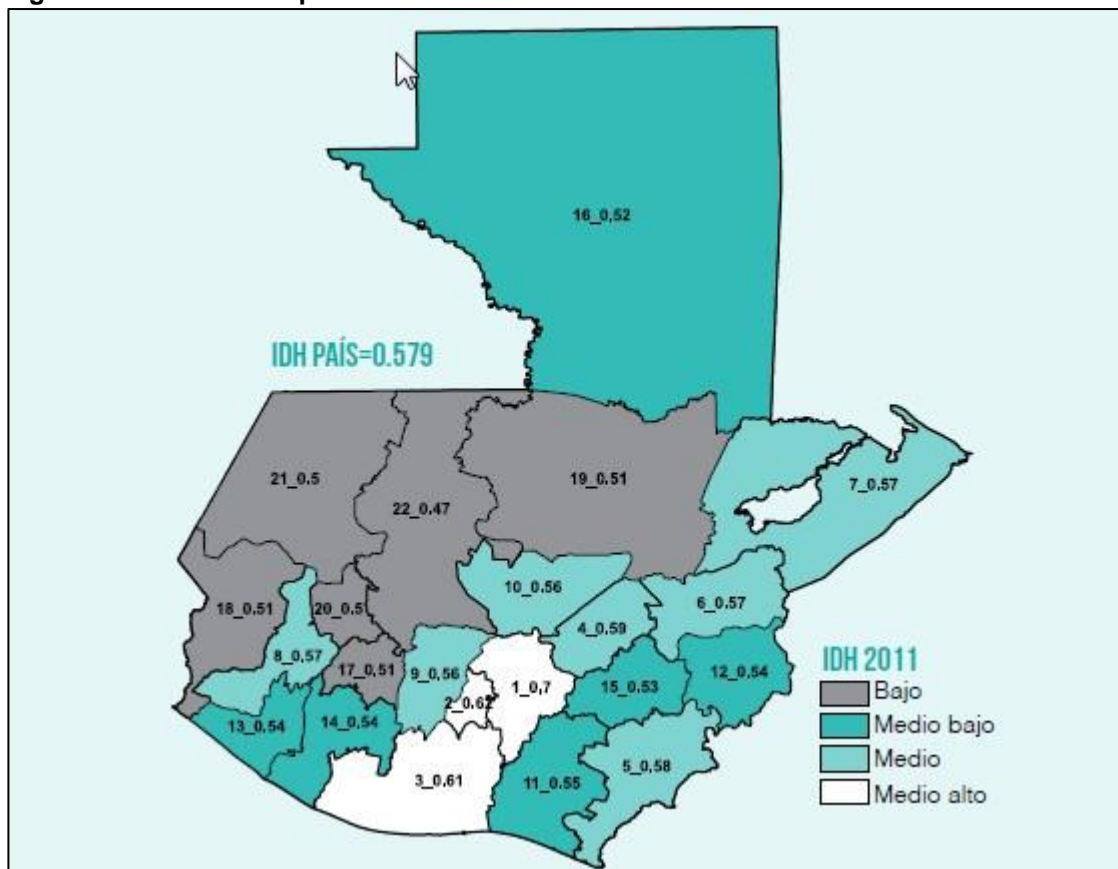
The higher levels of poverty are associated to the low level of human and economic development in the country. The human development index (HDI) is an aggregate indicator which is helpful for measuring development progress. It is based on information related to health, education, and income. The indicators used for its construction are life expectancy, educational achievement in children and adults, and per capita (national) income. Lower levels in HDI indicate lower achievement in development. By 2012 the national HDI level was of 0.58. Improvements, particularly in the area of education, have been registered in the past years, for instance, in 2000 the IDH reached 0.51 and in 2006 it was 0.57 (PNUD, 2014). Urban/rural differences, as well as differences based on ethnicity (non indigenous/indigenous) are considerable (0.65 – 0.48, and 0.62 – 0.48, respectively). The following figure presents the HDI at the province (departamento) level. It can be observed that the lowest IDH levels are found in the western part of the country. This area is characterized for its high share of indigenous population, high levels of poverty, and marginalization.

In spite of the slight improvements in general development, the achievement of well being for all Guatemalans remains a major challenge. Over the years, a variety of government initiatives have aimed to improve the lives of the neediest.

³ In Guatemala, the poverty status of the individuals is assessed by comparing the per capita expenditures against 2 different poverty lines (INE, 2012). These lines capture different degrees of poverty:

- Extreme poverty: results when the annual per capita expenditures are lower than the cost of a basic food basket (which fulfills the personal calorie/energy requirements)
- Non-extreme poverty: results when the per capita annual expenditures are higher than the cost of a basic food basket, but below to a level that captures additional consumption of other goods and services.

Figure 4 Human development index 2011



Source: PNUD, 2014 (Extracted from page 42, Figure 7.2)

In 2008, President Alvaro Colom initiated his administration (2008-2012). As part of the National Program for Emergency and Economic Recovery, the implementation of social protection measures was identified as a key factor for protecting the vulnerable and the poor from the effects of the economic downturn. For this purpose, cash transfer programs were established, supporting school enrollment and attendance, access to food (through food establishments with subsidized food – “comedores populares”, and food packages – “bolsa solidaria”, and health care). “Mi familia progresa” (My family progresses/advances), formally implemented in 2009, was a conditional cash transfer program which aimed to support education, health and nutrition and was targeted to families living in conditions of poverty. By 2011 the program benefited about 917,330 families (BID and INSP, 2011). The program finished in 2012, with the establishment of a new government.

Apart from the global crises, climatic events affect Guatemalans in a variety of forms. Only in the past decade, hurricanes and tropical storms Stan (2005) and Agatha (2010), and the 12-E tropical depression (2011) hit the country, producing intensive rains. In addition, El Niño phenomenon has increased its frequency and severity over the past years. Among its more evident effects are the shortening in the rainy season, the increase in the rain intensity, and the increase in the length of the dry period. For the vast number of rural communities depending on agriculture for their livelihoods, this represents a major challenge since their own food production and income generation activities are compromised (Warner et al, 2012). Furthermore, the human and material damages resulting from these events have been considerable. For instance, during 2009 a severe drought hit eastern Guatemala’s dry corridor. About 36,000 hectares of agricultural production got lost, resulting in the loss of livelihoods for thousands of families (up to 34,000) and a shock to the domestic food supply (FAO/PESA, 2009). A large amount of people experienced food insecurity and hunger. More than hundred children were hospitalized due to severe malnutrition and some estimates suggest that about

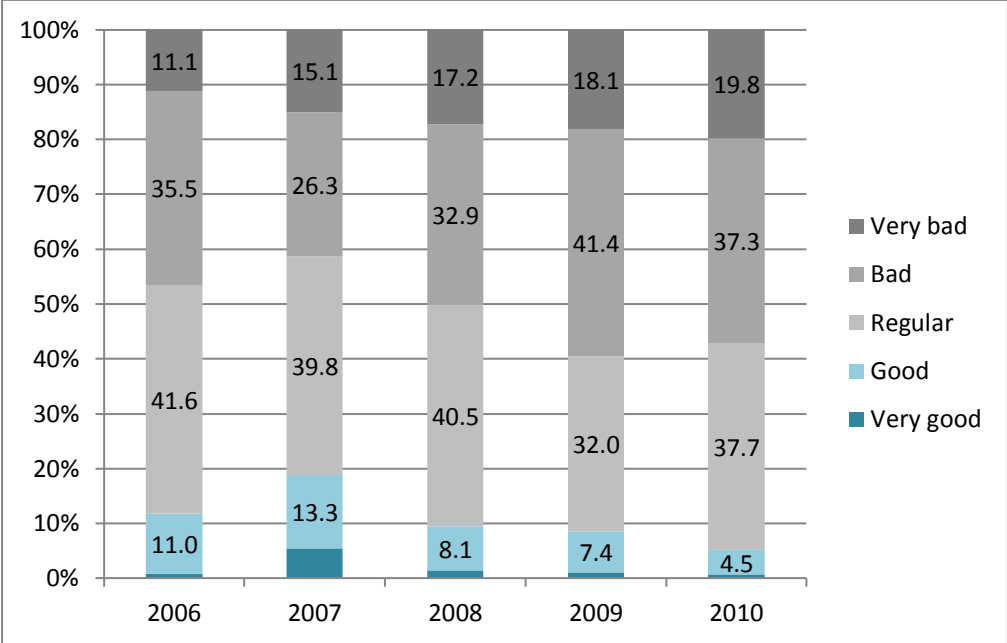
20 of them died from starvation⁴. The adequacy and sufficiency of the governments' response to this crisis was questioned since an earlier reaction would have meant less material and human losses.

Evaluation of the Mi familia progresa program has concluded that during the times of crisis, the program yielded positive effects in household consumption, education, and health (BID and INSP, 2011). Nonetheless, some critics have regarded the cash transfer programs as tools for establishing a political clientele, rather than being strategic programs for poverty reduction and overall development.

How do households perceive the economic situation in their country and in their family during times of crisis?

Along the 2006-2010 period, the Latinoabarómetro survey collected information on the assessment of the economic situation in the country and of the families. For all years in this period, close to 90% of the persons interviewed didn't consider the economic situation of the country as positive (exception is 2007 with a slighter positive perception). Between 50 and 60% of the persons considered the situation to be bad or very bad.

Figure 5 Assessment of the economic situation of the country



Source: Own calculations using survey data (Latinobarómetro 2006-10)

Focusing on the most important problem in the country, in the 2006-2010 period Guatemalans identified crime and security, the economic situation, violence and gangs, and increasing prices among the most important problems in the country.

The mention of crime and security as the most important problem in the country reflects a sad reality. According to a World Bank Report (World Bank, 2011), Guatemala has one of highest violent crime rates in the Central American region, especially for the case of murder. Violent crime incidents include assault, theft, armed robbery, residential robbery, carjacking, rape, kidnapping, murder, etc. (Bureau of Diplomatic Security, 2013). Estimates from the Guatemalan National Institute of Statistics show that between 2008 and 2012, the rate of criminality (per 100,000 inhabitants) was highest in 2009 and 2012, with 225.4 and 222.2, respectively (INE, 2013). It is interesting to note that criminality peaked on

⁴ http://internacional.elpais.com/internacional/2009/09/08/actualidad/1252360804_850215.html

the year (2009) when the effects of the crisis were mostly felt. As some sources indicate, these figures do not report the true extent of the problem since a large share of the crimes remains unreported.

Table 2 Most important problem in the country

2006*	2007	2008	2009	2010
Crime/ security (38.3%)	Crime / security (41.1%)	Crime / security (25.6%)	Crime / security (25.3%)	Crime / security (35.8%)
Inflation / increase in prices (15.7%)	Poverty (14.7%)	Economic situation (21%)	Economic situation (23.3%)	Violence / gangs (16.7%)
Unemployment (10.4%)	Unemployment (14.7%)	Violence / gangs (17.1%)	Violence / gangs (13.6%)	Economic situation (14.5%)
	Economic situation (10.1%)	Inflation / increase in prices (10.4%)	Unemployment (13.8%)	Poverty (13.7%)

Source: Own calculations using survey data (Latinobarómetro 2006-10).

*Problems shown are those with the highest frequency of response (higher than 10%).

Along with a rise on “regular” criminality affecting individuals, families, and communities, organized crime has risen dramatically in the country and in Central America. Transnational crime has increased and diversified beyond drug-trafficking, up to smuggling of persons, cultural and biological goods, and of fire guns and other weapons. The country’s location makes it a must-pass-by area from narcotics stemming from South America in their way to the North American market. In addition, the fight against organized crime in other countries such as Colombia and México has translated in the strengthening of organized crime operations in Central America. Organized crime has successfully rooted itself in the public institutions and territories, creating State-like parallel structures that control the areas where they operate. The effects of this situation on the populations’ safety, security, sense of hope and of being protected, and daily peace of mind are devastating (KAS and laRED, 2011).

Other aspects associated with high criminality are large availability of fire guns and the gang-related violence involving the youth and the “maras” who typically engage on extortion, kidnapping, and local level “regular” crime. The limited capacity of the police/judicial system to affront the problem and make criminals accountable for their acts facilitates the development of a crime and violent-prone environment (Bureau of Diplomatic Security, 2013). The young male population is specially affected by crime and violence, both as perpetrators and as victims. Nonetheless, violence against women (including domestic violence) is also an issue in the country. It is estimated that the economic cost of crime and violence represented about 7.7% of the GDP in 2008 (World Bank, 2011, after Acevedo, 2008).

Unemployment was identified as one of the most important problems in the country in 2006, 2007 and 2009⁵. Participants in the qualitative research also consider unemployment as one of the situations affecting their well being. For instance, a rural woman commented (2013): *“My situation is sad. Look, like now that there is no work. When there is no work, there is no money.... Sometimes it’s enough, sometimes is not, but where to?...”*. As it will be seen in a later section, the resourceless situation faced by large numbers of Guatemalans in the face of unemployment is concerning. Families, particularly the poor and the vulnerable, have few options to ensure their basic living and thus, when unable to secure a basic income they fall deeper into poverty.

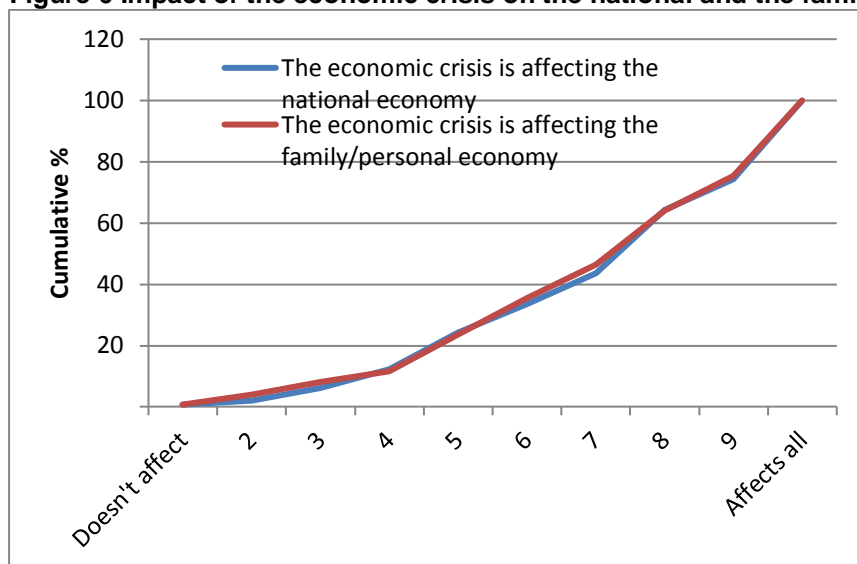
Poverty was found relevant in 2007 and 2010. As shown in the previous section, poverty afflicts about half of the Guatemalan population and is more prevalent in the rural areas. In addition, poverty affects disproportionately the indigenous population. According to IFAD (2012) 7 out of 10 persons of indigenous origins live in poverty. Households whose head is a woman, the youth, landless rural inhabitants, and handicraft artisans also experience higher levels of poverty and lack of productive assets and access to productive resources than other population groups. The historic, social, and

⁵ More on this in a later section.

environmental/geographic settings in Guatemala combine to perpetuate the exclusion and marginalization of a large share of the population.

Exploring the impacts of the crisis on the national and the personal economy, the Latinobarómetro survey of 2009 asked people to value in a scale from 1 to 10, where 1 means “is not being affected” and 10 means “it’s affecting everything”, their perception of the impacts of the crisis. For both questions, 80% of the respondents rated the impacts of the crisis above the mid-scale level of 5, meaning that for the large majority, the crisis was having moderate to severe impacts in the national and the personal economy.

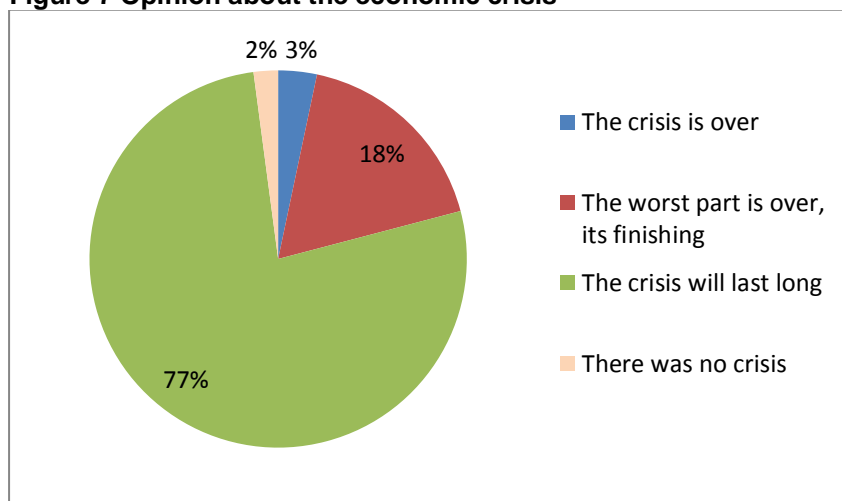
Figure 6 Impact of the economic crisis on the national and the family economy



Source: Own calculations using survey data (Latinobarómetro 2009).⁶

By 2009, the prospects of seeing the overall economic situation improving in the short-medium run were rather pessimistic. For 77% of the Guatemalans the crisis would last long. For many people, particularly those belonging to poorer households, this prospective might have motivated the adoption of different coping and adaptation strategies in order to ensure household’s survival and maintenance.

Figure 7 Opinion about the economic crisis

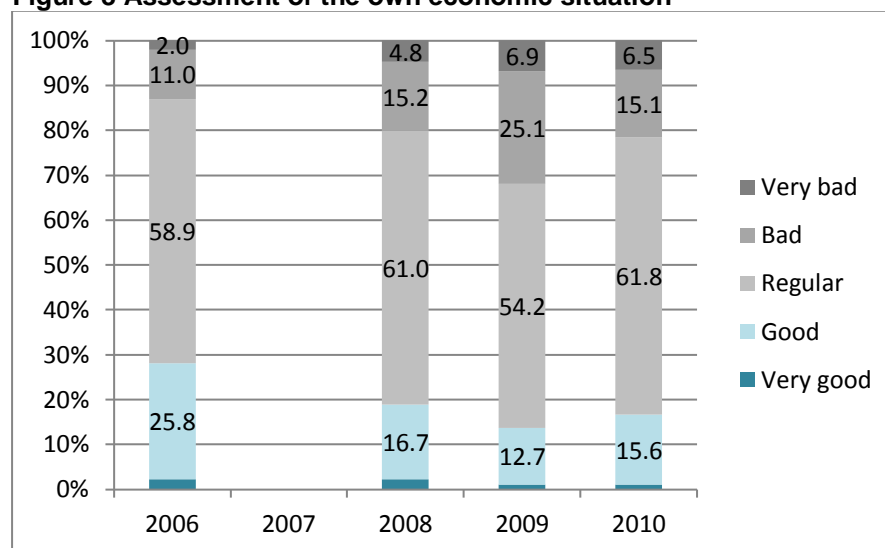


⁶ The results of this and all tables and figures shown in this document are based on the number of valid cases present in the variables under analyses. That is, for each variable, the cases with missing responses were excluded from analyses (depending on the variable, these represented 0.1 to 0.2 % of the sample).

Source: Own calculations using survey data (Latinobarómetro 2009)

In this economic hardship context, the assessment of their own economic situation clearly shows that Guatemalan households faced economic difficulties during the crisis period. By 2009 about 85% of the persons interviewed in the Latinobarómetro survey considered their economic situation to be regular to very bad, compared with 72% who stated the same in 2006.

Figure 8 Assessment of the own economic situation



Source: Own calculations using survey data (Latinobarómetro 2006-10. No data available for 2007)

In 2011, Guatemalan households assessed their economic situation compared to their situation back in 2006. Strikingly, 60% of the households reported having a worse situation than in 2006. Only 9.2% reported an improvement.

Table 3 Assessment of the households' economic situation in 2011 with respect to 2006.

Households' situation	Proportion of households (%)
Improved	9.2
Remained the same	25.5
Worsened	59.8
The household wasn't conformed in 2006	5.4

Source: Own calculations using survey data (Household survey 2011)

What did people do for a living before and after the 2007-08 food price crisis?

Based on the estimates provided by the 2006 and 2011 data, between these years the Guatemalan population increased close to 2 million persons going from 12,987,829 to 14,636,487. In the 2006 and 2011 household surveys, economic activities were registered for all household members older than 7 years of age. In both survey years, this population segment comprised about 80% of the total population.

Table 4 Persons over 7 years of age who work

Population older than 7 years of age	2006	2011
Total population	12,987,829	14,636,487
Proportion of persons older than 7 in the population	80.9 %	82.8 %
Number of persons older than 7, who work	5,464,790	5,902,446

Proportion from those who are older than 7

52.0%

48.7 %

Source: Own calculations using survey data (Household surveys 2006 and 2011)

In the past decade, the National Institute of Statistics has conducted several employment surveys in the country in order to monitor the development of the labor market and incomes. It is important to note that the surveys carried out in 2004 and 2010 considered the group of “working age persons” as those 10 years of age and older. In the 2013 survey, the working age group was defined to be of those 15 years and older. This difference has, certainly, an impact in the aggregate statistics and in their comparability across time (except those by age groups), since child labor is common in the country. Therefore, the information shown in the following table should be taken only as “orientative” about the general trends in employment and labor.

Table 5 Employment indicators

Indicator	2004 (10 years and older)	2010 (10 years and older)	2013 (15 years and older)
Occupied as share of persons in working	54.3	52.4	58.7
Occupied as share of the economic active population (EAP)	96.9	96.5	96.8
Subemployment (subemployed as share of EAP)	16.3	21.0	16.9
Occupied in the informal sector as share of all occupied	75.4	73.8	69.2
Occupation by age group			
10-17	15.4	13.2	
18-24	19.2	18.8	26.6*
25-59	57.5	59.4	73.4**
60 and older	8.0	8.6	
Occupied by household position			
Household head	43.8	43.6	48.1
Spouse	15.1	14.9	14.4
Son/daughter	34.5	34.1	31.0
Other	6.6	7.4	6.5
Level of instruction			
None	24.6	21.0	20.3
Primary (complete and incomplete)	49.4	46.6	40.8

*15 to 24 years of age, ** 25 years of age and older

Source: INE, 2005; INE, 2010; INE, 2013

From the table it is possible to see that informality predominates in the labor market in Guatemala and that a large share of the labor force (over 60%) has a low educational achievement. Additionally, about a third of the labor force is younger than 24 years of age.

Turning to the information gathered in the 2006 and 2011 household surveys, the proportion of persons reported to be engaged in an economic activity decreased between the years for all age groups considered in the analysis. These results are consistent with the general trends reported by the National Institute of Statistics. By sex, unemployment, informality, and subemployment were consistently higher for women than for men, along the 2004 – 2011 period. A later section will cover the unemployment situation in Guatemala. ⁷

⁷ <http://www.ine.gob.gt/index.php/estadisticas/tema-indicadores>

Table 6 Proportion of persons reporting being engaged in an economic activity, by age group.

Age group	Men		Women	
	2006	2011	2006	2011
7 – 17 years	34.0	27.4	16.3	12.9
18 – 30 years	89.0	84.7	47.5	42.0
31 – 60 years	96.2	93.0	54.0	50.2
Older than 7	68.3	64.6	37.4	33.8

Source: Own calculations using survey data (Household surveys 2006 and 2011)

The following table presents a broad occupation classification of all those persons older than 7 who reported being engaged in an economic activity. It is possible to observe that in general terms, the occupation structure of the population is similar in both survey years. However, slight differences are observed in the area of services and commerce, industry, and non-skilled employment, with the first 2 showing a slight reduction in the proportion of persons engaged on them and the last showing a slight increase by 2011.

Table 7 Type / field of main occupation

Occupation category	2006 (%)	2011 (%)
Army	0.01	0.3
Public and private directors/managers	5.3	4.8
Professionalist	8.6	9.8
Office employee	2.2	1.8
Services and commerce	16.9	13.6
Agriculture, animal husbandry, fishing, coffee production	11.9	12.1
Extractive industries, construction, manufacture, maquila	16.5	13.3
Machinery operator	4.0	4.1
Non skilled worker*	34.7	40.3

*Includes agricultural non-skilled laborers

Source: Own calculations using survey data (Household surveys 2006 and 2011)

The engagement in agriculture was similar in both survey years. Nonetheless, results from the qualitative work and from the employment surveys mentioned above show that people are opting for working in other sectors. The main reasons for this, as mentioned in the qualitative research, is that agricultural income is not enough for covering household needs, nor stable throughout the year. As one young rural man (2012) indicated: "...By growing maize you cannot sustain a family". In addition, agriculture is mainly carried out within the informal sector and thus, benefits related to salaried employment are not available.

According to the employment survey 2013, the monthly income of those engaged in agriculture was of Q. 1,025.00. This level is the lowest when compared to the other occupation categories and the national average of Q.1,917. Even the general rural average is higher at Q. 1,499 (INE, 2013). As comparison, professionalists and technical professionalists earned on average Q. 3,070 per month.

In this line, it is no surprise that parents, especially in the rural areas, want their children to become professionalists and commit to their education as far as their possibilities allow. As one urban woman (2012) clearly explained: "I will give them [her children] education until they graduate as professionalists, because I don't want them to suffer as I am suffering. Perhaps we are not starving to death, but we don't have enough from what one has to have at home. That is my dream for my children: that we manage to progress with them so they become better off". In general terms, people recognize the role

of education for accessing better opportunities in life and for achieving a good living standard. Through education, people expect to overcome poverty and marginalization.

The young: 18-30 years of age

Overall, Guatemala is a young country. Approximately 60% of the population is younger than 30. By 2006, 21% of the Guatemalan population was in the age group 18-30 years of age. In 2011, they represented the 22.5%.

Nonetheless, a broad majority of them face exclusion in terms of access to education, employment, etc. According to MIDES, SEGEPLAN and CONJUVE (2012), most part of the youth engages in precarious jobs, and face exploitation. Most of them enter the labor market without having an opportunity to develop and gain the abilities required for accessing better jobs. Particularly for young people with indigenous origins and women, illiteracy or low educational achievement are still widespread. The main causes for this are school dropout, the limited availability of schools offering secondary (and higher) education across the country, and the quality deficiencies observed in public education.

In both 2006 and 2011, more than 60% of the young between 18 and 30 were working at the time of the survey. While this may appear high, the fact is that thousands of young men and women do not find employment opportunities since the labor market does not grow at the pace needed for absorbing the available labor force. This is especially relevant in the rural areas (MIDES; SEGEPLAN and CONJUVE, 2012). Qualitative research results from 2012 and 2013, document that finding a good job is challenging, even with higher educational achievements.

Table 8 Involvement in economic activities for persons aged 18-30

Involvement in economic activities	2006 (%)	2011 (%)
Total		
Not working	33.9	37.9
Working	66.1	62.1
Rural		
Working	62.2	59.3
Urban		
Working	69.6	64.7

Source: Own calculations using survey data (Household surveys 2006 and 2011)

According to KAS and laRED (2010), the social and economic impacts of the 2007-08 crisis were especially felt by the vulnerable groups in the population, namely the indigenous population, women, and the youth. Furthermore, the increase on unemployment triggered by the crisis (particularly sectors demanding low-skilled labor) posed even higher challenges for the vulnerable and the traditionally excluded for accessing employment and other economic opportunities.

In 2006, the main occupations for the youth were related to non-skilled labor (32.1%), industry/manufacture (20.2%), services and commerce (17.4%) and professional work (11.8%). The following table presents the engagement of this population group in different occupations, by level of education. In the rural areas, agriculture was also a relevant occupation for the youth, employing 11.4% of the rural working youth.

Table 9 Employment category and educational achievement for persons aged 18-30, 2006

Employment category	2006 Educational achievement Persons aged 18-30				
	None	Primary	Basic	Diversified	Superior
Army	0.0%	65.0%	27.1%	7.9%	0.0%
Public and private directors/managers	2.8%	32.1%	11.2%	36.0%	17.9%

Professionalist	0.3%	4.8%	6.2%	60.5%	28.3%
Office employee	0.1%	4.0%	14.5%	55.7%	25.7%
Services and commerce	7.3%	42.5%	19.9%	24.7%	5.6%
Agriculture, animal husbandry, fishing, coffee production	29.6%	58.9%	7.2%	4.3%	0.1%
Extractive industries, construction, manufacture, maquila	10.0%	52.6%	21.1%	13.0%	3.3%
Machinery operator	7.6%	43.6%	25.2%	20.0%	3.6%
Non skilled worker	23.6%	58.8%	11.5%	5.9%	0.2%
Agriculture in rural areas	30.4%	60.2%	5.6%	3.8%	0.0%

Source: Own calculations using survey data (Household surveys 2006 and 2011)

By 2011, the main occupations of this age group were the same as those identified in 2006, namely: non-skilled employment (39.7%), services and commerce (16.2%), industry and manufacture (13.7%) and professionalists (13%). Important to note is the increase in the participation in non-skilled labor and the reduction in the participation in industry. The proportion of the rural youth dedicated to agriculture rose slightly up to 12.2% (increase of 0.8 percentage points between the years).

By educational status, it can be seen an increase of youth with superior education being engaged in the army, as directors/managers, and as professionalists, which indicates that for some of the youth, getting a higher education is allowing them to access better employment options. However, it is also possible to see that even in the areas of agriculture and non-skilled labor; there is an increase on persons with diversified or superior educational achievements engaged in these occupations.

Table 10 Employment category and educational achievement for persons aged 18-30, 2011

Employment category	2011 Educational achievement Persons aged 18-30				
	None	Primary	Basic	Diversified	Superior
Army	0.0%	36.8%	22.2%	9.1%	31.9%
Public and private directors/managers	6.1%	31.0%	5.9%	35.4%	21.5%
Professionalist	1.3%	4.5%	5.7%	46.9%	41.6%
Office employee	0.0%	10.2%	11.9%	58.6%	19.3%
Services and commerce	3.7%	30.5%	19.6%	38.1%	8.0%
Agriculture, animal husbandry, fishing, coffee production	21.6%	54.8%	16.5%	6.2%	0.9%
Extractive industries, construction, manufacture, maquila	9.3%	44.5%	21.7%	20.4%	4.0%
Machinery operator	2.7%	48.4%	28.2%	19.5%	1.2%
Non skilled worker	15.5%	55.0%	17.1%	11.1%	1.3%
Agriculture in rural areas	22.4%	57.8%	14.7%	4.8%	0.3%

Source: Own calculations using survey data (Household surveys 2006 and 2011)

This situation can be due to the reported difficulties for finding a job, even with professional degrees, coupled with the lack of quality employment available for the youth. As one qualitative research participant (urban woman, 2013) indicated: "Now, all who graduated don't have a job. Nowadays is pure luck that someone finds a job. There are some who work in shops, in bakeries, others who migrate to the USA or to other places because they don't have opportunities here". The lack of

employment opportunities for the young and older adults was a constant affecting the life of the population in the communities covered by the qualitative research. This, according to some research participants, forced people to engage in activities that were not of their preference. For instance, young persons having to do “anything” (shop tenders, agriculture, day laborers) just to earn some income; or former entrepreneurs having to search for alternative occupations given the low level of sales in their own businesses.

It has been widely documented that the experience and perception of long term poverty, vulnerability, exclusion, violence, abuse, lack of rights, and the inability to overcome the current status in spite the efforts made, leads to poor self-esteem, lack of confidence on the own capacities, reduced motivation to thrive, reduced hopes for a better future (WHO, 2010), and reduced cognitive capacity and productivity. The detrimental effects of the country current context on the population’s current and future mental health, particularly on the youngest generations, will certainly be reflected in future social and economic indicators of well being and in the social environment of trust, cohesion, and solidarity. It is key that Guatemala promotes a development path that protects and ensures the population’s experience of rights and inclusion, and which offers true development opportunities for all. Economic development without social and personal development will not suffice to revert the psychological and mental distress caused by the experience of years of poverty and exclusion.

The middle aged: Adults 31-60 years of age

According to the household survey data, the middle aged group comprised 24.4% of the population in 2006 (3,165,843 persons). By 2011, they represented 25.4% of the population.

In 2006, the main occupations for the working adults (66.1% of those in the age group) were: non-skilled employment (32.1%), industry/manufacture (20.2%), services and commerce (17.4%), and professionists (11.8%). While for the urban areas the main occupations are the four previously listed, agriculture represented the most relevant occupation for the rural adults (31.2%) and was followed by non-skilled labor, industry, and services.

Table 11 Employment category and educational achievement for persons aged 31-60, 2006

Employment category	2006 Educational achievement Persons aged 31-60				
	None	Primary	Basic	Diversified	Superior
Army	0.0%	0.0%	66.3%	0.0%	33.7%
Public and private directors/managers	8.7%	29.6%	11.3%	22.9%	27.5%
Professionist	2.0%	10.6%	6.0%	38.5%	42.9%
Office employee	1.9%	13.3%	9.2%	55.0%	20.6%
Services and commerce	23.9%	47.5%	10.8%	11.9%	5.8%
Agriculture, animal husbandry, fishing, coffee production	49.9%	46.6%	2.4%	1.1%	0.0%
Extractive industries, construction, manufacture, maquila	28.5%	50.7%	11.3%	7.2%	2.3%
Machinery operator	11.4%	59.4%	13.3%	11.4%	4.5%
Non skilled worker	46.1%	47.4%	3.8%	2.5%	0.2%
Agriculture in rural areas	52.7%	45.7%	1.3%	0.3%	0.0%

Source: Own calculations using survey data (Household surveys 2006 and 2011)

By education status, the occupations which captured the highest proportion of persons with higher education were the army, managerial positions, professionists, and office employees. Persons with

lower educational achievements were mainly engaged in commerce, agriculture, industry, machinery operations, and non-skilled labor.

In 2011, 70.2% of the persons in this age group were working (4 percentage points increase with respect to 2006). In general terms, the occupation profile of this group resembled the one observed in 2006.

Table 12 Employment category and educational achievement for persons aged 31-60, 2011

Employment category	2011 Educational achievement Persons aged 31-60				
	None	Primary	Basic	Diversified	Superior
Army	30.0%	39.9%	7.2%	11.2%	11.7%
Public and private directors/managers	19.8%	34.6%	9.5%	18.7%	17.4%
Professionalist	5.6%	16.6%	3.9%	36.4%	37.5%
Office employee	1.3%	17.5%	9.1%	51.5%	20.7%
Services and commerce	16.3%	46.4%	12.4%	19.6%	5.2%
Agriculture, animal husbandry, fishing, coffee production	43.8%	51.7%	2.3%	1.4%	0.8%
Extractive industries, construction, manufacture, maquila	19.1%	52.6%	12.6%	12.2%	3.4%
Machinery operator	7.1%	60.3%	14.9%	16.8%	1.0%
Non skilled worker	36.5%	51.4%	5.9%	4.8%	1.3%
Agriculture in rural areas	46.6	50.3	1.8	0.9	0.4

Source: Own calculations using survey data (Household surveys 2006 and 2011)

Unemployment

The impact on employment caused by the reduction of economic growth can be observed on employment indicators such as unemployment, subemployment, informality, and quality of working conditions (KAS and laRED, 2010).

While there is no data available for 2008 and 2009, the years when the crisis had its strongest impacts, the following table shows higher levels of unemployment in 2010 and 2011, when compared to the other years for which data is available. The young (15-24 years of age) suffered especially from unemployment during these years. Subemployment reached its highest level in 2010 (21%) and informality in 2012 (74.5%).

Table 13 Unemployment, subemployment and informality

Year	Total (%)	Unemployment		Subemployment Total (%)	Informality Total (%)
		15 -24 years (%)	25 years and older (%)		
2002	3.4	5.3	2.5	15.5	69.8
2003	3.5	5.5	2.4	17.0	68.0
2004	3.3	6.0	2.2	16.6	73.5
2010	3.7	5.8	2.9	21.0	72.3
2011	4.1	7.5	2.7	12.8	69.4
2012	2.9	4.9	2.1	17.8	74.5
2013 (1)*	3.2	5.2	2.4	16.9	69.2
2013 (2)	3.0	6.2	1.8	14.4	70.0

*Two employment surveys were carried out in 2013. Their results are indicated by (1) and (2).

Source: National Institute of Statistics, 2014

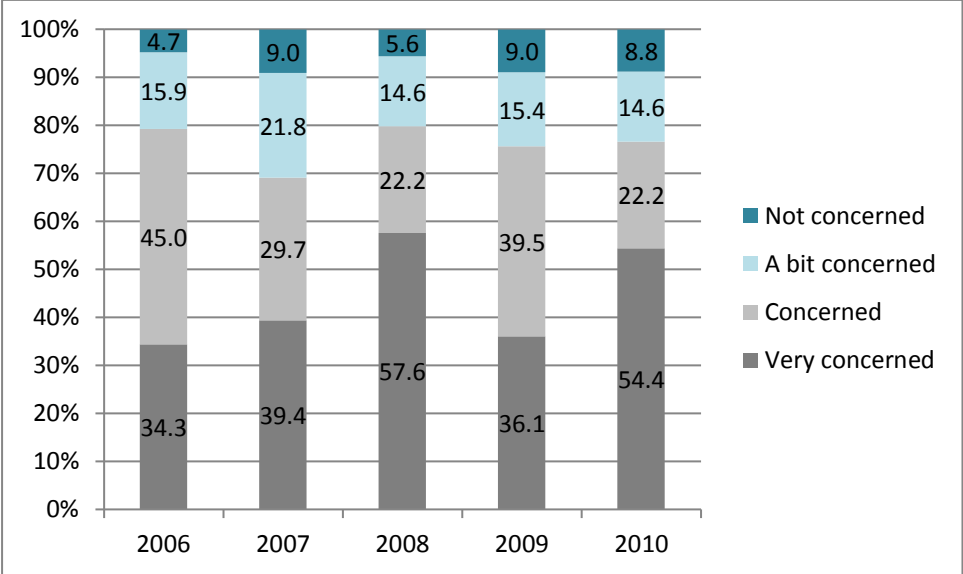
While official data on subemployment shows that this has maintained a level below 20% in the last years, in 2012, the Minister of Labour indicated that subemployment affected 60% of the economic active population and thus, its reduction –together with the formalization of employment – are among the main challenges in the National Employment Policy 2012-2021.⁸

⁸ <http://www.agn.com.gt/index.php/component/k2/item/7799-subempleo-el-reto-de-las-autoridades-guatemaltecas-de-trabajo>

The results from the qualitative research are a clear manifestation of the above figures and the overall situation. The employment situation in Guatemala hasn't improved over the past decade. In situations as the one reported by a qualitative research participant (rural woman, 2013): *"If times are good, my husband has a job. The tailors say: there is no work, then he works as day laborer in agriculture. It is always like that. He does different jobs"*, the instability and uncertainty of the labor market compromises the households' prospects and their ability to earn a living in current times and to foresee for their future. Along the year, people have to engage in different occupations in order to survive. They experience periods of employment and unemployment and their situation is uncertain. The main concern is to secure an income in any possible way. Other benefits that could arise from formal employment are simply too far from reach, particularly for the poorer.

The impacts of the crisis on the employment prospects, coupled with other contextual and personal factors which might difficult the access to work certainly create a concern on the population with regards their employment situation. Exploring people's concerns about becoming unemployed in the near future, the Latinobarómetro data shows that in the period 2006-2010, more than 70% of Guatemalans interviewed were concerned about this issue. 2006 and 2008 were the years on which more people expressed this concern.

Figure 9 Concerns for becoming unemployed in the next 12 months



Source: Own calculations using survey data (Latinobarómetro 2006-10)

While it is not possible to directly link the concerns of unemployment to the rising food prices, it is possible to observe that the highest proportion of "very concerned" persons is registered in 2008, when the crisis effects were accumulating. A similar situation is observed in 2010, year when food prices peaked again. Further research could explore the direct links between unemployment fears and the country's performance in a wider range of macroeconomic indicators.

Multiple occupations

Participants in the qualitative research reported that people need to engage in multiple occupations over the day, in order to be able to cover their basic needs. Based on the household survey data, the proportion of persons older than 7 and reporting multiple occupations was about 18% both in 2006 and 2011. For both years, the main secondary occupations on which the population engaged were related to non-skilled employment, agriculture, and services and commerce.

As a participant in the qualitative research points out (urban woman, 2013), having multiple occupations is a regular practice in the research communities: *"My son works in two places half day. In one place he works in the morning and in other place he works in the afternoons, so he can earn his*

income". As perceived during the qualitative research (2012), people frequently have to work up to 2 full time shifts. As mentioned earlier, social security benefits and other type of benefits (sick leave, paid holidays) are non-existent for the broad majority.

Child work

The engagement of children in economic activities, child work, has been a common issue in Guatemala over time. It is more predominant among boys, children of indigenous origin, and rural children. In addition, children also devote some of their time for executing household chores. These activities are more relevant for girls (ILO, UNICEF and World Bank, 2003). The early incorporation of children to work implies that they devote less of their time to other activities such as education, free time activities, physical exercise, and rest (MIDES, SEGEPLAN and CONJUVE, 2012).

While most of the children work in agriculture or for their families, other occupations where child work is present are: commerce and services, industry, domestic service in private homes, firecracker production, mining and quarrying, and garbage picking (ILO, UNICEF and World Bank, 2003). An urban woman (2013) participating in the qualitative research noted: *"Now, for people's living it is necessary to take advantage of children. [...] Now we see little children selling candies, offering wood in the houses. But in reality, what a child should be doing is studying"*. During the qualitative research work in Santo Tomás Chichicastenango (urban community, 2012), it was possible to see a large number of young children selling candies, handcrafts, or small toys in the streets, particularly during the market days. Evidently these children were foregoing education. It was not possible to assess whether the children were native to the urban area, or came for the day with their parents or other family members from neighboring rural communities. Hence, child labor is common in the area as additional income source for poorer households.

In 2006, the children aged 7 to 17 comprised 29.4% of the total population. About 25% of them worked (engaged in an economic activity). From those children who worked, 66.8% were living in the rural areas and worked mainly as non-skilled workers (69.1%), in services and commerce (16%), and in industry (11.8%).

By 2011 this age group comprised 28.6% of the population. A slightly lower proportion of them (20%) were engaged in an economic activity. Similarly to what observed in 2006, most of these working children lived in the rural areas (65.6%), worked as non-skilled workers (52.6%), in services and commerce (22.5%).

According to the National Institute of Statistics, the increase on children's exclusive school attendance⁹ rose from 53% in 2001 to almost 70% in 2011, meaning a lower proportion of children engaged on any economic activity. The reasons behind the increases are associated to improved access to and quality of education, and changes in parents and children's values and expectations related to education. In addition, regions where employment opportunities grew, and social assistance and agricultural development programs were implemented registered a decrease in the extent of child work (INE, 2013).

In proportional terms from all children aged 7-17, the proportion of children who work and attend school dropped slightly between 2006 and 2011, from 13.5 to 10.8%. Within the working-children group, the proportion of those who also attend school slightly increased between the years. However, it is still observed that children who work and study have lower education performance and are more prone to drop out or to delay their progress within the educational system. This pattern becomes more evident the older the children (teenagers) (INE, 2013).

⁹ That is, when children are dedicated only to their education.

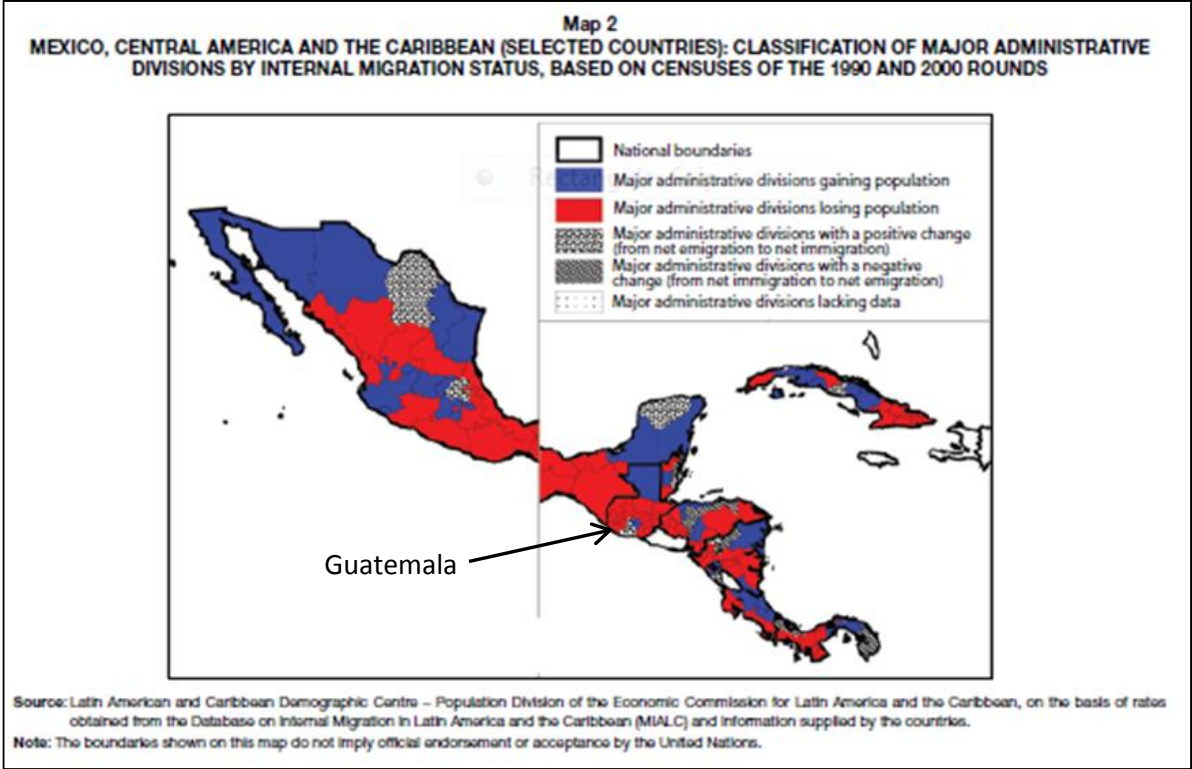
The Guatemalan government has developed specific policies to protect children’s and youth’s rights and to ensure their development in recognition of their diversity and the challenges they face¹⁰. Strategic areas for these policies and plans are: education, employment, health, culture, sports and recreation, prevention of violence, housing, the environment, multiculturalism, gender equality, participation and citizenship, and protection (abuse, violence, adoptions, disabilities, etc.).

Migration

As in many other Latin American countries, internal migration in Guatemala has been associated with urbanization. Guatemala city (and the broader metropolitan area) represents the most important and attractive urban center in the country for internal migrants (CEPAL, 2010). Results from the qualitative research suggest that migration is an important livelihood strategy, especially in the rural areas. As well, the migration process is diverse in the type (inland, abroad, temporary/seasonal, permanent) and length of population movements.

Based on data from the 1994 and 2002 population census, the following figure presents the areas (departamentos) in the country which are losing or gaining population due to internal migration.

Figure 10 Internal migration flow: Mexico, Central America, and the Caribbean.



Source: Extract from CEPAL, 2010 (Map 2, page 49)

According to the survey data from 2006 and 2011, the main reasons for migrating to other areas are associated to family issues and employment. Compared to 2006, in 2011 a slightly lower proportion of persons (2 percentage points less) reported having migrated to their current place of residence (at the time of the survey) during the 5 years previous to the survey.

¹⁰ For instance, the Política Nacional de Juventud 2012- 2020 and the Política pública Desarrollo Integral de la Primera Infancia 2010 – 2020.

Table 14 Migration in the past 5 years

	2006 (Referring to 2001)			2011 (Referring to 2006)		
	Total	(%) Urban	Rural	Total	(%) Urban	Rural
Persons older than 7 who lived somewhere else 5 years ago						
Proportion	5.6	6.4	4.7	3.5	4.2	2.9
Reasons for migrating from that place to the current place of residence						
Work / employment	20.3	22.1	17.9	22.0	25.7	16.6
Education	3.9	5.3	1.9	3.5	5.2	1.0
Family	45.0	39.5	52.6	44.1	41.7	47.5
Health	1.7	1.6	1.7	0.3	0.3	0.3
Marriage	9.4	8.6	10.4	9.5	6.7	13.5
Housing / services	16.2	18.0	13.8	9.6	8.6	11.0
Violence	2.9	4.0	1.4	4.9	4.8	4.9
Other	0.7	0.9	0.4	6.3	7.1	5.1

Source: Own calculations using survey data (Household surveys 2006 and 2011).

For the case of international migration, this increased since the 1960's, particularly emigration to the USA. Initially, openness and process-easiness motivated emigration of thousands of Guatemalans for working abroad in a variety of sectors (services, gardening, agriculture, construction). However, during the 70s and 80s international migration was motivated due to the occurrence of disasters, economic crisis and the internal armed conflict (1960-1996). The main destinations for Guatemalan migrants have been: other Central American countries, Mexico, USA, Canada, and Europe (OIM, 2013).

According to Papademetriou and Terrazas (2009), the economic recession of 2007-08 slowed down migration flows from Latin American countries to the US. Other factors, such as changes in US immigration laws, improved border control, and changes in US labor market demands, have contributed to reduce migration as well as the amount of remittances sent by migrants. To this, Maluccio et al (2014) found that the crisis effects on rural households in Guatemala are considerable. Migrant related households faced a significant reduction in their income due to the reduction of remittances received which affected investment and consumption within the household. By 2008, migrant related households were in a better position than non-migrant related households with respect to food security, education, household expenditures and children nutritional status. By 2012, the difference between migrant related and non-migrant related households were minimal with regards to total and per capita expenditures. In addition, migrant related children lost most of the nutritional advantage registered in 2008, when compared to non-migrant related children.

What did household income and expenditures look like before and after the crisis?

Income

Every year, the Ministry of Labor and Social Prevision establishes the level of the minimum official wage for the agricultural, non-agricultural, and maquila and export sectors, by accounting for inflation, GDP projections, and the growth in the size of the working population. These updates are published in the "Diario de Centroamérica" by the end of December of the year previous to the one on which the updates will take effect. Additional to the daily wage, since 2001 all employees receive a Q. 250.00 bonus per month.

The following table shows the development of the minimum agricultural and non-agricultural wages. It can be observed that the minimum wages have increased on average, about 9% per year. In the same period, inflation was about 6.5% per year.

Comparative figures on the labor income actually earned by the population are only available for years on which the corresponding data has been collected. During the early 2000s, the average income earned tended to be slightly higher than the minimum wage level (except the rural income). However, by the end of the decade, the income actually earned was on average, below the minimum wage level.

Table 15 Average personal monthly income from work

Year	Minimum wage*			Income earned**		
	Non agricultural (Q. / month)	Agricultural (Q. / month)	Maquila and export sector (Q. / month)	Total* (Q. / month)	Urban (Q. / month)	Rural (Q. / month)
2000	725.44	657.61				
2001	1,091.63	1,012.85				
2002	1,162.50	1,086.46		1,216	1,597	853
2003	1,290.25	1,220.29		1,424	1,878	1,019
2004	1,456.63	1,424.08		1,205	1,502	820
2005	1,456.63	1,424.08		N/A	N/A	N/A
2006	1,577.38	1,541.49		N/A	N/A	N/A
2007	1,643.69	1,605.98		N/A	N/A	N/A
2008	1,725.21	1,679.58	1702.40	N/A	N/A	N/A
2009	1,831.67	1,831.67	1702.40	N/A	N/A	N/A
2010	1,953.33	1,953.33	1824.06	1,680	2,109	1,133
2011	2,187.54	2,187.54	2058.27	1,685	2,113	1,223
2012	2,318.33	2,318.33	2151.04	1,734	2,154	1,258
2013 (1)	2,421.75	2,421.75	2246.25	1,917	2,274	1,499
2013 (2)	2,421.75	2,421.75	2246.25	1,893	2,242	1,478
2014	2,530.34	2,530.34	2346.01			

*Source: Own calculations based on Ministry of Labor, 2014.

**Source: INE, 2014 Employment indicators. The income figures presented in this table refer to income derived from employment/engagement in any economic activity. Other sources of income (remittances, in kind, etc.) are not accounted for. Only data is available for those years on which an employment survey took place. Two surveys were carried out in 2013, providing different estimates of earned income for this year.

As described earlier, households are not only facing the challenge of securing a stable and sufficiently paid job in order to cover their needs. Workers are experiencing low quality jobs, decreasing income levels (in spite of crisis and inflation) and increasing employment uncertainties. As clearly described by a participant in the qualitative research (rural woman, 2012): *“What we [women] earn is support to the husband. Now, the price for textiles dropped. Two years ago they paid Q 350 and this year only Q 250. The price for our work dropped, but things [household needs] increased price.”* With shrinking incomes and increased costs of living over the years, it is no surprise to see families implementing a wide range of coping and adapting strategies to ensure their survival, ranging from child work to emigration.

Table 16 shows the average monthly personal income of those who were engaged in different economic activities in 2013. Agriculture and services were the economic branches with the lowest income levels.

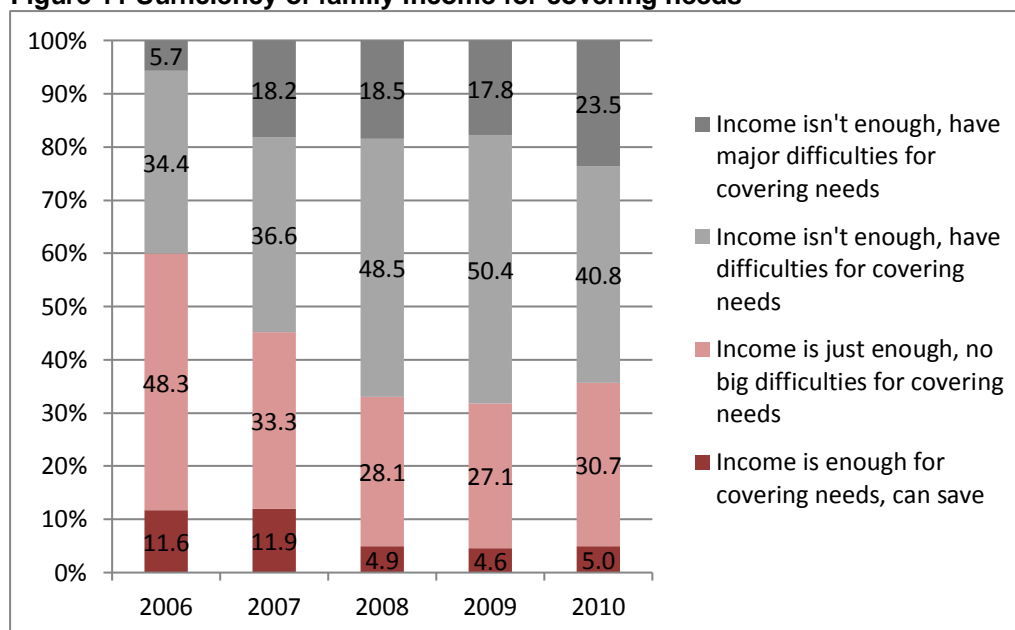
While official wages did increase during the crisis period, it is possible that the real income earned by the population did not increase as much. Considering the crisis impacts on employment and the rising food and fuel prices, it is possible that household income wasn't sufficient for covering the basic needs. As an urban man (2013) noted: *“There are people who earn Q40 or Q35 per day. Imagine, if they buy a pound of meat, they would only have Q10 left, which are not even enough for buying tortillas”*. Evidently, the low salaries and wages earned by low income groups are way below a level that would ensure a diverse and high quality nutrition, not to say a comfortable living standard.

Table 16 Average personal income by economic branch in 2013

Economic branch	Total (Q. / month)	Urban metropolitan area (Q. / month)	Urban rest of the country (Q. / month)	Rural (Q. / month)
Agriculture, livestock, fishing	1,101	1,621	1,028	1,102
Manufacture, extractive industries, other industry	1,948	2,541	1,834	1,723
Construction	2,069	2,539	2,083	1,831
Commerce, transport and storage, food service	2,106	2,613	2,013	1,749
Information and communications	3,869	4,994	2,205	3,294
Financial and insurance activities	3,439	3,744	2,855	3,534
Real state	2,604	3,848	2,506	1,147
Professional, scientific, technical, and administrative and support services	3,308	4,341	2,343	1,980
Public administration, defense, teaching, health care and social service	3,211	4,080	2,909	2,770
Services	1,196	1,465	1,152	1,014

Source: INE, 2013

The population's perceptions on the sufficiency of their personal and household income for covering basic needs were collected in the period 2006-2010 by the Latinobarómetro survey. By 2006, 40% of the persons interviewed considered their income as insufficient. It can be seen that in 2008 and 2009 (when the crisis impacts were at their strongest as the literature suggests), a significantly higher proportion of persons, close to 70%, considered their income insufficient. A slight recovery can be seen in 2010, however the proportion of persons reporting income sufficiency hasn't reached the pre-crisis levels.

Figure 11 Sufficiency of family income for covering needs

Source: Own calculations using survey data (Latinobarómetro 2006-10)

For rural communities in Huehuetenango, Maluccio et al (2014) found that in association with the US/global crisis, migrant related households suffered a reduction of up to 25% in their per capita expenditures. This reduction was mainly associated to non-food expenditures. As well, migrant related households fared better than non-migrant related households. The authors conclude that by 2012, households had not been able to recover from the shock.

Considering this situation, together with the already low level of income and well being on Guatemala prior to the crisis, it is certain that households faced increased difficulties to cover their basic needs during the crisis period. Not only the fulfillment of present needs is compromised, also, households are being unable to save and stock up resources for future needs. As a rural woman indicates: *“My husband and I think that it is necessary to save, but how are going to save if it [money] is not enough [for our needs]?”* The challenges faced by families with younger kids and by the elderly are particularly concerning. For the former, it will be very difficult to support their children overall development and for the later, this will put them in a very vulnerable situation once reaching a certain age (and lacking access to a pension) where they can't be productive anymore. In both cases, more economic burden will be placed on families who are already struggling for getting over the day and who will receive them under their care.

Expenditures

The basic food basket (Canasta Básica Alimentaria, CBA) is composed by 26 food products that are key for the Guatemalan diet. It represents the minimum consumption required for satisfying the energy (calorie) and protein requirements of an average household (5.3 members). The Basic vital basket (Canasta Básica Vital, CBV) includes a bundle of goods and services needed for satisfying household needs with respect to food and beverage consumption, clothing, housing, health, transport, recreation, culture, communications, entertainment, education, and other services.

The following table presents the annual average on the cost of the CBA and the CBV, in the period 2000 – 2014. Taking table 15 on wages and income as reference, it can be seen that on average, income levels are below the cost of the CBA and the CBV. Therefore, for households who are dependent on one low level income, it might be very difficult to ensure the access to all goods and services needed for a satisfactory life. In addition, this situation increases the pressure for other household members (as seen earlier) to contribute to the household income.

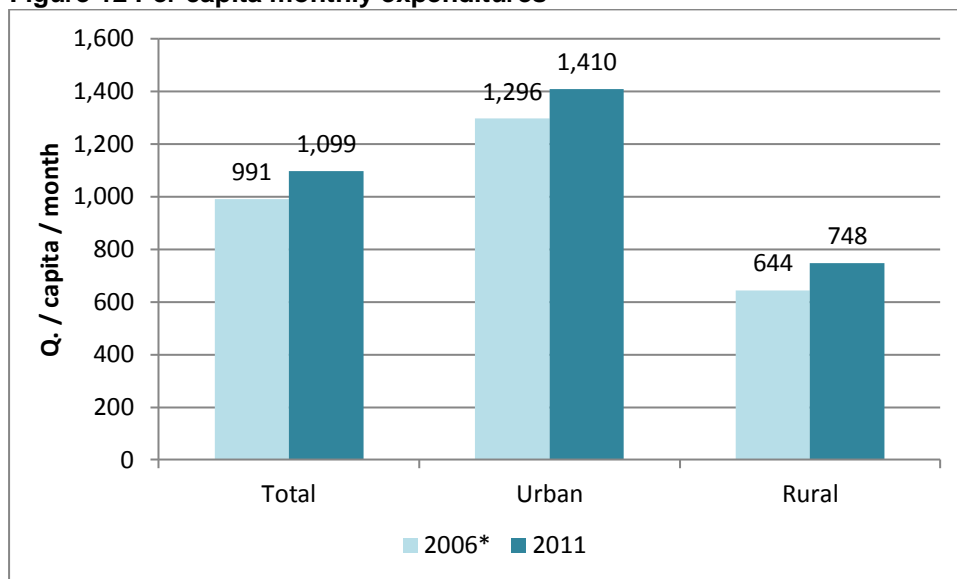
Table 17 Cost of basic food and vital baskets

Year	Basic food basket (CBA) (Q. / month)	Basic vital basket (CBV) (Q. / month)
2006	1,425.97	2,602.14
2007	1,577.88	2,879.35
2008	1,859.59	3,393.41
2009	1,953.07	3,564.00
2010	2,030.78	3,705.80
2011	2,318.58	4,230.98

Source: INE, 2014. *Indicadores económicos*

The following figure shows the per capita expenditures per month in 2006 and 2011. The 2006 figures have been adjusted to 2011 terms using the corresponding consumer price index levels as provided by the National Institute of Statistics. It can be seen that in 2011, expenditures per capita were in fact higher than in 2006, in about 100 Q./capita / month.

Figure 12 Per capita monthly expenditures

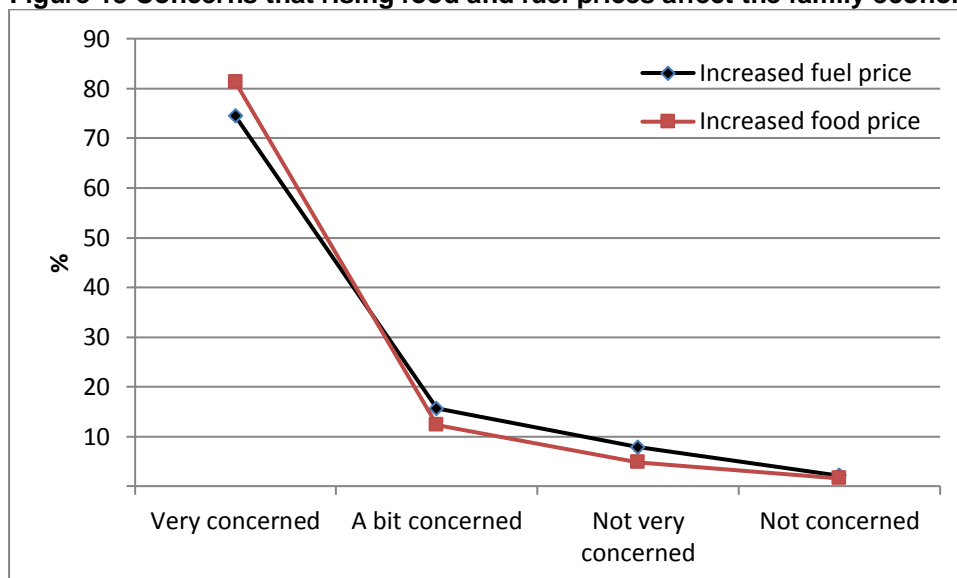


*2006 data was adjusted to 2011 level using the CPI

Source: 2006 data: Iannotti et al, 2012; 2011 data: Own calculations using survey data.

In 2008, a question in the Latinobarómetro survey explored people’s concerns with rising food and fuel prices. The majority of respondents (over 75%) were very concerned that rising fuel and food prices would affect the family economy.

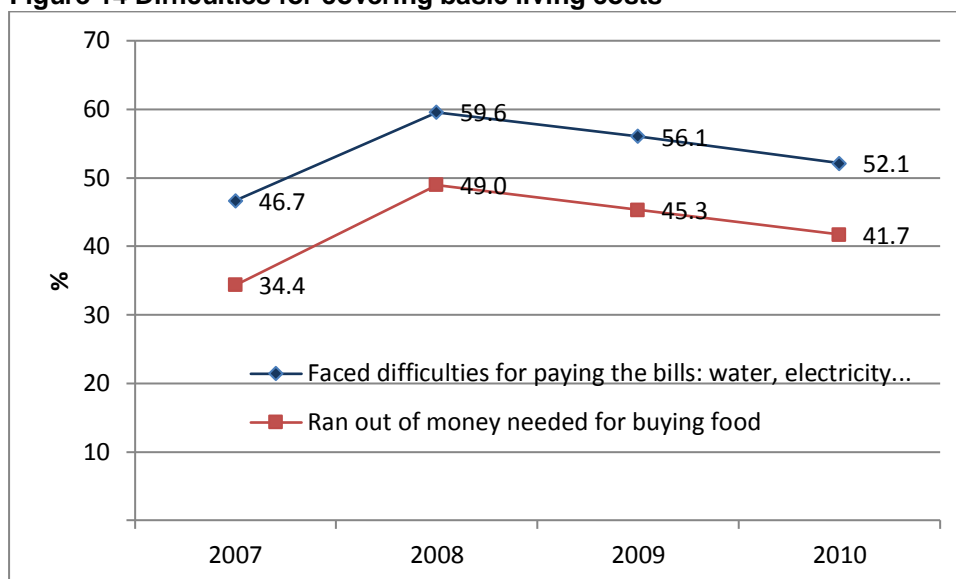
Figure 13 Concerns that rising food and fuel prices affect the family economy (2008)



Source: Own calculations using survey data (Latinobarómetro 2008)

Over the 2007 – 2010 period, the Latinobarómetro survey asked its respondents whether they faced difficulties for covering basic living costs, such as food, electricity, water, etc. The highest proportion of persons reporting difficulties was observed in 2008. Interestingly, in 2009 – the year which has been reported as with the strongest crisis impacts -, a lower proportion of respondents reported facing difficulties than in 2008.

Figure 14 Difficulties for covering basic living costs



Source: Own calculations using survey data (Latinobarómetro 2007-10)

4 ACCESS TO FOOD

Food prices

By early to mid 2007, the trend in the increase in food prices started becoming evident in Guatemala. According to the World Food Program between 2006 and 2008, yellow maize increased its wholesale price from Q. 95 to Q.129, per quintal (35.8% cumulative variation)¹¹. For the case of rice, cumulative variation was of 101.4% and for beans 47.5%, in the same period. Prices of grains and cereals ("basic grains) in Guatemala are very responsive to international prices due to the fact that Guatemala is a net importer of these products (PMA, 2008).

Given the strong reliance of the Guatemalan diet on basic grains, changes in the prices of these products will certainly have a major impact on the household economy and possibilities to access food.

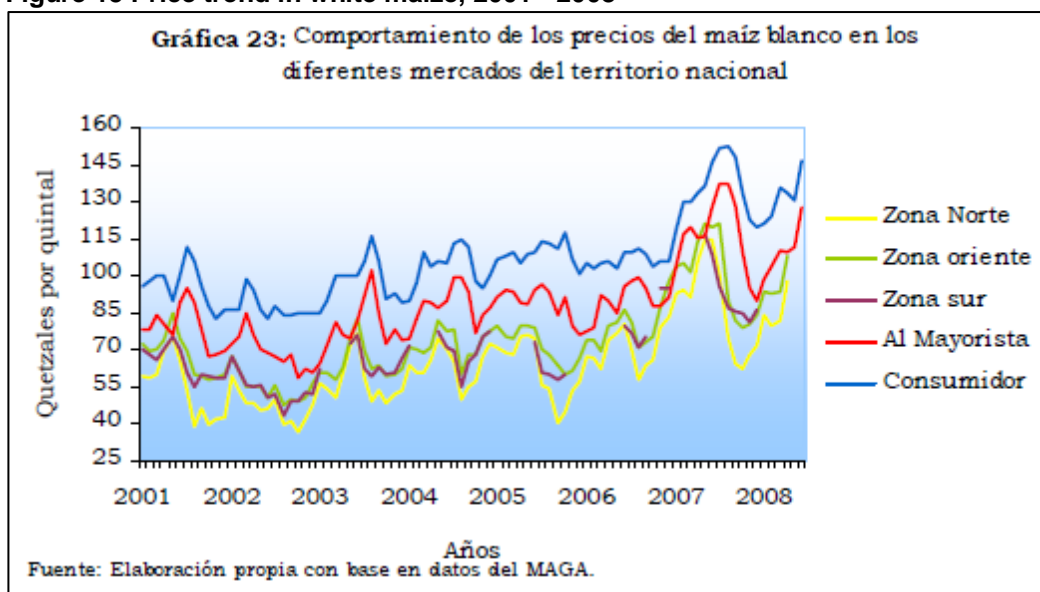
Prices for agricultural products also present seasonal variations, corresponding to periods of availability of the products (harvest, lower prices) or the lack of (no harvest, high prices). In general terms, maize prices increase between June and October (peaking in July, with a level of 14% over the annual average), before the start of the harvest in September-October. For the case of rice and beans, seasonal variations are less marked and prices increase only slightly due to this factor (PMA, 2008).¹²

Consumer prices follow the general trend observed in wholesale prices, however they reach higher levels. The following figure shows the price trends in white maize (the one used for human consumption) in different regions of Guatemala, and for wholesale and final consumers. It can be seen that regional variations are present, with higher prices being registered in the East and North regions.

¹¹ One quintal equals 46 kg or 101 pounds

¹² For the case of beans, prices peak in July, however they are on average only 7% higher than the annual average. Rice prices are controlled and thus variation is minimal.

Figure 15 Price trend in white maize, 2001 - 2008



Source: PMA, 2008 (Extracted from figure 22, page 24)

Consumer prices rose from about Q. 100 per quintal in the pre-crisis period, up to Q. 150 per quintal in late 2007. Being white maize one of the main products in the diet, particularly of the poor and the rural populations, its increases have major implications in the amount of resources used for purchasing other foods, and on the quantity of maize purchased for the home consumption.

Other factor affecting food prices, and thus, consumption, is the increasing availability of imported foods which has been facilitated by trade liberalization policies implemented during the 2000s and the signature (and implementation) of the US-Central American Free Trade Agreement (CAFTA). According to Thow and Hawkes (2009), food imports from the US to Guatemala grew by 144% between 1990 and 2005. Particularly relevant are imports of chicken meat, corn, processed cheese, apples, and French fries, for which Guatemala stands as one of the major importers in the Central American region. The increased availability of such products, coupled with lowering local prices and social and demographic changes, has resulted in their increased consumption.

Expenditure on food

According to Iannotti and Robles (2011), higher food prices might induce a dietary change on which a) high quality and more expensive food items are substituted by cheaper or lower quality foods, and/or b) the food quantities for the regularly consumed products are reduced given the lower purchasing power of the households. For both cases, it is certain that resulting nutrient intake of the household becomes compromised, especially for the lower income population.

Results from the qualitative research support these findings. As a rural woman commented (2013) on her family's dietary practices: *"This year everything increased [price]. We buy the cheaper things. We buy less quantity and we eat a bit less each of us. We can't buy anymore all what we need"*. For others, the situation has been more extreme up to the point of limiting the household's dietary diversity to a maximum: *"Sometimes we just eat beans. We don't eat meat because the money is not enough"* (rural woman, 2013). In many cases, both quality and quantity of food consumed has been reduced. Participants in the qualitative research shared that some families have resorted to a limited food consumption (2 meals a day or less) based on basic foodstuffs (maiz and beans) and other locally available products such as onions, tomatoes, certain types of squash, cauliflower, and diverse herbs.

As it can be seen, rising food prices are having a qualitative and quantitative impact on household's food purchases and consumption. The implications of an adequate nutrition for child growth and

development, and overall adult productivity and health have been widely documented in the literature (FAO, 2004). These implications are already being noticed by some qualitative research participants who have recognized the negative effects of a reduced and limited diet on their children's development: "...they [children] don't perform well [in school] when they are not well fed. They don't remember the classes that are taught or they are sleepy" (urban woman, 2012). The fact that rising global and national food prices have worsened the food security situation of a large share of the Guatemalan population is concerning and calls for a more decisive action from the Guatemalan government to support the well being of the population through measures oriented to improve the access to nutritious and socially accepted foods.

Table 18 shows the average household expenditures on food (consumed within the household) in 2006, as well as the share of food expenditures from total expenditures. It is important to note that survey data on food consumption and expenditures for 2011 was not available and thus, the 2006-2011 comparisons will be made based on secondary data sources.

Table 18 Food expenditures

Area of residence	Average household food expenditures (Q. / month)	Share of food expenditures from total expenditures (%)
2006		
Total	1,179.69	51.5
Urban	1,279.44	47.0
Rural	1,064.82	56.5
2011		
Total	N/A	
Urban	N/A	35.4 – 59.8*
Rural	N/A	50.2 – 63.8*

*Ranges across wealth groups in each location.

Source: 2006 data: Own calculations based on survey data. 2011 data: INE, 2012

The following table shows the per capita monthly food expenditures across poverty groups in 2006. Sharp differences in expenditure are seen between the non poor and the poor. While on average, rural households spend less per capita on food, than urban households, the expenditure differences between households in both locations (in average terms), are mainly observed in the non poor group.

Table 19 Food expenditure per capita, by poverty condition

Poverty status	2006 Food expenditures (Q. / capita / month)		
	Total	Urban	Rural
Non poor	351.13	366.46	315.78
Moderate poor	176.47	179.18	175.10
Extreme poor	101.74	101.73	101.74
Total	273.36	322.62	216.65

Source: Own calculations using survey data (Household surveys 2006 and 2011)

Food availability at the household level

Ianotti and Robles (2011) explored the impact of food price changes in calorie intake in 7 Latin American countries, including Guatemala¹³. They found that, after simulating the 2007-08 price shock, calorie intake dropped for the poorest population segments, particularly for urban households. The

¹³ They used data from the ENCOVI 2006

reduction in calorie intake for the rural population was less; however their overall level of calorie intake was lower before and after the crisis. Table 20 reproduces their results.

Table 20 Median calorie intake per adult equivalent before and after the 2007-08 price shock

Wealth quintile	National level			Urban			Rural		
	Before	After	Change	Before	After	Change	Before	After	Change
1 (poor)	1,576	1,481	-115	1,989	1,833	-169	1,377	1,267	-116
2	2,281	2,105	-123	2,606	2,340	-227	1,907	1,737	-94
3	2,716	2,595	-74	2,869	2,841	113	2,373	2,294	-45
4	2,975	3,071	38	2,885	3,205	205	2,874	2,878	72
5 (rich)	3,120	3,631	466	3,101	3,659	610	3,312	3,780	382
Total	2,521	2,542	-24	2,659	2,688	-18	2,300	2,313	-28

Source: Iannotti and Robles, 2011. Reproduced from table 4, page 116

By 2006, 89% of the calories available for the household consumption, corresponding to food items which were purchased or acquired from the own production, were purchased.

Consumption of key products

Table 21 presents the list of the mostly eaten food items in Guatemala. In order to be included in the list, an item had to be consumed by a large proportion of households in the country, irrespective on the amount consumed. This list is indicative of what households consumed at the time of the survey. In this sense, the list might exclude other important food items which might have been off-season when the household interviews took place.

Table 21 Quantity of food available for key food products in 2006

Food item	Food availability (Grams / person / month)	Food item	Food availability (Grams / person / month)
Cereals		Eggs	
Sweet bread	3,310.31	Eggs	957.59
Bread (french)	2,998.58	Vegetables	
Maize tortillas	12,271.30	Tomatoes	1,009.19
Rice	804.48	Onions	435.78
Maize	10,999.31	Carrots	777.20
Noodles	511.04	Güisquil	762.13
Roots, tubers		Fruits	
Potatoes	994.80	Lemon	591.75
Pulses, legumes, nuts and seeds		Bananas	1,467.17
Beans	1,191.08	Milk, oil, sugar	
Meats		Oil	495.31
Chicken meat	965.39	Milk	2,693.06
		Sugar	2,137.65

Source: Own calculations using survey data (Household survey 2006)

In 2008-09, the ENSMI questioned households on the change of their dietary habits due to the lack of money. Specifically, the survey questions explored whether specific foods had been reduced or eliminated from the household diet during the 6 months previous to the survey. About 62% of all households indicated having reduced the consumption of certain items, being the most commonly mentioned: beef meat, chicken meat, beans, rice, and sugar (Chaparro, 2012).

Elimination of foods from the diet was relevant for 14% of the households. The most commonly foregone items were: beef meat, milk, chicken meat, cereal, and Incaparina (Chaparro, 2012). It is important to note that qualitative research results from years 1 and 2 also identify meats, rice, and sugar as items which are consumed less, in a lower quality, or not anymore, due to their higher prices.

Food sufficiency

Food sufficiency was assessed by comparing the average amount of calories available per day within a household, against the sum of the calorie requirements of the household (based on sex and age composition). In 2006, 42.6% of the households had insufficient calorie availability. For these households, the average daily deficit per capita was of 656.57 kcal¹⁴.

Table 22 presents the average calorie availability from different foods (grouped in 10 groups) for calorie sufficient and calorie insufficient households. It is important to note that these figures represent averages of food available for consumption for the household members, that is, they do not consider patterns of intrahousehold distribution of food (who eats what and how much). In addition the amounts of food wasted, food fed to pets, food given to others (guests, extended family, etc.), food eaten outside the household and food received as exchange, donation, or gift have not been taken into account (due to data availability) in the calculations. Therefore, the results presented in the table are only indicative of general trends and should not be considered as exact estimates of food availability and/or intake by the household.

Table 22 Calorie availability by food sufficiency status in 2006

Food group	Calorie sufficient households		Calorie insufficient households	
	Kcal / capita /day	%*	Kcal / capita /day	%*
Cereals	2198.7112	66.3	929.8064	58.66
Roots, tubers and plantains	58.3576	1.81	34.0892	2.25
Pulses, legumes, nuts and seeds	133.2405	4.2	93.0896	6.24
Vegetables	41.4555	1.28	25.7700	1.80
Fruits	72.0113	2.21	39.9734	2.70
Meats	129.9637	4.03	71.5338	4.67
Fish and sea food	9.1888	0.27	4.9566	0.32
Milk and dairy products	93.4340	2.89	37.6450	2.38
Eggs	42.9773	1.36	26.2988	1.82
Oils and fats	133.9183	4.12	64.9001	4.14

*Beverages and other miscellaneous foods are not included in this table.

Source: Own calculations using survey data (Household surveys 2006 and 2011)

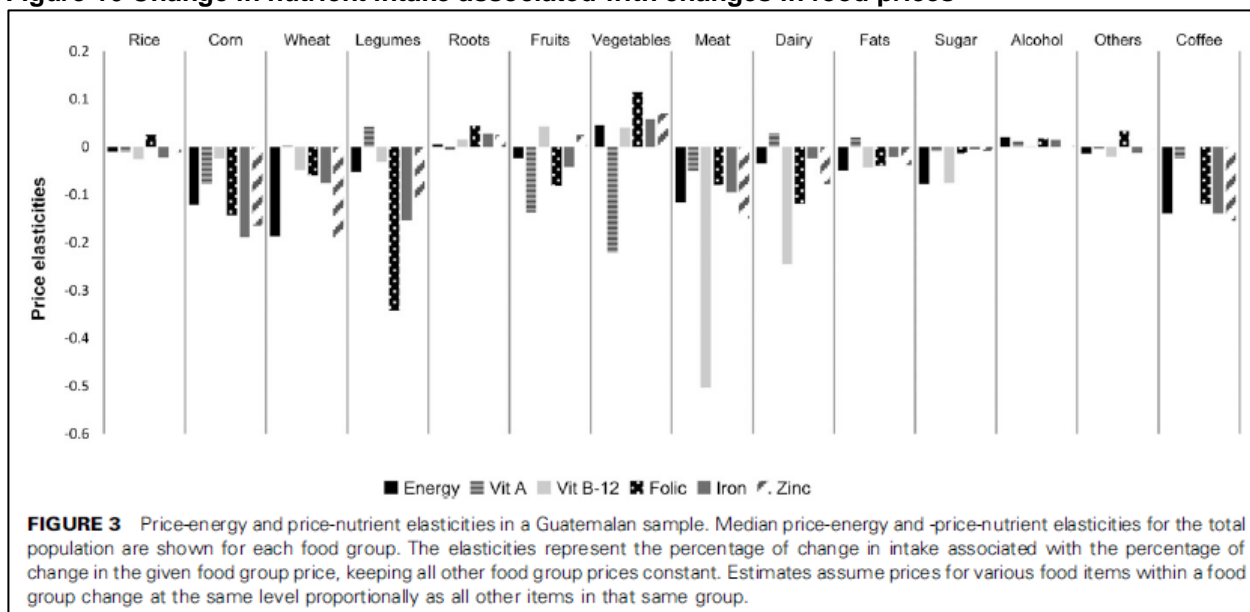
It can be seen that calorie insufficient households have about half (or less) of the per capita calorie availability from calorie sufficient households for all groups considered. By types of foods consumed, the diet of calorie insufficient households has a lower share of cereals (58 vs. 66%) and a higher share of pulses, legumes, nuts and seeds (6 vs 4%). The rest of the food groups are consumed in similar proportion (but in less quantity!) when compared with the calorie sufficient households.

After simulating the 2007-08 food price shock, Iannotti et al (2012) found that for most food groups, calorie and micronutrient intake diminished in face of increasing prices and of the reduction on real

¹⁴ Results based on the own calculations using 2006 survey data.

income. In addition, the probability for inadequacy/insufficiency of micronutrient intake (vitamin A, B12, folate, iron, zinc) increased. Figure 16 displays their results.

Figure 16 Change in nutrient intake associated with changes in food prices



Source: Iannotti et al, 2012. Extract from page 1573 (Figure 3)

While the food grouping used by Iannotti et al differs from the food groups presented in Table 22, it becomes clear that overall, energy and micronutrient intake decreased in a context of higher prices. The only groups for which the simulation yielded higher consumption in face of increasing prices were vegetables and roots.

Experience of food insecurity

In order to further explore the households' experience of food insecurity and their adapting/coping strategies when having difficulties to acquire food, the analysis made use of the 2011 ENCOVI survey module for assessing household food security, which was designed based on the Latin American and the Caribbean Food Security Scale (ELCSA).

The scale registers the households' coping mechanisms for the lack of food due to resource shortages. Increasing levels of food insecurity are observed when household members increasingly reduce consumption¹⁵ in quality, quantity, and frequency, up to the point of skipping food for a whole day. For households with children under the age of 18, increasing levels of food insecurity are observed when, after adults, children start having a reduced consumption too.

The table shows the proportion of households experiencing different dimensions of food insecurity in 2011. Up to three fourths of all households were concerned about running out of food in the 3 months prior to the survey. About half modified their diet – for the bad – in terms of balance, variety, and perceived healthiness.

¹⁵ ELCSA = Encuesta Latinoamericana y Caribeña de Seguridad Alimentaria

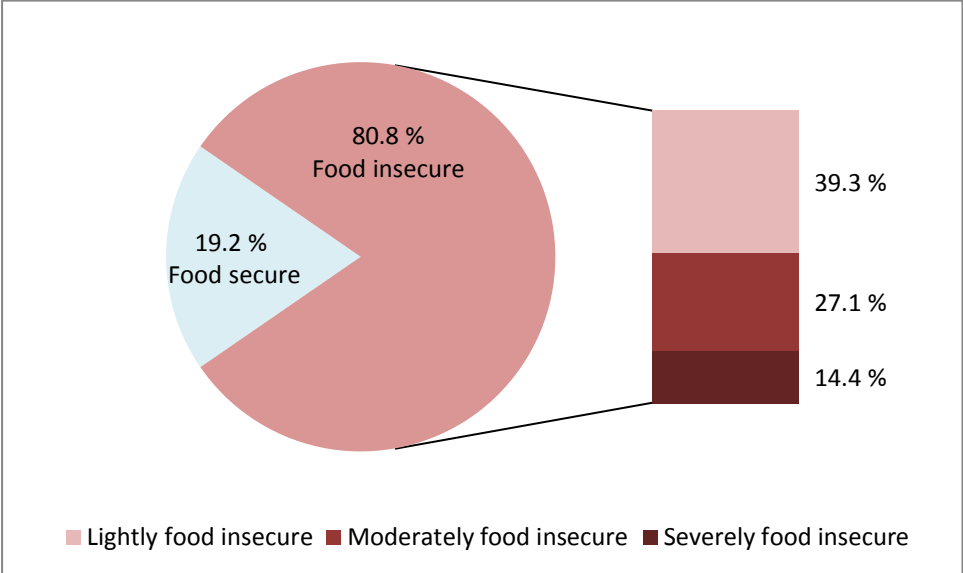
Table 23 Households' experience of food insecurity in 2011 (past 3 months from time of the survey)

Aspect of food insecurity	Adults	Children (for households with children under 18 years of age)
Concern about running out of food	75.9	N/A
Ran out of food	33.7	N/A
Stopped having a healthy and balanced diet	55.4	49.7
Someone had a food consumption based in low variety of foods	56.1	49.0
Skipped breakfast, lunch, or dinner	21.8	14.5
Ate less than what should have	40.8	31.0
Reduced portion size	N/A	29.3
Was hungry, but didn't eat	21.0	12.8
Ate only once a day or stopped eating for a whole day	14.2	8.2

Source: Own calculations using survey data (Household survey 2011)

After applying the suggested methodology for identifying the food insecure households, as well as their degree of insecurity, it is observed that 80.8 % of all households were food insecure in 2011.

Figure 17 Food security status, 2011



Source: Own calculations using survey data (Household survey 2011)

By location, food insecurity was more prevalent in the rural areas. However, it affects the broad majority of the population.

The experiences registered at the national level closely reflect the experiences reported by the qualitative research participants in the communities under study. As shown previously (section about expenditures on food), households in the research areas have implemented all the coping mechanisms listed in table 23. Households reduced their dietary quality by limiting the diversity of foods eaten, buying products of inferior quality, and trading off preferred products by cheaper or less preferred products. The quantity of food consumed has diminished by reducing portion sizes or number of meals taken.

The situation of a rural woman (2013) participating in the qualitative research shows what many other women (and their households) reported in 2012 and 2013: *“Sometimes the money is not enough, so I only buy beans, eggs, and herbs. The meat stays there, it is too expensive... too expensive”*. Other experience shared by an elderly urban woman (2013) exemplifies the way in which food insecurity is

lived day after day by the very poorest in the population: "... We go to bed early in order to "fool" the stomach. We don't have more food. At night, our stomach makes noises because of hunger. When we wake up, we drink hot water in order not to feel hungry". In a context of stagnated (or even deteriorating) economic conditions, it will be very difficult that the extreme situation described by this participant will soon be reverted into a situation of food security and of the eradication of hunger. The population groups living in extreme poverty and vulnerability will continue facing difficulties for overcoming the current challenges and for improving their food security situation. Supportive actions all along the food system are strongly needed to achieve food and nutrition security in Guatemala.

Table 24 Food security status by area of residence, 2011

Food security status	Urban (%)	Rural (%)
Food secure	26.8	10.6
Food insecure	73.2	89.4
Lightly food insecure	40.9	37.5
Moderately food insecure	21.4	33.5
Severely food insecure	10.8	18.4

Source: Own calculations using survey data (Household survey 2011)

While the 2006 ENCOVI didn't collect information related to the households' experience of food insecurity, as captured by the Latin American and the Caribbean Food Security Scale, the 2008 National Survey on Mothers' and Children Health (ENSMI)¹⁶ collected similar information through 5 questions referring to all household members. With limitations¹⁷, this information can be used as comparative in order to assess how food insecurity changed during the food price crisis period. The results are presented next.

Table 25 Households' experience of food insecurity in 2008-09

Aspect of food insecurity	Total (%)	Households with children under the age of 5 (%)
Concern about lacking food (past 6 months)	66.3	70.0
A household member ate less than wanted due to lack of money (past 30 days)	59.1	63.5
A household member had hunger due to insufficient food consumption (past 30 days)	35.7	39.4
There wasn't enough money for buying food (past 30 days)	15.3	16.8
A household member skipped a meal due to the lack of money (past 30 days)	13.8	15.4
Food insecure households	56.9	61.3

Source: Chaparro, 2012 (based on the ENSMI's sample of 20,768 households)

For the questions on concerns about the lack of food and skipping a meal, which are similar in both surveys, the 2011 data registers a higher proportion of households reporting difficulties and being food insecure. For the questions on eating less and being hungry (slight different wording in both surveys), the 2008-09 round registers a higher proportion of households being affected.

For households with children, the 2008-09 data shows a more concerning situation. Nonetheless, in this survey, the age range of children was limited to 0 to 5 years of age, in comparison with 0 to 18 years as used in the ELCSA.

¹⁶ ENSMI = Encuesta Nacional de Salud Materno Infantil

¹⁷ The ELCSA tool and the ENSMI questions do not provide comparable assessments/results, in spite of exploring similar dimensions of food insecurity. Furthermore, the questions related to children employ 2 different age cut offs (5 and 18 years of age), which further limits their comparability.

In summary, in spite of their lack of comparability, the data suggests that food insecurity increased over the period (56.9% in 2008-09, 80.8% in 2011).

5 NUTRITIONAL STATUS

The National Survey on Mothers' and Children Health (ENSMI) 2008-09 and the 2008 School Census of Height/Weight in First Graders contain the most recent data on children's nutritional status in Guatemala. These two data sources, together with the latest Population Census, have recently contributed to the analysis and mapping of chronic malnutrition at the community level (VAM 2012). A previous school census of height/weight of children was conducted in 2001.

Given the lack of information closer to 2006 and to 2011, which are the reference years for this work, the information of these sources is contrasted in order to explore the changes in children's nutritional status in the country.

The following table shows different measures of children malnutrition. It can be observed that, overall, there has been progress in reducing children malnutrition over the past decades. Nonetheless, anemia increased between 2002 and 2008, perhaps due to the combination of a) chronic limited access to sufficient and nutritious food and b) changes in dietary habits and preferences observed in the Guatemalan population.

Table 26 Children nutritional status in 1995, 2002, and 2008-09

Indicator	1995	2002	Total	2008-09	
	Total	Total		Urban	Rural
Chronic malnutrition (height for age)	55.2	54.3	49.8	34.3	58.6
Acute malnutrition (weight for height)	3.8	1.8	1.4	1.0	1.6
Global malnutrition (weight for age)	21.8	17.2	13.1	8.2	15.9
Anemia (6 to 59 months)	N/A	39.7	47.7	46.2	48.6

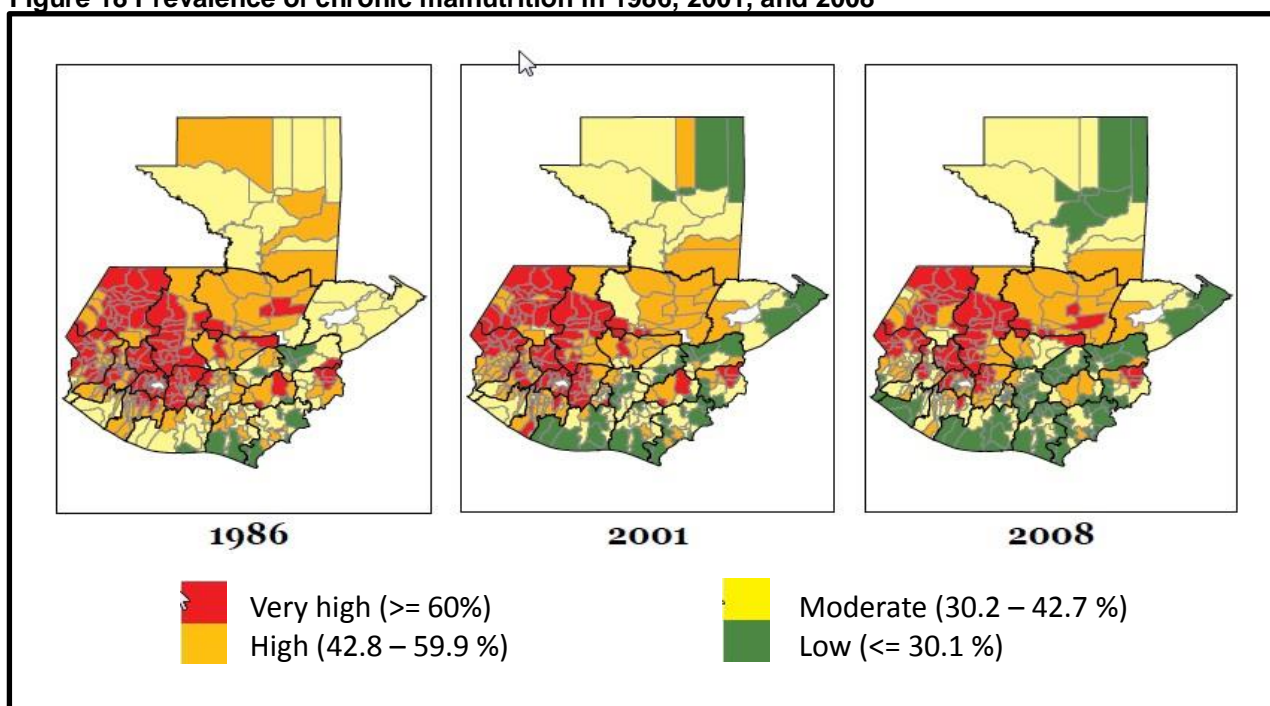
Proportions represent cases falling below 2 standard deviations from the reference population's average (OMS reference).

Source: MSPAS, 2010 (information extracted from pages 308 and 311)

According to several studies, the "nutrition transition" has been occurring in several countries in Latin America, including Guatemala, where diets high in fats, sugars, and processed products start replacing traditional dishes. This is observed in both wealthier and poorer population segments. For countries like Guatemala, some of the consequences of this nutrition transition are in one hand, the continued macro- and micronutrient deficiencies and the high prevalence of malnutrition; and in the other, the increase in overweight and obesity and their related public health consequences (Uauy et al, 2001; Rivera et al, 2004; Asfaw, 2007). For instance, Bermudez et al (2010) explored fat intake of 3rd and 4th grade school children in Quetzaltenango city, Guatemala using data of 2005. According to the authors, the use of data prior to the food price crisis facilitated the exploration of dietary habits in an economic context that did not challenge nor constrain consumption, nor imposed barriers to modernization of food practices at the time. Their results show that the surveyed children had diets too high in total fats and cholesterol, particularly for children of higher socioeconomic status. Among the main food products contributing to saturated fat intake were: fried eggs, sweet bread, milk and cheese, fried potatoes, hot dogs, pizza, and beef steak.

Figure 18 shows the geographic distribution of chronic malnutrition. While it is possible to see improvements in the southern and eastern part of the country, high and very high levels of chronic malnutrition remain concentrated in the west. This region also experiences high poverty rates.

Figure 18 Prevalence of chronic malnutrition in 1986, 2001, and 2008



Source: PMA and SESAN, 2012 (extracted from page 25)

Considering the difficulties for achieving a condition of food security, as reported by households in the qualitative research, the Latinobarómetro and the ENCOVI surveys, as well as the widespread effects of the 2009 drought¹⁸, it is likely that the general pattern of food insecurity and malnutrition observed in previous years remains to these days.

6 FORMAL AND INFORMAL SUPPORT

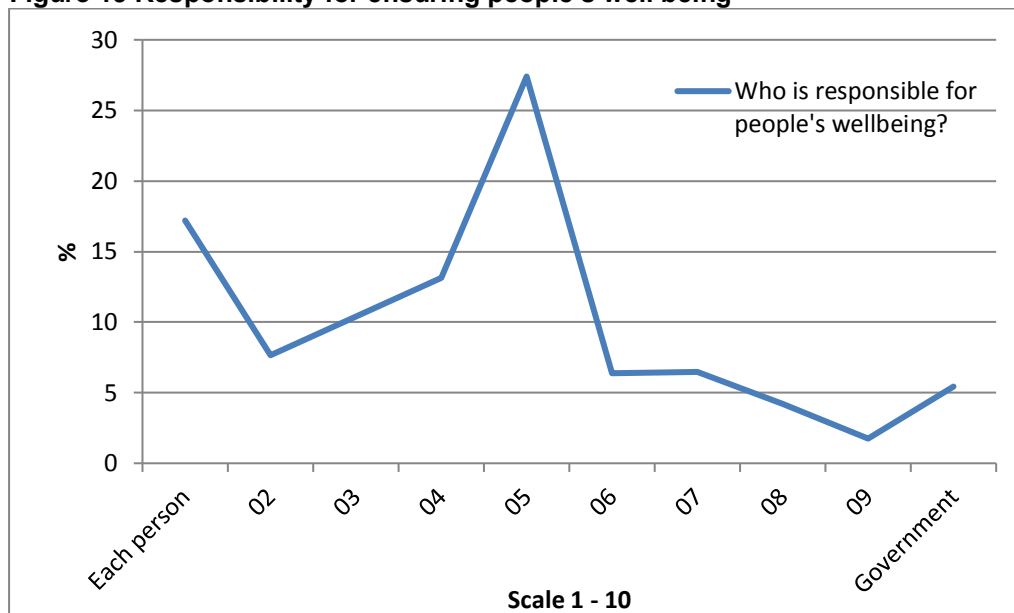
Social protection, being it formal or informal, aims to contribute to the development of societies by facilitating the achievement of minimum living standards to the population. Formal social protection, particularly government based protection, is also considered as a mechanism for the realization of the population's social and economic rights and as a tool for constructing inclusive and fair societies (Martinez Franzoni, 2009).

While the State is the responsible actor for ensuring and protecting the realization of rights, as well as for the implementation of formal social protection; there are other non-governmental organizations and institutions, communities, and individuals who offer support to the population who faces unfavorable conditions (i.e. poverty, vulnerability, malnutrition, illiteracy, risk, etc.).

¹⁸ According to Erbsen de Maldonado and Barahona (2010), the drought affected the livelihoods of about 2 million persons. At the time, a State of Emergency was declared by President Colom.

The Latinobarómetro survey of 2006 collected data on the population's opinion with regards to the responsibility for ensuring people's well being. Using a scale from 1 to 10, where 1 suggests that each person has to look for their own well being and 10 suggests that the government has to assume the responsibility for the people's well being, it was observed that the majority of respondents considered well being to rather an own responsibility (scale level 1 to 5), than government's responsibility (scale level 6 to 10).

Figure 19 Responsibility for ensuring people's well being



Source: Own calculations using survey data (Latinobarómetro 2006)

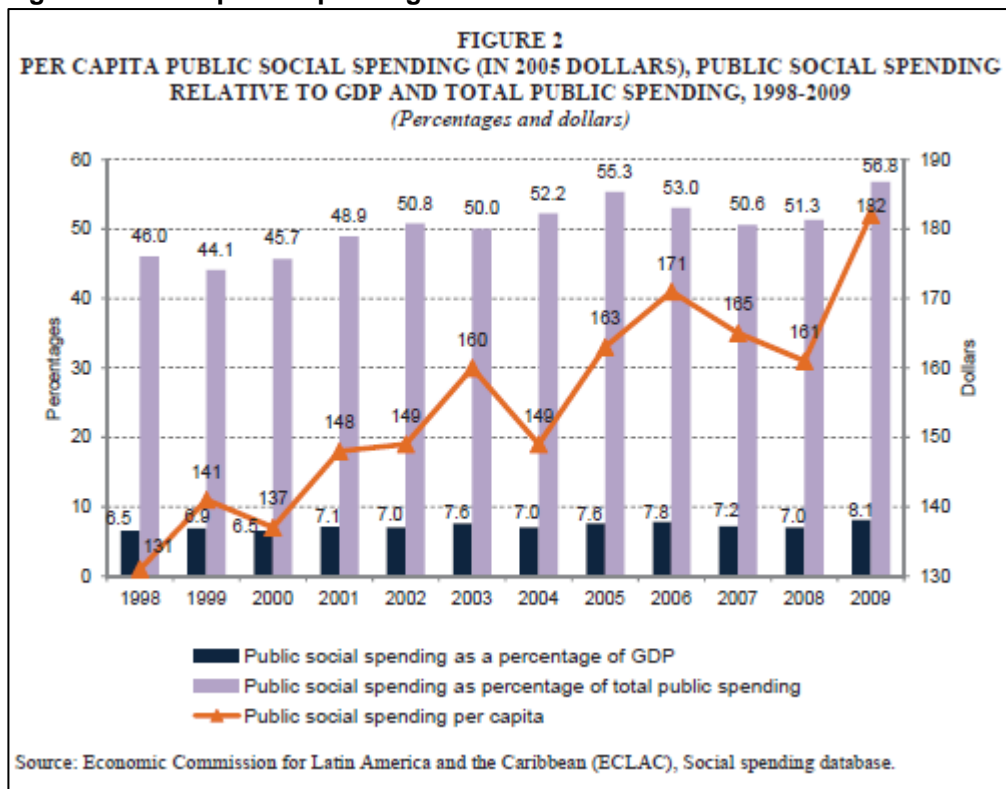
However, the fact that the a high proportion of respondents identified the midpoint in the scale (4-6 in the scale) as the place where personal and government responsibilities lay, may reflect the perception that the achievement of well-being is considered as a collective goal to which persons, families, and government contribute to.

Formal social support

Formal (government) social protection in Latin America reaches the population through social security (including health care, pensions) available to the formally employed, and through social assistance targeted to the poor, the vulnerable, and the marginalized. While some countries, particularly in South America, have made progress in social protection coverage through formalization of employment and specific programs, for many countries in the region, including Guatemala, the high share of informality, high prevalence of poverty, and limited fiscal resources for social spending mean that a large proportion of the population do not have access to any form of government based social protection (Barrientos and Hinojosa-Valencia, 2009).

Guatemala's social public spending increased (with year to year variations) between 1998 and 2009. The following figure shows the increments in per capita social spending and social spending as share of total spending. Interesting to note that during the crisis period (2007 – 08), social spending dropped significantly. By 2009 it reached its highest point during that decade, as part of the government efforts to support the population's affected economy.

Figure 20 Social public spending in Guatemala



Source: Martinez Franzoni, 2013. Extracted from page 10 (Figure 2)

By sectors, social public spending in Guatemala is directed mainly to education (3% of the GDP), followed by housing (2%), health (1.2%), and social security (1.1%). The distribution of resources across these sectors has been rather stable over the years (Martinez Franzoni, 2009).

Contributory social protection (social security) is practically available to those in the formal sector and relates to insurances (health, disability, death) and old-age pensions. Spending on social security is very low. By 2009, it reached only 27 USD per capita. In 2006, old-age pensions benefited only 15% of adults over the age of 65 and 85% of the population were not covered by any health care scheme. In 2009, only 25% of the economic active population was regularly contributing to the social security system. In 2011, 89% of the population wasn't accessing any health care scheme (Martinez Franzoni, 2009; Own calculations using survey data).

Non-contributory social protection usually takes the form of social assistance targeted to vulnerable groups (poor, women, youth, indigenous population, geographically marginalized, etc.). Support is delivered through diverse programs involving cash transfers, human development/education, health care, food support, nutrition supplementation, and community development. Corresponsibility (access to benefits conditional on beneficiaries' participation in certain program activities) is one feature of many of these programs. In order to achieve the proposed impacts (poverty reduction, school enrollment, improvements in nutrition, etc.), key challenges for these type of programs are the correct targeting of the beneficiary population and the adequate implementation and delivery of the program, given the national and local contexts (Barrientos and Hinojosa-Valencia, 2009).

In Guatemala, examples of these social assistance programs over time are: school meals, scholarships for education and school materials, conditional cash transfers, nutritional supplementation for children, and older age support.

The following tables show the proportion of persons (from the total population) that had access to different government programs, by their condition of poverty. It is important to note that the ENCOVI surveys did not constrain the "access to" questions to the eligible population, depending on each

program's scope and goals. That is, for instance, all household members were asked whether they benefit from the older adult program. While in this case it might be easier to limit the sample only to those eligible for benefits in order to obtain "true" access measures, in other cases/programs, the survey did not provide the sufficient information for limiting the sample. For instance, it is not possible to identify the households' precise location (municipality level) in the survey data; and thus, it is impossible to identify if they reside in vulnerable and marginal municipalities, which are the target areas for a broad range of the programs offered.

For 2006, it can be seen that the extreme poor and the poor tend to have more access to the different programs than the non poor. Exceptions are the school transport bonus, the health program, and the program focused on girls' support and attention.

Table 27 Proportion of persons receiving formal support and assistance (past 12 months) in 2006

Received support from	Extreme poor (%)	Poor (%)	Non poor (%)
Milk powder	0.2	0.3	0.2
Glass of milk	4.9	4.4	2.8
Glass of atol	10.9	11.4	5.9
School meal (breakfast, snack)	4.9	6.1	5.0
School transport bonus	0	0	0.2
Scholarships	0.5	0.4	0.4
School materials	16.8	17.6	9.1
Health program	1.4	1.6	1.8
Program focused on girls' support and attention	0	0	0.1
Other	0.5	0.3	0.3

Source: Own calculations using survey data (ENCOVI 2006)

In 2006, 17.3% of the population benefited from any of the government programs listed in Table 27. In 2011, 26.5% of the population accessed any of the programs shown in Table 28.

By 2011, the most important conditional cash transfer programs in Guatemala were "Mi familia progresá" (My family progresses) and "Bolsa solidaria" (Solidarity bag). Programs that were operating in 2006 and which were still being implemented in 2011 are shaded in both tables. Overall, the same situation is observed: the extreme poor and the poor have higher proportion of beneficiaries in the programs than the non poor. Exceptions are the school transport bonus, scholarships, the solidarity package, and the older adult program.

Overall, social assistance programs have helped to reduce the depth of poverty, contributing to the improvement in the living conditions of the neediest in Latin America (Barrientos and Hinojosa-Valencia, 2009). As one qualitative research participant (urban male, 2013) commented: "*Mi familia progresá used to help, but not anymore. People need this [type of] support, but it should be given to those who really need it.*". The recognition of the benefits and positive effects of social protection programs for improving the lives of the neediest is important since these results demonstrate the impacts of the authorities' commitment towards development.

In contexts like Guatemala, where poverty and food insecurity are so widespread, social protection should broaden its beneficiary base and be designed to last beyond the time frame set up by presidential cycles since scale and continuity are key for the long term success of such programs. In addition, improved targeting mechanisms and program delivery alternatives should be implemented. As participants from the qualitative research in Guatemala indicated, the selection of beneficiaries in some places is frequently based on personal relationships to the local authorities or on affiliation to a certain political party. As well, the program resources are often not used as intended in the program design.

Table 28 Proportion of persons receiving formal support and assistance (past 12 months) in 2011

Received support from	Extreme poor (%)	Poor (%)	Non poor (%)
Food support	0.6	0.4	0
Animal husbandry package	0.1	0.1	0
Agricultural inputs	0.9	1.5	0.7
Glass of milk	1.0	1.4	1.2
Glass of atol	15.5	16.0	8.8
School meal (breakfast, snack)	4.6	5.4	3.2
School transport bonus	0	0.1	0.2
Scholarships	0.3	0.3	0.4
Solidarity school package	15.8	16.2	8.7
Health program	2.2	1.6	0.9
“Mi familia progresada” program	8.0	7.1	2.5
Solidarity bag	0.2	1.2	3.6
Older adult program	0.1	0.3	0.7

Source: Own calculations using survey data (ENCOVI 2011)

According to Colleta and Cullen (2000, p. 6), social capital refers to “systems that lead to or result from social and economic organization, such as worldviews, trust, reciprocity, informational and economic exchange, and informal and formal groups and associations”. Social capital facilitates overall development, economic growth, and collective action. González Tablada (2005) differentiates between two main types of social capital: community social capital (between family, neighbors, acquaintances) and “bridge building” social capital (between groups, communities, associations, political parties, institutions).

Trust and civic responsibility are key to overall development. Trust in others is key for investment, savings, and long term contracts. Trust that the government maintains the law of order and promotes a positive investment and development environment is needed in order to motivate society to grow. Civic responsibility from the population is key for facilitating coexistence and for facilitating the government’s action (for instance, through due payment of taxes and respect of rules, González Tablada, 2005).

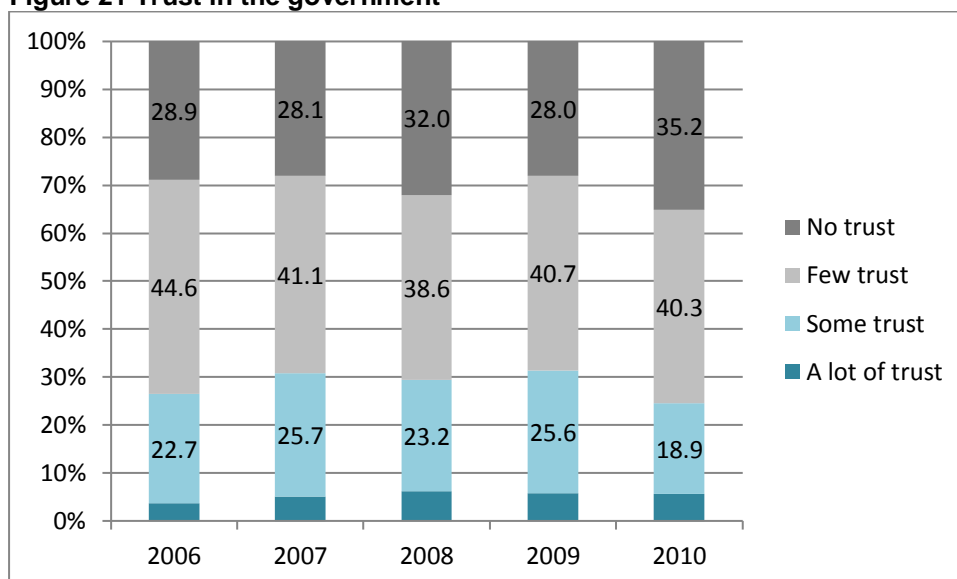
In contexts marked by conflict and violence, social capital tends to erode as social cohesion weakens. Furthermore, the presence of repressive and/or authoritarian states reduces the space for civic engagement and for network development (Colleta and Cullen, 2000).

Between 1960 and 1996 Guatemala went through internal armed conflict on which indigenous (Mayan) populations suffered disproportionately. While some communities experienced disappearance of persons, murders, massacres, and forced migration, others lived a less violent context. The army played a key repressive role and established permanent presence in many communities across the country. Among the conflict consequences were the lack of trust on others (particularly outsiders), the unwillingness to get too close to others (for instance, neighbors), and the fear to participate in any group related activity. Not surprisingly, social cohesion weakened as so did social capital (González Tablada, 2005).

In 1996 the Peace Agreements were signed, putting an end to the internal conflict. However, the situation of exclusion and inequality of the traditionally marginalized hasn’t improved much since then. Recent government administrations haven’t been able to fulfill all agreed issues. Further, they have faced a context of high violence, insecurity, political tensions and economic setbacks.

Respondents to the Latinobarómetro survey are regularly questioned on their trust for different institutions (government, private enterprises, church, the army, the congress/parliament, etc.). Between 2006 and 2010, about 70% of the population distrusted the government.

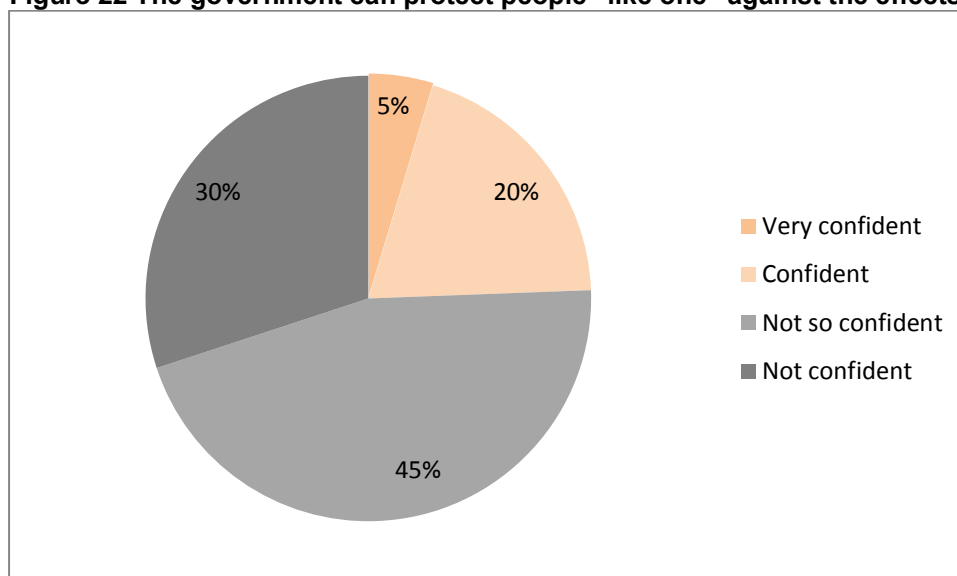
Figure 21 Trust in the government



Source: Own calculations using survey data (Latinobarómetro 2006-10)

In 2009, the Latinobarómetro survey asked respondents to value how confident were they that the government could protect persons like them, against the effects of a prolonged economic crisis. A broader majority (75%) were not so confident, or not confident at all, that the government could protect them from a prolonged economic crisis. Recalling from figure 7, 2009 was the year on which most Guatemalan persons assessed their household and personal economic situation as negative (regular to very bad).

Figure 22 The government can protect people “like one” against the effects of the crisis



Source: Own calculations using survey data (Latinobarómetro 2009)

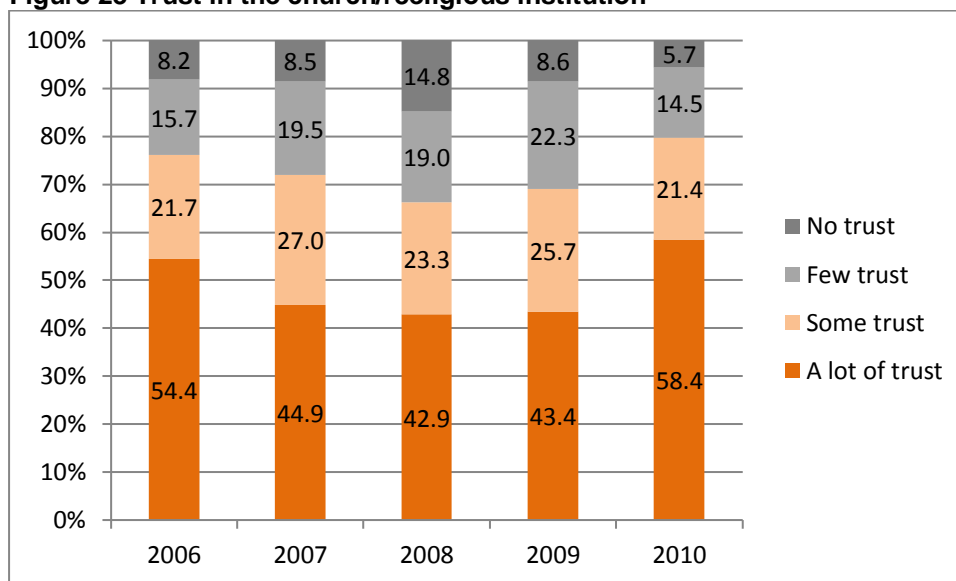
On the contrary, churches and religious institutions are seen in a more positive note. The qualitative research work pointed out the church as an institution that people trust and where help and support can be asked for. According to a qualitative research participant (urban male, 2013): “There are the Evangelic churches... There is the Catholic church and the Christian organization ASELSI... They

evangelize and look for sponsors and implement scholarships.... Here, there are many associations that provide help and there are people who have progressed because they teach jobs.” For some persons in the research communities, the development efforts of local organizations have brought up more concrete benefits to the local population than the large public programs. In addition, these local efforts are considered more transparent and better designed taking into account the local needs and interests.

These results support what previous research (González Tablada, 2005 after McIlwaine and Moser, 2001) has found on which recreational groups, religious groups, and rehabilitation groups (alcoholism, drugs) are the formal organizations or institutions which people in Guatemala trust at most. According to this same research, the army and the police are the institutions which people mistrust at most.

According to the Latinobarómetro data, people showed a high level of trust to the church/religious institutions in years previous and after the 2007-08 crisis (70% or more), but this trust was less in 2008 (about 65%).

Figure 23 Trust in the church/religious institution



Source: Own calculations using survey data (Latinobarómetro 2006-10)

Research on social capital in Guatemala suggests that communities having a higher level of “bridge building” social capital, are better able to connect to external institutions and through them, to gain access to resources needed for developing the community (basic services, health care, land titling). In the other hand, communities which do not build external relationships tend to have access to a lower level of external resources (including formal social protection) and rely more on the own resources (informal social support) for their development.

Participation in groups, organizations, or any other form of collective initiatives is a way to build up social capital. In one side, participation facilitates the creation of community networks and the expansion on the number of acquaintances locally which eventually may act as a safety net in the case of need. In the other side, organized groups act as bridge for building community relationships to the exterior and facilitates information exchange, access to resources (including credit), access to other formal institutions, representation, and collective action (González Tablada, 2005). Table 29 presents the degree of participation on groups/organizations by poverty status.

Table 29 Participation in groups/organizations

Participation in a group/organization	2006 (%)	2011 (%)
Total	23.7	10.8
Poverty status of participants		
Non poor	56.8	62.1
Moderately poor	32.7	31.3
Extreme poor	10.6	6.5

Source: Own calculations using survey data (Household surveys 2006 and 2011)

In both years, all participants participated in 1 group on average.

Consistent with previous research, the poor in Guatemala tend to participate less in groups or organizations. Further, their extent of participation decreased from 2006 to 2011, perhaps due to the prioritization of other most pressing needs for the day to day life. As an example, participants in the qualitative research indicated that the number of school festivals were reduced because parents could no longer afford the materials (including clothing) needed for the children to participate. With this, parents and children got less involved in collective activities within their communities.

As González Tablada (2005) suggests, this situation has 2 main implications, namely:

- a) The non-poor develop a broader net of contacts which facilitate them the access to employment, information, resources, and help, and are better able to advocate for their interests vis a vis other actors such as local authorities, government representatives, and other development organizations. This situation further promotes their welfare and development.
- b) The contact network of the poor has less power to influence other external actors in their behalf, and thus, they have less capacity for advocating their interests. Informal/community social capital is their major source of support.

Informal social support

Strong social capital is observed between individuals who belong to the same family or neighborhood/community, ethnic group, or religious group. The relationship between these individuals can act as a safety net in case of need (Colleta and Cullen, 2000).

For the purpose of this work, informal social support refers to support made by individuals or groups to other individuals or groups, based on their personal relationship. To this respect, the qualitative research findings indicated that people are acquiring more individualistic behaviors and the solidarity to the others is becoming less frequent.

In 2007, the Latinobarómetro survey asked respondents to report their experience with social solidarity. They were asked to identify, in a scale from 0 to 10, where zero indicates that “most of the people only cares for themselves” and 10 indicates that “most of the people try to help others” whether people try to help others.

The results show that a low proportion of respondents found the extremes (no help, most try to help) as unlikely. Rather, most of the respondents found the central part of the scale as the attitude reflecting their perceived situation. This might translate in people primarily focusing on the own needs, but also trying to help others if possible or if considered appropriate.

Figure 24 Informal social support



Source: Own calculations using survey data (Latinobarómetro 2007)

The statement of a qualitative research participant (urban male, 2013) show that in the study sites the focus on the own needs is becoming the standard: *“It might be that there are communities where people help each other. However, now our culture is “save yourself if you can”.... Solidarity is very limited. Now it is rather indifference”*. Considering the effects of the conflict on social capital formation mentioned above, these “individualistic behaviors” might represent a defense and/or survival mechanism acquired along the decades during conflict and economic hardship, rather than a lack of interest on the others.

As other participants indicated, it is the lack of resources (and employment) what prevents people from helping others. In this situation, the limited available resources are simply kept for ensuring the own needs at the present or future time. These few resources become the households’ main assets to face economic shocks and uncertainty.

Further research could explore the role of social capital in times of food price volatility and how can social capital be successfully reinstated in contexts hit by conflict and repressive regimes.

7 CONCLUSIONS

Mid to late 2000s were a difficult time in Guatemala. Natural disasters, social and political tensions, and the 2007-08 food price crisis complicated the already difficult life of many Guatemalans, particularly from those who lived in poverty and food insecurity. Increasing prices, coupled with decreasing incomes and increasing unemployment and informality, resulted in an increase on poverty which by 2011 reached 53.7%. In the same year, food insecurity reached 80%.

These figures suggest that the worsening of the overall situation as reported in the qualitative research might be also evident when analyzing the available survey data. Results obtained both from the ENCOVI surveys and the Latinobarómetro surveys tend to mirror the trend in decreasing well being reported by the qualitative research participants. The following section provides a deeper insight at this regard.

Do the quantitative results support the qualitative findings?

The overall results from the quantitative analyses show that the qualitative research findings might in fact hold for the wider population segment that lives in poverty. Looking specifically at the qualitative results outlined at the onset of the document, the general findings were the following:

- More than price volatility, people face increasing food prices.
- Prices for basic foods have increased in the past year (2012-2013). Products which are not seasonal, such as meat (beef, chicken, pig, fish), eggs, sugar, coffee, milk, oil, “incaparina” and noodles, increased price and this has not come down to initial levels. Cereals and tortillas (maize) have also increased price.

Rising food prices concerned about 80% of Guatemalans in 2008 according to the Latinobarómetro data. In the 2007-2010 period, up to 49% of Guatemalans ran out of money needed for buying food. By 2011, 76% of Guatemalan households were concerned about running out of food due to the inability to acquire more.

Excluding “normal” seasonal variation observed in the prices of agricultural products, the section on food prices and food expenditures showed that key food products for the Guatemalan diet increased their price dramatically during the 2007-08 crisis period. Taking into consideration press releases documenting changes in food prices, it can be observed that food price increases are still taking place. For instance, in September 2013 a 10% increase in the price of the basic food basket was registered with respect to September 2012¹⁹. More recently, increases in the price of several products of the food basket occurred in April 2014²⁰ and further increases were reported on tomatoes, tortillas, maize, cheese, and bread in the North and South East regions of Guatemala during September 2014²¹.

The factors behind these increases are manifold, however their impacts further affect the limited household budgets and the overall wellbeing of the population.

- Households implement several coping and adapting strategies in face of food high prices, such as reduced consumption (quantity eaten or number of meals), substitution of expensive items by native foods (local herbs and vegetables grown in the yard/ home garden), and consumption of items of reduced quality (purchase of bone instead of lean meat, purchase of lower quality items, purchase of “over ripe” products). Originally inadequate (not diverse) and insufficient food consumption is being reduced at even lower levels.

Household survey data on food consumption support qualitative research findings related to the diminishing amount and quality of food intake. The amount of calories consumed by Guatemalan households decreased, particularly for the lower income groups. By 2009, consumption of food products such as beef, chicken, beans, rice, sugar, milk, and Incaparina was reduced or eliminated from the regular diet of a large proportion of households. These items coincide with most of the food items frequently mentioned in the qualitative research as registering continuously increasing prices.

With an initial consumption (2006) below the recommended daily calorie intake, the poorest of the poor have further compromised their nutritional (and overall health) status by reducing the amount, variety, and quality of foods eaten. At the national level, the most common coping/adapting strategies implemented by households experiencing food insecurity in 2011 were: reducing dietary diversity and quality, and eating less than wanted. These strategies add information to what explored earlier in

¹⁹ http://www.prensalibre.com/economia/Precio-CBA-sube_0_990500946.html

²⁰ <http://www.agn.com.gt/index.php/infografias/item/14695-precios-de-cinco-productos-de-la-canasta-b%C3%A1sica-se-reducen-en-guatemala>

²¹ <http://www.elperiodico.com.gt/es/20140909/economia/1596/Ritmo-de-precios-aumenta-en-Alta-Verapaz-y-Jutiapa.htm>

2008-09, where eating less and suffering from hunger due to reduced consumption were the most frequent issues experienced by food insecure households.

Thus, the more recent qualitative research findings mirror the situations that have been experienced by food insecure households in 2008-09 (about 60%) and in 2011 (80%).

- The urban population is relatively speaking, better off than the rural population in terms of the type and quality of the diet. However, this population depends on purchased items contrary to a proportion of the rural population which still has the possibility to produce some of the foods eaten at home. Overall, the rural diet is considered more “natural” than the urban diet.

According to the food security assessment done through the application of the Latin America and the Caribbean Food Security Scale, urban households are in fact better off with respect to the rural households. By 2011, 26.8% of the urban households were considered as food secure, compared to only 10.6% of the rural households. By 2009, children malnutrition was considerable lower in the urban areas (34%) when compared to the rural areas (58%).

While calorie intake among the urban poor also decreased after the crisis, their level of intake was well above the level of intake of the rural poor. In face of increasing prices, the share of food expenditures from total household expenditures rose for both urban and rural households. However, in absolute terms, urban households devoted a lower proportion of their income to food, leaving aside resources for spending in other basic needs.

Due to the lack of detailed food consumption data for 2011 it is not possible to assess the “naturalness” of the rural diet, nor the weight that own food production has on overall food availability. However, it has been reported that already in the early 2000s, Guatemala was undergoing the “nutrition transition” on which traditional diets are replaced by processed products and foods high in fats and sugars. In current times, it is possible that this process has further advanced and it might be evident also in rural locations, based upon local availability of such products. As research on food consumption of school age children showed, by 2005 children of both low and high socioeconomic status have a diet high on fats and cholesterol, and food products such as hot dogs and pizza were commonly consumed. Thus, it is to be expected that the dietary transition is also observable in rural areas.

- In general terms, food consumption patterns are changing not only due to food price increases, but also due to other factors affecting the overall country food situation, such as extreme weather events, armed conflict, increased prices in non-food items (fuel, gas, production inputs), and degradation of natural resources.

In addition to changing preferences (commented above), erratic rainfall patterns, recent droughts and other natural disasters (storms, hurricanes) have had major impact on different factors associated to food security such as food production and local availability of food, food distribution, access to food, and food utilization. For instance, the 2009 drought occurred in eastern Guatemala resulted in loss of crops and the loss of the livelihoods of thousands of families, who saw their food security severely affected. As documented earlier in this document, the drought had fatal consequences particularly for children (nutrition).

On the other side, other aspects such as trade liberalization and free trade agreements have increased the availability of certain food products, making them more accessible (in terms of price and accessibility) for the population. That is the case of chicken meats, some grains, dairy products, and processed foods. According to the literature, consumption of these products has raised consequently.

Hence, several and diverse factors are driving dietary changes in Guatemala. Further research could explore how food consumption changes with respect to particular changes in the country situation. This could support the development of initiatives that aim to prevent consumption to fall into paths

which are not conducive to nutrition security and to positive health outcomes, both from the insufficiency and the inadequacy (poor dietary choices) perspectives.

- Income levels are insufficient for covering basic needs, pushing more household members to engage on multiple income generating activities. Especially vulnerable are households formed by elderly persons, single mothers, large families, or households with sick household members. In times of crisis, women's situation hardens due to the difficulties of managing household limited resources and duties/chores, and the need to engage on income generating activities.

The qualitative research showed that people in the studied communities report hardship and a worsening in their economic situation year after year. The Latinobarómetro survey data clearly shows that this sentiment holds for about 90% of Guatemalans, who neither consider their economic situation, nor the country's economic situation as favorable. Rather, year after year more persons perceive the situation to be bad or very bad and face difficulties for covering their basic expenditures, including food. This situation holds for the elderly as well as for other vulnerable groups, particularly between 2006 and 2009. According to the ENCOVI data, for 60% of the households the economic situation in 2011 was worse than in 2006.

In spite of this increasing economic pressure, the quantitative analyses do not confirm an increase in the proportion of persons engaging in multiple occupations between 2006 and 2011, being this proportion about 18% in both years. In the same line, the nature of secondary occupations was similar in both years with non-skilled employment, agriculture, and services and commerce being the employment categories most frequently cited by the survey respondents.

- Employment opportunities are limited for both young and older persons, irrespective of educational achievements, especially in the rural areas. Tourism, once a very important income source has diminished due to rising levels of violence, insecurity, and conflict. This situation has compromised the livelihoods of many urban and rural families.

Consistent with the perceptions expressed by the qualitative research participants, official data shows an increase on unemployment between 2004 (3.3%) and 2011 (4.1%), with a reduction to pre-crisis levels by 2012. While unemployment for adults over 25 years of age also increased along the 2004-2011 period, its level was considerable lower (less than 3%) when compared to youth unemployment (higher than 5.8%).

Quantitative results showing occupation category by educational achievement confirm the qualitative research findings on which the more educated youth (ages 18-30) and older adults (ages 31-60) are facing difficulties to find quality employment. For instance, both in 2006 and 2011 the main occupation categories of the youth were non-skilled labor, industry/manufacture, and services and commerce. As indicated earlier in this document, these employment categories are often associated with low wages, informality, and lack of formal social benefits (and labor rights). By 2011, the proportion of workers engaged in these occupation categories having a higher educational status (diversified and superior educational achievement) rose with respect to the 2006 levels, suggesting that in fact, higher educational achievement has not been a guarantee for accessing better quality employment. A similar situation is observed for older adults.

Support to employment, and quality of employment, is highly needed in Guatemala, particularly for the youth who face greater challenges to find employment. Improved income prospects will certainly have a positive impact on households' access to food.

With respect to tourism, while the survey data does not allow exploring the performance of the sector nor its relationship with insecurity or other factors, the literature does indicate that for the Central American region, its dynamism decreased as consequence of the global economic crisis.

While tourism is still a growing sector, the focus of its development in the last decade has been the exploitation of beaches and coastal areas, predominantly by transnational chains. This geographic bias has certainly affected the touristic development of other areas of the country and the growth of national-led tourism, such as the one found in the area where the qualitative research takes place. In addition, it has been reported that insecurity (violence, theft) does affect the touristic inflow in popular destinations. For instance, by the end of 2014 countries such as United States, Australia, United Kingdom, and France had issued warning alerts for travelers going to Guatemala due to risks to security (La Hora, 2014). In this sense, it is likely that tourism has decreased in the area, affecting the livelihoods of the population engaged in this sector.

- Agriculture is not an option (present or in future perspective) for achieving family's well being and socioeconomic progress.

By 2006, 6.1% of the persons aged 18-30 who engaged in an economic activity worked in agriculture. This proportion rose slightly by 2011, when 6.7% of the working youth was dedicated to this activity. In the rural areas, the corresponding proportions were 11.4% for 2006 and 12.2% for 2011.

While in absolute terms it appears that agriculture is still a preferred option for the youth, the analysis of occupation by educational achievement showed that among those dedicated to agriculture, the proportion of illiterate young persons or young persons with lower educational achievement decreased by 2011. The proportion of more educated young persons involved in agriculture increased.

These results suggest, that in one side, the low-skilled youth formerly engaged in agriculture is now searching for opportunities in other economic sectors and is engaging in other activities (such as unskilled labor) outside the agricultural sector. In the other side, the results also reflect the difficulty for the better educated youth to find employment that matches their interests and qualifications. In face of limited employment opportunities (as has been already documented), these more educated rural youth might need to engage in any type of occupation with the objective of generating an income that can be used to complement the limited household income. For the rural areas, agriculture is one of the most evident and immediate occupation alternatives.

The perspectives shared by the qualitative research participants (parents and youth) is that agricultural production, as known and typically carried out in the area, doesn't provide the stability and level of income needed for achieving a desirable economic status and family progress. For the youth, the engagement in agriculture is seen as contradictory to their desired lifestyle and as a physically demanding occupation, with low returns to their efforts. For many, agriculture represents the last desirable alternative or the last available alternative when any other option fails.

- Migration is a frequent alternative for searching employment and better income prospects.

Based on the survey data, migration decreased between 2006 and 2011. In the 5 year period between the surveys, a lower proportion of persons changed their place of residence. For those who did, family reasons were the main motivation behind the move in both survey years, followed by employment. In 2011, employment motivations increased with respect to 2006 level.

These results cannot confirm the frequent (or increased) migration reported in the qualitative results, however, they do show that for those who migrated, employment motives were more important after the crisis as reasons behind migration than what they were back in 2006.

- Formal education for children and the youth is highly valued. Families prioritize children's education over other basic needs when the household's economic situation is still bearable. When not, children and youngsters join the labor force in order to contribute to the household income.

Child work is common in Guatemala, particularly in the rural areas and as a way of supporting family economic activities and income. Nonetheless, after the crisis, the proportion of children working dropped in about 5 percentage points. Moreover, the proportion of children who worked and attended school increased by 2011. This suggests that households are supporting children's permanence in school during times of crisis, even in the case where they have to contribute to the family income.

- Access to formal social protection is limited and this mainly relates to conditional cash transfers to school children and the school meal/breakfast. Several criticisms exist with respect to the selection of beneficiaries, the adequacy of the support, and the changes implemented due to the government change (new administration).

Data on social public spending clearly shows that most of the resources available are directed towards education and that spending in social security is low. In addition, as informed by the qualitative research, spending on education usually takes the form of cash transfers, scholarships, and support for school materials.

While several social assistance programs were being implemented at the onset of the crisis and the beginning of the new (presidential) administration, the measures implemented to support the population during the time of crisis didn't appear to have changed much in their nature compared with regular assistance programs being implemented before then. Nonetheless, by 2011 a larger proportion of the population had access to government based social protection, when compared to the corresponding figure in 2006. It will be important to assess whether the type of social protection offered during the time of crisis, in fact helped households to secure a healthy food consumption and to maintain an adequate nutritional status. This is in light of the increased prevalence of anemia registered between 2002 and 2009.

With respect to the adequate selection of beneficiaries of social programs, the survey data reveals that in fact, the poor (extreme poor and poor) benefited more, in proportional terms, from social assistance programs than the non-poor in both survey years. However, still the survey data shows that a proportion of non-poor persons receive social benefits in all programs analyzed.

- Social solidarity and informal social protection is diminishing from earlier times as people do not have the resources for helping others, there is a need to ensure the own well being before being able to help others, and there is an increased perception of the individual/family responsibility for the own well being. Nonetheless, religious institutions and other organizations (NGOs) provide some highly valued support.

Informal social protection is scarce and is further constrained by the limited own resources and the lack of strong social relationships with others in and outside the communities. ENCOVI data showed that the poor participate less in organized initiatives (groups, associations, etc.) than the non poor, which in consequence, prevents them from developing a broader social network and for advocating for their interests and needs. In addition, Latinobarómetro data showed that the perception of social solidarity is in a mid level, meaning that while people do not fully focus on the self, people do not always try to help others either.

Further research could explore ways to enhance and support the development of social relationships in a context of lack of trust on others (due to recent history, high insecurity and violence) and a growing culture of individualism.

In light of the results obtained, it is crucial that the Guatemalan state reviews and reorients its efforts to protect the population from the recurrent price changes in a way that ensures long term development and food and nutrition security.

Additional insights from the quantitative approach

The limitations of the ENCOVI survey data, namely its availability only for 2 years (2006 and 2011) and the lack of food consumption data for 2011 didn't allow a full comparison of the situation in both survey years. Being 2011 relatively far from the 2007-08 crisis, it is expected that by 2011 households have partially recovered from the price shocks, or have adapted by changing their consumption patterns.

Nonetheless, even with this limitation, the quantitative analyses show an overall hardening on the living conditions between 2006 and 2011. The Latinobarómetro data, collected annually, has been particularly useful for monitoring annual changes in a variety of well being related information. This data clearly showed a worsening of the situation between 2007 and 2009 and a slight recovery by 2010 (as documented in the literature), for many of the variables under analysis.

With respect to the measurement of food security, the possibility of constructing estimates on the per capita calorie availability, or on the reported experience of food insecurity as measured by the Latin American and Caribbean Food Insecurity Scale has facilitated comparisons across households and locations (urban/rural). Both indicators explore different aspects related to food insecurity and thus, are valuable pieces of information within a broader food security analysis.

When taken in isolation, these indicators certainly miss to capture other aspects associated with consumption, preferences, and coping and adapting strategies needed to fully understand the food security situation of a population.

Being the indicator on per capita availability of food (calorie availability) a key indicator in food security assessments, it is important to highlight a shortcoming which was relevant for this work: the indicator does not facilitate the incorporation of food quality aspects into its calculation. Participants in the qualitative research frequently indicated that the adjustment of dietary choices towards products of lower quality is a common practice in some areas. That is, for example, households purchasing old potatoes instead of purchasing fresh potatoes.

This qualitative trade-off cannot be easily incorporated in calorie estimates. While perhaps the macronutrient composition of the specific food products might not vary much between the low quality and the high quality options, their social value and acceptability do differ and this is important for the households perception of their well being. In line with this, the survey data on food consumption does not record either the perceived quality on the different food products purchased or obtained. Any efforts of improving quantitative measurements and data collection in this direction will be of great use for food security related initiatives which seek to address not only the sufficiency (calorie) aspect of food, but also the qualitative and social acceptability aspects of foods acquired. Further research could also explore how these factors interplay for generating a given food security and nutritional status.

Lessons learned from complementing research approaches

The use of both qualitative and quantitative research approaches for studying how life is affected in face of food price volatility has certainly shed some deeper insights on the impacts of price volatility on the well being of the poor and the population as a whole.

While the survey data stems from years previous to the qualitative data, which might pose certain limitations for direct comparisons, its findings are still relevant for it. The survey data was collected a year prior to the onset of the 2007-08 food crisis and two years after it. The qualitative data was collected only starting 2012. Nonetheless, the recurrence of food price spikes and production crises after 2011 has exposed households to a constant situation of price movements (most of the times with

upward trends) all along the period and until these days. Thus, in spite of not focusing in the same time periods, both data sources capture recent exposures to food price movements and the consequent effects on households.

Being the survey data collected for other specific purposes, it was clear that not all the information needed for triangulation would be available. Thus, the process of complementing quantitative analyses with other information available from the literature helped to cover the gaps between both pieces of information and to gain a broader picture of the situation.

Ideally both research approaches would feed into each other when conducting research. In this case, the quantitative research took place two years after initiated the qualitative work, so there wasn't a real possibility of feeding into this work at that stage. With its final year upcoming, the qualitative research can now incorporate elements identified in the quantitative analyses and seek deeper understanding of the dynamics and processes behind those results.

REFERENCES

- Asfaw, A. (2007) Supermarket purchases and the dietary patterns of households in Guatemala. *Discussion Paper No. 00696*, Food Consumption and Nutrition Division, Washington DC: IFPRI
- Barrientos, A. and Hinojosa-Valencia, L. (2009) A review of social protection in Latin America, Centre for Social Protection, Brighton: IDS
- Bermudez, O.I., Toher, C., Montenegro-Bethancourt, G., Vossenaar, M., Mathias, P., Doak, C., and Solomons, N.W. (2010) Dietary intakes and food sources of fat and fatty acids in Guatemalan schoolchildren: A cross-sectional study, *Nutrition Journal*, 9: 20
- BID and INSP (2011) External evaluation of the impact of the Conditional cash transfer program “Mi familia progresa” in Guatemala, Executive summary, Mexico: INSP
- Bureau of Diplomatic Security (2013) *Guatemala 2013 Crime and Safety Report*, Washington DC: United States Department of State / OSAC
- Cañada, E. (2010) Turismo en Centroamérica, Nuevo escenario de conflicto social. Informes en contraste. Turismo Responsable, 01. Alba Sud y Fundación PRISMA
- CEPAL (2010) Internal migration. Latin America and the Caribbean Demographic Observatory. Year IV, No. 10, October 2010.
- CEPAL (2012) Estudio económico de América Latina y el Caribe. Las políticas ante las adversidades de la economía internacional, Santiago, Chile
- Chaparro, Camila (2012) Inseguridad alimentaria en el hogar y situación nutricional de las mujeres en edad reproductiva y de los niños menores de 5 años en cinco departamentos del altiplano occidental de Guatemala: Análisis de los datos de la Encuesta Nacional de Salud Materno Infantil del 2008-2009 en Guatemala, FHI 360/ FANTA.
- Colleta, N.J. and Cullen, M.L. (2000) Violent conflict and the transformation of social capital. Lessons from Cambodia, Rwanda, Guatemala, and Somalia, Washington DC: World Bank
- ECLAC (2010) Economic survey of Latin America and the Caribbean 2009-10, The distributive impact of public policies, Santiago, Chile
- Erbsen de Maldonado, K. and Barahona M., M.A. 2010. Guatemala: Danzando con las crisis económica y política. *Revista de Ciencia Política*, Vol. 30, No. 2, 335 – 360.
- FAO (2004) The state of food insecurity in the world. Monitoring progress towards the World Food Summit and Millennium Development Goals. Rome.
- FAO/PESA (2009) Guatemala en crisis alimentaria.
http://www.pesacentroamerica.org/Guatemala/noticias/especial_guatemala.php
- González Tablada, C. 2005. El capital social y la pobreza en Guatemala. *Revista ASIES*, No. 1. 47 p.
<http://www.ine.gob.bo/indice/visualizador.aspx?ah=PC02020104.HTM>
- Iannotti, L. and Robles, M. (2011) Negative impact on calorie intake associated with the 2006-08 food price crisis in Latin America, *Food and Nutrition Bulletin*, 32.2: 112 – 123

Iannotti, L.L., Robles, M., Pachón, H. and Chiarella, C. (2012) Food prices and poverty negatively affect micronutrient intakes in Guatemala, *Journal of Nutrition*, 142.8: 1568 – 1576

IFAD (2012) Enabling poor rural people to overcome poverty in Guatemala, Rome: IFAD

ILO, UNICEF and World Bank (2003) Understanding children's work in Guatemala, Guatemala.

INE (2002) Encuesta Nacional de Condiciones de Vida ENCOVI 2000. Perfil de la pobreza en Guatemala, Guatemala

INE (2005) Encuesta Nacional de Empleo e Ingresos 2004. Principales resultados, Guatemala.

INE (2012) ENCOVI 2011, Encuesta Nacional de Condiciones de Vida, Presentación de Resultados. Instituto Nacional de Estadística, Guatemala.

INE (2013) Caracterización estadística. República de Guatemala 2012. Instituto Nacional de Estadística

INE (2013) Encuesta Nacional de Empleo e Ingresos ENEI 1-2013, Guatemala

INE (2013) Informe nacional sobre trabajo infantil en Guatemala De la Encuesta Nacional de Condiciones de Vida, ENCOVI 2011.

INE (2014) Consumer Price Index by year and month (Base 2007), Serie 1967-2013,

INE (2014) Indicadores de ingreso mensual, Guatemala

<http://www.ine.gob.gt/index.php/estadisticas/tema-indicadores>

KAS and laRED (2010) Crisis financiera mundial: Su impacto económico y social en Centroamérica. Konrad Adenauer Stiftung, Red Centroamericana de Centros de Pensamiento e Incidencia, Guatemala.

KAS and laRED (2011) Seguridad y crimen organizado transnacional, Una propuesta de acción para Centroamérica. Konrad Adenauer Stiftung, Red Centroamericana de Centros de Pensamiento e Incidencia, Guatemala

La Hora, 2014. Antigua Guatemala, una joya turística afectada por la inseguridad. Article by Alejandro Castillo. <http://lahora.gt/antigua-guatemala-una-joya-turistica-afectada-por-la-inseguridad/>

Maluccio, J., Carletto, C. and Stewart, M.F. (2014) 'Migration, the financial crisis, and child growth in rural Guatemala' (DRAFT), World Bank

Martinez Franzoni, J. (2013) Sistemas de protección social en América Latina y el Caribe: Guatemala, Documento de proyecto, CEPAL

MIDES, SEGEPLAN and CONJUVE (2012) Política nacional de juventud 2012 – 2010, Guatemala.

Ministry of Labor and Social Prevision (2014) 'History of minimum wage',

<http://www.mintrabajo.gob.gt/index.php/salariominimo.html>

MSPAS (2010) Encuesta Nacional de Salud Materno Infantil 2008 (ENSMI-2008/09). Ministerio de Salud Pública y Asistencia Social (MSPAS)/Instituto Nacional de Estadística (INE)/Centros de Control y Prevención de Enfermedades (CDC), Guatemala.

OIM (2013) Perfil Migratorio de Guatemala 2012, Guatemala.

Papademetriou, D.G. and Terrazas, A. (2009) Immigrants and the current economic crisis: Research evidence, policy challenges, and implications. Migration Policy Institute. Washington DC.

PMA (2008) Alza de precios, mercados e inseguridad alimentaria y nutricional el Centroamérica: Capítulo Guatemala, Guatemala

PMA and SESAN (2012) VAM 2012. Mapeo y análisis de la desnutrición crónica en Guatemala. Herramientas para la focalización de intervenciones del Pacto Hambre Cero, Guatemala.

PNUD (2014) Sinopsis del desarrollo humano en Guatemala, Guatemala.

Rivera, J. A., Barquera, S., González-Cossío, T. Olaiz, G. And Sepúlveda, J. (2004) Nutrition transition in Mexico and in other Latin American countries, *Nutrition Reviews*, 62.7: s149-s157

Thow, A. M. and Hawkes, C. (2009) The implications of trade liberalization for diet and health: a case study from Central America, *Globalization and Health*, 5:5.

Uauy, R., Albala, C. and Kain, J. (2001) Obesity trends in Latin America: Transiting from under- to overweight, *Journal of Nutrition*, Vol. 131, 893S – 899S

UNICEF (2008) Situación de la primera infancia en Guatemala, Primera edición, Guatemala.

Warner, K., Afifi, T., Henry, K., Rawe, T., Smith, C., and De Sherbinin, A. (2012) Where the rain falls: climate change, food and livelihood security, and migration. An 8-country study to understand rainfall, food security and human mobility, Global Policy Report, CARE and United Nations University.

WHO (2010) Mental health and development: targeting people with mental health conditions as a vulnerable group, Geneva: World Health Organization

World Bank (2011) Crimen y violencia en Centroamérica. Un desafío para el desarrollo. Departamentos de Desarrollo Sostenible y Reducción de la Pobreza y Gestión Económica. Región de América Latina y el Caribe, Washinhton DC: World Bank

World Bank (2014) Guatemala Panorama General
<http://www.bancomundial.org/es/country/guatemala/overview>

World Bank (2014b) Guatemala Economic DNA, Harnessing Growth, First Edition

ANNEX: DESCRIPTIVE STATISTICS

Year	Statistic	N	Mean		Std. Deviation
		Statistic	Statistic	Std. Error	Statistic
2006	Household monthly food expenditures	2615200	1179.6904	.42936	694.33892
	Per capita monthly food expenditures	2615200	273.3663	.10316	166.83347
	Per capita monthly expenditures in...				
	Cereals	2615200	84.1114	.03000	48.51064
	Roots, tubers and plantains	2615200	6.9268	.00397	6.42395
	Pulses, legumes, nuts and seeds	2615200	8.6362	.00445	7.19090
	Vegetables	2615200	21.0824	.01012	16.35937
	Fruits	2615200	17.1364	.01281	20.71940
	Meats	2615200	50.5612	.02709	43.81036
	Fish and sea food	2615200	5.4972	.00844	13.64647
	Milk and dairy products	2615200	18.6865	.01579	25.53156
	Eggs	2615200	8.4001	.00460	7.44576
	Oils and fats	2615200	5.1965	.00371	5.99665
	Per capita daily calorie availability, total	2653000	2540.8169	.72517	1181.16604
	Per capita daily calorie deficit on calorie insufficient households	1130655	656.5778	.45224	480.87984
	Per capita daily calorie availability in...				
	Cereals	2615200	1656.8953	.60122	972.26723
	Roots, tubers and plantains	2615200	47.9951	.02899	46.88306
	Pulses, legumes, nuts and seeds	2615200	116.0963	.05958	96.34869
	Vegetables	2615200	34.7579	.01644	26.58540
	Fruits	2615200	58.3313	.03617	58.49203
	Meats	2615200	105.0144	.05331	86.21680
	Fish and sea food	2615200	7.3816	.01018	16.46137
	Milk and dairy products	2615200	69.6124	.05519	89.25342
	Eggs	2615200	35.8556	.01893	30.61082
	Oils and fats	2615200	104.4479	.07217	116.71798
	Per capita monthly food availability (grams) in...*				
	Sweet bread	2345211	3310.3159	2.01960	3092.83222
	Bread (French)	1767805	2998.5832	2.09804	2789.52621
	Maize tortillas	1850152	12271.3085	6.12196	8327.10652
	Rice	2095379	804.4826	.38705	560.26600
	Maize	598435	10999.3136	9.09245	7033.79058
	Noodles	1888831	511.0443	.25159	345.77071
Potatoes	2199425	994.8053	.47018	697.29656	
Beans	2218549	1191.0804	.54354	809.58914	
Chicken meat	2196254	965.3943	.47606	705.50253	
Eggs	2210805	957.5978	.45349	674.28355	
Tomatoes	2442930	1009.1968	.44117	689.54384	
Onions	2207853	435.7823	.20019	297.46403	
Carrots	1595681	777.2038	.54972	694.40225	
Güisquil	1630030	762.1378	.44590	569.29461	
Lemon	1778024	591.7567	.42183	562.47963	
Bananas	1554717	1467.1779	1.01042	1259.87487	
Oil	1540613	495.3134	.27553	341.99785	
Milk	729626	2693.0623	3.88423	3317.83401	
Sugar	2123442	2137.6520	.86319	1257.83694	

*Average values based only on those cases reporting consumption of the specific item

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