FOOD SECURITY AND VULNERABILITY IN SELECTED TOWNS OF AMHARA AND AFAR REGIONS, ETHIOPIA

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**Food Security and Vulnerability in Selected Towns of Amhara and Afar Regions**  2
Executive Summary

Amhara and Afar regions are two of the nine Regional States of Ethiopia. The Amhara region, formerly known as Region 3, has an estimated population of over 17.214 million, of which about 12.3% was urban population (CSA census report, 2007). More than 37% of the total population is living in absolute poverty (earning less than a dollar a day), which makes the region’s food security situation more precarious compared to the national average (44.4%). The Afar region has a total population of 1,411,092, consisting of 786,338 men and 624,754 women (CSA census report, 2007); urban inhabitants number 188,723 or 13.4% of the population. As was the case throughout the country, the inflation that started increasing in 2005 has resulted in increased food insecurity in urban areas of these regions. The prices of cereals have increased by more than 100% since mid 2005 when the country faced a spiral of price increases. The ‘new emergency’ facing the urban poor as a result of the rapid food price increase has resulted in the Government initiating an urban grain market stabilization program in 2007. The program started initially in Addis Ababa and was expanded to cover 12 urban centers. Since April 2007, the Government has sold over 420,000 MT of wheat to urban consumers at a subsidized price. The Government continued with the program in 2008 and 2009 with further grain imports.

The Government also took some fiscal and monetary measures in 2008 by lifting certain taxes from food commodities (especially oil), as well as curbing the excess supply of money. With further increases in cereal, pulses and oil prices expected as a result of the general global price increases and reduced production from climate changes, it is becoming ever more important to understand and monitor people's vulnerability to these changing circumstances. As shocks and hazards affecting urban food insecurity may ultimately lead to famine in the extreme, urban areas become prone to social unrest, as highlighted by food riots and unrest in some countries. Therefore understanding the drivers of urban food insecurity and recommending sustainable interventions is of paramount importance. In order to effectively support efforts and initiatives being made, the Government, WFP and partners embarked on this study aiming at collecting useful information on the effects of the soaring food prices on the urban populations and identify potential areas for intervention.

Objectives of the study

The purpose of this study is to generate food security and vulnerability information to help policy and decision makers to design and implement programs that contribute to the reduction of urban food insecurity and vulnerability. The specific objectives of the study include:

- To identify food security and livelihood problems, constraints, strategies and coping mechanisms among different social and economic groups in the selected major towns of Amhara and Afar regions.
- To do an in-depth analysis of major factors to food and livelihood security in selected towns of Amhara and Afar regions in order to inform policy makers and program design as well as potential areas of interventions.
- To establish baseline data on urban vulnerability and lay foundation for developing a practical monitoring system that provides an early indication of food insecurity and livelihoods vulnerability.
- To assess the impact of Government initiatives with regard to cereal price stabilization program and identify gaps and problems encountered.
Key Findings

Asset Holdings and Livelihood Groups: Overall 38% of households in Logiya (in Afar), 36% in Bahir Dar, 27% in Gondar were ‘asset poor’ (less than four types of assets). Another, 51% of households in Logiya, 41% in Bahir Dar, 47% in Dessie and 44% in Gondar were ‘asset medium’ (four to nine types of assets). Only 10% of households in Logiya, 23% in Bahir Dar, 15% in Dessie and 29% in Gondar were ‘asset rich’ (more than 10 types of assets). According to perceptions of interviewed people, while small business/self-employment and government salary/wages were still the main livelihood activities for most urban households in the 3 towns, in Bahir Dar there were more households classified as non-agricultural wage labourer (17%), remittance, gift or assistance dependents (13%), and farmers (4%). In Dessie, (49%) of households were small businessmen/self-employed or government salaried compared to Bahir Dar and Gondar (43% and 40%, respectively). There were significantly more petty traders in Dessie and Gondar (8%) compared to Bahir Dar (3%) and percentage of households getting income from house rental, pension or allowances was the highest in Gondar (26%) compared to the other 2 towns studied in the Amhara region.

Income: The mean monthly income was Birr 186 per person among the asset poor households (median 133 Birr/month/person); 274 Birr/month/person among asset medium (median 180 Birr/month/person); and 409 Birr/month/person among asset rich (median 286 Birr/month/person). Comparing towns, mean income per capita per month varied between Birr 226 in Dessie and Birr 469 in Logiya while Bahir Dar and Gondar fall in the middle with mean income per capita per month of Birr 252 and 293, respectively. On average, almost 38% of households reported that they experienced a decrease in their income from January 2008. About half of the sample reported no change in their income level and about 12% only reported an increase of income during the past year. Asset poor were more likely to report a decrease in their income compared to asset medium or asset rich households (49% versus 34% and 26%, respectively). The livelihood groups that reported more significant decrease of their income in the past year were: non-agricultural wage labourers (53%), petty traders (51%) and small business/self employed households (47%).

Expenditure: The average monthly household expenditure was Birr 775 for the four surveyed towns of Amhara and Afar regions. The average monthly per capita expenditure for the study towns was Birr 185. It, however, varied across the urban areas with the lowest average expenditure per household of Birr 704 per month (Birr 155/capita) in Dessie and the highest expenditure of Birr 905 (Birr 249/capita) in Logiya. Expenditure for the remaining towns ranges from Birr 726 in Gondar (Birr 169/capita) to Birr 767 in Bahir Dar (Birr 166/capita). Expenditures among the asset poor households are the least, Birr 503 per month followed by the asset medium with Birr 875 per month, whilst the asset rich as expected have the highest total expenditure of Birr 1,334 per month. This indicates that the better the asset base the better the household expenditure level. Households with monthly average expenditures of less than Birr 300 is 17.6%, between Birr 300 to 600 is 29.7%, between Birr 601 to 1000 is 28% and more than Birr 1000 is 24.7%. The majority of households in Logiya (60.9%), Bahir Dar(52%) and Gondar (50.9%) spent more than Birr 600. On the other hand, 53.8% in Dessie spent less than Birr 600.

Markets: In general, price of grains increased on average by 15-30%; Injera by 12-25%; meat by 15-20%, and oil/sugar by 13-40%. Nearly 49% of the interviewed traders indicated the major reason for the increase in price was the increase in prices from sources of commodities; and only 4% indicated increase in transport costs as the main reason. With regard to the time period of
price increase, traders noticed price escalation at different times. About 47% indicated that price rise started one year back, 16.4% six month earlier, and 29% indicated more than a year before.

The quantity sold as proxy for trading activity indicates that compared to a previous year, sales dropped by 45% for grains, 44% for pulses, 41% for meat and 23% for vegetables, which is indicative of speculative trader behaviour. When outlying values are filtered out, results show that compared to a usual week the amount of grain sold decreased by about 20% between January and June 2008. Most traders (94.7%) indicated that there was a change in buyers’ behaviour. In this regard, there was shift from expensive to cheaper goods as well as decrease in amount purchased at a time. It was learned that sales dropped by between 40 and 50% for all commodities compared to last year, which is indicative of speculative trader behaviour. Supply of cereals to the market declined mainly due to reduction in harvest (16% of respondents), less food aid being sold (7%) and less stock holding by traders (17%).

**Food Security:** Households with poor asset base were eating, on average, oil/fats 6 days a week, sugar 4 days a week, pulses and vegetables once per week. Households classified as having borderline consumption were eating teff and oil on a daily basis, sugar 5 days a week, other cereals 4 days a week, pulses 3 days a week as well as potatoes (2 days), pasta or biscuits, vegetables and meat, fish or eggs (1 day). Acceptable consumption households were eating teff, sugar and oil almost every day of the week, and also consumed other cereals and pulses 4 days a week, meat, fish or eggs and potatoes 3 days a week, vegetables and dairy products 2 days a week, pasta or biscuits and fruit (1 day). Based on this analysis, 24.5% of households were classified as having poor food consumption; 41% having borderline consumption; and 34.5% being characterized by acceptable consumption. While considering variations by town, households classified as having poor consumption is highest in Gondar (47%) followed by Dessie (47%), Logiya (24%) and Bahir Dar (7%), in order. Moreover, asset poor households, as expected, had the highest percentage of households (48%) with poor consumption, while 30% of asset medium households and only 13% of asset rich households were found as having poor consumption level.

**Access to Social Services:** On average, school attendance for the year 2000 E.C. in the 4 towns was 50.7%. Dessie had the highest (52.7%) and Bahir Dar the lowest (47.5%). This shows that there is no significant difference in school attendance with in the four major towns. The percentage of ‘never enrolled’ in four towns was also insignificant. The percentage that did not attend school were highest in Bahir Dar at 49.1% and lowest in Logiya at 34.5%. The drop out rate was highest in Logiya (12.6%) and lowest in Bahir Dar (2.9%). The majority of community interviews indicated that school drop outs remaind the same in 2000 EC compared to the previous five years.

Out of those who did not enroll, dropped out of school, and were absent for four or more days per month, the main reasons were: 1.4% due to illness, 3.8% helping with household work, 8.3% had to work for food or money, 4.9% not interested in schooling, 6.3% indicated that school was expensive and had no money whilst all the remaining had such reasons as hunger, location of schools being far, absence of teachers, early marriages and pregnancy.

In terms of tenancy status, which is a good measure of economic welfare, 39.7% of households owned houses they were living in. The second largest group was lodgers with no written agreement (31%) followed by tenants with written agreements (23.5%). Both groups could be asked to vacate the houses, the former with out prior notice. The remaining households lived in family owned houses (2.4%), free hold (2.2%), employment related accommodation (0.4%), flats with a status of permit (0.4%) and others (0.3%). With in towns, tenure status of households reveal that the percentage of households owning or purchasing tenure was higher in Bahir Dar.
followed by Dessie (25.1%), Gondar (24.8%) and Logiya (19.7%). The same trend was revealed when we compared results across towns. Employment related accommodation was higher in Dessie (40%). Similarly, those households who had plots or permits was very high in Logiya (40%) as compared to the rest types of accommodations. In Bahir Dar, the majority of households reported staying in family owned houses (37.9%).

For those paying rent, they were asked to report about their debt status. Accordingly, out of the total households covered in four towns, 87.8% reported not being in debt. While the remaining 12.2% reported being in debt. Among those paying rentals for houses, about 10.7% reported being without arrears. For those who reported having arrears, Logiya town was found with about 50% that extended for a period of 2 to 3 months and Gondar (35.3%) for a period of 4 to 6 months and (52.9%) for more than 6 months. Hence, the majority of households had debt of more than 6 months.

The number of people per room indicated that the greatest level of crowding (more than three people per room) was in Bahir Dar with 55%, of whom 18% were more than four people per room: followed by Dessie (50%) and Gondar (36%). The least level of crowding was in Logiya with only 37% of households living with at least 4 people per room and 5% had more than four people per room. The quality of housing was such that the majority of households (72.1%) lived in backyard pole and mud houses under iron/roof tiles. While 10.2% lived in semi-detached brick houses with tile/iron roof and only 6.2% lived in detached brick houses with tile/iron roof, about 6.8% lived in private houses/huts mostly made of non-durable materials.

The majority of households in all four towns used piped water outside their houses. The second major source of water for households is communal tap (Bono). Those who reported to use piped water inside houses was about 18.5%. Very few or insignificant number of households reported using borehole/protected well, unprotected well, river, stream, pond and others as a source of water for drinking and sanitation. Bahir Dar town was relatively better in-terms of using piped water inside and outside houses (20.22%) than Dessie (17.45%), Gondar (16.35%) and Logiya (13.8%). Some 97.9% of households reported not treating their drinking water while 2.1% reported treating using different mechanisms. The majority of households reported treating water by boiling it (43.5%). Those who reported to use water guard and other mechanisms as a means for treating drinking water were 29.5% and 14.5%, respectively. Those who tried to clean their water using filtering methods were about 12.5%.

Although there were some differences in terms of types of toilet facilities across the four towns, the majority of households in all four towns (63-99%) used pit latrines (private or communal). The highest percentage of households who used either private or communal pit latrines was in Logiya (98.8%) and the lowest was found in Dessie (62.5%). About 24% and 30% of households in Bahir Dar and Dessie, respectively, were using flush toilets (private or shared).

Fuel wood and charcoal were the dominant sources of energy for cooking that were used by 63.5% and 30.1% of the survey households, respectively—both having 93.6% contribution to the total energy source of households. The remaining 6.4% of households were using different sources that included animal dung, kerosine and electricity. Although there was no major variation between towns in the Amhara region, the percentage share of wood and charcoal was reversed (wood contributes 37.1% and charcoal 60.4%). For all the study towns electricity was the most common source of lighting as responded by about 97% of the surveyed households. The rest of households had other sources of lighting that included wood, gas/kerosine and others.

About 93% of members of surveyed households reported to be in good health condition for the past year and only 7% were either ill for more than 3 months or less. Incidence of illness for more
than three months across households (chronic illness) ranged between 1.3% in Logiya and 4.2% in Bahir Dar. Illness of less than three months was highest in Logiya (7.2%) and lowest in Dessie (2.3%).

The type of diseases for those who had been ill varied across the towns. In Logiya the most common diseases were other illnesses (25%), chronic fever (14%), malaria, diarrhea, hypertension, TB and HIV/AIDS. In Bahir Dar, the most common diseases were other illnesses (23%), HIV/AIDS (16%) and eye problems (12.5%). In Dessie, the most common diseases were other illnesses (30%), HIV/AIDS (11%) and hypertension. In Gondar, the most common diseases were other diseases (14%), hypertension (13%) and HIV/AIDS (12.5%).

Households access to health services varied across towns; 25.5% of households were seeking treatment at referral hospitals, 17.5% from municipality clinics and 22.0% from private clinics. Only about 6.3% of the population did not seek health care in all the study towns. Very few households sought treatment from traditional/spiritual healers (5.4%) (Table 3.5). The main reason for those not seeking medical attention was lack of money (50% in Logiya; 62.5% in Bahir Dar; 60% in Dessie and 75% in Gondar).

Social Problems: Since food prices increased so high, people were affected nutritionally. Number of meals in a family was significantly reduced. Many shifted to less preferred and cheap foods, to less nutritious foods, meaning quality food was highly decreased. Although children were given priority for food, neither parents nor children had benefited much. It was a day-to-day phenomenon to forego meals and people were dissatisfied of their food. It had caused hunger and malnutrition.

Households took different means to overcome the food price increase. One way was for every family member to look for any casual work and earn some income for each day. But people were weak to do physical labor to required levels and work time. They could not make themselves productive since physical labor needs a lot of energy. Affected people were thin and no vitality in their faces. The selling of assets was widespread and simultaneously saving was much decreased.

Absenteeism and school dropouts were highly increased as students could not go to school in a situation where there is no available food at home. Instead, students would be forced to find out ways to get something to eat and family members also encouraged them to do so than to go to school. Some families sent their children to different relatives until things would get improved. However, in many instances, the long-lived tradition of helping each other had faded away since everybody was feeling poor and pessimist of the future. The good relationship and friendship between relatives, family members and neighbors had weakened drastically. In general the social cohesion had been observed to be loose.

Vulnerable Groups: Because of the food price increase, the very poor households were highly affected. Ill people, who are poor, although they are supposed to get extra treatment nutritionally, were victims of the situation. Unemployed people who had no means of income were clearly helpless, vulnerable and affected. Those living in rental houses were also affected as they also had to pay their house rents. Street children, beggars and the disabled poor were also very much affected as they had nobody to support them in a situation where everyone was challenged by the rising food prices. Civil servants with big family sizes but with low salary were also very much challenged. The low paid pensioners, daily laborers, and child headed households were also obviously affected. Roadside vendors were found no less affected. Women-headed poor households, sex workers, shoe shines, fuel wood sellers, guards, waiters in cafés, bars and hotels (as they are low salaried), poor pregnant and poor lactating mothers were the other vulnerable groups of people found most affected among the urban poor dwellers.
Coping Mechanisms: As coping mechanisms, relying on less expensive food was widespread among most households. The other common coping mechanism was to forego meals. Those who reported shocks in the previous 6 months were asked to explain how they managed the effect of those shocks. The most common coping strategies mentioned were:

- Relying on less preferred or less expensive foods (reported by 73% of respondents);
- Reducing number of meals per day (reported by 31%);
- Reducing the proportion of meal for all household members (25%);
- Purchasing food on credit (19%);
- Decreasing expenditure on cloths and non-food items (18%);
- Borrowing money (12%);
- Reducing adults’ meal so that children could eat (11%);
- Increasing working hours (11%).

Assistance Programs: Five different measures were taken by the Government to mitigate the situation. These were: (i) supplying subsidized food like wheat, maize, edible oil etc.; (ii) established consumers associations’ shops that would sell food items at a reduced price so that consumers would not be exposed to unfair traders’ exaggerated prices; (iii) mobilized finance, food and clothing to help the poor; (iv) improved access to credit for people who planned to use the money for a profit making business; and (v) controlling exporting grain to neighboring countries and lifting tax on essential food items.

However, people indicated some shortcomings on the Government side. There was no adequate supply of the subsidized wheat, maize, oil, etc. Even the supply was only to those who could buy but not to the very poor who could not afford to buy. Since the targeting for the sale of food was not given attention, traders managed to buy the subsidized food, got the time to hoard it for resale at a favorable time. This aggravated the food shortage. Other than this, credit facility accessed by farmers had made them hold their grain than rushing to the market to sell it. This made the market short of essential food grains which exposed urban dwellers for food price hike. Some responded that there was neither credit access nor food supply by the Government. This response was given, most probably, from those who had neither the asset to use as collateral for credit access nor the money to buy the subsidized food. Some NGOs were reported to extend free food assistance to help HIV/AIDS patients and orphans.

Future Expectations: Most people expected some thing worse to happen in the future. Theft, robbery and violence were what many expected. Price was anticipated to continue rising. The chance of people to face serious food shortage looked likely. Market instability was likely to persist in the future. People were so frustrated and doubted to have a meal per day and hunger to widely spread. However, some expected market situation to be stable provided that the Government tried to control the market and halt grain exports.

Conclusions
From the survey findings it can be concluded that:

- Food availability was negatively affected as a result of poor supply of food commodities, malfunctioning of markets, high transport costs, hoarding of grains by traders, and increased exports of food items that contributed to the shortage of commodities in markets.
- Food accessibility was also seriously impacted due to several factors that include:
  - Poor level of asset base for more than half of the surveyed households.
High poverty conditions of the majority of households that was found out for more than 80% of households as living with less than a dollar per day.

High level of expenditure on food by the majority of households (more than 55% of their income spent on food).

Below acceptable level of consumption by about one-third of the surveyed households.

Increased inflation on food commodities and other services that led households to have deteriorated purchasing power.

- Food utilization was also affected mainly due to the poor basic infrastructure and physical deterioration of basic services such as sources safe drinking water, sanitation, housing and health facilities.
- As a result of the deterioration of all the three pillars of food security some of the surveyed households were found to be highly food insecure.
- Significant proportion of households were also increasingly exposed to several risk factors that include high prices of food and non-food commodities and services, worsening food insecurity, preventable/ communicable diseases, family disintegration, and disruption of social support/networks.
- In order to minimize some of the risks, households were accustomed to use destructive consumption patterns as coping strategies that included skipping meals, reducing meal sizes, shifting to less expensive and less preferred food items, etc.
- As a result of high exposure to several risk factors and using damaging types of coping mechanisms, many households were found to be vulnerable. The study findings further indicated that the situation would not improve in a near future- in stead worsening condition was anticipated to continue unless appropriate measures would be taken.
- Although the Government tried to contain the multi-faceted problems of the population by distributing wheat at subsidized prices and lifting of taxes from food commodities, the level and type of assistance provided to the most affected households was found to be inadequate as compared to the magnitude and seriousness of the challenge.

**Recommendations**

- WFP together with the relevant Government bodies and other partners need to design a food aid package program and implement through appropriate intervention modalities that may include free food distributions, market support, school feeding, and food for work/asset in order to reduce problem of food insecurity and related vulnerability conditions of the most affected poor households.
- UNICEF in collaboration with relevant Government bodies and other partners need to improve and make operational the deteriorated basic services such as water, sanitation, health facilities, etc.
- A multi-agency and multi-sectoral task force should be established as soon as possible in order to address the multi-dimensional problems of the affected urban population and design a well coordinated urban food security and market monitoring system.
- In order to reduce the existing high level of poverty of the urban population, the Government together with its development partners should plan and implement a long-term and sustainable solutions and design welfare monitoring system.
1. Introduction

1.1. Background and Rationales

Ethiopia is presently the second most populous country in Africa, with a total population of about 74 million and growing with a rate of ~2.5% per annum (CSA, 2007). Only around 17% of the population lives in urban areas; this is a very low level of urbanization even by standards of sub-Saharan Africa. However, the rate of urbanization is quite high with an average growth rate of 4% per year. This growth rate will probably result in Ethiopia’s urban population to exceed 50 million by 2050\(^1\). Ethiopia has experienced a steady economic growth in the past a few years that have also coincided with years of consecutive good Meher (main season) harvest, with a real GDP growth rate of 11.9% in 2003/04, 10.5% in 2004/05, 9.6% in 2005/06 and 11.4% in 2006/07\(^2\). Economic growth highly depends on the performance of the agricultural sector that accounts for 47% of the national GDP followed by the service sector with 39% and industry with 14%. Agricultural production is highly vulnerable as it is dependent on rainfall. Only about 10% of the total cereal crop lands are irrigated, and yield variability at the regional level is one of the highest in the developing world: drought can shrink farm production by 90% from a climatically normal year. Despite the encouraging growth, general increase in inflation in recent years has been observed, which has been growing on average by 11.1% from December 2002 to December 2006\(^3\) and further increase to 33.6% in August 2008. Unless actions are taken to reduce the impact of soaring prices the economic gains are under a threat.

Food security and vulnerability assessments in Ethiopia, like in many developing countries, have traditionally focused on rural areas. Food insecurity levels in the rural areas grew from 2 million people in 1995 to about 14 million in 2008, of which 7.5 million is covered under the safety net program. As the population in urban areas has been on the increase and given the economic shocks, food insecurity in urban areas has become a major concern. A study by Abbi Kedir and Andrew Mackay in 2003 using 1994 to 1997 data estimated chronic poverty in urban areas at 25.9% and that 23% of households experienced transitory poverty. The 1999/2000 Household Income Consumption and Expenditure Survey (HICE) estimated that 37% of urban population was below a poverty line compared to 45% in rural areas. Poverty in urban areas is driven by unemployment, underemployment, lack of sanitation, increase in prices due to the general inflation (estimated at 33.6% in August 2008) that has contributed to the sharp increases in the cost of living, reduced inter-dependency amongst urban households, household composition, low asset ownership, lack of education, high dependency on the informal sector, HIV/AIDS (estimated at 7.7% prevalence in urban areas\(^4\)) and increased population pressure due to natural growth and rural urban migration.

The impact of inflation has been one key element that has resulted in increased food insecurity in urban areas. The prices of cereals have increased by more than 100% since mid 2005 when the country faced sharp price increases. Between 2002 and 2007, the food component of the national consumer price index (CPI) rose by 62.3% (over 15% inflation per annum). This is faster than the general CPI and significantly faster than non-food prices, suggesting that those involved in non-food sectors of the economy (predominantly the urban population) have become relatively poorer over the last five years. Whilst inflation is on the increase, wage rates have not kept pace with increase in inflation, for example, the least paid civil servants (custodial and manual services) salaries on average increased from Birr 200 in 2001 to Birr 320 in 2007, a 60% increase.

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\(^1\) CSA 1994 Census population figures and projections. The new national census, conducted in May 2007, will revise the urban population figures and growth rates.

\(^2\) Ministry of Finance and Economic Development; National Bank of Ethiopia

\(^3\) World Bank, 2006; Rashid et al., 2005

\(^4\) Ministry of Health, 2007

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Similarly professional and scientific services salaries increased from Birr 760 to Birr 1068 per month an increase of 40.5% for the same period, whilst the inflation was 93% and food 125% for the same period.

It is believed that the greatest impact of inflation is likely to prevail amongst both the urban and rural poor who are net buyers of food. In order to mitigate impacts of the high food prices, the Government assistance programs have been expanded to urban areas with an introduction of the urban grain market stabilization program in 2007. The Government sold to urban consumers over 120,000 MT of wheat between April 2007 and August 2008 at Birr 1.8/kg to the lowest administration level (the kebele). The program started initially in Addis Ababa and then expanded to cover 11 urban canters namely: Bahar Dar, Gondar, Dessie, Kombolcha, Mekele, Adigrat, Dire Dawa, Harar, Awassa, Nazareth and Jimma. The Government continued with the program from mid August 2008 in a different form and sold 150,000 MT of wheat to wholesalers, consumers, millers and traders at Birr 3.5 per kg on a first come first served basis, removing the coupons or ration cards system.

While the National Disaster Prevention and Preparedness Policy does not exclude assistance to urban areas, it provides no clear direction for the institutional disaster response mechanism in an urban context. As shocks and hazards affecting urban food security may ultimately lead to increased poverty and urban areas becoming prone to social unrest, as highlighted by the food riots and unrest in some countries such as Egypt, Ivory Coast, Indonesia, and Sierra Leone, understanding the drivers of urban food insecurity and recommending sustainable interventions is of paramount importance. Constructing a poverty assessment profile at the urban/town level helps to assess the causes, characteristics, and location of poverty within the urban areas and also provides a snapshot showing who are poor, where they live, their access to services, living standard, and others thereby contributing to the targeting of poverty measures.

The regional government of Amhara and Afar, recognizing the incidence and severity of poverty in urban areas planned to embark on urban food security and vulnerability assessment study with the cooperation of UN World Food Program (WFP) Ethiopia. Accordingly, three major towns from Amhara (Bahir Dar, Dessie and Gondar) and one from Afar (Logiya) were selected for the food security and vulnerability study, which is the subject of this report.

1.2. Objectives and Methodology

1.2.1. Objectives

The purpose of the assessment is to generate food security and vulnerability information to help policy and decision makers design and implement programs that contribute to the reduction of urban food insecurity and vulnerability. The specific objectives are:

- To identify food security and livelihoods problems, constraints, strategies and coping mechanisms among different social and economic groups in selected towns of Amhara and Afar regions.
- To define predisposing factors to food and livelihoods insecurity in the urban areas, and thereby inform policy makers and program design.
- To outline household food expenditure and food access patterns among different socioeconomic groups in the urban areas of Amhara and Afar regions.

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1 Ethiopia Economic Association, April 2008
To establish baseline data on urban vulnerability and lay foundation for developing a practical monitoring system that provides an early indication of food insecurity and livelihoods vulnerability.

- Examine linkages between food security, education, nutrition, health as well as social cohesion;
- Understand impacts of soaring food prices on food security and livelihoods;
- Identify appropriate food and non-food interventions and policy implications.

1.2.2. Methodology

**Sampling and coverage of the survey**

A stratified two-stage cluster design was used for selection of ultimate sampling units (households), with Kebeles as clusters. The first stage selection was done by probability proportional to size (PPS) where size is the total number of households compiled from the 2007 population and housing census cartographic work. The second stage sample (household) selection was done by systematic random sampling.

**Sampling and coverage of household survey**

The most common instruments used for assessment of urban food security and vulnerability are, among others, household income, consumption, assets and expenditure and well-being instruments; Focus Group Discussions and Key Informant Interviews; and Traders instruments. Stratified two-stage cluster sampling was used in order to ensure that data collected are representative and free of bias. It is clear that urban/town households are diverse and need to be stratified to get adequate representation from each stratum. The purpose of stratifying is to have uniformity by grouping people together (clustering) according to their similarities. There are two strata for all towns in Amhara and Afar, the sub-cities and kebeles. All the sub-cities were considered and from each sub city 3 kebeles were randomly selected.

Household respondents were selected randomly using random sampling methods. For such purpose supervisors were given training on how to sketch the kebele sampling units using the usual PRA techniques to identify the major settlement areas, social services, business areas and others. Then, they proceeded their sampling selection by spinning any local materials in order to select the path until the intended households are covered. A total of 1,120 households were interviewed from the four selected towns of the two regions (one in Afar and three in Amhara) which were chosen to represent the entire populations of the towns. Data collection on traders was designed to cover the diverse aspects of food items in the respective town. Accordingly, 60 traders were interviewed in Logiya town while in each of the other three towns 80 traders were interviewed. In a similar fashion, 60 FGDs and 60 KIIs were conducted from all of the towns in Amhara. While in Logiya of Afar 30 FGDs and 28 KIIs were conducted. In selecting respondents care was taken to include even the minority groups like hotel and commercial sex workers, the disabled, veterans, street children, beggars etc. Table 1.1 shows sampling frames and sample sizes from the study towns.
<table>
<thead>
<tr>
<th>Category</th>
<th>Afar Logiya</th>
<th>Amhara Bahir Dar</th>
<th>Amhara Gondar</th>
<th>Amhara Dessie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population*</td>
<td>13,416</td>
<td>320,344</td>
<td>206,987</td>
<td>151,094</td>
</tr>
<tr>
<td>Male (% of Pop)*</td>
<td>52.4</td>
<td>48.8</td>
<td>47.4</td>
<td>48.2</td>
</tr>
<tr>
<td>HH Size*</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Households targeted</td>
<td>240</td>
<td>320</td>
<td>320</td>
<td>320</td>
</tr>
<tr>
<td>Households covered</td>
<td>240</td>
<td>300</td>
<td>320</td>
<td>300</td>
</tr>
<tr>
<td>Traders targeted</td>
<td>60</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Traders covered</td>
<td>60</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>FGD and KI targeted</td>
<td>30</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>FGD and KI covered</td>
<td>28</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

* 2007 CSA Census and with a growth rate of 2.5%

### Key Indicators

The approach generally adopted for urban study is a combination of:

- Income/consumption measures (basic baskets of goods, like food, water, clothing)
- Unsatisfied basic needs index (literacy, school attendance, piped water, sewerage, etc)
- Asset indicators (car, television, chair and tables, type of housing like floor, roof, etc)
- Vulnerability indicators (physical assets, human capital, income diversification, links to networks, participation in safety net programs, access to credit, market, etc)

Accordingly, the household survey used for urban food security and vulnerability study included the following basic information (Table 1.2) that derives the key indicators of urban food insecurity and vulnerability.

### Table 1.2. Themes of analysis and indicators used in the study

<table>
<thead>
<tr>
<th>Area of analysis</th>
<th>Specific indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household demographics</td>
<td>Age pyramids, sex</td>
</tr>
<tr>
<td>Household food security</td>
<td>Analysis of food dietary diversity and food frequencies (one day and seven day meal recall) to calculate food consumption scores</td>
</tr>
<tr>
<td>Asset wealth</td>
<td>Number of different types of assets owned</td>
</tr>
<tr>
<td>Expenditure and income</td>
<td>Monthly (reported) per capita income and expenditure pattern</td>
</tr>
<tr>
<td>Coping</td>
<td>Various types of coping strategies adopted by households</td>
</tr>
<tr>
<td>Access to services</td>
<td>Access to health, education, water and sanitation, electricity services, etc</td>
</tr>
<tr>
<td>Markets</td>
<td>Price changes and impacts, etc</td>
</tr>
<tr>
<td>Programs and safety nets</td>
<td>Food sources and the urban grain stabilization programs</td>
</tr>
</tbody>
</table>

### 1.3. Methods of Data Analysis

Relevant quantitative and qualitative data were collected using the various methods and instruments described above in order to get a complete picture of the situation under study. All quantitative data from households, traders and key Informant/ Focus Group questionnaires were entered into computer using CSpro Application Software. The quantitative data were exported from CSpro to SPSS for processing and analysis. Analysis of the quantitative data was then undertaken using SPSS, whilst all qualitative information were manually extracted by key
common issues, coded and analyzed by categorization, classification and summarization techniques using MS Excel. The findings were then systematically organized, summarized and presented in the form of tables and figures as appropriate.

2. Amhara and Afar National Regional States: Brief Description

2.1. Afar Region
Afar is one of the nine Regional States of Ethiopia, formerly known as Region 2 (Figure 2.1). It is subdivided into five Administrative Zones and one special Woreda (district). The Zones are known as:

- Zone 1 (Afar), area that shares boarder with Tigray Region
- Zone 2 (Afar);
- Zone 3 (Afar);
- Zone 4 (Afar);
- Zone 5 (Afar); and
- Argobba special woreda

Demographics
Based on the 2007 Census result of the Central Statistical Agency of Ethiopia (CSA), the Afar Region has a total population of 1,411,092, consisting of 786,338 men and 624,754 women. Urban inhabitants number 188,723 or 13.4% of the population. With an estimated area of 96,707 km², the region has an estimated density of 14.59 people per square kilometer. For the entire region 247,284 households were counted, which results in an average for the Region of 5.7 persons to a household, with urban households having on average 3.9 and rural households 6.1 people. Ethnic groups include Afar (90.03%), Amhara (5.22%), Argobba (1.55%), Tigrayans (1.15%), Oromo (0.61%), Welayta (0.59%), and Hadiya (0.18%). Over 95% of the population is Muslim, 3.9% Orthodox Christian, 0.7% Protestants, and 0.1% Catholics.

According to CSA’s reports, as of 2004, 48.57% of the total population had access to safe drinking water, of whom 26.89% were rural inhabitants and 78.11% were urban. Values for other reported common indicators of standards of living for the Afar Region as of 2005 include the following: 67.3% of inhabitants fall into the lowest wealth quintile; adult literacy for men is 27% and for women 15.6%; and the Regional infant mortality rate is 61 infant deaths per 1,000 live births, which is less than the nationwide average of 77; at least half of these deaths occurred in the infants’ first month of life.

Agriculture
CSA estimated in 2005 that pastoralists in Afar had a total of 327,370 cattle (representing 0.84% of Ethiopia’s total cattle population), 196,390 sheep (1.13%), 483,780 goats (3.73%), 200 mules (0.14%), 12,270 donkeys (0.49%), 99,830 camels (21.85%), 38,320 poultry of all species (0.12%), and 810 beehives (less than 0.1%). CSA estimated, based on a survey conducted in December 2003, that nomadic inhabitants had 1,990,850 cattle (83.8% share of those animals in the Region that year), 2,303,250 sheep (90.6%), 3,960,510 goats (90%), 759,750 camels (85.9%), 175,180 donkeys (92.5%), 2,960 mules (88.6%), and 900 horses (100%).
2.2. Amhara Region

Amhara is one of the nine Regional States of Ethiopia, formerly known as Region 3 (Figure 2.1). It is subdivided into 11 Administrative Zones:

- Awi
- Bahir Dar (a special zone)
- Debub (South) Gondar
- Debub (South) Wollo
- Mierab (West) Gojjam
- Misraq (East) Gojjam
- Oromia
- Semien (North) Gondar
- Semien (North) Shewa
- Semien (North) Wollo
- Wag Hemra

Demographics

Based on the 2007 Census result of the CSA, the region has a population of 17,214,056, of whom 8,636,875 were men and 8,577,181 were women. Urban inhabitants number 2,112,220 or 12.27% of the population. With an estimated area of 159,173.66 km², the region has an estimated density of 108.15 people per square kilometer. For the entire Region 3,953,115 households were counted which results in an average for the Region of 4.3 persons to a household, with urban households having on average 3.3 and rural households 4.5 people. The predominant ethnic group is Amhara, which is estimated to be 91.48%; other groups include the Agaw/Awi (3.46%), Oromo (2.62%), Agaw/Kamyr (1.39%), and Argobba (0.41%). Of the total population of the Region, 82.5% were Orthodox Christians, 17.2% Muslim, 0.2% Protestants and 0.1% others.

According to CSA, as of 2004, 28% of the total population had access to safe drinking water, of whom 19.89% were rural inhabitants and 91.8% were urban. Values for other reported common indicators of standard of living for Amhara as of 2005 include the following: 17.5% of the inhabitants fall into the lowest wealth quintile; adult literacy for men was 54% and for women 25.1%; and the Regional infant mortality rate was 94 infant deaths per 1,000 live births, which is greater than the nationwide average of 77; at least half of these deaths occurred in the infants’ first month of life.

Agriculture

CSA in 2005 that farmers in Amhara had a total of 9,694,800 head of cattle (representing 25% of Ethiopia’s total cattle population), 6,390,800 sheep (36.7%), 4,101,770 goats (31.6%), 257,320 horses (17%), 8,900 mules (6%), 1,400,030 donkeys (55.9%), 14,270 camels (3.12%), 8,442,240 poultry of all species (27.3%), and 919,450 beehives (21.1%).
Figure 2.1. Amhara and Afar National Regional States, Ethiopia
3. General information about the study population

3.1. Characteristics of the surveyed population
In the survey, information on demographic and livelihood parameters was collected for 3,735 men and 4,445 women, with women more than men. From the survey, age composition distribution indicates that the percentage of children less than 15 years of age were almost similar to the EDHS, 33% from the survey compared to 34%. The population distribution is such that most of the population is between the age group of 10 and 24 years and is similar to the EDHS. Comparing with the EDHS, there is however a significant difference in the percent of the population for the age groups of <5 years and 15-19 years where for the below 15 years the EDHS results showed higher percentages while on the age group 15-19, this survey result is almost double compared to the EDHS (Figure 3.1). The population structure for Amhara and Afar urban areas is typical of a developing country where majority of the population are in the economically non-productive age groups (Figure 3.2).

The population distribution by age and sex composition from the survey indicates that only the 0-14 and over 65 age groups have the percentage of men higher than that of women. The male/female ratio from this survey is consistent with the 2007 Census report. The sex composition of people covered in this survey is 45.6% male and 54.4% female. The census gives the ratio for Amhara and

<table>
<thead>
<tr>
<th>Town</th>
<th>Survey results</th>
<th>Census 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logiya</td>
<td>35.5</td>
<td>64.5</td>
</tr>
<tr>
<td>Bahir Dar</td>
<td>36.2</td>
<td>63.8</td>
</tr>
<tr>
<td>Dessie</td>
<td>34.5</td>
<td>65.5</td>
</tr>
<tr>
<td>Gondar</td>
<td>36.8</td>
<td>63.2</td>
</tr>
</tbody>
</table>

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Food Security and Vulnerability in Selected Towns of Amhara and Afar Regions
Afar urban areas as 47% male and 53% female respectively (Table 3.1).

The sex composition of households sampled across four urban centers of Amhara and Afar shows that male households constitute 35.75% while female households 64.25%. Compared with the census results of 2007, Logiya has the highest percentage of males (52.4%) followed by Bahir Dar (48.8%), Dessie (48.2%) and Gondar (47.4%). From the survey results, Dessie has the highest female population of 65.5%, the reasons could be due to men out migrating for labour (Table 3.1).

3.2. Children’s orphanhood status and living arrangements

The percentage of double orphans in Logiya is estimated at about 34%, Bahir Dar (37%), Dessie (40%) and Gondar (39%). Hence, the percentage of double orphan children is significantly higher in Dessie as compared to the rest towns. Similarly, the percentage of children who live with their mother and father in Logiya town is estimated at about 56%, Bahir Dar (48%), Dessie (44%) and Gondar (47%). Taking these results into consideration, the percentage of children who live with their mother and father is lower in Dessie town. In all towns, the percentage of households who reported to live only with their father is estimated at about 2 to 5%. Similarly, the percentage of households who reported to live only with their mother is estimated at about 6 to 14%. The percentage of orphans is mostly attributed to the death of the father. The percentage of orphans from the 2004 Welfare Monitoring Survey for Amhara and Afar regions was estimated at 11.5%, hence being comparable to some of the survey findings here. In addition to welfare monitoring survey for 2004, in urban areas of Amhara and Afar regions in total 14% of children have lost one of their parents (single orphans), this is even lower than the 2005 DHS that reported 18.4% for all urban areas of the country. Taking into consideration the 2007 CSA census data, the percentage of children who are orphans in Amhara and Afar town would range between 4 and 5%, which also lies in the range of this survey finding (Figure 3.3).

Overall, the survey findings indicate on average about 36% of children in Amhara and Afar in the four towns are living with both parents. The percentage of children who live with both parents is highest for Logiya (45%) followed by Gondar (37%), Bahir Dar (33%) and Dessie (29%). The percentage living with both parents is much lower compared with the 53% reported for urban areas of the country in the 2005 DHS. The percentage of children reported to live with neither (none) of their parents on average is estimated at about 45% for the surveyed towns; which is 39% for Logiya, 45% for Bahir Dar, 49% for Dessie and 47% for Gondar. The number of children
living with one of their parents /live with father or mother/ are estimated at about 19% (Figure 3.4).

3.3. Marital status
Marital status of heads of households indicates that about 54.1% of household heads are married, 25.3% widowed, 10.2% divorced and 4.3% separated and the remainder either cohabiting or never married. Divorce rates are very high and needs to be checked with other sources (Figure 3.5). Only a small proportion of households are living separated, never married and cohabitating.

3.4. People with disabilities
Based on secondary data, the proportion of people with disability is not very high across all towns. The number is in line with the survey data that shows very low percentage of disabled people across all urban centres. The number of disabled people is estimated at 1% in Logiya, Bahir Dar (3.8%), Gondar (1.4%) and Dessie (1.3%). Compared with the rest of survey towns in Amhara and Afar, the highest number of disabled people is reported in Bahir Dar town (Table 3.2).

3.5. FGD and KII participants characteristics
The selection of focus group and key informant participants sought a balance between males and females, with 54.8% being male respondents and 45.2% were females (Table 3.3A). With regard to age, about 47.7% of them were between 30 and 50 years old, while those below 30 constituted 36% and the remaining 16.3% were over 50 years old (Table 3.3B). The occupation of participants was as follows: daily labourers and others (44%), civil servants (18%), shop/business (15%), police/military service (9%) and house wife (7%). The number of beggars/street children is reportedly high in Bahir Dar than the rest towns. Few of them in the surveyed towns have

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Food Security and Vulnerability in Selected Towns of Amhara and Afar Regions

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reported working in religious institutions. The economic profiles of group interview participants included civil servants (17.6%), shop owners (15.0%), daily labourers and others (44.0%). Together these constitute about 76.6% of the entire group of respondents. About 23.4% were classified as housewives, beggars (including street children), and not working due to various reasons as well as those serving for religious institutions, police/military departments and those engaged in agricultural activities. In general, the study has covered the diverse occupational groups of the populations studied (Table 3.3C).

Table 3.3C: Occupation of Participants for FGD/KII

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Afar Logia</th>
<th>Bahir Dar</th>
<th>Gondar</th>
<th>Dessie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Servant</td>
<td>18.3</td>
<td>12.1</td>
<td>25.5</td>
<td>14.3</td>
</tr>
<tr>
<td>Shop/Business</td>
<td>7.0</td>
<td>25.9</td>
<td>8.2</td>
<td>19.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1.4</td>
<td>0.0</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>House Wife</td>
<td>11.3</td>
<td>6.9</td>
<td>7.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Working in Religious Institution</td>
<td>4.2</td>
<td>0.6</td>
<td>3.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Not Working</td>
<td>1.4</td>
<td>5.2</td>
<td>0.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Beggar/Street Children</td>
<td>0.0</td>
<td>4.6</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Police/Military Service</td>
<td>2.8</td>
<td>10.9</td>
<td>10.0</td>
<td>12.5</td>
</tr>
<tr>
<td>Daily Labourers and Others</td>
<td>53.5</td>
<td>33.8</td>
<td>43.6</td>
<td>45.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.6. General information on the traders

The data collection from traders covered 90.3% (271) retailers and 9.7% (27) wholesalers across the three towns of Amhara, and one town of Afar regions. Accordingly, 80 traders each were interviewed in Bahir Dar, Dessie and Gondar towns, and 60 traders in Logiya. Of total traders interviewed, the majority (31.3%) were owners of small shops/tuck, whereby majority of the consumers buy their commodities, and roadside vendors were also captured constituting 13.3% of the sample. Similarly main or large shops and big grain markets were captured each constituting 15% of the sample. The remaining 25% of the sample were due to vegetable (fruit) sellers, millers, butchers and other traders (Table 3.4).

Table 3.4: Breakdown of trader and shops by type

<table>
<thead>
<tr>
<th>Type of trader</th>
<th>Afar Logia</th>
<th>Bahir Dar</th>
<th>Gondar</th>
<th>Dessie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Frequency</td>
<td>Number</td>
<td>Frequency</td>
<td>Number</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of shop</th>
<th>Afar Logia</th>
<th>Bahir Dar</th>
<th>Gondar</th>
<th>Dessie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Frequency</td>
<td>Number</td>
<td>Frequency</td>
<td>Number</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Food Security and Vulnerability in Selected Towns of Amhara and Afar Regions
4. Major Findings of the Survey

4.1. Educational levels and characteristics

The level of education across the towns was such that about 22.65% of the population had no education and this percentage was less than 30% in the 2005 DHS for Amhara and Afar urban areas. In general more females (23.3%) had no education compared to the males (21.5%) and this was true across the four towns and across levels of education from primary to tertiary. Logiya had the highest percent of females with no education (25.2%) followed by Bahir Dar (23.8%) and Gondar (23.6%). Dessie is relatively better than the three towns in terms of female education. On students enrolled in schools, the highest percentage was in Logiya (42.7%), although the size of urban population was very small as compared to the other three towns. The highest percentage of the population with tertiary or higher education was found in Gondar (10%) followed by Bahir Dar (9.7%) and Dessie (6.6%) and the lowest was in Logiya with 2.2% of the population having attained tertiary education. The grade level category reveals that some primary school levels constitute 16.46%, secondary school completed 11.53%, some secondary school with 10.43%, tertiary or higher 7.13% and primary school completed 5.28% (Table 4.1).

<table>
<thead>
<tr>
<th>Town</th>
<th>Sex</th>
<th>No Education</th>
<th>Still (enrolled) attending school</th>
<th>Some primary</th>
<th>Primary completed</th>
<th>Some secondary</th>
<th>Secondary completed</th>
<th>Tertiary or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logiya Male</td>
<td>30.0</td>
<td>10.7</td>
<td>20.2</td>
<td>9.5</td>
<td>11.2</td>
<td>13.3</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25.2</td>
<td>42.7</td>
<td>16.5</td>
<td>5.1</td>
<td>7.0</td>
<td>2.9</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26.9</td>
<td>31.3</td>
<td>17.9</td>
<td>6.7</td>
<td>8.5</td>
<td>6.6</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Bahir Dar Male</td>
<td>17.0</td>
<td>15.2</td>
<td>20.8</td>
<td>5.7</td>
<td>10.7</td>
<td>15.9</td>
<td>14.7</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>23.8</td>
<td>30.5</td>
<td>15.0</td>
<td>4.4</td>
<td>8.8</td>
<td>10.6</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21.3</td>
<td>25.0</td>
<td>17.1</td>
<td>4.9</td>
<td>9.5</td>
<td>12.5</td>
<td>9.7</td>
<td></td>
</tr>
<tr>
<td>Dessie Male</td>
<td>19.9</td>
<td>7.7</td>
<td>16.4</td>
<td>4.7</td>
<td>19.1</td>
<td>21.7</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>20.7</td>
<td>36.2</td>
<td>12.2</td>
<td>4.7</td>
<td>10.3</td>
<td>11.3</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20.4</td>
<td>26.4</td>
<td>13.7</td>
<td>4.7</td>
<td>13.4</td>
<td>14.9</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Gondar Male</td>
<td>19.2</td>
<td>3.9</td>
<td>20.3</td>
<td>6.6</td>
<td>14.8</td>
<td>18.0</td>
<td>17.3</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>23.6</td>
<td>34.8</td>
<td>15.5</td>
<td>3.8</td>
<td>7.6</td>
<td>8.8</td>
<td>5.9</td>
<td></td>
</tr>
</tbody>
</table>

On average school attendance in 2000 E.C. in the four towns was 50.7%, with Dessie having the highest (52.7%) and Bahir Dar the lowest (47.5%). This shows that there was no significant difference in school attendance among the four towns. The percentage of ‘never enrolled’ in the four towns is also insignificant. The percentage that did not attend school are highest in Bahir Dar at 49.1% and lowest in Logiya at 34.5%. The drop out rate was highest in Logiya (12.6%) and lowest in Bahir Dar (2.9%). The majority of community interviews indicated that school drop outs had remained the same in 2000 EC compared to the previous five years.

Out of those who did not enrol, dropped out of school, or were absent for four or more days per month, the reasons were: 1.4% was due to
illness, 3.8% helping with household work, 8.3% had to work for food and money; 4.9% not interested in schooling, 6.3% indicated that school was expensive and had no money, while all the rest had such varied reasons as hunger, school too far, absence of teachers, and early marriages and pregnancy.

4.2. Housing, water, health, electricity, fuel supply and access

Housing conditions
Households were asked a number of questions in relation to tenancy status and housing quality. One question was referring to how long household members lived in their accommodations. Of the total households, 29.6% gave response to this question. Of the total responses, 84.2% lived in the same accommodation for more than a year, 8.5% from 6 months to one year and 7.3% less than 6 months. On the other hand, 24.1% in Logiya, 27.8% in Bahir Dar, 21.8% in Dessie and 26.3% in Gondar reported living in the same accommodation. In terms of tenancy status, which is a good measure of economic welfare, 39.7% of households owned the houses they were living in. The second largest group was lodgers with no written agreement (31%), followed by tenants with written agreements (23.5%). Both groups could be asked to vacate the houses, the former with out prior notice. The remaining households lived in family houses (2.4%), free hold (2.2%), employment related accommodation (0.4%), flats with a status of permit (0.4%) and others (0.3%). Within towns, the tenure status of households reveal that the percentage of households owning or purchasing tenure was highest in Bahir Dar (30.4%) followed by Dessie (25.1%), Gondar (24.8%) and Logiya (19.7%). When we compare results across towns it also reveals the same pattern. Employment related accommodation was highest in Dessie (40%). Similarly, households who had plots or permit holders in Logiya was very high (40%) as compared to the rest types of accommodation. In Bahir Dar, the majority of households reported as stayin in family owned houses (37.9%) (Figure 4.2).

For those paying rent, they were asked to report about their debt status. Of the total households covered in four towns, 87.8% reported not being in debt. While the remaining 12.2% reported being in debt. About 10.75% on average reported being without arrears. Of those who reported to have arrears, Logiya was found as having arrears at about 50% that extends for a period of 2 to 3 months and Gondar (35.3%) for a period of 4 to 6 months and (52.9%) for a period of more than 6 months. Hence, the majority of households had debt of more than 6 months (Table 4.2).

![Figure 3.2: Tenure status of the HH](image)

<table>
<thead>
<tr>
<th>Town</th>
<th>NO arrears</th>
<th>2 to 3 months</th>
<th>4 to 6 months</th>
<th>&gt;6 months</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logiya</td>
<td>12.5</td>
<td>50.0</td>
<td>12.5</td>
<td>25.0</td>
<td>100</td>
</tr>
<tr>
<td>Bahir Dar</td>
<td>18.2</td>
<td>23.6</td>
<td>20.0</td>
<td>38.2</td>
<td>100</td>
</tr>
<tr>
<td>Dessie</td>
<td>12.3</td>
<td>24.6</td>
<td>16.9</td>
<td>46.2</td>
<td>100</td>
</tr>
<tr>
<td>Gondar</td>
<td>0.0</td>
<td>11.8</td>
<td>35.3</td>
<td>52.9</td>
<td>100</td>
</tr>
</tbody>
</table>
The number of people per room indicates that the greatest level of crowding (more than three people per room) was in Bahir Dar with 55%, of which 18% were more than four people per room, followed by Dessie (50%) and Gondar (36%). The least level of crowding was in Logiya with only 37% of people living with at least 4 people per room and 5% had more than four people per room (Figure 4.3).

The quality of housing is such that the majority of households (72.1%) lived in backyard pole and mud houses under iron/roof tiles. While 10.2% lived in semi-detached brick houses with tile/iron roof and only 6.2% lived in detached brick houses with tile/iron roof, and about 6.8% lived in private houses/hut mostly made of non-durable materials. With respect to kitchen facilities, the majority of households (58.7%) had their own kitchen and cooking facilities while 35.6% of households had shared kitchen facilities and the remaining 5.6% had other forms of arrangement including use of bed rooms as kitchen.

**Water and sanitation**

The majority of households in all four towns (45.39%) used piped water outside their houses. The second major source of water for the households was communal tap (Bono). Other than these, those who reported using piped water inside houses was about 18.54%. Very few of households reported using borehole/protected well, unprotected well, river, stream, pond and others as a source of water for drinking and sanitation. Bahir Dar town was relatively better in terms of using piped water inside and outside houses (20.22%) than Dessie (17.45%), Gondar (16.35%) and Logiya (13.8%) (Table 4.3).

**Table 4.3: Sources of drinking water by town (% of HH access to water)**

<table>
<thead>
<tr>
<th>Town</th>
<th>Logiya</th>
<th>Bahir Dar</th>
<th>Dessie</th>
<th>Gondar</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piped water inside the house</td>
<td>2.94</td>
<td>7.13</td>
<td>4.28</td>
<td>4.19</td>
<td>18.54</td>
</tr>
<tr>
<td>Piped water outside the house</td>
<td>6.96</td>
<td>13.09</td>
<td>13.17</td>
<td>12.16</td>
<td>45.39</td>
</tr>
<tr>
<td>Communal tap (BONO) other people</td>
<td>9.90</td>
<td>5.87</td>
<td>8.98</td>
<td>8.98</td>
<td>33.72</td>
</tr>
<tr>
<td>Borehole/protected well</td>
<td>0.08</td>
<td>0.00</td>
<td>0.08</td>
<td>0.08</td>
<td>0.25</td>
</tr>
<tr>
<td>Unprotected well</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.34</td>
<td>0.34</td>
</tr>
<tr>
<td>River, stream, pond</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
<td>0.08</td>
<td>0.59</td>
</tr>
<tr>
<td>Other</td>
<td>0.25</td>
<td>0.25</td>
<td>0.34</td>
<td>0.34</td>
<td>1.17</td>
</tr>
<tr>
<td>Total</td>
<td>20.13</td>
<td>26.85</td>
<td>26.85</td>
<td>26.17</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Majority of households (97.9%) reported not treating their drinking water while 2.1% reported treating by using different mechanisms. The majority of the households reported treating their water by boiling (43.5%). Those who reported to use water guard and other mechanisms as a means for treating drinking water were 29.5% and 14.5%, respectively. Those who tried to clean their water using filtering methods were 12.5%. Although there are some differences in terms of types of toilet facilities across the study towns, the majority of households in all the towns (63 to 99%) used pit laterines (both private and communal). The highest percentage of households who used either private or communal pit laterines was in Logiya (98.8%) and the lowest was found in Dessie (62.5%). About 24% and 30% of households in Bahir Dar and Dessie, respectively, were using flush toilets (private or shared (Figure 4.4). According to information generated from the
qualitative interviews, the majority of respondents believed that hygiene and sanitation conditions generally remained the same during the survey year compared to the past five years. Only a few respondents reported deterioration of hygiene and sanitation. For those who felt that sanitation had deteriorated, major reasons mentioned were poor water supply and unaffordable soap prices.

**Heating and lighting**
Fuel wood and charcoal are the dominant sources of fuel for cooking that were used by 63.5% and 30.1% of the survey households, respectively - both having 93.6% contribution to total energy source of households. The remaining 6.4% of households used different sources that included animal dung, kerosene and electricity. Although there was no major variation between towns in Amhara, the percentage share of wood and charcoal was reversed (wood contributes 37.1% and charcoal was used by 60.4%).

For all towns studied electricity was the most common source of lighting as responded by about 97% of households. The rest of the surveyed households had other sources of lighting that include wood, gas/kerosene and others. There was difference between the towns in terms of the sources of lighting.

**Health and health facilities**
The morbidity of household members in the past 12 months (referring to November 2007 to November 2008) exhibited that about 93% of members of surveyed households in total were in good health for the past year and only 7% were ill for more than 3 months or less. Illness for more than three months across households (chronic illness) ranged between 1.3% in Logiya and 4.2% in Bahir Dar. Incidences of illness of less than three months was highest in Logiya (7.2%) and lowest in Dessie (2.3%) (Figure 4.5).

Causes of illnesses varied across the towns. In Logiya, the most common diseases were other illnesses (25%), chronic fever (14%), malaria, diarrhoea, hypertension, TB and HIV/AIDS. In Bahir Dar, the most common diseases were other illnesses (23%), HIV/AIDS (16%) and eye problems (12.5%). In Dessie, the most common diseases were other illnesses (30%), HIV/AIDS (11%) and hypertension. In Gondar, the most common diseases were other diseases (14%), hypertension (13%) and HIV/AIDS (12.5%) (Figure 4.6).
The types of illness by age group indicates that the most common types of diseases for children under 17 years are Diarrhoea, fever and malaria while for those between 18 and 59 years old, HIV/AIDS and other diseases were prevalent. Older people were found commonly affected by hypertension, eye problems and other diseases (Table 4.4).

Households access to health services varied across towns, with most households seeking treatment at a referral hospital (25.5%), municipality clinics (17.5%) and private clinics (22.0%). Only an average of about 6.3% of the population did not seek to get health care in all the study towns. Very few households sought treatment from traditional/spiritual healers (5.4%) (Table 4.5). For those not seeking medical attention the main reason was lack of money (50% in Logiya, 62.5% in Bahir Dar, 60% in Dessie, and 75% in Gondar). Not believing in health services and religious beliefs as reasons were reported by 18.5% of households in all towns. According to community perceptions, access to health services in 2008 was similar to the situation over the past five years.

4.3. Assets, livelihoods, income sources and expenditure patterns

Assets
Households were interviewed about their possession of assets including productive assets (e.g. agricultural tools, transportation) and non-productive assets (e.g. household items such as tables, chairs, beds). Overall, the most common types of assets owned were basic household possessions such as beds (88%), and tables and chairs (73%). Asset ownership varied across the surveyed towns. For example, percentages of households owning jewellery, satellite dish and freezers were highest in Logiya (54%, 34% and 38% respectively), which was a statistically significant difference, than in the other towns in the Amhara region. On the other hand, households in Logiya reported the lowest percentage of ownership of beds (69%) and the second lowest of tables and chairs (62%). Asset ownership varied across the surveyed towns. For example, percentages of households owning jewellery, satellite dish and freezers were highest in Logiya (54%, 34% and 38% respectively), which was a statistically significant difference, than in the other towns in the Amhara region. On the other hand, households in Logiya reported the lowest percentage of ownership of beds (69%) and the second lowest of tables and chairs (62%). Among towns in Amhara, Gondar was found to have a significantly higher number of households owning CD/DVD players (62%), Television sets (61%), cell phones (53%) and bicycles (38%) compare to Bahir Dar (46%, 51% and 4% in order of mention of items) and Dessie (53%, 50% and 2% in order of mention). Bicycle ownership was the highest in Gondar. Dessie scored the lowest number of households owning a wrist watch (43%), significantly lower than Bahir Dar (57%) and Gondar (54%).

In order to provide a comparative tool, an asset wealth index was created by counting the number of different types of assets owned by each household. Diversity of asset ownership alone cannot be taken as a measure of the entire wealth of households, but it can be considered as a good proxy. The index ranged from 0 (no assets) to 21. Standard cut-off points were used to create categories of: ‘asset poor’ (0 to 4 different types of assets), ‘asset medium’ (5 to 9 different types), and ‘asset
rich’ (10 or more different types of assets). Figure 4.7 shows the distribution of asset wealth categories across the four towns.

The lowest percentage of ‘asset poor’ was found in Gondar (27%), followed by Bahir Dar (36%) and Dessie (38%) in Amhara. The lowest percentage of ‘asset rich’ households was found in Logiya town (10%) of Afar region. Some 10% of households only had sold assets in the 6 months prior to the survey. The asset poor were found to have sold assets more likely than asset rich households (12% vs. 8%). In Amhara, more households in Bahir Dar and Dessie (16% and 13% in order of mention) had sold assets compared to households in Gondar (8%). The prevalence was 8% in Logiya town of Afar. The main reasons for selling assets were to purchase food (59% of households who sold any assets), followed by getting money for medical expenses (17%). However, just 49% of households who sold any assets in Logiya did so to buy food; other reasons mentioned in that town were to get money to cover medical cost (by 35% of households), and to pay debt (mentioned by 29%). In Bahir Dar, households were more likely to sell assets to purchase food (48%), to pay medical cost or school fees (both mentioned by 19% of households). In Dessie, purchasing food was named by 81% of those who sold assets, while medical cost was mentioned by only 14% of households. A similar trend was found in Gondar (to buy food mentioned by 70% of households, medical costs by 13%).

On average, 17% of households reported having savings bank account. However, this percentage was significantly different between asset wealth groups, with 44% of ‘asset rich’ having an account versus 17% of ‘asset medium’ and 3% only of ‘asset poor’ households (Figure 4.8). No statistically significant difference was found across the studied towns.
Having a saving/bank account

<table>
<thead>
<tr>
<th>Asset wealth categories</th>
<th>Poor</th>
<th>Medium</th>
<th>Rich</th>
<th>Logiya</th>
<th>Bahir Dar</th>
<th>Dessie</th>
<th>Gondar</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>3%</td>
<td>7%</td>
<td>44%</td>
<td>33%</td>
<td>20%</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>10%</td>
<td>17%</td>
<td>33%</td>
<td>56%</td>
<td>53%</td>
<td>20%</td>
<td>18%</td>
<td>33%</td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td>15%</td>
<td>38%</td>
<td>48%</td>
<td>30%</td>
<td>32%</td>
<td>77%</td>
</tr>
<tr>
<td>30%</td>
<td></td>
<td>45%</td>
<td>62%</td>
<td>59%</td>
<td>40%</td>
<td>42%</td>
<td>82%</td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td>52%</td>
<td>70%</td>
<td>64%</td>
<td>50%</td>
<td>52%</td>
<td>87%</td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td>59%</td>
<td>77%</td>
<td>67%</td>
<td>58%</td>
<td>58%</td>
<td>92%</td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td>66%</td>
<td>85%</td>
<td>74%</td>
<td>68%</td>
<td>68%</td>
<td>97%</td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td>73%</td>
<td>92%</td>
<td>82%</td>
<td>78%</td>
<td>78%</td>
<td>100%</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td>80%</td>
<td>99%</td>
<td>90%</td>
<td>88%</td>
<td>88%</td>
<td>100%</td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td>87%</td>
<td>100%</td>
<td>95%</td>
<td>95%</td>
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<td>100%</td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td>94%</td>
<td>100%</td>
<td>98%</td>
<td>98%</td>
<td>98%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Livestock ownership

Some 11% of households owned some livestock either in town or in nearby rural areas in the 6 months prior to the survey. Again, asset rich households were more likely to have any livestock compared to asset medium and asset poor (all differences statistically significant). Across towns, Logiya in Afar had significantly higher rate of households that had owned livestock than Dessie, Gondar and Bahir Dar in Amhara region (Figure 4.9). Almost one-third of households that owned livestock sold or bartered animals in the past 6 months. No significant difference was found across asset wealth groups.

Livestock ownership

<table>
<thead>
<tr>
<th>Asset wealth categories</th>
<th>Poor</th>
<th>Medium</th>
<th>Rich</th>
<th>Logiya</th>
<th>Bahir Dar</th>
<th>Dessie</th>
<th>Gondar</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>6%</td>
<td>12%</td>
<td>25%</td>
<td>18%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>30%</td>
<td>5%</td>
<td>15%</td>
<td>20%</td>
<td>10%</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>45%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Figure 4.8. Distribution of households by asset wealth categories and ownership of saving accounts

Figure 4.9: Distribution of households by ownership of livestock
Livelihood groups
Households were asked to identify their occupations and the contribution of each to their household’s livelihood outcomes. Overall, 19 activity items were mentioned (including an unspecified category named here as `other`). This information was used in a multivariate analysis to cluster together households with similar level of reliance on particular activities. This approach allows considering not only the type of activity performed but also its relative contribution to a household’ livelihood.

Twelve distinct livelihood strategy groups were identified. Of the sampled households, the most common groups were households living on small business or self-employed (24%), government salary/wages (21%), non-agricultural wage labourers (16%) and households relying on house rental, pension or allowances (12%). The smallest groups were those whose main activity was related to farming, handicrafts (including artisans), agricultural wage labourers and households primarily living on sales of livestock or animal products. The distribution of livelihood groups by town is presented in Table 4.6.

Table 4.6: Distribution of the livelihood groups by town

<table>
<thead>
<tr>
<th>Livelihood groups</th>
<th>Afar</th>
<th>Bahir Dar</th>
<th>Dessie</th>
<th>Gondar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small business/self-employed</td>
<td>31%</td>
<td>21%</td>
<td>25%</td>
<td>19%</td>
</tr>
<tr>
<td>Government salary/wage</td>
<td>25%</td>
<td>22%</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Non-agricultural wage labour</td>
<td>13%</td>
<td>17%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>House rental income, pension and allowances</td>
<td>13%</td>
<td>11%</td>
<td>9%</td>
<td>26%</td>
</tr>
<tr>
<td>Remittances, gift, assistance dependents</td>
<td>4%</td>
<td>13%</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>Petty trade (firewood sales, etc…)</td>
<td>2%</td>
<td>3%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>NGO, private company salary</td>
<td>4%</td>
<td>3%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Other not specified activities</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Farming</td>
<td>0%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Handicrafts /artisans</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Agricultural wage labour</td>
<td>5%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Sale of animals or animal products</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The distribution of each livelihood group in Logiya was very close to the whole sample’s. The biggest livelihood groups are households relying on: small business/self-employment (31%), government salary/wages (25%), non-agricultural wage labour and house rental income, pension or allowances (13% of households). Though not statistically significant due to small number of households, it can be noted that Logiya presented the highest percentage of urban households living primarily on farming (5%) compared to the other surveyed towns, and the smallest percentage of remittances, gift and/or assistance dependent households (4%).

Among the towns in Amhara, some interesting differences are worth noting. In Bahir Dar, there were more households classified as non-agricultural wage labourers (17%), remittance, gift or assistance dependents (13%), and farmers (4%). In Dessie, a higher percentage of households were small businessmen/self-employed or government salaried (49%) compared to Bahir Dar and Gondar (43% and 40%). There were significantly more petty traders in Dessie and Gondar (8%) compared to Bahir Dar (3%) and the percentage of households getting income from house rentals,
pension or allowances was significantly the highest in Gondar (26%) compared to the other two towns in Amhara.

Comparing livelihood groups by asset wealth, households relying on petty trading, agricultural labour, and non-agricultural wage labour had the highest rates of ‘asset poor’ (64%, 63% and 59% in order of mention) compared to other livelihood groups. Also more than half of the handicraft/artisan (54%) and farming (53%) livelihood groups followed in the asset poor category. The groups with the least rate of asset-poor households were the government salary (17%) and the sale of livestock/animal product (15%) groups.

Income
Households were asked to estimate incomes that they earned in the month previous to the survey. This household level information was transformed into a rough per capita monthly income value dividing the reported income by the number of household members, not adjusting for age. As the distribution of per capita income variable was very skewed toward lower values with few outliers who reported much higher values. For this reason, median values are displayed together with mean ones.

![Figure 4.10: Distribution of households by income level](image-url)

Asset wealth categories had per capita monthly mean values significantly different from each other. The mean was 186 Birr/ month/person among the asset poor households (median 133 Birr/ month/person); 274 Birr/ month/person among asset medium (median 180 Birr/ month/person); and 409 among asset rich (median 286 Birr/ month/person). The asset wealth index correlated quite well (0.369, p<.001, Spearman’s rho) with per capita monthly income. Comparing towns, households in Logiya had a mean value significantly higher than households in the other towns, with an average of 469 Birr/ month/person and a median value of 400 Birr/ month/person. No significant differences were found between the surveyed towns in Amhara region.

Mean and median values for reported per capita monthly incomes were calculated for the different livelihood groups. The highest mean value was found among households living on sale of animals or animal products. However, it has to be stressed that this group accounts for just 1% of the sample only; thus its statistics are not very strong. This group has also the highest difference between mean and median values, signalling that few outliers are raising the mean value.
Nevertheless, its median value is still among the highest among livelihood groups. The other non-specified activity households scored the second highest mean value (414 Birr/month/person), followed by the NGO/private company salary households (Birr 392/month/person) and the government salary group (Birr 347/month/person). Those groups presented also very similar median values, thus most probably earning similar amounts. Livelihood groups with the lowest per capita monthly income were: petty traders (mean 154 Birr/month/person, median 120 Birr/month/person); handicraft/artisans (mean 174 Birr/month/person, median 115 Birr/month/person); and non-agricultural wage labourers (mean 174 Birr/month/person, median 129 Birr/month/person).

On average, almost 38% of households reported that they experienced a decrease in their incomes from January 2008. About half reported no change in their incomes and about 12% only reported an increase of incomes during the past year. Asset poor were more likely to report a decrease in their incomes compare to asset medium or asset rich households (49% versus 34% and 26% respectively).
employed households (47%). Groups with the highest rate of households reporting an income increase were government salary (18% of them) and households relying on other non-specified activities (17% of them).

Households were asked whether they had received support as food and/or cash from relatives/friends in the past year. Out of the entire sample, 14% of households received food and/or cash support from relatives/friends living in Ethiopia, while 7% only received support from outside Ethiopia. Across asset wealth groups, there was a significant difference regarding support received from outside the country and in the possibility to support other households (both growing with wealth), and in the percentage of households who borrowed money in the past year, higher in the asset poor group.

![Figure 4.13: Distribution of households by type of support they received](image)

More households in Logiya were supporting other households compared to other surveyed towns. Bahir Dar had the highest percentage of households who received support from inside the country (about 22% of households), while Bahir Dar and Dessie had the highest rate of households receiving support from outside Ethiopia (12% and 10%, respectively).

![Figure 4.14: Distribution of households by livelihood groups and type of support they received](image)
As expected, the livelihood group of remittance, gift and assistance dependents were the most likely to be receiving support, 54% of those households were getting support from inside Ethiopia and 27% from outside. Borrowing was found to be relatively homogeneous across the groups, being highest among petty traders and farmer groups (34% in each group). The lowest borrowing rate was registered among households engaged in non-specified activities.

### Expenditures

Households with monthly average expenditures of less than Birr 300 accounted for 17.6%, between Birr 300 to 600 was 29.7%, between Birr 601 and 1000 was 28% and more than Birr 1000 was 24.7%. The majority of households in Logiya (60.9%), Bahir Dar (52%) and Gondar (50.9%) spent more than Birr 600. On the other hand, the majority of households in Dessie (53.8%) spent less than Birr 600 (Table 4.7).

The average monthly household expenditure was Birr 775 for the four surveyed towns of Amhara and Afar regions. This was an average monthly per capita expenditure of Birr 185. The income expenditure, however, varied across the towns with the lowest average expenditure per household of Birr 704 per month (Birr 155/capita) in Dessie and the highest expenditure of Birr 905 (Birr 249/capita) in Logiya. Expenditure for the remaining towns ranged from Birr 726 in Gondar (Birr 169/capita) to Birr 767 in Bahir Dar (Birr 166/capita).

By livelihood groups, the highest mean monthly expenditure was about Birr 1300 in Logiya for the ‘other’ or non-specified activities. The lowest mean monthly expenditure was about Birr 300 for petty trade/fuelwood sales, etc. Hence, the majority of households’ average monthly expenditure by livelihood group was about Birr 300. Similarly, when the average expenditure by livelihood group is analyzed for Bahir Dar, the mean monthly expenditure was more than Birr 2500 only for livelihood groups specified as ‘other’ or non-specified activities and sale of animals or animal products. In Bahir Dar, the majority of households’ monthly expenditure for the rest livelihood groups was about Birr 200 or less. In Dessie, the mean monthly expenditure for all livelihood groups was about Birr 200 or less. The monthly average expenditure higher than Birr 1000 was by livelihood groups classified as government salary/wage; house rentals, pension and allowances and other non-specified activities. The monthly average expenditure in Gondar town was estimated at Birr 200. Those households whose monthly average expenditure

<table>
<thead>
<tr>
<th>Town</th>
<th>Less than Birr 300</th>
<th>300 to 600 Birr</th>
<th>601 to 1000 Birr</th>
<th>More than 1000 Birr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logiya</td>
<td>10.4%</td>
<td>28.8%</td>
<td>31.3%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Bahir Dar</td>
<td>17.2%</td>
<td>30.0%</td>
<td>27.8%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Dessie</td>
<td>25.0%</td>
<td>28.8%</td>
<td>24.4%</td>
<td>21.9%</td>
</tr>
<tr>
<td>Gondar</td>
<td>17.9%</td>
<td>31.1%</td>
<td>28.5%</td>
<td>22.4%</td>
</tr>
</tbody>
</table>

![Figure 4.15A: Average Expenditure by Livelihood group - Logiya](image)
income was about Birr 1000 or more were classified in the livelihood groups of small business/self-employed; government salary/wage, NGO, private company salary; other non-specified activities, and sale of animals or animal products (Figures 4.15A to 4.15D).

Expenditure by asset holdings was such the asset poor households had the least total expenditure of Birr 503 per month, followed by the asset medium with Birr 875 per month, whilst the asset rich, as expected, had the highest total expenditure of Birr 1,334 per month. This indicates that the better the asset base, the better a household’s expenditure level.

Considering expenditure by category of commodity, the majority of responses indicated most expenditure were on cereals and other foods. Gondar took the highest share of expenditure for cereals (64%), followed by Dessie (62.42%), Bahir Dar (59.18%) and Logiya (54.34%). On the other hand, average expenditure on other foods was highest in Logiya (45.66%), followed by Bahir Dar (40.77%), Dessie (37.58%) and Gondar (35.83%). Insignificant number of households reported about their expenditure on entertainment (alcohol, chat, tobacco and celebrations).

Considering the gender of the heads of households and distribution of expenditure by commodity, female-headed households spent less than male-headed households, with male-headed households spending on average Birr 194 per month per capita compared to Birr 173 per capita per month for female-headed households. The difference in expenditure between male and female headed households was spread across all the commodity groups, with the greatest difference in expenditure being in food, both cereals and non-cereals. This implies that female-headed households are generally poorer than male-headed households. In terms of marital status, the
never married were much better off with per capita expenditures of Birr 216 per month, followed by the married with Birr 198 per capita per month, and the divorced with Birr 186 per capita. The widowed and separated are worse off with per capita expenditures of Birr 156 and Birr 148 per month, respectively. The worst off households were cohabiting families with the lowest per capita expenditure of Birr 84 per month. There were minimal variations across the surveyed towns.

4.4. Food consumption, food security and nutrition

Current consumption

Data were collected on consumption of 14 food items or food groups over a recall period of seven days prior to the survey. The dietary diversity (number of different foods or food groups consumed by households over a given period of time) and frequency (number of days per week) have been demonstrated as good proxy measures of the access dimension of food security at household level. Variety and frequency were thus used to calculate a weighted Food Consumption Score (FCS). Weights are based on the nutritional density of the foods and are displayed in Table 4.8.

Table 4.8. Food types and weights used to calculate Food Consumption Scores (FCS).

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Food Group</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cereals: Teff, other cereals, pasta, biscuits; and Tubers: potatoes</td>
<td>Staples</td>
<td>2</td>
</tr>
<tr>
<td>2. Pulses and Groundnuts: Beans, lentils, nuts</td>
<td>Pulses</td>
<td>3</td>
</tr>
<tr>
<td>3. Vegetables (including relish and leaves)</td>
<td>Vegetables</td>
<td>1</td>
</tr>
<tr>
<td>4. Fruits</td>
<td>Fruits</td>
<td>1</td>
</tr>
<tr>
<td>5. Animal Proteins: Fish, Meat, Eggs</td>
<td>Meat &amp; Fish</td>
<td>4</td>
</tr>
<tr>
<td>6. Milk / dairy products</td>
<td>Milk</td>
<td>4</td>
</tr>
<tr>
<td>7. Oil / Fats / Butter</td>
<td>Oil</td>
<td>0.5</td>
</tr>
<tr>
<td>8. Sugar (including honey, jam)</td>
<td>Sugar</td>
<td>0.5</td>
</tr>
</tbody>
</table>

The FCS is a continuous variable that is commonly interpreted using two thresholds to distinguish consumption level: FCS of 21 and FCS of 35. In theory, the threshold of 21 corresponds on average to a daily consumption of staples (7 days* weight 2 = 14) and vegetables (7 days*weight 1 = 7; 14+7 = 21). The 35 threshold indicates a daily consumption of staples and vegetables and a
frequent (at least 4 times a week) consumption of oil and pulses (7*2 + 7*1 + 4*0.5 + 4*3). However, in the Ethiopia context, frequent consumption of oil and sugar is very common. Thus the thresholds have been raised accordingly to the local habits because, otherwise, frequent consumption of oil and sugar food groups would have masked the missing consumption of other important items, like vegetables and protein rich food like pulses. For analyses, sampled households were classified into three groups using 28 and 42 as thresholds to define: poor consumption (≤28), borderline consumption (>28 and ≤42), and acceptable consumption (>42). The FCS and the food consumption groups also allow for comparisons of dietary quality and diversity between populations.

On average, consumption of staple foods was regular in each consumption group. Basically, every household consumed cereals or tubers on a daily basis. However, households in the borderline and acceptable consumption groups were more likely to be able to diversify their staple intake eating different cereals, sugar, pulses and oil or fats with higher frequencies. Teff, sugar and oil or fat were found to be the staple more frequently eaten by all groups. The consumption by poor households on a daily basis declines as it moves from less expensive to more expensive commodities. Although consumption of pulses, vegetables, fruits, meat/fish and dairy declines for households classified as borderline and acceptable, they were still better than poor households in terms of their frequency of consumption per week. All in all, the majority of households were classified in borderline and acceptable ranges in terms of FCS.

![Figure 4.16: Consumption pattern by type of food items](image)

Besides staples (teff consumed almost daily, other cereals 4 days per week, potatoes 2 days per week), households with poor consumption were eating, on average, oil/fats 6 days a week, sugar 4 days a week, pulses and vegetables once per week. Households classified as having borderline consumption were eating teff and oil on a daily basis, sugar 5 days a week, other cereals 4 days a week, pulses 3 days a week as well as potatoes (2 days), pasta or biscuits, vegetables and meat, fish or eggs (1 day) in a week. Acceptable consumption households were eating teff, sugar and oil almost every day of the week, and also consumed other cereals and pulses 4 days a week, meat, fish or eggs and potatoes 3 days a week, vegetables and dairy products 2 days a week, and pasta or biscuits and fruit (1 day) in a week.

Based on this analysis, 24.5% of households were classified as having poor food consumption, 41% having borderline consumption, and 34.5% were characterized by acceptable consumption.
By towns, the proportion of households classified as having poor food consumption was high in Gondar (47%), followed by Dessie (44%), Logiya (24%) and Bahir Dar (7%) (Figure 4.17).

Asset poor households were more likely to have poorer diet in terms of diversity and frequency of consumption (48% of them), while asset rich households were more likely to have acceptable food consumption at about 56%. Similarly, asset medium households were more likely to have borderline food consumption at about 38%.

By town, the highest rate of poor food consumption was found in Gondar (47% of households). Households in Bahir Dar seemed to have a better consumption compared to Dessie and Gondar in Amhara. Some 20% of households from Logiya were found having poor consumption, almost 49% of them had borderline consumption while the rest 31% had acceptable consumption. The distribution of consumption profiles by livelihood groups is presented in Figure 4.18.

More than 40% of the wage laborers (both agricultural and non-agricultural), handicraft/artisans, households living on non-specified activities, petty traders, and households relying on remittances, gift and assistance had poor food consumption. The groups with small number of
households having poor food consumption were those classified as government salary/wage and NGO/private company salary dependent households (21% and 22% respectively).

**Changes in consumption**
Households were also asked to remember their consumption levels back in January 2008. Figure 4.19 shows changes in consumption from that date to the date of the survey as measured by the food consumption score.

As it can be seen, household level food consumption decreased from January 2008. Acceptable consumption rate was 38% in January 2008 and it dropped to 30% by January 2009. At the same time, poor consumption increased from 27% to 33%. The borderline consumption groups changed, on average, not much, increasing from 35% to 37%. However, because food consumption habits are usually modified substituting preferred food with less preferred items and reducing quantities, the drop of diet diversity and frequency had hit all the levels of consumption, with households from the acceptable group moving into the borderline, and households from the borderline consumption group shifting into the poor. The change of dietary consumption was very likely due to the impact of higher food prices on households’ budgets. Unusual levels of high food prices were in fact reported by a large number of sampled households as one of the main problems in the past 6 months.

**Table 4.9: Households’ change in food consumption (FC) between January 2008 and January 2009**

<table>
<thead>
<tr>
<th>FC groups - Jan-09</th>
<th>FC groups - Jan-08</th>
<th>Borderline Food Consumption (28-42)</th>
<th>Acceptable Food Cons. (&gt;42)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Food Consumption (&lt;28)</td>
<td>25%</td>
<td>7%</td>
<td>1%</td>
<td>33%</td>
</tr>
<tr>
<td>Borderline Food Consumption (28-42)</td>
<td>1%</td>
<td>27%</td>
<td>9%</td>
<td>37%</td>
</tr>
<tr>
<td>Acceptable Food Consumption (&gt;42)</td>
<td>0%</td>
<td>1%</td>
<td>28%</td>
<td>29%*</td>
</tr>
<tr>
<td>Total</td>
<td>27%</td>
<td>35%</td>
<td>38%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*6 This total is slightly different from the figures reported above for rounding effect in the cross-tabulation.
**Stocks of food at household level**

Households were asked to estimate quantities of cereals (teff, maize, wheat and sorghum) that they had in stock by the time of the survey. Total amounts were then divided by the number of household members to get per capita stocks in kilograms. The average per capita stock for the entire sample was not very high (2.9 kg/capita) as expected in towns where households purchase food on a more frequent basis compared to rural farming households. Average per capita cereal stock was found to be significantly different \( (p<.001) \) among food consumption groups (poor consumption: 1.7 kg/capita; borderline: 2.9; acceptable: 4.3) and among asset wealth groups (asset poor: 1.6 kg/capita; medium 2.7; rich: 6.0).

![Per capita cereal stock (kg)](image)

**Figure 4.20: Households’ cereal stocks per capita by town**

Interesting differences were observed at town level. Households in Logiya had the lowest average per capita cereal stock, significantly lower than average stocks in the other surveyed towns \( (p<.05) \). Households in Gondar and in Bahir Dar had the highest average stock values \( (p<.05) \). By livelihood group, no statistically significant differences were found. The highest average per capita cereal stock was found in the sale of animal/animal product households (5.2 kg/capita), among households engaged in non-specified activities (4.4 kg/capita), and among NGO/private company salaried (4.0 kg/capita) households. Agricultural and non-agricultural wage labour and handicraft/artisan groups had the lowest cereal stock per capita (0.4, 1.7 and 1.5 kg/capita).

### 4.5. Markets and food prices

**Situation of prices on food commodities**

Traders were asked about changes in price of food commodities compared to a previous year the same period. Around 90% of traders indicated that the price of most staple foods showed substantial increase for items like grain, sugar/oil and moderate increase for meat and vegetables. In general, the price of grain increased on average from 15-30%; *Injera* from 12-25%; meat from 15-20% and oil/sugar from 13 to 40% (Figure 4.21). Nearly 49% of interviewed traders indicated that the major reason for the increase in...
price was the increase in prices from sources of the commodities. Only 4% indicated increase in transport costs as the main reason. With regard to the time when traders noticed increase in price of commodities, about 47% indicated that price rise started one year back, 16.4% said six months before, and 29% stated more than a year earlier.

**Volumes of trade/sales**
There was high variability in traded quantity amongst traders whereby it ranged from 3 mt to 10 mt for wholesalers of grains and from 50 kg to 1000 kg for retailers. The quantity sold as a proxy for trading activity indicates that compared to last year, sales dropped by 45% for grains, 44% for pulses, 41% for meat and 23% for vegetables, which is indicative of speculative trader behaviour. When outlying values were filtered out, results show that compared to a usual week the amount of grain sold decreased by about 20% between January and June 2008. Most traders (94.7%) indicated that there was a change in buyers’ behaviour. In this regard, there was a shift from expensive to cheaper goods as well as amounts purchased at a time. For instance, grain traders indicated that demand for expensive commodities like wheat grains declined by about 70.3% and wheat flour by about 72%, whilst the demand for cheaper goods like maize rose by 47% and sorghum by 36%. In general, the effective demand for basic cereals (teff, wheat, sorghum and maize) showed substantial decline particularly in Gondar and Dessie towns (Figure 4.22). The main reasons cited for changing demand behaviour were the steep rise in the prices of the staple food items. The main coping strategies adopted by households were reducing amount of commodity purchased at a given time (39%); going for cheaper foodstuffs (50.1%); and not buying in bulk as was usual (6%).

**Availability of food commodities**
The survey collected information on the availability of preferred food items that households consume during post Belg and post Meher seasons. Around three fourth of the traders interviewed felt that food commodities were available in the market in both seasons while the remaining groups felt food items were scarcely available. For instance, taking the average of the two seasons, around 82% of traders reported that grain was available; for pulse 85% of traders, for vegetables 79% of traders, for fruits 75% of traders, and for oil 89% of traders. But, availability of commodities varied from town to town based on availability of produce, transport access and types of commodities (Figure 4.23). Despite availability of commodities in the market, traders noticed that there was a substantial increase in the prices of almost all commodities.
Sources of food items for traders
About 90% of the traders interviewed indicated that major sources of commodities for resale were other traders (71%); very low from farmers (23%) and the remaining said it was from own sources. By town, 91% of traders in Gondar, and 67% in Dessie had sources of commodities from other traders. These indicate that households or direct consumers obtain main staple foods after a chain of many intermediate traders (value chain); which had a negative effect on the market and the prices (Figure 4.24).

Stock holdings and durations
Availability of stocks depended on trader sizes and commodities traded, with larger shops and traders having more stocks than smaller ones. For grains, approximately 26% of traders had stocks. Wheat was kept longer (more than four weeks for 43% of the surveyed traders) than teff and maize which were held only up to two weeks for approximately 58% of traders. For pulses, oil and sugar, only one-quarter of the traders had stocks. Pulse stocks lasted for 2 to 3 weeks for approximately 47% of the traders. The duration of oil and sugar stocks also depended on the size of shops. Approximately 67% of the traders had stocks for perishable commodities and the shelf life barely exceeded one week for about 90% of the traders. Stocks were more available and lasted longer in larger shops than smaller ones. Taking the average shelf life of all commodities, it was found that 69% of traders had stocks for less than three weeks, and the rest 31% had stocks for a month or more (Figure 4.25).

Supply of food commodities
Considering quantities sold as a proxy for trading activity, sales collapsed by between 40 and 50% for all commodities compared to a previous year, which is indicative of speculative trader behaviour. Supply of cereals to the market declined with the main reasons being reduction in harvest (16%), less food aid being sold (7%) and less stock holding by traders (17%); whilst the remaining 60% did not know the reasons why the supply declined (Figure 4.26). For those that indicated an increased supply into the market, food aid being sold in the market was
Access to credit
Access to credit was mentioned as the major constraint for most traders. For instance, only 20% of traders in Logiya had access to credit (Figure 4.27). About 70% of traders thought there was no change in access to credit, 18% reported reduced access to loan opportunities particularly for retailers and small traders. After filtering out outliers average interest rate was 2.43% per month and this figure remained the same for 78% of traders and decreased for 10% of traders compared to a previous year.

On the other hand, traders were asked whether households were seeking more credit; two-thirds of the traders reported that there was an increase in the number of households who requested credit to buy food. For instance, traders reported that about 90% of households in Dessie and 73% in Bahir Dar requested to buy food on credit basis (Table 3.10). In Logiya and Gondar, amount of credit requested showed a slight decrease of by 25% and 32%, respectively.

Difficulties for trading and potential impact of food aid and subsidy
The major difficulties for trading mentioned by traders were cost of commodities to purchase for resale (27%), low demand for goods (20%), and cost of fuel (17%). Infrastructure such as road connection and lack of transport were considered to have low (23% of traders) impact on traders. On the impact of food aid distributions on the market only 13% of traders indicated they did not see any impact on the market, whilst 39% indicated price of main staples declined when large volume of food aid was distributed in their area; and 24% thought there could be an impact because it reduced number of people who came to buy and the rest reported food aid distribution increased availability and it contributed for price stabilization (Figure 4.28). Traders were also asked about impacts of food aid distribution on trading activities, 33% of traders indicated they did not see any impact on their trading activities, whilst 24% thought there could be an impact because it reduced profit margins they made and another 31.8% indicated that it reduced their sales. Retailers and roadside traders were going out of businesses because of lack of capital to purchase from wholesalers and their inability to cope with increasing prices.

Market response capacity
The turnover of food supplies depends on the type of commodities traded. Traders were asked about the response in supplies for an increase in demand. About 81% of traders cited as one of the reasons (mostly wheat traders with some others) (Figure 4.26).

Table 4.10: Number of people requesting to buy on credit

<table>
<thead>
<tr>
<th></th>
<th>Same</th>
<th>Less asking</th>
<th>More asking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logiya</td>
<td>25</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>Amhara</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bahir Dar</td>
<td>10</td>
<td>17</td>
<td>73</td>
</tr>
<tr>
<td>Dessie</td>
<td>7</td>
<td>3</td>
<td>90</td>
</tr>
<tr>
<td>Gondar</td>
<td>32</td>
<td>15</td>
<td>53</td>
</tr>
</tbody>
</table>

Figure 4.28: Potential Impacts of aid distribution on markets

Figure 4.29: Market response capacity
reported that perishable foodstuffs such as meat, fruits and vegetables, Injera and bread were the items the market responded more quickly (less than two weeks) and for grains, pulses, sugar and oil the response could take up to a month according to most of the traders (Figure 4.29).

4.6. Perceptions on vulnerability, poverty and impacts of rising food prices
The main livelihood sources for the majority of slightly better-off and better-off households were civil service and business while the poor and the very poor relied on other activities like daily labour, road-side vendor, and small businesses. Regarding income levels, as perceived by respondents, the majority of the poor in all towns studied had monthly incomes of Birr 300-600 while most of the very poor were earning 150-300 Birr. A majority of slightly better-off households could earn Birr 1000-1200 monthly. The majority of better-off households could earn more than 2000 Birr per month. The information further indicated that very poor households constituted about 40%, the poor about 30%, the slightly better-off about 20% and the remaining 10% are considered as better-off. However, households in Logiya were relatively richer than those in the three study towns of Amhara region– majority of poor households in Amhara earned an average monthly income of 150 Birr while those in Afar earned an average income of Birr 300.

Impacts of food price increases

Nutritional impact: Since food prices increased so high, people were affected nutritionally. Number of meals in a family significantly reduced. Many shifted to less preferred and cheap food, to less nutritious food, meaning quality of food was decreased. Although children were given priority for food, neither parents nor children benefited much. It was a day to day practice to forego meals and people were dissatisfied of their food. It caused hunger and malnutrition.

Physical effect: Households took different measures to overcome the food price increase. One way was for every family member to look for any casual labor to earn some income for each day. But people were weak to do physical work to a required level and work time. Affected people became thin and showed sense of no life in their faces.

Financial/ economical impact: The most affected people were those who had no income or assets. Those who were a little better had much reduced non-food expenses. The selling of assets, which was loss of assets, was a day to day practice.

Social impact: The social aspect of the impact was also significant. Absenteeism and school drop out rates increased as students could not go to schools in a situation where there was no food at home. Many students were forced to find ways to get something to eat and family members also encouraged them to do so than to go to school. Some families sent their children to different relatives until things would get improved. However, in many instances, the long-lived tradition of helping each other had faded away since everybody was feeling poor and pessimist of the future. The good relationship and friendship among relatives, family members and neighbors had weakened drastically. Young girls who were somehow successful emigrated to Arab countries. Others joined bars to become sex workers. Still others went out to streets thereby increasing the number of street children. Anticipating this crisis, slightly better-off families moved their children from private schools to government schools to minimize school fees. Household budget that used to be allocated for health, clothing and other non-food items, was totally shifted to food only. This had its own repercussions on people’s health. Robbery, theft and similar crimes increased causing full of worries. One could not think of having ones own house safe in a situation where many others were not eating food.
In general, the very poor households were the most affected by the food price increases. Ill people, who were poor, although they were supposed to get extra treatment nutritionally, were the worst victims of the situation. Unemployed people who had no means of income were clearly helpless, vulnerable and one of the most affected. Those living in rental houses were also affected as they also had to pay their house rents primarily. Street children, beggars and the disabled poor were also very much affected as they had nobody to support them in a situation where everyone was challenged by the rising food prices. Civil servants with big family sizes but with low salary were also very much challenged. The low paid pensioners, daily laborers, and child-headed households were also obviously affected. Road side vendors were also found no less affected. Women-headed poor households, sex workers, shoe shines, fuel wood sellers, guards, waiters in cafés, bars and hotels, poor pregnant and lactating mothers were the other group of vulnerable people found most affected among the surveyed households.

**Impacts of price increases on markets and traders**

There was high instability of markets as traders made efforts at making big profits. Traders were involved in hoarding cereals to create an artificial shortage and sell it during favorable times. They had, even, been purchasing the subsidized wheat by the government to hoard it and sell it later when there would be a shortage in town. As a result, there was less market exchange on food and non-food items and there appeared a reduced number of customers, showing a gap between traders and consumers. This situation had gone to the extent of forcing small traders to change their business into other activities like changing butchery to tailor shops etc. On the other hand, wholesalers were not able to sell in bulk as customers had reduced financial capacities. Traders exported grain to Eritrea and Sudan, legally and/or illegally, at this time of food crisis to maximize their profit at the expense of the aggravated situation in food shortage for the urban people. Hotels and restaurants reduced the number of employees with the reason that their incomes were reduced. Since farmers got credit which meant that they did not have rush to sell their grains and this also had highly affected the market.

4.7. Main challenges and priorities of surveyed communities

**Main challenges of communities**

The main challenges of the communities, according to respondents, included high and increasing food prices (97%), frequent power interruptions (90%), limited income opportunities (93%), and price increases for fuel/electricity (93%). Challenges on other sectors and services such as health facilities, education, transport, etc. were also indicated as major problems for most of the population in the surveyed towns.

**Main priorities of communities**

Interviewees were asked to list their priorities towards addressing the existing situation and problems in their areas. More than 96% of respondents mentioned that improved access to subsidized food, improved access to electricity and better employment opportunities (94%) as their issues of priority. Improved access to other basic services such as education, drinking water and health facilities (95%) were also among the communities’ priorities.

4.8. Shocks and coping strategies

About 80% of households reported that they experienced difficulties or shocks during the 6 months previous to the survey. No significant differences were found in this rate across towns or livelihood groups. On the other hand, asset rich households were found being less likely to experience difficulties/shocks compared to asset medium or asset poor households (73% versus
81% and 84%, p<0.05). The same was found regarding acceptable food consumption groups versus borderline and poor consumption groups (77% versus 82% and 83%, p<0.05).

Households were asked to identify any difficulties or shocks they experienced and then to rank the top three. Of the entire sample, the most reported shocks were: unusually high food prices (reported by 75% of households), reduced income of a household member/s (by 25%), unusually high fuel/transport prices (by 20%), serious illness or accident of a household member/s (10%), loss or reduced employment of a household member/s (9%) and electricity/gas cuts (9%).

Differences between rates of reported shocks by asset wealth groups are shown in Figure 4.30. Wealthier households were more likely to be affected by high prices of fuel/transport and by electricity/gas cuts. Poorer households suffered more from reduced income, maybe due to loss or reduced employment or serious illness of a household member/s. The percentage of asset wealth reporting problems due to high food prices was statistically lower than in the other 2 wealth categories (70% versus 77%, p<0.05). Among the livelihood groups, non-agricultural wage labourers were the group more impacted by reduced income of household member/s (reported by 40% of those households), followed by handicraft/artisans (33%), small business/self-employed (30%), remittance, gift or assistance dependents and petty traders (29%). Increased fuel/transport costs were more likely to impact households with non-specified activities and NGO/private company salary households (31% and 30%). Those who reported shocks during the past 6 months were asked to explain how they managed the effect of those shocks. The most common coping strategies mentioned were:

- Relying on less preferred or less expensive foods (reported by 73% of those providing this information);
- Reducing the number of meals per day (reported by 31%);
- Reducing the proportion of meals for all family members (25%);
- Purchasing food on credit (19%);
- Decreasing expenditure on cloths and non-food items (18%);
- Borrowing money (12%);
- Reducing adults’ meal so that children could eat (11%);
- Increasing working hours (11%).

Households were also asked whether they had experienced times when they did not have enough money to buy food or other essential expenditure during the month previous to the survey: 70% of
the sample reported to facing such situation. The use of a number of coping strategies in the past months was compared to the use back in January 2008. In order to do that, a simple coping strategy index was developed. This index takes into account the different number of coping strategies used and their frequency of use. The index was not calibrated with different severity weights applied to the various coping strategies, as such high quality information was not available. However, this simple index can help in comparing the level of use of coping strategies in different populations.

![Figure 4.31: Coping strategy index (CSI) by wealth group, town and consumption groups](chart)(image)

Basically, for the stratifications used (asset wealth, town and food consumption) the average value of the simple CSI calculated on the month previous to the survey was found being higher than the CSI calculated on the use of coping strategies back in January 2008. The same was found looking at the 2 coping strategy indexes by livelihood groups. The group with the highest average value of the index for both January 2008 and 2009 was the handicraft/artisan group, followed by agricultural wage labourers and petty traders.

### 4.9. Responses by affected people, interventions and impacts as well as future prospects

**Impressions regarding responses by affected people and impacts of all the interventions**

The Government tried to mitigate the situation by taking four different measures. Primarily, it was supplying subsidized food like wheat, maize, edible oil etc. Secondly, it established consumers associations’ shops that sold food items at reduced prices so that consumers would not be exposed to unfair traders’ prices. Third, it mobilized finance, food and clothing to help the poor. Fourth, it had given access to credit for people who planned to use the money for a profit making business. Fifth, it had stopped exporting grain to neighboring countries and had lifted taxes from essential food items.

However, people indicated some shortcomings on the Government’s efforts. It was mentioned that there was no adequate supply of the subsidized wheat, maize, oil, etc. Even the supply was only to those who could buy but not to the very poor who could not afford to buy. Since the
targeting for the sale of food was not given attention, traders managed to buy the subsidized food and got the time to hoard it for resale at a favorable time. This had aggravated the food shortage. Other than this, the credit facility farmers were getting, made them hold their grain than rushing to the market to sell it. This made the market short of essential food grains which exposed the urban dwellers for food price hikes. Moreover, the credit facility was for those who had collaterals, not for those poor without it. Some responded that there was neither credit access nor food supply by the Government. This response was given, most probably, from those who had neither assets to use as collateral for credit access nor the money to buy the subsidized food. NGOs were mentioned for helping patients and orphans by providing food freely.

People tried several coping mechanisms to stand resilient to the effect of the food price increases. They tried to support each other, although not very adequate. People changed their consumption patterns either resorting to other cheaper foods or to reduce frequency and portion of meals or both. The community and CBOs contributed cash and/or food to support the needy. Each family member tried to find any work and earn some to contribute to the families’ daily meals. For example, housewives started preparing and selling Injerra to earn some income for their families, they did not do under normal conditions.

Impressions about the situation likely to evolve in the following months
Most people expected things to grow worse. Theft, robbery and violence were what many expected. Price was imagined to continue rising. The chance that people could face serious food shortage looked high for many. Market instability was considered likely to persist in the future. People were so frustrated that they even doubted to have a meal per day and were expecting hunger to become widespread. However, some expected market situations to become more stable provided that the Government continues its efforts at controlling the market and halt grain export.
5. Conclusions and Recommendations

5.1. Conclusions

From the survey findings it can be concluded that:

- Food availability was negatively affected as a result of poor supply of food commodities, malfunctioning of markets, high transport costs, hoarding of grains by traders, and increased exports of food items that contributed to the shortage of commodities on markets.

- Food accessibility was also seriously impacted due to several factors that include:
  - Poor level of asset base for more than half of the surveyed households.
  - High poverty conditions of the majority of the population that was found out for more than 70% of households who were below the national absolute poverty line.
  - High level of expenditure on food by the majority of households (more than 60% of their income spent on food).
  - Below acceptable level of consumption by about one-third of the surveyed households.
  - Increased inflation on food commodities and other services that led households to have deteriorated purchasing power.

- Food utilization was also affected due mainly to the poor basic infrastructure and deterioration of basic services such as safe drinking water, sanitation, housing and health facilities.

- As a result of the deterioration of all the three pillars of food security most of the surveyed households were found to be highly food insecure.

- Significant proportion of households were also exposed to several risk factors that included high prices of food and non-food commodities and services, worsening food insecurity, preventable/communicable diseases, family disintegration, and disruption of social support/networks.

- In order to minimize some of the risks households were found to use consumption related destructive coping strategies that included skipping meals, reducing meal sizes, shifting to less expensive and less preferred food items, etc.

- As a result of high exposure to several risk factors and using damaging types of coping mechanisms, many households were found to be under severe vulnerability situation. The study findings further indicated that the situation would not improve in a near future—rather worsening conditions were anticipated to continue unless appropriate measures would be taken.

- Although the Government tried to contain the multi-faceted problems of the population by distributing wheat at subsidized prices and lifting of taxes from food commodities, compared to the magnitude and seriousness of the challenge, the level and type of assistance provided to the most affected households was found to be insufficient.

4.2. Recommendations

- WFP together with relevant Government organizations and other partners need to design a food aid program and implement through appropriate intervention modalities that may include free food distributions, market support, school feeding, and food for work/asset in order to reduce problem of food insecurity and related vulnerability conditions of the most affected poor households.

- UNICEF in collaboration with relevant Government organizations and other partners need to act on affected/deteriorated basic services such as water, sanitation, health facilities, etc.

- A multi-agency and multi-sectoral regional task force should be established as soon as possible in order to address the multi-dimensional problems of the affected population and design a well coordinated urban food security and market monitoring system.
• The Government together with its development partners should plan and implement a long-term and sustainable solutions and design welfare monitoring system for the urban population in order to reduce the existing high level of poverty.