

National Institute of Labour and Social Research

Impact of the Global Financial Crisis on Households

Yerevan - 2010

Table of Contents

| | |
|--|----|
| Acronyms | 3 |
| Executive Summary..... | 4 |
| Introduction | 6 |
| Methodology..... | 7 |
| Sample design and description | 7 |
| 1. Dynamics of labour migration | 11 |
| 2. Agriculture..... | 13 |
| 2.1 Impact of the crisis on agriculture | 13 |
| 2.2 Livestock | 15 |
| 3. Expenditures and debts..... | 16 |
| 3.1 Expenditure | 16 |
| 3.2 Debts and access to credit..... | 17 |
| 4. Employment and sources of income..... | 19 |
| 4.1 Remittances | 22 |
| 5. Food consumption | 25 |
| 5.1 Food frequency and food consumption score..... | 25 |
| 5.2 Food consumption groups..... | 26 |
| 5.3 Sources of food..... | 28 |
| 6. Changes in purchasing food and the coping strategy index | 29 |
| 7. Vulnerability to the financial crisis and household coping strategies..... | 30 |
| 7.1 Impact of the financial crisis and crisis-related difficulties | 30 |
| 8. Coping strategies adopted during 2008 | 31 |
| 8.1 Food and agriculture related coping strategies..... | 31 |
| 8.2 Income and asset-related coping strategies..... | 32 |
| 8.3 Education-related coping mechanisms | 33 |
| 8.4 Health-related coping mechanisms..... | 33 |
| 9. Food insecurity and vulnerability | 35 |
| 9.1 Description of the vulnerable and food- insecure households | 36 |
| 9.2 Effects of the crisis on traditionally vulnerable household categories | 39 |
| 10. Conclusion and recommendation..... | 41 |
| 10.1 Conclusions..... | 41 |
| 10.2 Recommendations..... | 43 |
| 11. Annexes..... | 45 |
| 11. 1: Definition | 45 |
| 11.2: Maps | 46 |

List of Figures

| | |
|---|----|
| Figure 1. Proportion of HHs by the number of HH members and absent HH members | 9 |
| Figure 2. Data on the marital status and sex of household heads..... | 9 |
| Figure 3. Chronically ill, handicapped and dependency ration by urban/rural | 10 |
| Figure 4. Distribution of the opinions of household members on the level of labour migration | 12 |
| Figure 5. Distribution of the opinions of household members regarding difficulties in agricultural .. | 14 |
| Figure 6. Average number of household members by expenditure quintiles | 16 |
| Figure 7. Expenditure composition for Armenia..... | 17 |
| Figure 8. Debt at Marz and urban and rural level..... | 18 |
| Figure 9. Composition of livelihood profiles | 21 |
| Figure 10. Livelihood profiles by Marz and urban/rural | 21 |
| Figure 11. Remittances received in real terms in 2008 and 2009 | 23 |
| Figure 12. Contribution of remittances to total income..... | 24 |
| Figure 13. Average days per week different in which different foods are consumed..... | 25 |
| Figure 14. Food items, groups and weights for calculation of FCS | 26 |
| Figure 15. Progressive increase in diet by FCS value | 27 |
| Figure 16. Sources of food in the past week by Marz and urban/rural | 28 |
| Figure 17. Comparison on the overall economic situation of the household between 08 & 09..... | 30 |
| Figure 18. crisis-related constrains by urban/rural..... | 30 |
| Figure 19. Food insecure and vulnerable households by marz and urban/rural..... | 36 |
| Figure 20. Livelihood by food insecure and vulnerable | 36 |
| Figure 21. Migration and remittances by food insecurity and vulnerability | 37 |
| Figure 22. Expenditure indicators by food insecurity and vulnerability | 38 |
| Figure 23. Difficulties by food insecurity and vulnerability | 39 |

List of Tables

| | |
|--|----|
| Table 1. Marital status by sex and urban/rural..... | 10 |
| Table 2. Sex and age composition of households | 10 |
| Table 3. Comparison between the situation between 2008 and 2009 (persons and households) | 11 |
| Table 4. Access to agricultural land | 13 |
| Table 5. land size..... | 13 |
| Table 6. Breakdown of households by expenditure quintiles | 13 |
| Table 7. crop cultivated and use | 14 |
| Table 8. Reasons for agriculture constrains..... | 15 |
| Table 9. Livestock ownership, use and changes 2008-2009..... | 15 |
| Table 10. How many times do expenses for the 10 decile exceed those for the 1-st decile | 16 |
| Table 11. Average per capita expenditure by quintiles and share of expenditures | 16 |
| Table 12. Expenditure by Urban/rural | 17 |
| Table 13. Comparison between 2008 and 2009, male and female employment..... | 19 |
| Table 14. Changes in income activities contribution between 2008 and 2009..... | 20 |
| Table 15. Remittances received over 2007, 2008 and/or 2009..... | 22 |
| Table 16. Sources of remittances..... | 22 |
| Table 17. Remittance change and frequency between 2007 and 2008 | 24 |
| Table 18. Percent distribution of weekly consumption..... | 26 |
| Table 19. Distribution of food consumption groups by Marz and urban/rural | 27 |
| Table 20. Coping strategies and severity weights..... | 29 |
| Table 21. Changes in food purchasing | 29 |
| Table 22. Food and agriculture coping strategies, by Marz and urban/rural | 31 |
| Table 23. Income and assets related coping strategies 1, by Marz and urban/rural | 32 |
| Table 24. Income and assets related coping strategies 2, by MARz and urban/rural | 32 |
| Table 25. Education related coping strategies, by Marz and urban/rural | 33 |
| Table 26. Health related copings 1, by Marz and urban/rural..... | 33 |

| | |
|--|----|
| Table 27. Health related copings 2, by Marz and urban/rural..... | 34 |
| Table 28. Demography by food insecure and vulnerable | 37 |

List of Maps

| | |
|--|----|
| Map 1. Households with Access to Credit, Armenia Household Survey..... | 46 |
| Map 2. Access to land, Barley Cultivation 2009 | 46 |
| Map 3. Access to land, Wheat Cultivation 2009 | 47 |
| Map 4. Access to land, Potatoes Cultivation 2009 | 47 |
| Map 5. Livestock 2009, Cattle, Mean of Head Count | 48 |
| Map 6. Livestock 2009, sheep, Mean of Head Count | 48 |
| Map 7. Remittances Received Over Past 3 years 2007, 2008 and 2009..... | 49 |
| Map 8. Perceived Deterioration of Economic Situation 2008- 2009 | 49 |
| Map 9. Food Consumption Group, (Poor + Border) | 50 |
| Map 10. Percent of vulnerable HH to food insecurity, Armenia Household Survey 2009 | 50 |
| Map 11. Percent of food insecurity HH | 51 |
| Map 12. Coping Strategies Employed, Decreased Amount of Food Consumption | 51 |
| Map 13. Coping Strategies Employed, Reduce or stopping Health Care Services..... | 52 |
| Map 14. Coping Strategies Employed, Involving Children < 16 in Income Generation | 52 |
| Map 15. Coping Strategies Employed, Sold Household Assets..... | 53 |

Acronyms

| | |
|--------|--|
| AMD | Armenian Dram |
| CSI | Coping Strategy Index |
| FCS | Food Consumption Score |
| FDI | Foreign Direct Investment |
| GoA | Government of Armenia |
| HH | Household |
| IOM | International Organization for Migration |
| PCA | Principal Component Analysis |
| QA | Quality Assurance |
| QC | Quality Control |
| RA | Republic of Armenia |
| SRH | Sexual and Reproductive Health |
| STI | Sexually Transmissible Infection |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNFPA | United Nations Population Fund |
| UNHCR | United Nations High Commissioner for Refugees |
| UNICEF | United Nations Children's Fund |
| UNIDO | United Nations Industrial Development Organization |
| WFP | World Food Programme |
| WHO | World Health Organization |

Executive Summary

The Global Financial Crisis impacted countries by varying degrees depending on their trade, revenues and sources of household incomes. Armenia was projected by the IMF as one of the most affected. Quantifying the extent of this impact, particularly at the household level requires assessments and monitoring. This report is part of a series of reports compiled by the Government of Armenia and its partners illustrating the impact of the crisis on households.

By late 2009, about 12% of labour migrants abroad had either returned or planned a return to their home country. The reasons, varying from lack of work opportunities to reduction or non-payment of wages, originate from the financial crisis. Internal labour migration has decreased by 57%. These workers provide the bulk of income to poorer segments of society and the consequent impact of this loss on those populations is critical. There is an 18 percent decrease in remittances. In Syunik, migration has decreased by 70 percent.

The average size of agricultural land owned by the poorest quintile is half a hectare and only 62% of the total land is cultivated. The reasons for low cultivation include high costs of inputs, particularly farm labour and irrigation. Farmers also suffer from limited access to cash and affordable credit.

Poor families spend more than 50% of their monthly expenditures on food. High food prices are a primary concern for the general population. About 78% have changed their diets to more affordable food and about two thirds have reduced consumption quantities. More women are now engaged in income generation, transport modes have been altered and second jobs are increasingly being sought. About 40% of households are in debt. Of these, one fifth are unable to repay their debt. In Argatsohn two thirds are unable to repay.

Five percentage of the total population is food insecure with an additional 18 percent vulnerable. Over 2009, unemployment increased by 20 percent. Households receiving social benefits, in debt and those relying on non-skilled casual labour are most vulnerable. Vulnerability is higher for families with a high dependency ratio and those whose household is female or single. Some areas are particularly vulnerable. In Ararat, about 45% of households could not afford to pay for their meals.

The crisis has also impacted health. About 76% of women and more than half of all men have forgone their regular medical checkups. This will have long term impacts as early detection and prevention is compromised. Treatment of preventable diseases will exacerbate the burden on poorer families.

Development and social protection plans should be reviewed on an annual basis. In addition, a monitoring system is required to support this review process. Oversight of labour laws, particularly wage payments, are essential to poor families in meeting their basic requirements. Investment in public work programmes would be a source of much needed employment. Unemployment benefits should be supportive of the demographic targets set by the government and support for school feeding programmes would ensure social transfers as well as improved incentives for education. Vocational training targeted to the labour market is required. A programme to improve awareness of external labor markets would allow workers to make better employment choices.

Acknowledgments

This assessment of the “Impact of the Global Financial Crisis on Households” is not the product of the work of a single organization but that of collaboration between the United Nations Armenia Country Team and the Government of Armenia: the National Statistical Service and the National Research Institute of Labor and Social Issues of the RA Ministry of Labor and Social Issues. The survey and resulting report would not have been possible without financial support from WFP, UNDP, UNFPA, and UNICEF. Nor it would have been possible without technical support from WFP and UNDP.

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Introduction

The global financial crisis is a serious threat to Armenia's economic growth and achievements in poverty reduction over the last few years. Economic growth, largely fuelled by remittances and FDI-driven construction activities, had reached an annual average of 10 percent during 2001-2008. As a result, the proportion of the population living below the official poverty line¹ had fallen from an estimated 56.1 percent in 1999 to 23.5 percent in 2008.

However, these achievements were effectively reversed by the global financial crisis (GFC) which struck the country through three simultaneous shocks - loss of export demand, a collapse of commodity export prices, and a sharp decline in remittances and private capital flows. Armenia's economy contracted by 18.3 percent in January-September 2009, one of the steepest GDP declines in the world.² Poverty was pushed up by rising unemployment and a fall in seasonal and long-term labor migration from the country as well internal labour migration. The global crisis is expected to have a protracted negative effect on the living standards of the poorest population who have limited means to cope with shocks.

To assess the impact of the financial and economic crisis on the most vulnerable population groups, the Government of Armenia, with financial and technical support from the UN Country Team, conducted a representative household vulnerability survey across all 11 marzes (provinces) in Armenia, including Yerevan in August 2009. The national counterparts were the National Statistical Service (NSS) and the National Institute of Labour and Social Research of the Ministry of Labour and Social Issues (MLSI). The Institute has the mandate to provide evidence-based policy recommendations to the Ministry and other Government agencies in the area of service provision and social protection. The survey results reflect the impact of the crisis on household incomes, employment, migration processes, food security, access to healthcare services and coping strategies in rural and urban areas. The Report with its conclusions and recommendations is intended to inform the UN, Government and other interested parties' decision-making and response.

¹ The national general poverty line is defined through the Integrated Survey of Living Standards as a minimum subsistence level in the country. It includes the value of food and non-food products necessary for the satisfaction of basic needs. The general poverty line was defined at 23,168 AMD per adult equivalent, per month for 2007. Source: National Statistics Services (NSS) website.

² World Bank Analysis

Methodology

Sample design and description

The sample design was based on the database of all household addresses in the country. The database was created in 2001 by the RA National Statistical Service with technical support from the World Bank using the results of the census.

The general pattern of the sample design

| Marz | Level of accuracy (0.5 for main indicators) | Number of clusters | Number of households per clusters | Total number of households |
|--------------|--|--------------------|-----------------------------------|----------------------------|
| Yerevan | 0.050 | 54 | 12 | 648 |
| Atagatsotn | 0.063 | 30 | 12 | 360 |
| Ararat | 0.063 | 30 | 12 | 360 |
| Armavir | 0.063 | 30 | 12 | 360 |
| Gegharkunik | 0.063 | 30 | 12 | 360 |
| Kotaik | 0.063 | 30 | 12 | 360 |
| Lori | 0.063 | 30 | 12 | 360 |
| Shirak | 0.063 | 30 | 12 | 360 |
| Syunik | 0.063 | 30 | 12 | 360 |
| Tavush | 0.063 | 30 | 12 | 360 |
| Vayots Dzor | 0.063 | 30 | 12 | 360 |
| Total | 0.0185 | 354 | | 4,248 |

The survey was based on the following criteria:

- Prevalence of the main indicator: 0.5
- Level of confidence: 95 percent
- Design effect: 1.5

Given its aims and objectives, the survey employed a stratified two-stage sample. To design the sample, the database of all the household addresses in Armenia was divided into 48 strata (groups) of which 12 accounted for communities in Yerevan. At the marz (province) level, all households were distributed according to three categories: large towns (population 15,000 and above), other towns (population less than 15,000), and villages. The large towns comprised 16 strata³. The rest of each of the other towns and villages comprised 10 strata. According to such a distribution, a random two-stage stratified sample by marzes was used. The sample included 35 towns and 90 villages.

At the first stage, enumerator areas in the towns and villages were selected as primary sample units. At the second stage, the households to be surveyed were selected - 4,248 in all of which 2,808 and 1,440 households accounted for respectively urban and rural areas. Some interviews did not take place either due to the absence of households or their refusal to be interviewed.

The survey data are representative at marz level as well as urban and rural levels. Estimated data were re-weighted based on population.

Data collection

Trained enumerators carried out the data collection process through household interviews. Prior to the survey, enumerators were trained and instructed on interview techniques and administration of the questionnaire. Enumerators were provided with lists of household addresses required for the survey. Data collection was conducted from July 21st to August 20th 2009 in all the marzes in the

³ Based on population size, there are no large towns in Vayots Dzor Marz.

country. Questionnaires completed by the enumerators were checked for quality control and quality assurance (QC/QA). Data were entered into the database through a double-entry process (using relevant data entry software) to ensure accuracy. A verification of primary and double data entry was performed. The entered data were consolidated as a database of the survey and the logic was checked additionally.

The structured household questionnaire collected information to assess both transmission channels and impacts:

- Demography
- Change in migration patterns and remittances
- Change in income sources
- Agricultural constraints
- Changes in expenditure for food, health, education, heating and business
- Debt
- Food consumption and sources
- Exposure to shocks, perceived impact and coping strategies

Limitations

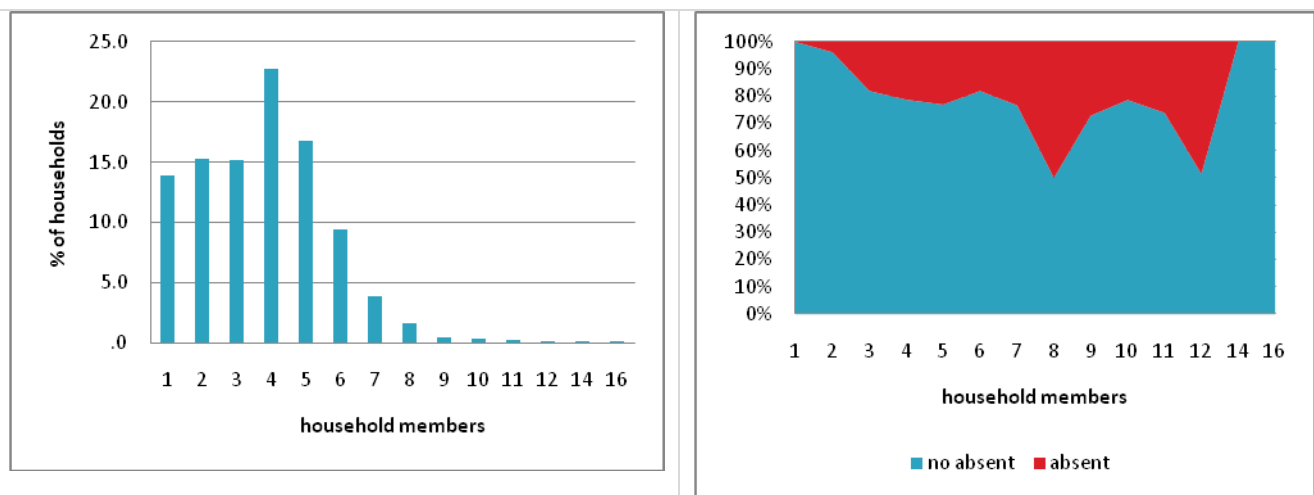
All possible steps were taken to ensure that the results accurately represented the situation in the country and food security context. However, the study faced a number of limitations:

- Based on the sampling design, outputs are representative at Marz level, urban areas and rural areas and for the entire country. Analysis at a sub-marz level will not be representative.
- Data collectors faced challenges in physically accessing some areas due to poor infrastructure, therefore regions inside marzes, despite regional differences, have not been proportionately covered and therefore reflected in this study. However, they are relevant when analyzing the outputs at Marz level. This lack of information can be filled through qualitative information and/or specific focus group discussions if necessary.
- While survey data always represent the situation at a given time, seasonality has an influence on food access and availability. The survey took place in July-August 2009, during the harvest period and when the harvesting season was just starting. The overall food security situation at the time of the survey can therefore be considered better than normal.

Household demography

In the surveyed 4,248 households, the overall number of household members accounted for 16,070 persons, i.e. the average household size in Armenia is 3.7 with urban households having less members as compared with rural ones (3.5 vs. 4.1). Figure 1 shows the breakdown by the number of household members.

Figure 1. Proportion of HH by the number of HH members and absent HH members



During the past month, i.e. July as the survey was carried out in August, absent members were found in 16 percent of households with some having more than 2 absent members per time. The chart on the right shows that large households comprise a majority among those with absent members during the past 2 weeks. Households with absent members and households with all members present represent 1:4.

The difference between temporary household size and household size is higher in rural areas confirming that seasonal migration is greater in rural areas.

Households headed by men and women comprise respectively about 68 percent and 32 percent. The relatively high percentage of female-headed households is conditioned by the marital status of household heads. Among single heads of households, women comprise 65 percent (among female heads of households single women represent 10 percent), 83 percent of divorced heads of households are female (divorced are 15 percent of female heads of households), 82 percent of widows are female (70 percent of female heads of households are widows). Instead, married female heads of households represent only 4.3 percent.

Figure 2. Data on the marital status and sex of household heads

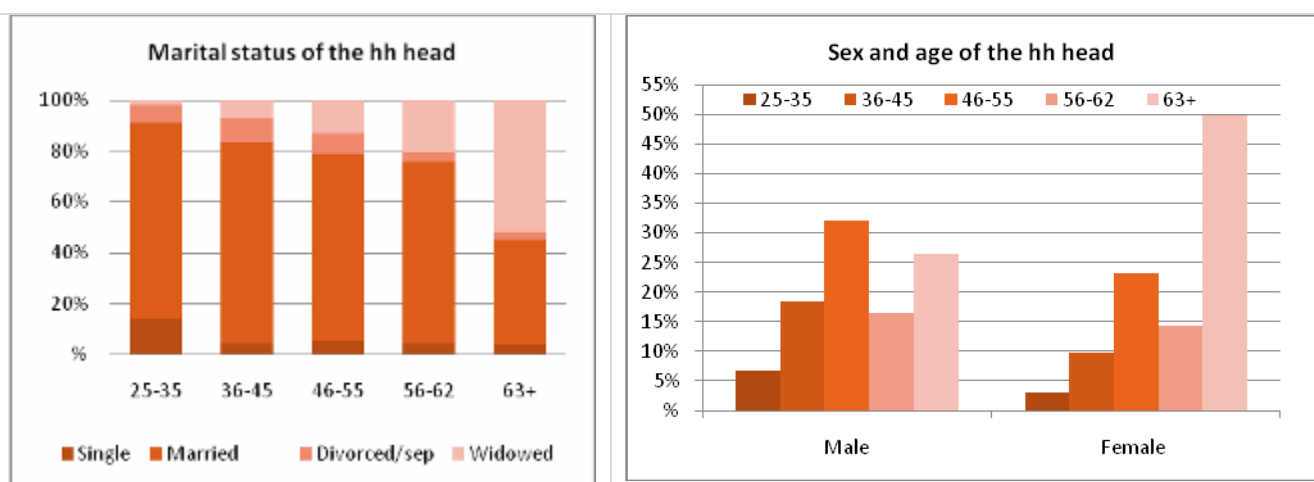


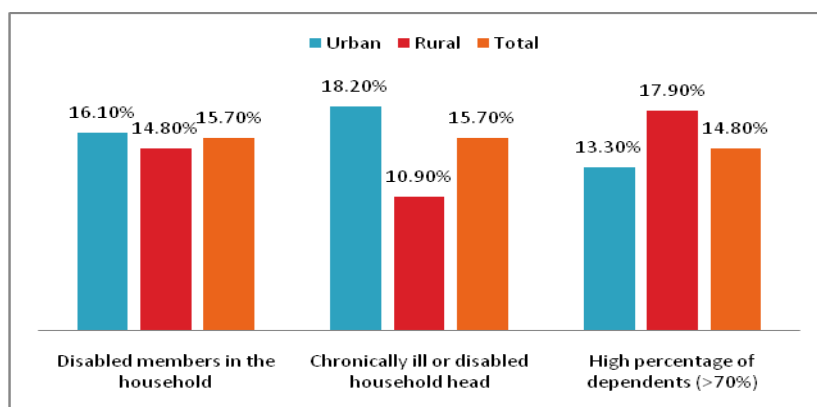
Table 1 shows the age breakdown by male and female household heads. Some 50 percent of female household heads are above 63 years old while the majority of male household heads are between 45 and 55 years old (31). On average, 33.7 percent of the households are headed by an elderly person (≥ 63 years old), households headed by elderly persons comprise a higher percentage in rural areas compared to urban areas, 38.5 and 31.3 percent respectively.

Table 1. Marital status by sex and urban/rural

| | | Marital status of the head | | | |
|-------|--------|----------------------------|-----------|----------------------|-----------|
| | | Single % | Married % | Divorced/separated % | Widowed % |
| Urban | Male | 3.4 | 88.6 | 1.6 | 6.4 |
| | Female | 10. | 10.4 | 18.8 | 60.2 |
| Rural | Male | 1. | 90.1 | 1.2 | 7.6 |
| | Female | 9. | 2.8 | 3.4 | 84.3 |
| Total | Male | 2.5 | 89.2 | 1.4 | 6.8 |
| | Female | 10.3 | 8.6 | 15.1 | 66.0 |

Chronically ill or handicapped heads of households comprise 16 percent. One quarter of households in Shirak, Vayots Dzor and Tavush have a disabled member. Shirak and Vayots Dzor have the highest percentage of household heads with a disability. Urban areas have a higher percentage of household heads with a disability compared with rural. Lori, Tavush and rural areas have a higher percentage of households with high dependency rate (>70 percent) compared with the others. Households with a higher number of dependents were found more likely to be vulnerable.

Figure 3. Chronically ill, handicapped and dependency ration by urban/rural



Around 93 percent of households represent the resident population, 4.2 percent former refugees and 2.9 percent have a mixed composition.

Sex and age composition of households

This is an aspect worthy of consideration. The number of boys is more in the age group of 0-14 while from 15 years onwards females gradually account for a higher number largely because of the high level of male labour migration. Table 2 shows that the proportion of disabled increases in higher age groups.

Table 2. Sex and age composition of households

| Age | Male % | Female % | Disabled % |
|-------|--------|----------|------------|
| 0-5 | 51.8 | 48.2 | 0.04 |
| 6-14 | 53.3 | 46.7 | 0.7 |
| 15-49 | 48.2 | 51.8 | 2.8 |
| 50-62 | 46.8 | 53.2 | 9.6 |
| 63+ | 39.0 | 61.0 | 11.0 |

1. Dynamics of labour migration

In 2009, seasonal labour migrants from rural and urban areas decreased by respectively 2.39 percent and 1.37 percent. The situation being exactly the same for long-term migration. The number of urban households with internal migrants decreased by 2.61 percent while the number of such rural households has remained almost unchanged.

Analysis at marz level shows that Syunik Marz has been affected in terms of labour migration in overall as well as seasonal migration, the number of both categories of households having decreased by as high as 72.3 percent and 39.2 percent respectively. Instead, a positive difference in seasonal out-migration is noted among households in Yerevan (14.5 percent), Vayots Dzor (15.2 percent) and Tavush (9.2 percent).

Long-term labour migration of household members has decreased in the marzes of Shirak (-32.6 percent), Vayots Dzor (-20.7 percent), Gegharkunik (-16.9 percent) and Aragatsotn (-10.6 percent). Unpredictably, the number of internal labour migrants in Armavir has decreased by 100 percent as opposed to Tavush Marz where it has increased by 100 percent. An additional survey is required to expose the reasons for this difference.

There is a 57.3 percent decrease in the number of households with an internal labour migrant. In Yerevan, such households have increased by 47.5 percent. No change at all has been noted in labour migration among households in Lori Marz.

In 2009 as compared to 2008, the number of households with a member working abroad has decreased by 3.14 percent (-4.18 urban vs. -2.06 rural). On the other hand, some 12 percent of labour migrants have either returned or are planning to return which will add tension in the domestic labour market by increasing competition and unemployment.

Table 3. Comparison between the situation between 2008 and 2009 (persons and HH)

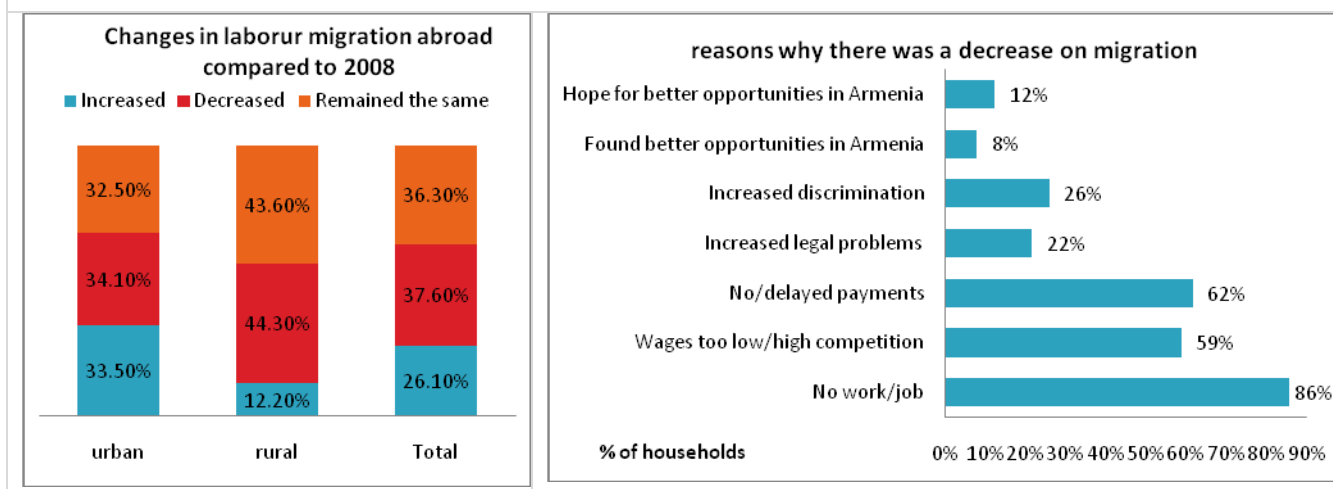
| | Dynamics of change, % | | | | |
|--|-----------------------|--------|------------|--------|----------------|
| | Persons | | Households | | Male or Female |
| | Male | Female | Male | Female | Households |
| How many seasonal migrants belong to this household (<1 year abroad) | -2.56 | 7.02 | -1.80 | 7.30 | -1.81 |
| How many long-term migrants belong to this household? (>1 year abroad) | -1.30 | 3.49 | -2.10 | 3.82 | -2.10 |
| How many internal migrants belong to this household? (inside Armenia) | -7.95 | -1.35 | -1.85 | -1.68 | -2.00 |
| How many of your HH members worked/are working abroad this year/last year? | -3.43 | -9.64 | -3.13 | -10.00 | -3.14 |

| | Dynamics of change % | |
|--|----------------------|-------|
| | Households | |
| | Urban | Rural |
| How many seasonal migrants belong to this household (<1 year abroad) | -2.39 | -1.37 |
| How many long-term migrants belong to this household? (>1 year abroad) | -2.39 | -1.37 |
| How many internal migrants belong to this household? (inside Armenia) | -2.61 | -0.20 |
| How many of your HH members worked/are working abroad this year/last year? | -4.18 | -2.06 |

| Dynamics of change by households, % | | | | | | | | | | | |
|--|---------|------------|--------|---------|-------------|------|--------|--------|--------|-------------|--------|
| | Yerevan | Aragatsotn | Ararat | Armavir | Gegharkunik | Lori | Kotayk | Shirak | Syunik | Vayots Dzor | Tavush |
| How many seasonal migrants belong to this household (<1 year abroad) | 14.5 | -5.4 | -5.6 | -5.1 | -3.0 | 0.0 | -4.4 | -8.1 | -39.2 | 15.2 | 9.2 |
| How many long-term migrants belong to this household? (>1 year abroad) | 2.8 | -10.6 | -1.3 | 1.6 | -16.9 | 0.0 | 5.7 | -32.6 | 4.6 | -20.7 | 0.0 |
| How many internal migrants belong to this household? (inside Armenia) | 47.5 | 35.3 | 0.0 | -100 | -11.5 | 0.0 | 0.0 | -57.3 | 0.0 | -17.6 | 100 |
| How many of your HH members worked/are working abroad this year/last year? | 3.7 | -18.8 | -5.4 | 97.4 | 2.1 | 0.0 | -17.7 | -8.5 | -72.3 | 9.6 | 4.7 |

More than 1/3 of the respondents (some 37.6 percent) think that labour migration has decreased, 36.3 percent think that the level of labour migration has remained the same while 26 percent think that it has increased due to the crisis (17 percent of the households had difficulty answering this question). Rural households as compared with urban households perceived a higher decrease of labour migration abroad (44.3 percent vs 34 percent).

Figure 4. Distribution of the opinions of household members on the level of labour migration to foreign countries by urban / rural



Among reasons for a decreased rate of labour migration, the more frequent answers mentioned by the households are: absence of jobs (86 percent), very low salaries and high competition (59 percent); and non-payment or delayed payment of salaries (62 percent). Non-payment or delayed payment of salaries is more characteristic in the case of rural residents than urban residents (74 percent vs. 53 percent) while hope for better opportunities in Armenia was more frequent the case of urban households than rural ones (16 percent vs. 6.6 percent).

2. Agriculture

2.1 Impact of the crisis on agriculture

Subsistence land plots are owned by some 33 percent of households of whom 84 percent live in rural areas.. Some 24.8 percent of households have privatized or leased land for agricultural use of which 8.6 percent live in urban areas. Access to land, defined by whether a household has subsistence land and/or privatized land, is much higher in rural areas (more than 86 percent) than in urban areas (8.6 percent). Most of the households that have access to land use irrigation as a water source. This percentage is higher in rural areas (almost 70 percent) than in urban areas (46 percent).

Table 4. Access to agricultural land

| | agricultural land near your house (subsistence) | | privatized land used for agriculture | | Access to land (both privatized and/or near the house) | |
|--------------|---|-------------------------|--------------------------------------|-------------------------|--|-------------------------|
| | Households % | of which use irrigation | households % | of which use irrigation | Households % | of which use irrigation |
| Urban | 7.2 | 44.7 | 3.7 | 50.9 | 8.6 | 46.1 |
| Rural | 84.1 | 70.6 | 66.2 | 71.6 | 86.6 | 69.8 |
| Total | 33.1 | 66.9 | 24.8 | 69.6 | 34.9 | 65.9 |

There are multiple issues regarding land cultivation. In the first place, only 62 percent of total lands is cultivated, the major share accounting for subsistence land holdings (77 percent) indicating that these lands are used better than privatized land. The high use of subsistence land holdings is also conditioned by the fact that 61.4 percent of urban residents are also using their subsistence plots. Privatized land holdings owned by small farmers are, as a rule, far from the house and without access to irrigation. Cultivation requires higher inputs while the generated income is low discouraging many small farmers from crop production on privatized land.

Table 5. Land size

| Cultivated land % | |
|----------------------|------|
| Land area | 61.8 |
| subsistence plots | 77.1 |
| Urban | 61.4 |
| for agricultural use | 59.3 |
| Urban | 49.2 |
| Rural | 59.7 |

Table 6. Breakdown of households by expenditure quintiles (data not weighted at HH level)

| Expenditures quintiles | Land size m ² | | Size of cultivated lands m ² | |
|------------------------|--------------------------|-----------------------------|---|-----------------------------|
| | Total | Average share per household | Total | Average share per household |
| I quintile | 180,882 | 506.7 | 38,247 | 107.1 |
| II quintile | 580,018 | 1,624.7 | 209,784 | 587.6 |
| III quintile | 1,585,490 | 4,441.1 | 460,519 | 1,290.0 |
| IV quintile | 3,081,980 | 8,633.0 | 1,529,670 | 4,284.8 |
| V quintile | 9,512,157 | 26,644.7 | 6,719,519 | 18,822.2 |

Thus, the total land size (951 ha) of households of the V quintile (the richest) is almost twice the aggregate size of the remaining four quintiles (543 ha). The picture will be more discouraging if cultivated areas are taken out from total areas. Here, the total land size (672 ha) cultivated by the V

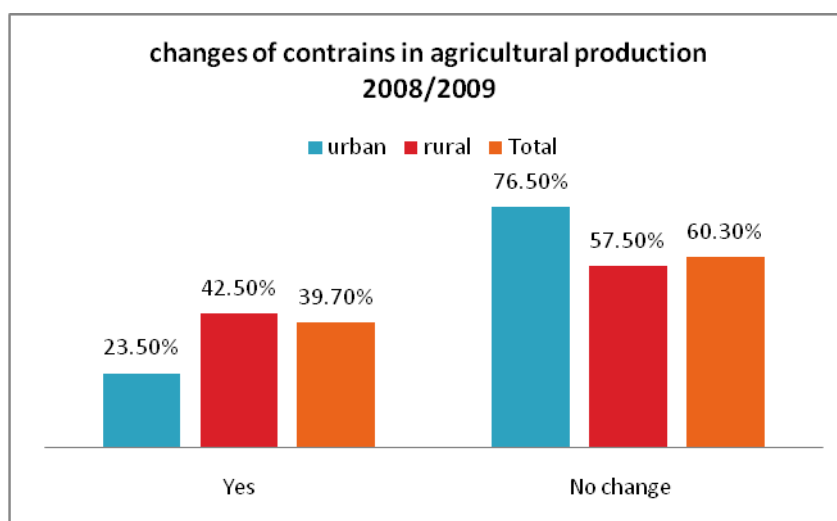
(richest) quintile exceeds the size of the aggregate land cultivated by the remaining four quintiles (223.8 ha).

Table 7. Crop cultivated and use (data referring to HH that have access to land)

| | Cultivated in 2009 % | for own consumption % | Main use | |
|--------------------------------|----------------------|-----------------------|--------------|----------------|
| | | | for market % | was affected % |
| Wheat | 21.0 | 43.9 | 51.7 | 4.5 |
| Barley or other fodder | 15.0 | 49.1 | 44.6 | 6.3 |
| Potatoes | 50.6 | 66.0 | 34.0 | 0 |
| Vegetables | 69.5 | 87.1 | 12.9 | 0 |
| Beans, Pulses, peas | 51.0 | 92.8 | 7.2 | 0 |
| Fruits/berries (except grapes) | 66.3 | 78. | 21.4 | 0.6 |
| Grapes | 23.9 | 51.6 | 47.8 | 0.6 |
| Flowers | 2.3 | 89.0 | 11.0 | 0 |

More than 2/3 of the households that have access to land, cultivate vegetables and fruit/berries. These products are mainly for own consumption with a small percentage grown for selling. In Shirak, where almost 50 percent of households cultivate vegetables, 41 percent of the production is sold to the market. The majority of the crops are produced for own consumption. The main crops produced for market are wheat, barley, and grapes. For more detail on Armenia Marzes access to Agricultural land

Figure 5. Distribution of the opinions of household members regarding difficulties in agricultural production by urban/rural



Rural households were negatively affected by the crisis in 2009. About 42.5 percent of them reported that in 2009 they had more constraints in agricultural production than in the previous year. The main reasons of these constraints are reported in the table below.

The first column shows the percentage of households that faced specific constraints while the column on the right shows the most important constraints that households faced. On average, the most important constraints for 25 percent of the households are less demand and lower profit followed by high costs for irrigation and labour.

Some 62 percent of the households considered high labour costs to be the most important constraint followed by weather conditions faced by 50 percent of households. This can be explained by the fact that in 2009 compared to 2008, the cost of labour increased and the amount of cash reduced. The cost for irrigation increased while the market demand for commodities went down leading to a decrease in market prices causing, in its turn, profits to decline.

Table 8. Reasons for agriculture constrains

| Agricultural constraints | Percentage of households facing this constraints % | Percentage of household considering this as the main constraint |
|-----------------------------|--|---|
| Less demand/lower profit | 30.1 | 25.0 |
| Less cash/capital available | 35.2 | 14.5 |
| Less access to credit | 3.2 | 2.3 |
| Higher interest rates | 1.6 | .6 |
| Higher costs for inputs | 18.5 | 7.2 |
| Reduced market prices | 28.7 | 10.6 |
| Higher cost for irrigation | 32.3 | 13.0 |
| Reduced subsidies | 5.6 | .9 |
| Lack of irrigation | 14.7 | 3.6 |
| Higher costs for labour | 62.5 | 11.9 |
| Weather conditions | 49.6 | 10.5 |
| Other, specify | 2.4 | 0 |
| Total | 284.5 | 100 |

2.2 Livestock

On average, 15 percent of the households own livestock. Cattle are owned by 12 percent of the households and their main use is to sell their products (40.5 percent); 17.6 percent of households own chicken mainly for their own consumption (83 percent). A 47 percent increase in the number of pigs from 2008 to 2009 probably links to the fact that the price of pork in 2008 had substantially increased (from 1,619 AMD in 2007 to 2,542 AMD in 2008)⁴ due to a considerable number of pigs slaughtered because of the swine flu disease.

Table 9. Livestock ownership, use and changes 2008-2009

| | Percent of households' own livestock | Main use | | | Change (2008-2009) | | |
|------------------|--------------------------------------|-----------------|-------------------------------|--|--------------------|-----------|----------|
| | | Own consumption | Selling young animals or meat | Selling animal products (dairies, eggs, wool, honey, etc.) | decrease | no change | increase |
| Cattle | 12.6 | 55.1 | 4.4 | 40.5 | 17.0 | 68.1 | 14.9 |
| Goats | 0.3 | 53.3 | 0.0 | 46.7 | 20.7 | 63.6 | 15.7 |
| Sheep | 3.3 | 36.4 | 40.4 | 23.3 | 37.3 | 44.2 | 18.5 |
| Pigs | 2.6 | 44.8 | 46.6 | 8.7 | 27.7 | 24.7 | 47.6 |
| Chicken | 17.6 | 83.4 | 0.6 | 16.0 | 27.6 | 38.8 | 33.6 |
| Bee stock | 0.9 | 34.4 | 0.0 | 65.6 | 14.0 | 57.3 | 28.7 |

⁴ Prices per Kg. in Table 2.3 are taken from: Food Security and Poverty Report, National Statistical Service of Armenia 2010.

3. Expenditures and debts

3.1 Expenditure

Total per capita monthly expenditures for food and non-food items were calculated and quintiles of expenditure were created⁵. The first quintile of households represents the poorest 20 percent. Table 10 compares the expenditures of the richest quintile with those of the poorest.

Table 10. Comparison of expenses of the 5th and 1st quintiles (by types of expenses)

| Number of times expenses of the 5 quintiles exceed those for the 1-st quintile (by types of expenses) | | | | | | | | |
|---|------|-------------|-----------|---------------|---------|-----------|--------|---------------------------------|
| Total | Food | Electricity | Transport | Communication | Clothes | Education | Health | Other(longer term) expenditures |
| 7.7 | 4.3 | 3.1 | 14.7 | 8.0 | 26.5 | 22.6 | 21.4 | 34.4 |

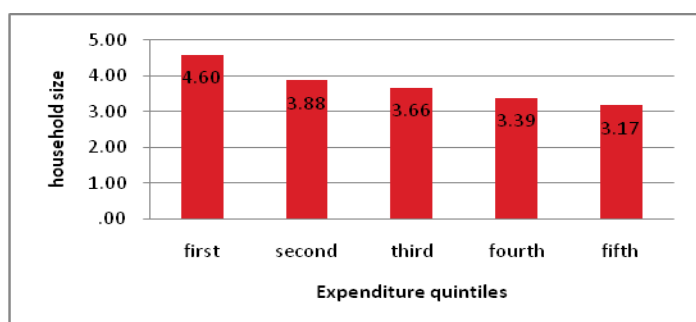
Table 11 shows the distribution of expenditure shares between expenditure quintiles. Households belonging to the poorest quintile spend on average 64 percent of their expenses on food; while for the richest it is only 38 percent. Poor households spend proportionately more from their budgets on electricity and less on all other items (transport, education, clothes, etc.) as compared with the better-off quintiles. For the poorest quintiles, the share of food bought on credit is higher. The per capita total expenditure in the poorest quintiles is 6.2 times less than in the richest quintile.

Table 11. Average amount of per capita expenditure by quintiles and share of expenditures by expenditure quintiles

| Average share of expenditure on | | | | | | | | | | |
|---------------------------------|-------|-------------|----------------------------------|---------------|-----------|-----------------------------|---------|------------------------------|---|--|
| Expenditure quintiles | food | Electricity | Local transport (including fuel) | Communication | education | health (doctor + medicines) | Clothes | other long term expenditures | Average share of monthly total expenditures in credit | Total monthly expenditure per capita (AMD) |
| First | 64.31 | 10.5 | 2.59 | 4.41 | 1.33 | 2.95 | 1.9 | 11.98 | 13 | 10,476 |
| Second | 59.82 | 8.89 | 3.73 | 5 | 1.79 | 2.47 | 3.34 | 14.99 | 8 | 16,077 |
| Third | 54.68 | 8.16 | 3.97 | 5.24 | 2.54 | 3.99 | 4.61 | 16.83 | 8 | 21,589 |
| Fourth | 49.39 | 6.78 | 5.06 | 5.47 | 3.27 | 4.78 | 5.43 | 19.83 | 7 | 29,732 |
| Fifth | 37.81 | 4.68 | 5.24 | 5.38 | 3.96 | 7.61 | 6.65 | 28.69 | 8 | 65,288 |
| Average | 53.20 | 7.8 | 4.12 | 5.1 | 2.58 | 4.35 | 4.39 | 24.86 | 8.7 | 28,632 |

The level of household expenditure depends on the number of household members – the larger the household (with many dependents), the lower the expenditure per capita. Households belonging to the first quintile (the poorest) have a higher number of household members, the household size decreases with the increase of the expenditure per capita.

Figure 6. Average number of household members by expenditure quintiles⁶



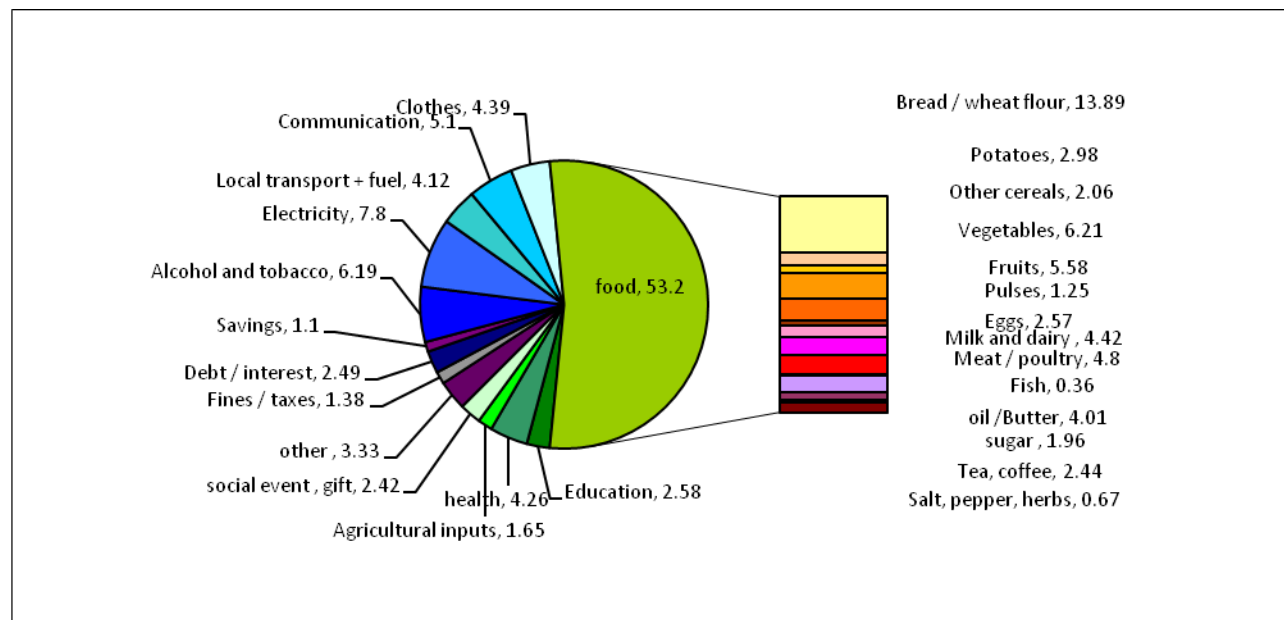
⁵ Households were ranked according to the monthly per person expenditures, starting from the lowest to the highest. Households ranked in this way are divided into 5 equal parts – quintiles.

⁶ All the differences between quintiles are significant (sign < 0.00)

Household average monthly spending on food during the past month (July) accounts for 53 percent of total spending. The highest expenses were for bread/wheat flour (13.9 percent) followed by electricity 7.8 percent, alcohol and tobacco (6.2 percent), vegetables and fruits (5 percent), and communication (5.1 percent).

There are not many differences between food purchased through borrowing and between rural and urban areas.

Figure 7. Expenditure composition



As the table below shows, the share of monthly total purchase on credit represents on average 8.7 percent. Purchase on credit in rural areas seems to be slightly higher (9.7 percent). Armavir (20 percent), Shirak (16 percent), Tavush (16.3 percent) and Vayots Dzor (13.7 percent) have the highest percentage of households buying on credit. Impressively, in Aragatson 70 percent of expenses are for food while households in Tavush have the highest amount of per capita expenditure.

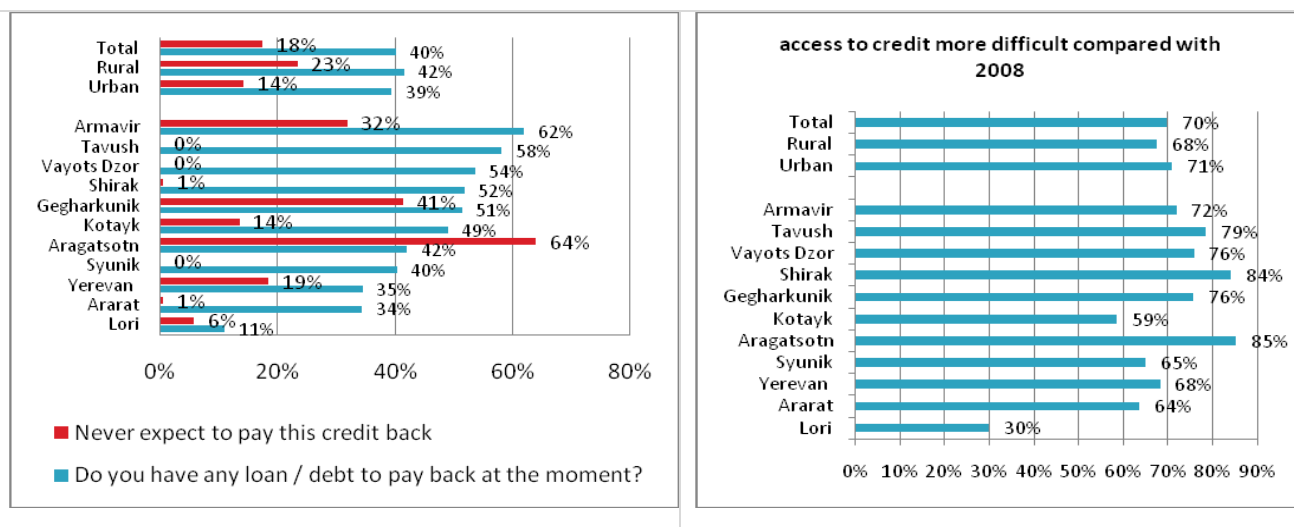
Table 12. Expenditure by Urban/rural

| | total monthly expenditure per capita | total monthly food expenditure per capita | total monthly non food expenditure per capita | total monthly expenditure on credit | share of monthly total expenditure in credit | Average share of food expenditure in total expenditure | Average share of non-food expenditure in total expenditure |
|--------------|--------------------------------------|---|---|-------------------------------------|--|--|--|
| | Mean | Mean | Mean | Mean | Mean of percent | Mean of percent | Mean of percent |
| Urban | 30,193.74 | 13,478.26 | 16,715.48 | 7,798.71 | 8.29 | 53.06 | 46.94 |
| Rural | 25,567.88 | 11,414.29 | 14,153.59 | 12,185.68 | 9.76 | 53.47 | 46.53 |
| Total | 28,632.85 | 12,781.82 | 15,851.03 | 9,279.00 | 8.79 | 53.2 | 46.8 |

3.2 Debts and access to credit

For urban dwellers, credit is more easily available than for rural dwellers, whether from a credit organization or bank. This is explained by the fact that in towns mortgaging is more practical: property is used as collateral while in rural areas, residential housing presents almost no value to secure credit. Within the same Marz, access to credit can be very different from village to village and from urban to rural. The farther from Yerevan, the more difficult is access to credit, the reason again being the relatively low value of property including agricultural land.

Figure 8. Debt at Marz and urban and rural level



Overall, more than 70 percent believe that access to credit in 2009 is more difficult than in 2008. It is noteworthy that 40 percent of the households have credit or debt to pay back. On average, 18 percent of the households have reported they would not be able to repay. This percentage increases dramatically in several marzes such as Aragatsotn (64 percent), Gegharkunik (41 percent) and Armavir (32 percent). Households in rural areas have more difficulty in paying back their debts compared with urban areas.

In the foreseeable future, the social solidarity between families and friends is going to deteriorate because many debts will not be paid back, thus shattering trust between relatives/friends. This can be considered an important element of vulnerability directly affecting household access to food as many households were able to feed themselves by borrowing. If before, generally speaking, borrowing was harmless and useful, it may now become socially disruptive and erode borrowing as a coping mechanism.

4. Employment and sources of income

In 2009 compared to 2008, the number of people with regular employment (more than 6 months) has decreased both among women and men (the decrease is more among women: -3.4 percent). In 2009 as in 2008, women of working age (16-63) accounted for a larger number in households than men. No significant changes have been registered in the number of women with irregular employment (less than 6 months). However, the number of men with irregular employment has decreased by 4.48 percent.

Among both registered and non-registered unemployed, women represent a larger number than men. The number of self-employed men has increased by 1.34 percent (except those engaged in agriculture) but the number of self-employed women has equally decreased. On the other hand, there are more women engaged in agriculture than men. Women who neither work nor look for a job represent a larger number than men.

If we sum the unregistered and registered unemployed, the increase in unemployment over 2009 is more than 20 percent. This data is confirmed by the projection of the World Bank saying that 'the main channel for transmission of the financial crisis is loss of employment and wage earnings. The financial crisis is likely to affect different sectors of the economy differently. For Armenia, the impact of the crisis on construction and export-oriented industries is more severe than on other sectors and projected to get worse'⁷.

Table 13. Comparison between 2008 and 2009, male and female employment

| Please compare the current situation with one year ago for male and female household members | Differences in percents | | | | |
|--|-------------------------|---------|------------|---------|---------------------------|
| | Male | | Female | | Male or Female Households |
| | Households | Persons | Households | Persons | |
| How many household members are/were of working age (16-63) | -0.10 | 1.25 | 0.28 | 1.08 | -0.13 |
| is/was regularly employed? (>6 months) | -2.42 | -1.94 | -3.42 | -3.40 | -3.23 |
| is/was Irregularly employed? (<6 months) | -4.64 | -4.48 | 0.06 | -0.57 | -1.21 |
| is/was registered as unemployed? | 19.49 | 18.41 | 32.09 | 31.02 | 23.75 |
| is/was an unregistered unemployed? | 5.46 | 6.55 | 14.60 | 16.19 | 6.48 |
| is/was self-employed (except in agriculture) | -0.43 | 1.34 | -0.76 | -1.34 | -1.05 |
| is/was engaged in agriculture? | -0.47 | 0.98 | 2.52 | 2.92 | 0.95 |
| Neither working nor looking for a job? (student, housewife, pensioner, etc.) | -1.67 | -1.10 | -0.20 | 0.67 | -0.96 |

A comparison between the sources of income in 2008 and 2009 revealed.

1. a decrease in income from the following sources:

- regular income from the public sector;
- regular income from the private sector;
- earnings from irregular work;
- income from self-employment;
- remittances from abroad;
- own family business; and
- irregular work - requiring skills and no skills.

2. an increase in income from the following sources:

- animal breeding and/or selling of animal products;
- renting out land/property;
- retirement pension;

⁷ World Bank, Armenia: Implications of the Global Economic Crisis on Poverty, page 8, April 2009.

- unemployment benefit;
- other state social benefits/pensions;
- support from any other source including in-kind.

Social transfers including benefits and retirement pensions are increasing in the structure of incomes in the face of increasing unemployment. Also, the share of credit and debt has the highest increase (1.2 percent) in all income sources from 2008 to 2009, obviously due to the crisis.

Table 14. Changes in income activities contribution between 2008 and 2009

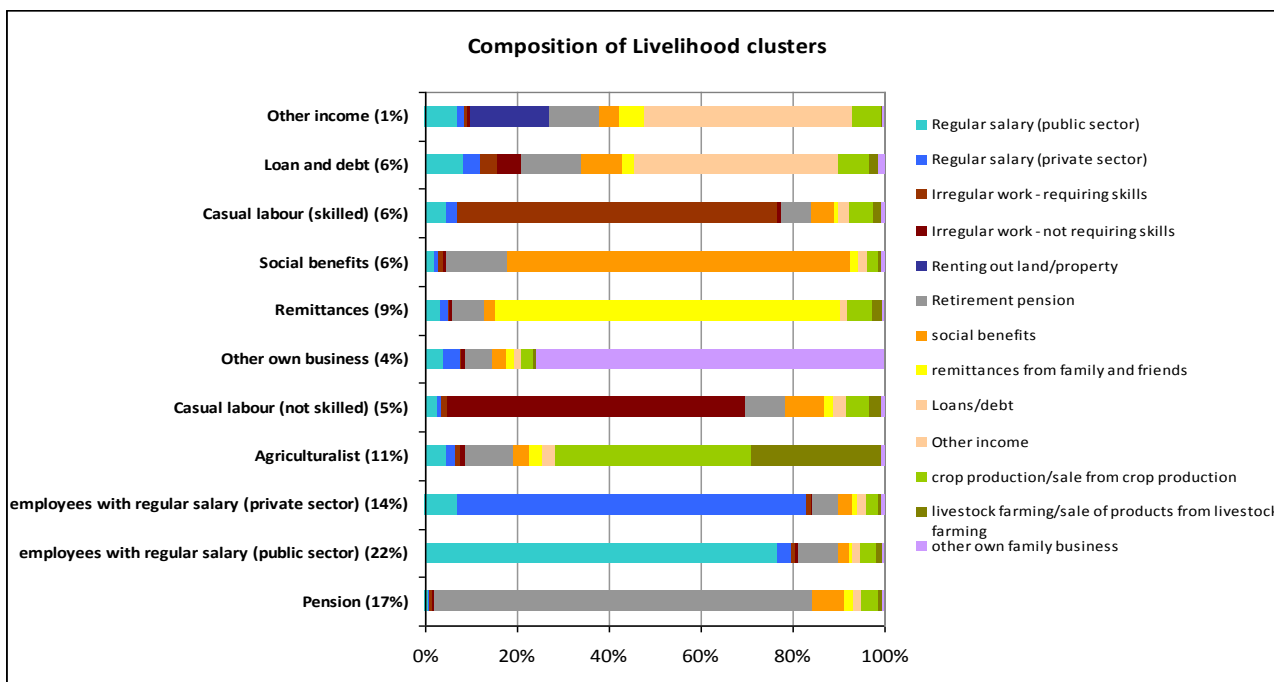
| Income source | Relative contribution to total income (percent) | | |
|---|---|-------|----------|
| | 2008 | 2009 | Dynamics |
| Regular salary (public sector) | 20.89 | 20.65 | -0.24 |
| Regular salary (private sector) | 13.28 | 12.4 | -0.88 |
| Irregular work - requiring skills | 4.94 | 4.78 | -0.16 |
| Irregular work - not requiring skills | 4.1 | 3.88 | -0.22 |
| Own/family business of which: | 15.81 | 15.73 | -0.08 |
| crop production | 8.03 | 7.9 | -0.13 |
| livestock | 3.96 | 4.09 | 0.13 |
| other business | 3.85 | 3.79 | -0.06 |
| Remittances from migrant family member abroad | 6.97 | 6.03 | -0.94 |
| Remittances from relatives or friends abroad | 2.78 | 2.62 | -0.16 |
| Renting out land/property | 0.09 | 0.11 | 0.02 |
| Retirement pension | 20.03 | 20.83 | 0.8 |
| Family benefit | 2.8 | 2.81 | 0.01 |
| Child care benefit | 0.13 | 0.15 | 0.02 |
| Unemployment benefit | 0.19 | 0.27 | 0.08 |
| Other state social benefits/pensions | 1.59 | 1.81 | 0.22 |
| Support including in-kind from any other source | 3.12 | 3.23 | 0.11 |
| Loans/debt | 2.97 | 4.18 | 1.21 |
| Other income | 0.33 | 0.52 | 0.19 |

The next paragraph examines the sample households' most commonly reported livelihood profiles. Respondents were asked to estimate the contribution of each income activity to the household's overall livelihood. Using the principal component analysis (PCA) and cluster analysis, households were grouped into 11 homogenous livelihood profiles using the contribution of each reported livelihood activity to the households' total income. The graph below indicates the contribution of each income activity in the 11 livelihood profiles.

Credit and Debt/ borrowing

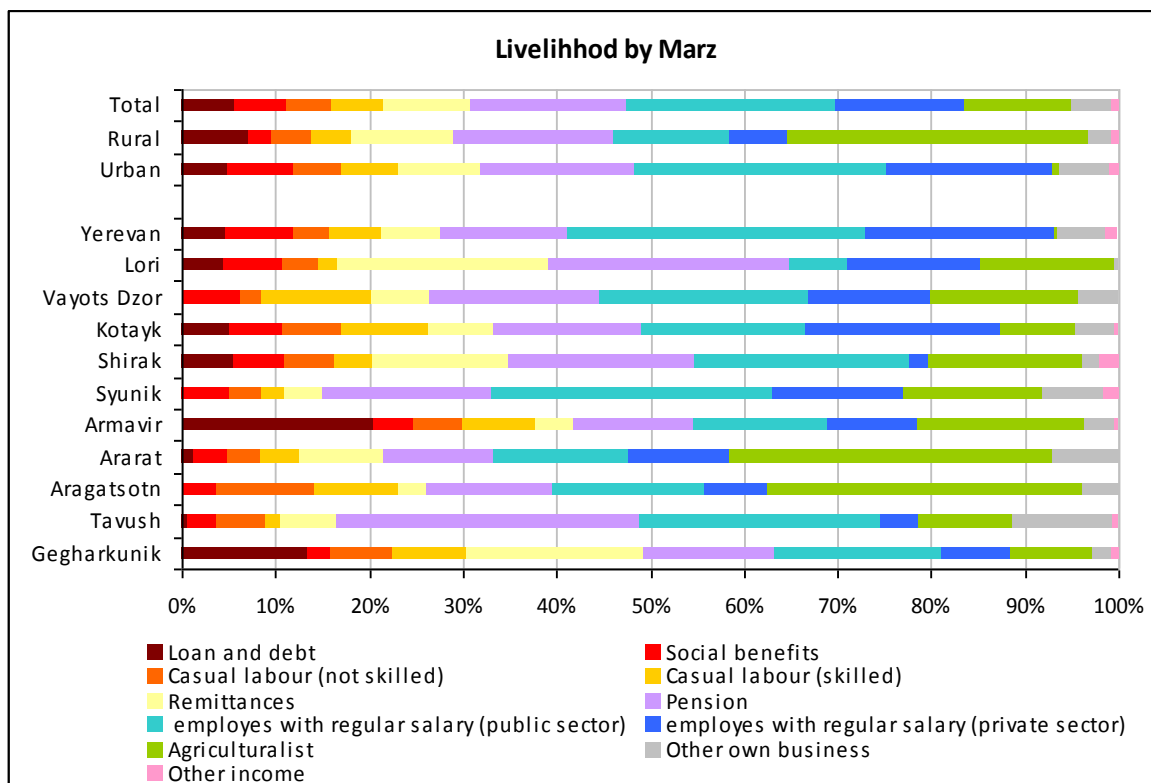
The survey questionnaire did not separate loans from borrowings which are different in terms of the lending source, amount and involvement or non-involvement of an interest rate. Loans are taken from banks and other financial institutions whereas borrowings are made from friends/relatives and small shops. Usually, unlike borrowings, loans involve larger amounts and carry an interest rate. Debts of households in 2009 in Armavir are predominantly credits whereas; those of households in Gegharkunik are borrowings from relatives.

Figure 9. Composition of livelihood profiles



For 36 percent of the households, the largest share of their income is derived from private and public sector salaries; for 17 percent the largest share of their income is derived from pensions, for 11 percent – from agriculture, and for another 11 percent – from casual labour requiring both skilled and unskilled labour. The most vulnerable households represent 12 percent as their main income is from social payments and debt.

Figure 10. Livelihood profiles by Marz and urban/rural



Armavir has the highest percentage (24) of households with the most non-sustainable livelihood profiles (credit/debt and social benefits), followed by Gegharkunik, Kotayk and Shirak. Rural areas have more people relying on debt and credit while urban areas have more households depending on social benefits.

4.1 Remittances

As the World Bank stated, the flow of remittances in Armenia increased rapidly during the last several years and the impact of the global economic crisis is likely to reduce remittances⁸. On average almost 20 percent of households received remittances in the past 3 years. Gegharkunik has the highest percentage (31.7 percent) of households who received remittances during the past 3 years. The survey data show that remittances from labour migrants in the marzes of Shirak, Lori, Gegharkunik and Aragatsotn largely account for seasonal labour migration which is more characteristic to rural areas while long-term labour migration is higher in urban areas.

Remittances from long-term labour migrants are more in Vayots Dzor, Syunik and Ararat marzes. In all the marzes, remittances are mainly coming from non-household members (e.g. in Yerevan, they account for more than 83 percent of all remittances, in Vayots Dzor, Syunik and Kotaik - more than 60 percent, in Tavush and Armavir – about half of all remittances).

Table 15. Remittances received over 2007, 2008 and/or 2009

| Marz | percent of households received remittances in 2007, 2008 and or 2009 | Received remittances from migrant household member (seasonal) % | Received remittances from migrant household member (long term) % | Received remittances from other source (non-household member *) % |
|-------------|--|---|--|---|
| Yerevan | 15.0 | 4.4 | 12.4 | 83.2 |
| Aragatsotn | 7.6 | 50.0 | 5.9 | 44.2 |
| Ararat | 23.6 | 18.8 | 34.9 | 48.7 |
| Armavir | 15.7 | 24.2 | 19.8 | 56.0 |
| Gegharkunik | 31.7 | 83.1 | 5.3 | 11.6 |
| Lori | 25.3 | 76.0 | 1.1 | 22.9 |
| Kotayk | 18.8 | 17.3 | 13.8 | 68.9 |
| Shirak | 29.7 | 68.5 | 8.5 | 22.9 |
| Syunik | 10.2 | 8.5 | 25.9 | 65.5 |
| Vayots Dzor | 12.1 | 6.5 | 27.9 | 65.6 |
| Tavush | 22.8 | 39.4 | 12.5 | 48.1 |
| Urban | 17.6 | 23.2 | 14.8 | 62.0 |
| Rural | 23.0 | 61.7 | 9.4 | 29.5 |
| Total | 19.4 | 38.5 | 12.7 | 49.0 |

*Other sources probably refers to relative migrated abroad

Table 16. Sources of remittances

| | Total cash remittances channeled through bank % | Cash remittances from Russia % | Currency of received remittance, % | | | | |
|-------------|---|--------------------------------|------------------------------------|-------|--------|-------|-----------------|
| | Mean | Mean | Rouble % | USD % | Euro % | AMD % | not available % |
| Yerevan | 74.43 | 42.14 | 14.4 | 63.9 | 11.8 | 5.2 | 4.8 |
| Aragatsotn | 57.94 | 55.95 | 62.3 | 14.1 | 4.1 | 5.6 | 13.9 |
| Ararat | 86.31 | 62.86 | 23.7 | 68.0 | 5.7 | 2.1 | 0.5 |
| Armavir | 96.77 | 85.56 | 20.6 | 72.7 | 5.3 | 0.0 | 1.3 |
| Gegharkunik | 54.50 | 65.94 | 10.3 | 86.0 | 0.0 | 0.0 | 3.7 |
| Lori | 96.86 | 94.92 | 1.9 | 93.2 | 3.7 | 0.0 | 1.3 |
| Kotayk | 73.24 | 63.35 | 29.3 | 64.1 | 2.6 | 1.4 | 2.7 |
| Shirak | 85.69 | 93.94 | 66.2 | 30.8 | 1.2 | 1.4 | 0.5 |
| Syunik | 89.84 | 88.81 | 46.3 | 44.5 | 0.0 | 5.3 | 3.8 |
| Vayots Dzor | 96.04 | 91.88 | 41.1 | 54.2 | 2.2 | 2.5 | 0.0 |
| Tavush | 80.18 | 77.36 | 28.1 | 66.7 | 0.0 | 5.2 | 0.0 |
| Urban | 82.08 | 64.60 | 24.6 | 62.6 | 6.4 | 3.1 | 3.3 |
| Rural | 76.85 | 77.22 | 24.7 | 69.7 | 2.7 | 1.3 | 1.6 |
| Total | 79.99 | 69.64 | 24.6 | 65.4 | 5.0 | 2.4 | 2.6 |

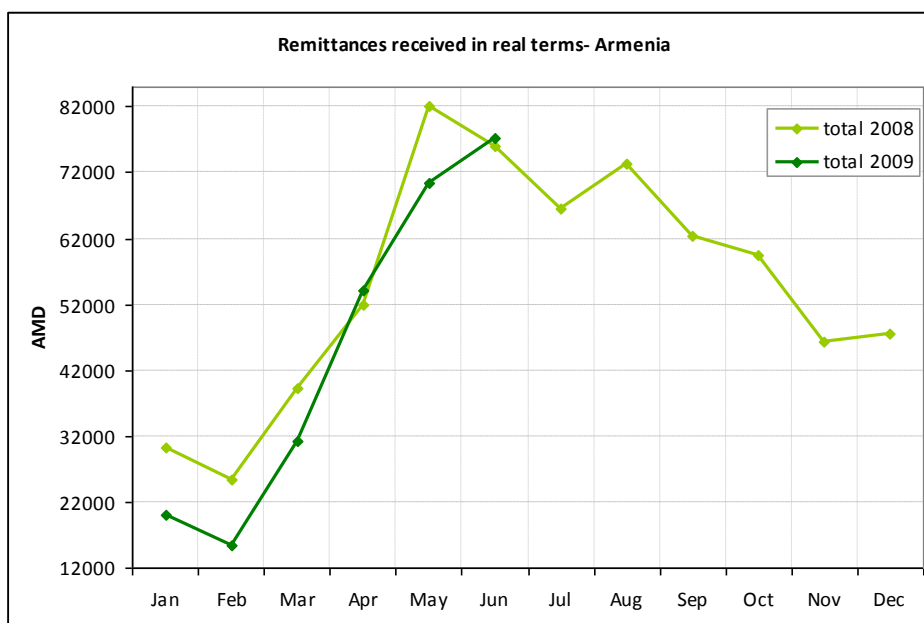
The majority of remittances are channeled through banks. Gegharkunik and Aragaston have the lowest percentage of remittances sent through banks. The fact that it is low in Gegharkunik could

⁸ World Bank, 2009.

probably be explained that labour migration here is mostly seasonal while in Aragaston this is probably due to the fact that very few households (7.6 percent) receive remittances. In Yerevan, the percentage of remittances coming from Russia is the lowest because many migrants prefer working in Europe, the US and other countries. The majority of remittances in all the marzes are received in US dollars with the exception of Shirak where the majority of migrants move to Russia. The high dependency on remittances from Russia will be affected by the financial crisis affecting the country with a consequent reduction of remittances to Armenia. Indeed, 3 percent of households that received remittances in 2008 did not receive them in 2009.

The graph below shows that the amount of remittances received in 2009 is lower than what was received in the same period in 2008.

Figure 11. Remittances received in real terms in 2008 and 2009



The dynamics of remittance flows shows that while the frequency of sending home money has increased, the amounts have decreased.

| Received in remittances | Increase/decrease % |
|--------------------------------|---------------------|
| Total amount, AMD | 8.09 |
| How many times | 21.78 |
| Received average annual amount | -17.5 |

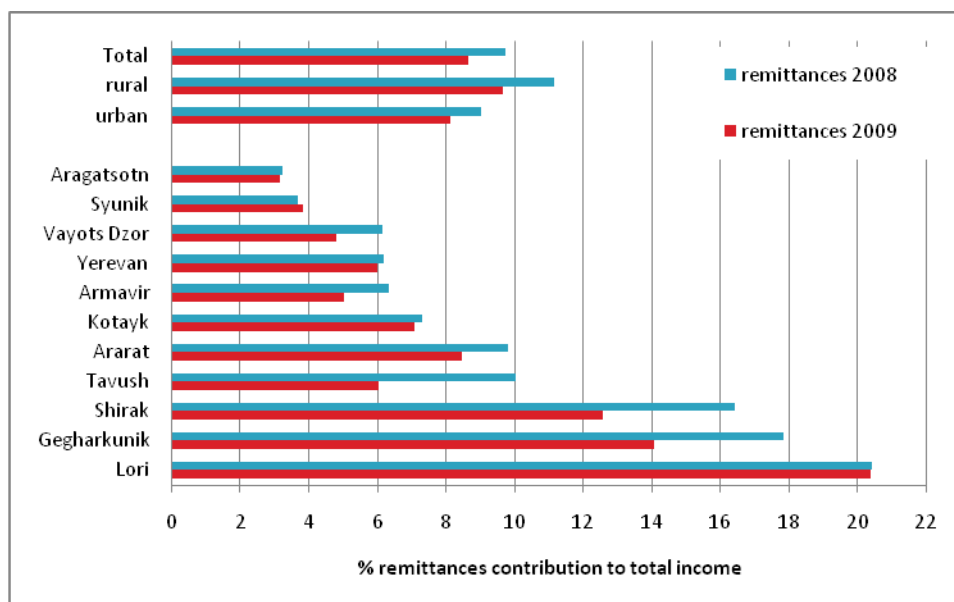
In January-July 2009 as compared with the same period in 2008, the number of households receiving remittances has decreased, with amounts having decreased by 17.5 percent on average. At the same time, 61 percent of the households receiving remittances in 2007 and 2008 stated that the amount of remittances received in 2009 had decreased.

Table 17. Remittance change and frequency between 2007 and 2008

| Change in remittances between 2007-2008 | | | | |
|---|-------------|-------------|------------|---|
| Marz | decrease, % | no change % | Increase % | Difference in number of times households received remittances |
| Yerevan | 52.7 | 13.7 | 33.6 | 1.79 |
| Aragatsotn | 20.6 | 18.8 | 60.6 | 0.11 |
| Ararat | 63.3 | 5.3 | 31.3 | 0.07 |
| Armavir | 62.1 | 0 | 37.9 | 0.88 |
| Gegharkunik | 84.8 | 0 | 15.2 | 0.48 |
| Lori | 69.0 | 1.2 | 29.8 | 0.59 |
| Kotayk | 56.5 | 4.5 | 39.0 | 1.68 |
| Shirak | 57.4 | 6.4 | 36.2 | 1.33 |
| Syunik | 50.9 | 25.0 | 23.3 | 1.04 |
| Vayots Dzor | 50.5 | 12.6 | 37.0 | 1.10 |
| Tavush | 53.2 | 4.4 | 42.4 | 0.98 |
| Urban | 58.6 | 9.5 | 31.9 | 1.51 |
| Rural | 64.9 | 2.4 | 32.7 | 0.43 |
| Total | 61.5 | 6.2 | 32.3 | 1.07 |

Looking at the contribution of remittances to the total income Tavush, Shirak, Vayots Dzor, Gegharkunik and Armavir have the highest percentage of changes in remittance contribution between 2008 and 2009. The contribution of remittances in these marzes decreased from 2008 to 2009. Interesting to note that Lori has the highest percentage of remittance contribution to income and the change in the prevalence between 2008 and 2009 is very low. This fact has to be taken into consideration during the analysis of Lori because even if most key indicators characterized Lori as a better off marz, this dependency on remittances can be considered an alarming vulnerability factor especially because these remittances are coming mainly from Russia.

Figure 12. Contribution of remittances to total income



5. Food consumption

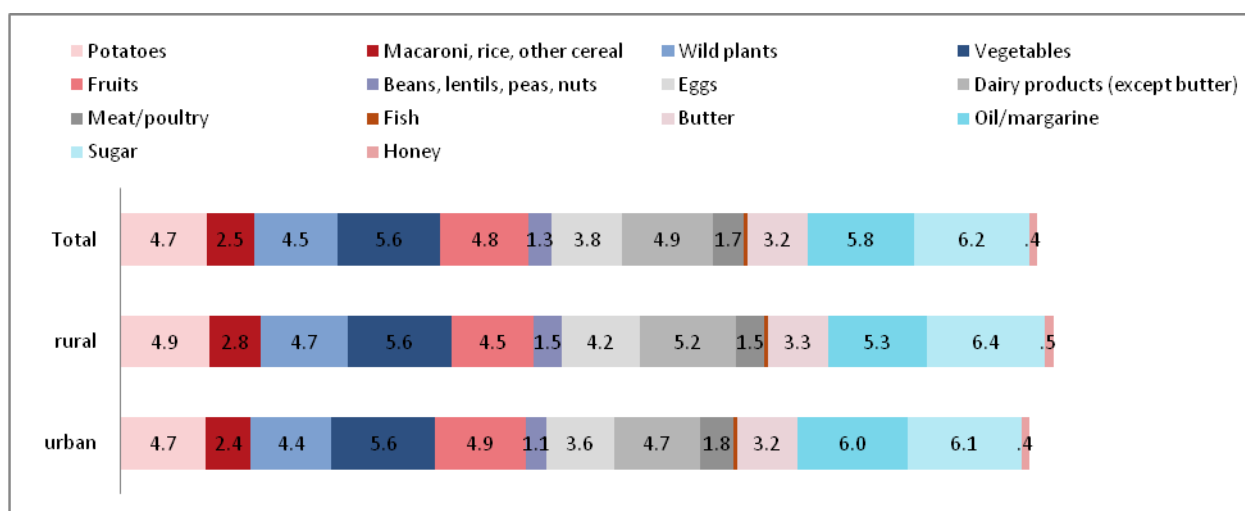
The overall food security situation described in the report should be taken with some reservation since the survey was conducted mainly in August, the highest season for fruits and vegetables available at prices much lower than during the rest of the year. In August-September, even low-income households are able to improve somewhat the consumption of especially vegetables compared to the rest of the year.

5.1 Food frequency and food consumption score

This chapter presents findings on diet diversity, current consumption, household food consumption groups and their geographic distribution.

Households were asked to report the frequency with which a list of food items was consumed. The purpose of this question was to collect information on the diversity of their diets and the frequency of food consumption. As Figure 13 illustrates there are no important differences in dietary diversity between urban and rural areas, however consumption of wild plants was noted to be higher in rural areas. Cereals, tubers and vegetables are consumed on a daily basis. Consumption of animal protein is mainly characterized by eggs while meat and fish are rarely consumed. The per capita consumption of eggs has increased in the past years substituting meat due the increased price of meat⁹.

Figure 13. Average days per week different in which different foods are consumed, by urban and rural



The analysis of the consumption of various foods does not take into account the nutritious values of the items consumed. Food consumption scores (FCS) were computed to reflect the diversity and frequency (number of days per week) of the food items consumed by households. FCS is a standardized frequency weighted diet diversity score. Diet diversity is correlated with nutrient adequacy, children’s and women’s anthropometry and socio-economic status.¹⁰ It is therefore a good proxy indicator of food access and nutrition intake. FCS is computed by grouping together the food items for which consumption was assessed over a seven-day recall period. The frequency represents the number of days an item from each food group was consumed, with a range from 0 (never) to 7 (every day). A weight is assigned to each food group representing its nutritional importance. All food groups and weights are presented in the following table. The FCS is the sum across food groups of the product of frequency by weight.

⁹ Food security and poverty, January 2010 NSS, page 93. Per capita monthly consumption of eggs from 2007 of 2008 increased from 9.38 units to 10.12 units.

¹⁰ Ruel M. 2003. Operationalizing Dietary Diversity: A Review of Measurement Issues and Research Priorities. *Journal of Nutrition* 133 (11 suppl. 2) 391 IS-3926S.

Figure 14. Food items, groups and weights for calculation of FCS

| | Food items | Food group | Weight |
|----|--|------------------------|--------|
| 1. | Cereals: corn, wheat, sorghum, rice, bread; Roots and tubers: manioc, sweet potatoes; Banana | Staples | 2 |
| 2. | Pulses: peanuts, beans | Pulses | 3 |
| 3. | Vegetables: including green leafy vegetables, shoots | Vegetables | 1 |
| 4. | Fruits | Fruits | 1 |
| 5. | Animal Proteins: fish, meat, eggs | Meat & fish | 4 |
| 6. | Milk & milk products | Milk | 4 |
| 7. | Oil and fats | Oil | 0.5 |
| 8. | Sugar | Sugar | 0.5 |

FCS is a continuous variable that is difficult to interpret. Two thresholds (28 and 42) are used to distinguish consumption level. The thresholds define three groups: poor consumption (≤ 28); borderline consumption (> 28 and ≤ 42); and acceptable consumption (> 42).

5.2 Food consumption groups

Using the food consumption score and the 28/42 thresholds, 95 percent of the households exhibited acceptable food consumption; 4 percent exhibited borderline food consumption; and 1 percent showed poor food consumption.

Table 18. Percent distribution of weekly consumption (by food group) of the food consumption groups

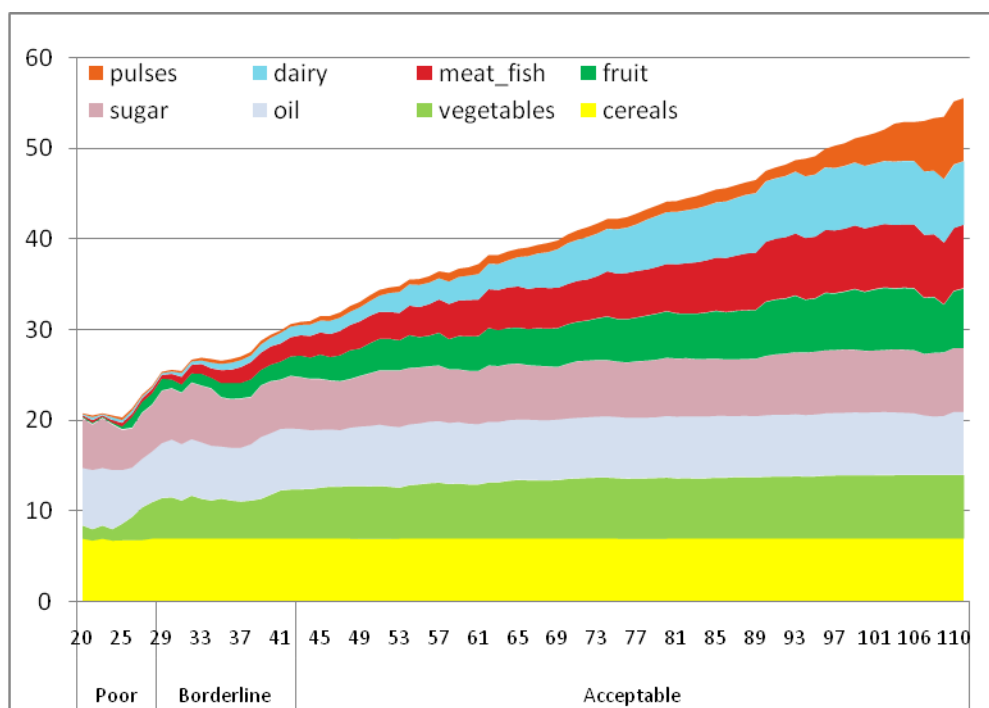
| Food consumption groups | % | Food groups (weekly consumption) | | | | | | | | FCS average |
|-------------------------|-----|----------------------------------|------------|------------------|------|-------|--------|----------------------------|----------------------------|-------------|
| | | Cereals | Vegetables | Meat, fish, eggs | Oil | Sugar | Fruits | Beans, lentils, peas, nuts | Dairy products (no butter) | |
| Poor | 1 | 6.90 | 2.81 | .31 | 5.73 | 5.20 | .83 | .16 | .18 | 25.33 |
| Borderline | 4 | 7.00 | 4.62 | 1.62 | 6.41 | 5.67 | 1.64 | .31 | .82 | 37.02 |
| Acceptable | 95 | 7.00 | 6.58 | 5.27 | 6.76 | 6.29 | 4.91 | 1.30 | 5.07 | 77.27 |
| Total | 100 | 7.00 | 6.47 | 5.08 | 6.74 | 6.26 | 4.75 | 1.25 | 4.86 | 75.23 |

The diet of the **poor food consumption** households was mainly based on cereals (consumed seven days per week) and vegetables (consumed three days per week). Animal and vegetable proteins were essentially absent from the diet of this group (averages are 0.1 for pulses, 0.3 for animal proteins and 0.1 for milk); sugar and oil are consumed on average 6 days per week.

The **borderline consumption** households showed greater consumption of all food items compared to households with poor consumption: this was especially evident for animal proteins and vegetables followed by fruit. Compared with the poor consumption group, the diet of borderline consumption group was characterised by greater diversity and frequency, with some proteins in the diet.

In the **acceptable food consumption** group there was a further increase in the consumption of all food items, especially animal proteins (5.2 days per week). The **acceptable consumption** households ate cereals, vegetables, oil and sugar and frequently consumed animal proteins, fruits, milk. Only pulses are less consumed. The consumption of animal protein is due to a high consumption of eggs, on average 4 times per week. Fish is rarely consumed.

Figure 15. Progressive increase in diet by FCS value



Looking at the distribution of food consumption groups, the marzes that have the highest percentage of poor and borderline households are Shirak, Gegharkunik and Yerevan. Considering that the data collection was done during the harvest period when the prices of food, particularly vegetables, fruits and eggs, were low, the prevalence of food insecure and borderlines are expected to be higher during the lean period and the rest of the year.

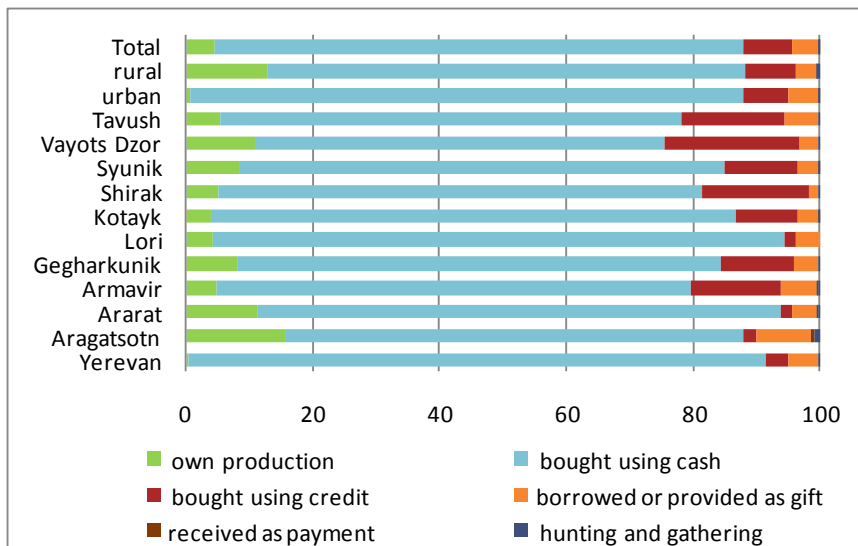
Table 19. Distribution of food consumption groups by Marz and urban/rural

| Marz | FC groups | | |
|-------------|-----------|--------------|--------------|
| | Poor % | Borderline % | Acceptable % |
| Yerevan | 1.3 | 4.3 | 94.4 |
| Shirak | 1.3 | 9.9 | 88.9 |
| Gegharkunik | 1.2 | 5.2 | 93.6 |
| Armavir | 1.0 | 4.8 | 94.1 |
| Tavush | .8 | 3.7 | 95.5 |
| Kotayk | .6 | 4.0 | 95.4 |
| Ararat | .3 | 1.7 | 98.0 |
| Lori | .2 | .3 | 99.5 |
| Vayots Dzor | .2 | 1.1 | 98.7 |
| Aragatsotn | .0 | 3.1 | 96.9 |
| Syunik | .0 | .9 | 99.1 |
| Urban | 1.1 | 4.8 | 94.1 |
| Rural | .4 | 2.3 | 97.3 |
| Total | .8 | 4.0 | 95.2 |

5.3 Sources of food

Food sources were analyzed to estimate their relative importance to overall diets. Figure 16 shows the importance of each source in the past seven days. The majority of households bought food using cash. In rural areas 11 percent of the households consume food coming from their own production. Looking at the sources of food, two of them - buying with borrowed money or receiving as a gift - can be considered as non-sustainable. The Figure refers to the past seven days indicating the marzes where non-sustainable sources of food are more used, these being Vayots Dzor, Armavir and Tavush.

Figure 16. Sources of food in the past week by Marz and urban/rural



6. Changes in purchasing food and the coping strategy index

The following coping strategies and severity weights were used to compute the reduced coping strategies index (CSI). Research demonstrated that reduced CSI reflects food insecurity nearly as well as the full or context-specific CSI. Even if the CSI does not have a cut off like the food consumption score, its average (which here is 16.6) can be used to compare groups and identify those who are more exposed to stress – in other words, those engaging more frequently in stressful coping mechanisms.¹¹

Table 20. Coping strategies and severity weights

| Coping Strategy strategies | Sever weights |
|--|---------------|
| Eating less preferred/less expensive foods | 1 |
| Borrowing food/relying on help from friends/relatives | 2 |
| Limiting portion size at mealtime | 1 |
| Limiting adult intake in order for small children to eat | 3 |
| Reducing number of meals per day | 1 |

Households that adopted more than 1 coping strategies (higher CSI) in the past seven days were found in Yerevan, Gegharkunik and Syunik. Urban areas show higher CSI compared with rural ones.

Table 21. Changes in purchasing food

| Marz | percent changes in amount of food purchases on credit compared to the same period last year | | | | In the past 7 days were there times when you did not have enough food or money to buy food? | reduced coping strategy index (CSI) |
|-------------|---|-------------|-------------|---------------------|---|-------------------------------------|
| | Increased % | Decreased % | No change % | No food on credit % | % | Mean |
| Yerevan | 9.7 | 4.3 | 8.9 | 77.2 | 31.2 | 20.90 |
| Aragatsotn | 6.5 | 16.6 | 26.9 | 50.0 | 8.3 | 9.46 |
| Ararat | 8.3 | 5.9 | 31.8 | 53.9 | 45.6 | 10.90 |
| Armavir | 27.3 | 3.9 | 34.8 | 34.1 | 47.4 | 11.83 |
| Gegharkunik | 30.7 | 8.1 | 23.2 | 38.0 | 27.8 | 18.15 |
| Lori | 2.1 | 1.4 | 18.4 | 78.0 | 5.9 | 15.89 |
| Kotayk | 23.8 | 6.0 | 31.4 | 38.8 | 32.9 | 15.75 |
| Shirak | 16.0 | 11.3 | 15.6 | 57.2 | 37.4 | 15.36 |
| Syunik | 20.0 | 1.4 | 27.6 | 51.1 | 23.4 | 18.94 |
| Vayots Dzor | 34.8 | 2.3 | 23.5 | 39.3 | 25.7 | 14.47 |
| Tavush | 42.4 | 2.2 | 20.1 | 35.3 | 32.7 | 16.50 |
| Urban | 15.3 | 4.1 | 15.7 | 64.9 | 32.0 | 18.33 |
| Rural | 16.1 | 7.9 | 27.5 | 48.5 | 26.1 | 12.65 |
| Total | 15.6 | 5.4 | 19.7 | 59.3 | 30.0 | 16.66 |

Only 59 percent of households are not buying food on credit. Food is purchased on credit more in villages than in towns (65 percent vs.48 percent). 15.6 percent of households have mentioned that at present more food is purchased on credit compared to the same period last year (in towns and villages, such households represent 16.1 percent and 15.3 percent respectively). 19.7 percent of households think that the situation has not changed (in villages and towns, such households account for 27 percent and 15.7 percent respectively). And, only 5.4 percent have reduced buying food on credit (in villages such households account for 4.1 percent, in towns for 7.9 percent). Notably, 42 percent of households in Tavush reported that the amount of food bought on credit increased between 2008 and 2009. Armavir, Gegharkunik, Kotayk and Tavush have the highest percentage of households buying food on credit (on average 65 percent). In Ararat and Armavir, more than 45 percent of the households did not have enough money to buy food the week before the survey.

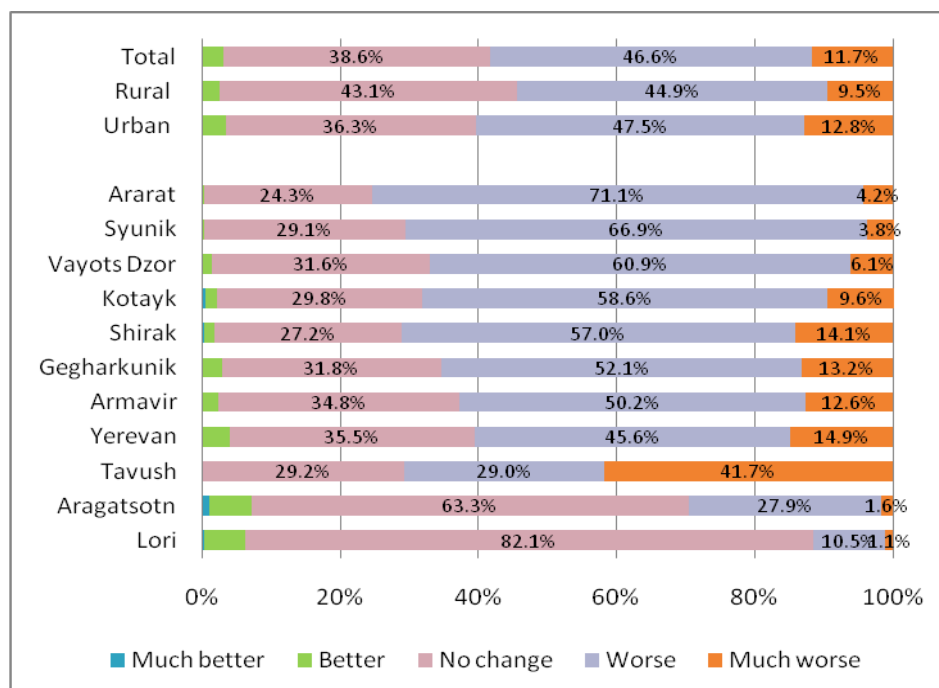
¹¹ Methodological details for the computation of reduced CSI can be found in the “Coping Strategy Index: Field Methods Manual” 2nd Edition, 2008.

7. Vulnerability to the financial crisis and household coping strategies

7.1 Impact of the financial crisis and crisis-related difficulties

The survey assesses the household perception of the economic situation of the past year. On average 58 percent of the households reported that the financial situation in 2009 is worse or much worse compared to 2008. A high percentage (60) of households in urban areas perceived their situation is worse or much worse than last year. It was slightly less in rural areas (54 percent). In Tavush 42 percent of the households reported that the economic situation is 'much worse' than 2008 while in Lori households did not report major changes in the economic situation between 2008 and 2009 (this is also confirmed by the fact that 84 percent reported not to have any crisis-related difficulties).

Figure 17. Comparison on the overall economic situation of the household between 2008 and 2009



The tables below show the crisis-related difficulties the households experienced in the past 12 months. High food prices, high medicine prices and loss of employment featured as the 3 most important difficulties reported by households. Almost 64 percent of the households reported high food prices as a main difficulty followed by high prices for medicines (22.5 percent) and loss of employment in Armenia (15.7 percent). On average, only 24.6 percent of households did not report any difficulty related to the crisis. Urban areas were more affected by health-related difficulties due to unaffordable healthcare services (13.4 percent), and high prices for medicines, while rural areas have more difficulties for high costs for inputs and inability to pay back debt. In Aragatsotn, 40 percent of the households reported loss of employment in Armenia; in Gegharkunik, 38 percent of the households faced the same condition in the past year. Armavir (by 42 percent) and Gegharkunik, Vayots Dzor and Tavush (all by 37 percent) have the highest percentage of households reporting inability to pay back debt.

Figure 18. crisis-related constrains by urban/rural

| | Considered as main constraint, % | Percent of households reporting the three specific constraints | | |
|---|----------------------------------|--|-------|-------|
| | | Armenia | Urban | Rural |
| Loss of employment in Armenia | 13.2 | 15.7 | 17.0 | 13.3 |
| Reduced wages in Armenia | 8.5 | 12.7 | 14.9 | 8.4 |
| Delayed payment inside Armenia | 1.8 | 3.7 | 3.7 | 3.7 |
| Unaffordable health/medical services | 7.0 | 13.4 | 15.7 | 8.8 |
| Delayed payment outside Armenia | .7 | 1.4 | .9 | 2.4 |
| Reduced remittances from HH labour migrants | 3.4 | 5.3 | 3.6 | 8.5 |

| | | | | |
|---|-------|-------|-------|-------|
| Reduced remittances from non-HH members | 1.6 | 2.5 | 2.6 | 2.4 |
| Reduced support from friends/relatives inside Armenia | 1.4 | 4.2 | 4.4 | 3.6 |
| Loss of social benefits | .7 | 1.6 | 1.9 | 1.2 |
| Lost of savings/assets | 1.6 | 4.9 | 3.6 | 7.5 |
| High food prices | 28.1 | 63.8 | 68.0 | 55.6 |
| High fuel transportation prices | .8 | 13.5 | 13.0 | 14.5 |
| High costs for inputs (business/agriculture) | .5 | 5.1 | 1.3 | 12.5 |
| High prices for medicines | 1.7 | 22.5 | 27.5 | 12.5 |
| Delayed going to hospital for lack of money | .5 | 4.7 | 5.2 | 3.8 |
| Exchange rate fluctuations | .6 | 6.6 | 6.9 | 5.8 |
| Inability to pay back debt | 1.0 | 10.3 | 9.2 | 12.3 |
| Lack of demand of customers/clients | .7 | 2.6 | 2.8 | 2.2 |
| Limited access to credit | .1 | 2.3 | 2.1 | 2.6 |
| Low market prices for locally produced goods | .2 | 2.8 | .6 | 7.1 |
| Other crisis related shock, if yes, specify: | 1.6 | 6.3 | 7.9 | 3.1 |
| No crisis related difficulty (end interview here) | 24.6 | 24.6 | 20.7 | 32.3 |
| Total | 100.0 | 230.3 | 233.4 | 224.1 |

8. Coping strategies adopted during 2008

Households were asked how the difficulties faced changed their behavior in the past 12 months.

8.1 Food and agriculture related coping strategies

It is worth noting that 65 percent of households decreased the amount of food consumed, this value having increased more for urban areas. 78 percent of households replaced consumption of expensive food with cheaper ones. Even in this case urban households are worse than rural ones but this could be because they rely more on market/purchase. More than 42 percent of households in Ararat and Aragatsotn marzes reduced investment in agriculture in response to the shocks, very few households sold livestock but 25 percent of the households in rural areas increased food production.

Table 22. Food and agriculture coping strategies, by Marz and urban/rural

| Marz | Decreased amount of food consumption % | Replaced consumption of expensive food with cheaper ones % | Increased production of food products % | Sold livestock % | Reduced investment in agriculture % | Less use of quality seeds* % | Less use of fertilizers* % | Less use of irrigation* % |
|-------------|--|--|---|------------------|-------------------------------------|------------------------------|----------------------------|---------------------------|
| Yerevan | 66.1 | 73.4 | 0.0 | 0.0 | 0.4 | 100.0 | 57.3 | 0.0 |
| Aragatsotn | 54.7 | 73.4 | 30.1 | 4.8 | 46.5 | 79.4 | 84.9 | 57.4 |
| Ararat | 66.4 | 79.8 | 26.1 | 7.2 | 42.8 | 68.6 | 99.4 | 40.7 |
| Armavir | 71.1 | 77.1 | 0.3 | 0.0 | 5.6 | 49.4 | 100.0 | 55.1 |
| Gegharkunik | 53.0 | 83.0 | 18.1 | 3.1 | 22.5 | 76.7 | 95.2 | 7.8 |
| Lori | 83.8 | 92.7 | 13.7 | 1.9 | 9.3 | 83.9 | 100.0 | 0.0 |
| Kotayk | 60.1 | 88.3 | 6.7 | 1.1 | 20.0 | 76.6 | 96.4 | 74.6 |
| Shirak | 75.7 | 82.8 | 10.2 | 8.6 | 11.3 | 96.5 | 89.1 | 21.6 |
| Syunik | 48.4 | 71.5 | 12.6 | 5.0 | 14.0 | 64.0 | 97.5 | 4.9 |
| Vayots Dzor | 59.5 | 70.6 | 8.9 | 3.5 | 31.5 | 22.7 | 96.9 | 9.1 |
| Tavush | 63.3 | 89.3 | 15.5 | 1.8 | 2.6 | 84.2 | 59.6 | 0.0 |
| Total | 64.7 | 78.2 | 8.4 | 2.4 | 12.8 | 72.4 | 94.3 | 38.1 |
| Urban | 68.7 | 79.5 | 1.2 | 0.3 | 2.4 | 76.2 | 90.8 | 22.3 |
| Rural | 55.3 | 75.0 | 25.0 | 7.5 | 36.8 | 71.8 | 94.8 | 40.4 |
| Total | 64.7 | 78.2 | 8.4 | 2.4 | 12.8 | 72.4 | 94.3 | 38.1 |

*Specific group percentages refer to the subset of those who answered yes to reducing investment in agriculture

8.2 Income and asset-related coping strategies

Around 65 percent of the households stopped buying some non-food items during the past year. In Ararat, 73 percent of the households spent savings in the past year in order to face difficulties while this percentage in Gegharkunik is 55 percent, much higher than the national average of 28.4 percent. Gegharkunik seems to be one of the most affected marzes considering that it has the highest prevalence in all the coping strategies adopted compared with the other marzes.

Table 23. Income and assets related coping strategies 1, by Marz and urban/rural

| Marz | Sent a member of household to work elsewhere % | Stopped buying some non-food items % | Changed mode of transport / reduced transportation costs % | Started / increased to buy second hand items % | Spent savings % | Sold household assets / property % | Reduced investment in business development % | Sought alternative monetary income source % |
|-------------|--|--------------------------------------|--|--|-----------------|------------------------------------|--|---|
| Yerevan | 4.8 | 56.4 | 32.2 | 11.4 | 18.3 | 6.9 | 2.8 | 25.7 |
| Aragatsotn | 12.5 | 74.3 | 40.6 | 16.7 | 37.1 | 6.9 | 22.8 | 18.1 |
| Ararat | 13.6 | 59.8 | 38.3 | 6.5 | 73.3 | 2.0 | 6.2 | 6.5 |
| Armavir | 3.0 | 39.6 | 3.1 | 0.0 | 7.6 | 8.0 | 1.2 | 4.7 |
| Gegharkunik | 29.4 | 84.2 | 57.8 | 16.8 | 55.1 | 19.6 | 5.0 | 25.9 |
| Lori | 0.0 | 86.8 | 41.5 | 1.7 | 23.4 | 0.0 | 0.0 | 53.3 |
| Kotayk | 11.2 | 82.3 | 27.6 | 10.8 | 34.2 | 6.1 | 3.7 | 9.9 |
| Shirak | 16.0 | 82.3 | 22.1 | 3.5 | 25.1 | 15.8 | 1.6 | 39.3 |
| Syunik | 3.9 | 64.7 | 24.1 | 6.2 | 29.3 | 1.1 | 6.4 | 0.3 |
| Vayots Dzor | 4.4 | 66.1 | 26.8 | 6.1 | 24.2 | 3.8 | 4.4 | 2.2 |
| Tavush | 13.8 | 61.8 | 41.8 | 0.3 | 0.2 | 0.3 | 4.2 | 21.5 |
| Total | 9.4 | 64.5 | 31.7 | 8.9 | 28.4 | 7.3 | 4.2 | 20.6 |
| Urban | 6.7 | 67.2 | 31.6 | 10.1 | 26.7 | 9.0 | 3.3 | 25.2 |
| Rural | 15.5 | 58.4 | 31.9 | 6.2 | 32.2 | 3.5 | 6.3 | 9.9 |
| Total | 9.4 | 64.5 | 31.7 | 8.9 | 28.4 | 7.3 | 4.2 | 20.6 |

52 percent of the households in Aragatsotn accepted working for lower wages, and 58 percent accepted short – term contracts while 40 percent started growing their own food. Social behaviors as engaging less in entertainment and meeting with friends have been adopted by the majority of the households while more radical coping mechanisms such as involving children in the income activities and moving to rural areas have been adopted by a small percentage of the population.

Table 24. Income and assets related to coping strategies 2, by Marz and urban/rural

| Marz | Accepted working for lower wages % | Accepted short-term contracts % | Increased involvement of women in income generation % | Involved one or more children (<16) in income % | Started growing own food (subsistence agriculture) % | Started less use of entertainment % | Started meeting less with friends % | Moved from the city to live in a rural area to reduce costs % |
|-------------|------------------------------------|---------------------------------|---|---|--|-------------------------------------|-------------------------------------|---|
| Yerevan | 23.1 | 16.8 | 31.4 | 1.9 | 0.9 | 72.1 | 73.3 | 1.8 |
| Aragatsotn | 52.0 | 58.6 | 46.8 | 16.0 | 40.0 | 75.9 | 73.4 | 1.1 |
| Ararat | 18.0 | 24.2 | 25.7 | 2.2 | 10.4 | 37.6 | 42.9 | 0.0 |
| Armavir | 12.4 | 10.2 | 4.9 | 0.0 | 2.5 | 37.6 | 40.5 | 0.0 |
| Gegharkunik | 26.7 | 18.4 | 40.9 | 4.2 | 20.0 | 73.4 | 59.2 | 0.0 |
| Lori | 10.7 | 8.8 | 8.1 | 0.0 | 4.4 | 72.9 | 87.6 | 1.7 |
| Kotayk | 29.4 | 21.8 | 25.8 | 0.6 | 9.2 | 72.0 | 80.7 | 1.6 |
| Shirak | 23.4 | 23.7 | 12.1 | 0.0 | 1.0 | 85.0 | 86.2 | 0.4 |
| Syunik | 9.6 | 5.6 | 7.5 | 2.4 | 15.2 | 66.6 | 66.0 | 1.5 |

| | | | | | | | | |
|-------------|------|------|------|-----|------|------|------|-----|
| Vayots Dzor | 5.1 | 6.3 | 34.8 | 7.9 | 30.3 | 75.7 | 76.5 | 0.0 |
| Tavush | 19.8 | 15.4 | 6.0 | 0.2 | 0.0 | 51.5 | 50.2 | 0.0 |
| Total | 22.5 | 19.0 | 25.3 | 2.3 | 7.0 | 66.7 | 67.9 | 1.1 |
| Urban | 23.7 | 18.6 | 25.9 | 1.5 | 1.9 | 72.2 | 73.1 | 1.4 |
| Rural | 19.8 | 20.1 | 23.9 | 4.1 | 19.0 | 54.0 | 56.1 | 0.4 |
| Total | 22.5 | 19.0 | 25.3 | 2.3 | 7.0 | 66.7 | 67.9 | 1.1 |

8.3 Education-related coping mechanisms

Households have left almost intact habits related with education. Education continues to have a significant role in the range of permanent values. In Aragatsotn, removing children from school or postponing their education was reported as a coping strategy by 6.4 percent of respondents while support services for the care of children were sought by 5.2 percent of respondents who relied exclusively on grandparents for assistance.

Table 25. Education related coping mechanisms, by Marz and urban/rural

| Marz | Took one or more children out of school or postponed education? % | Sought support services for the care of children? % |
|-------------|---|---|
| Yerevan | 1.0 | 3.0 |
| Aragatsotn | 6.4 | 5.2 |
| Ararat | 1.0 | 0.6 |
| Armavir | 0.9 | 0.0 |
| Gegharkunik | 0.7 | 0.3 |
| Lori | 0.0 | 0.0 |
| Kotayk | 1.2 | 0.0 |
| Shirak | 4.3 | 0.0 |
| Syunik | 0.0 | 0.0 |
| Vayots Dzor | 0.3 | 0.0 |
| Tavush | 0.0 | 1.0 |
| Urban | 1.5 | 1.8 |
| Rural | 1.2 | 0.8 |
| Total | 1.4 | 1.4 |

8.4 Health-related coping mechanisms

Almost 39 percent of households in Armenia were obliged to reduce/stop /cancel using health care services in the face of the shocks. This percentage increased in Aragatsotn and Kotayk, where more than 50 percent of the households adopted such coping strategies. More than 20 percent of households reduced or stopped buying medicine.

Table 26. Health related copings 1, by Marz and urban/rural

| Marz | Reduced / stopped / cancelled using health care services % | Medical check-ups for children % | Medical check-ups for women % | Medical check-ups for men % | Medical support for disabled/chronically ill HH members % | Maternal health % | STI-related, gynaecologic and urologic care % | Use of contraceptives % | In-patient / out-patient facility regarding SRH needs % |
|-------------|--|----------------------------------|-------------------------------|-----------------------------|---|-------------------|---|-------------------------|---|
| Yerevan | 39.6 | 24.3 | 73.8 | 47.0 | 20.0 | 2.9 | 4.0 | 0.8 | 3.7 |
| Aragatsotn | 59.4 | 63.4 | 84.2 | 81.0 | 8.2 | 13.7 | 34.1 | 23.9 | 24.6 |
| Ararat | 36.9 | 30.5 | 66.9 | 47.8 | 6.8 | 11.9 | 6.2 | 3.4 | 4.2 |
| Armavir | 23.2 | 20.9 | 44.6 | 36.2 | 13.8 | 1.3 | 2.7 | 0.0 | 1.3 |
| Gegharkunik | 33.6 | 36.4 | 85.0 | 80.8 | 25.6 | 6.9 | 3.4 | 4.8 | 21.9 |
| Lori | 20.3 | 0.0 | 81.5 | 63.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | | | | | |
|---|------|------|------|------|------|-----|------|-----|------|
| Kotayk | 54.8 | 30.4 | 86.3 | 67.6 | 23.5 | 9.2 | 18.1 | 7.3 | 10.4 |
| Shirak | 45.6 | 18.3 | 74.4 | 35.0 | 36.0 | 1.8 | 0.3 | 0.8 | 0.0 |
| Syunik | 26.1 | 13.6 | 80.1 | 23.9 | 19.4 | 3.1 | 1.2 | 3.0 | 0.0 |
| Vayots Dzor | 48.8 | 18.2 | 84.4 | 64.8 | 34.3 | 0.0 | 1.4 | 0.0 | 0.9 |
| Tavush | 18.1 | 22.7 | 85.9 | 36.6 | 31.7 | 5.8 | 0.0 | 0.0 | 0.0 |
| Urban | 40.5 | 24.0 | 74.8 | 49.3 | 21.9 | 4.2 | 5.7 | 2.4 | 5.5 |
| Rural | 34.7 | 36.4 | 78.4 | 59.3 | 16.9 | 8.2 | 11.5 | 6.8 | 8.4 |
| Total | 38.7 | 27.3 | 75.8 | 52.0 | 20.6 | 5.3 | 7.3 | 3.6 | 6.3 |
| <i>*Specific group percentages refer to the subset of those who answered yes to reducing health care services</i> | | | | | | | | | |

As regards, family planning, postponement of marriage was most common with 10.1 percent of the total population. This strategy was particularly noted in Yerevan, Aragatsotn, Gegharkunik, and Shirak, the practice being more common in urban areas than rural. Postponement of having children was less common but in Aragatsotn, 10 percent of respondents did practice this strategy. Terminating pregnancy was not commonly reported, but was noted in more than 5 percent of respondents in Aragatsotn and Gegharkunik.

Table 27. Health related coping mechanisms 2, by Marz and urban/rural

| Marz | Postponed plans for marriage | Postponed plans for having (more) children | Terminated pregnancy | Other coping strategy | Reduced or stopped buying medicine | Cardio-vascular medicine | Sexual and reproductive health/obstetric drugs | Other medicine |
|---|------------------------------|--|----------------------|-----------------------|------------------------------------|--------------------------|--|----------------|
| Yerevan | 13.3 | 8.6 | 4.3 | 1.5 | 20.2 | 62.6 | 1.8 | 19.0 |
| Aragatsotn | 16.7 | 10.0 | 5.6 | 0.0 | 27.5 | 72.3 | 42.6 | 7.6 |
| Ararat | 2.5 | 1.9 | 0.7 | 0.2 | 25.5 | 72.6 | 3.2 | 14.9 |
| Armavir | 1.9 | 4.1 | 0.9 | 0.2 | 13.6 | 84.5 | 0.0 | 10.9 |
| Gegharkunik | 14.4 | 8.4 | 5.9 | 1.2 | 25.2 | 96.5 | 15.1 | 37.1 |
| Lori | 1.2 | 1.2 | 0.0 | 0.0 | 6.5 | 73.3 | 0.0 | 26.7 |
| Kotayk | 5.6 | 5.6 | 1.7 | 0.0 | 23.8 | 72.5 | 21.2 | 15.2 |
| Shirak | 14.9 | 7.7 | 1.7 | 0.0 | 39.9 | 63.4 | 3.4 | 61.0 |
| Syunik | 4.7 | 2.0 | 0.0 | 0.0 | 10.9 | 85.8 | 10.5 | 13.1 |
| Vayots Dzor | 7.7 | 4.0 | 0.4 | 0.0 | 12.3 | 87.3 | 7.0 | 21.2 |
| Tavush | 8.2 | 2.1 | 1.2 | 4.2 | 7.8 | 66.1 | 0.0 | 39.5 |
| Urban | 11.7 | 7.3 | 3.2 | 1.1 | 22.1 | 66.8 | 5.9 | 28.8 |
| Rural | 6.2 | 4.6 | 2.1 | 0.4 | 20.4 | 78.6 | 11.9 | 18.7 |
| Total | 10.1 | 6.5 | 2.9 | 0.9 | 21.6 | 70.2 | 7.6 | 25.9 |
| <i>*Specific group percentages refer to the subset of those who answered yes to reducing health care services</i> | | | | | | | | |
| <i>**Specific group percentages refer to the subset of those who answered yes to reduced buying medicine</i> | | | | | | | | |

9. Food insecurity and vulnerability

Food security is a complex concept reflecting multiple dimensions: food availability, food access and food utilization. The Food Consumption Score (FCS) is commonly used as a proxy-measure of food access and of the current food security situation because it is a reliable and easily replicable measure that correlates well with more complex measures.

In order to ensure that the food consumption score is an appropriate and valid proxy indicator to measure food security in Armenia, it was validated by comparing it to other indicators associated with food access and food utilization, including the Coping Strategy Index, per capita monthly food expenditure, per capita total expenditures, and the share of monthly expenditures on food. Bivariate correlations and ANOVA tests with these indicators and the FCS show that it is an adequate proxy for measuring the current food security situation in Armenia. Please see annexes for more details on the validation of the FCS.

The FCS is used to create food consumption groups in order to describe the characteristics of populations with current food insecurity. WFP uses standardized thresholds, which can be adapted to suit local dietary patterns, to define poor, borderline and acceptable food consumption groups. In the case of Armenia, the standard food consumption groups were used: poor < 28, borderline 28-42 and acceptable > 42. Households with poor or borderline food consumption are defined to be in a currently food insecure status, while households with an acceptable diet have been considered to be food secure.

In addition to the current food security status of a household, vulnerability to future food security was also examined, specifically in the context of the global financial crisis. In order to estimate the impact of the global financial crisis on the food security status of households, food security vulnerability profiles were created. Food security vulnerability is based on the adoption of behaviors that will jeopardize the future food security of a household. These behaviors are non-sustainable actions which indicate financial instability that will negatively affect food security in the future if continued.

The two indicators were taken into consideration to define a household's vulnerability to food insecurity:

- households that stated that at the moment of the survey they were not able to pay back their debts; and
- households that mainly access food through credit or borrowing¹²

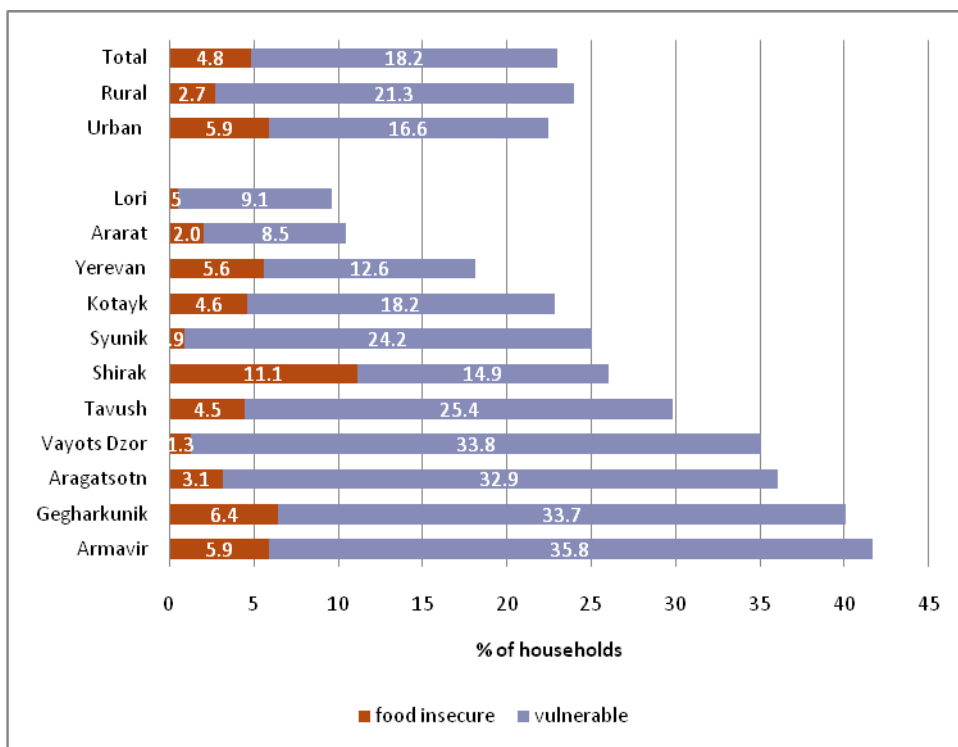
How many people are vulnerable to food insecurity and how many are currently food insecure?

Looking at the distribution of the food insecure and vulnerable households by marz, it is worthy of mention that while only 4.8 percent of households were considered food insecure at the time of the survey, 18.2 percent are vulnerable to becoming food insecure. Rural households have a lower percentage of food insecure households compared with urban areas (2.7 percent vs. 5.9 percent), still they have a higher number of vulnerable households (21.3 percent vs. 16.6 percent).

Shirak has the highest number of food insecure households (11 percent) followed by Gegharkunik and Armavir. Summing together vulnerable and food insecure households, the worst off marz is Armavir (42 percent) followed by Gegharkunik (40 percent), Aragatsotn (36 percent) and Vayots Dzor (35 percent).

¹² For this purpose the share of food sources in the past week were used. Non-sustainable sources of food were considered the households that have more than 33 percent of their food, in the past week, coming from purchase on credit or/and borrowing or received as gift.

Figure 19. Food insecure and vulnerable households by marz and urban/rural

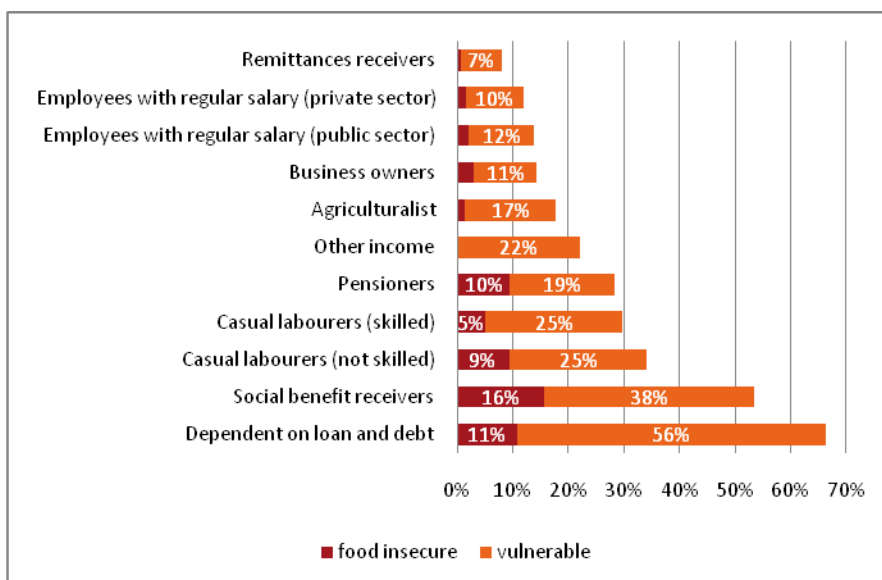


9.1 Description of the vulnerable and food- insecure households

Livelihood profiles

The most vulnerable are the households depending on credit and debts, social benefits, retirement pensions and casual labour.

Figure 20. Livelihood by food insecure and vulnerable



Demography

Female-headed households are more likely to be food insecure and vulnerable if compared with male-headed households. Households with divorced and separated heads of households have a higher percentage of food insecurity and vulnerability when compared with households headed by persons with a different marital status. Households with an elderly household head have a higher prevalence of food insecurity. Households with more than 5 members or with children below 5 or with handicapped members are more vulnerable.

Table 28. Demography by food insecure and vulnerable

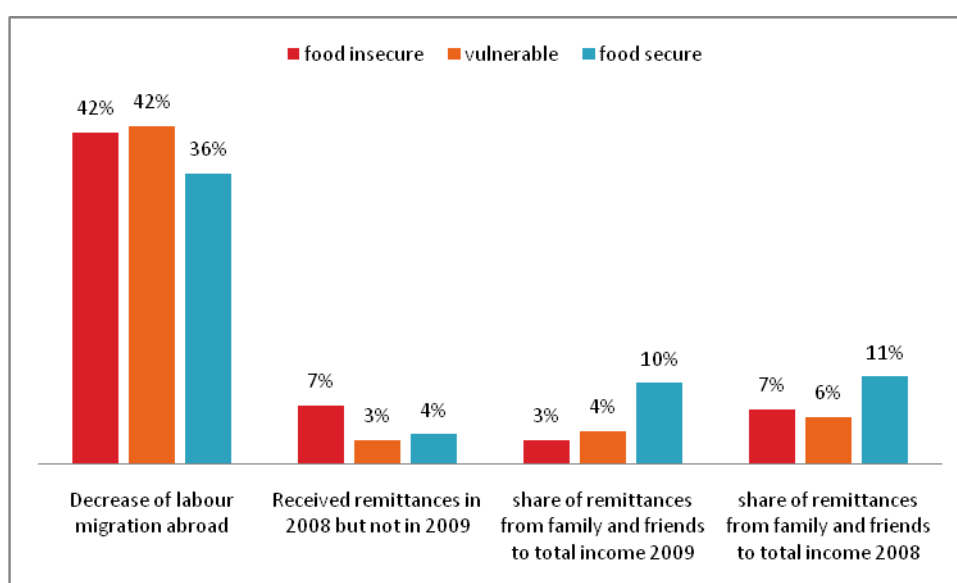
| | | food security and vulnerability* | | |
|---------------------------------------|--------------|----------------------------------|--------------|---------------|
| | | food insecure % | vulnerable % | food secure % |
| Sex of the household head | Male | 3.1 | 18.4 | 78.5 |
| | Female | 8.5 | 17.7 | 73.8 |
| Marital status of the head | Single | 9.2 | 16.9 | 73.8 |
| | Married | 2.8 | 17.8 | 79.3 |
| | Divorced/sep | 10.3 | 20.2 | 69.5 |
| | Widowed | 7.6 | 18.8 | 73.6 |
| Elderly HH head | no | 4.5 | 19.4 | 76.2 |
| | yes | 5.3 | 16.4 | 78.3 |
| hh with many members (>5) | no | 5.0 | 16.8 | 78.1 |
| | yes | 3.7 | 25.2 | 71.2 |
| hhs with one or more children below 5 | no | 5.1 | 17.0 | 77.9 |
| | yes | 3.4 | 23.8 | 72.8 |
| Disabled HH member | No | 4.5 | 16.8 | 78.7 |
| | Yes | 6.7 | 25.4 | 67.9 |
| Age head of household | Mean | 58.31 | 55.64 | 57.25 |
| HH size | Mean | 3.00 | 4.06 | 3.71 |

*All the differences between groups are significant at sig. <0.000

Migration and remittances

Food insecure and vulnerable households have a significantly higher percentage of decreased labour migration abroad in 2009 compared to currently food secure and non-vulnerable households. This is linked with the fact that the share of contribution of remittances to the total income significantly decreased in the past year for food insecure and vulnerable households (-4 percent and -2 percent respectively). Furthermore, 7 percent of food insecure households who received remittances in 2008 did not receive remittances in 2009. The percentage of households who did not receive remittances in 2009 is significantly higher in food insecure households (7 percent) than in food secure households (4 percent).¹³

Figure 21. Migration and remittances by food insecurity and vulnerability

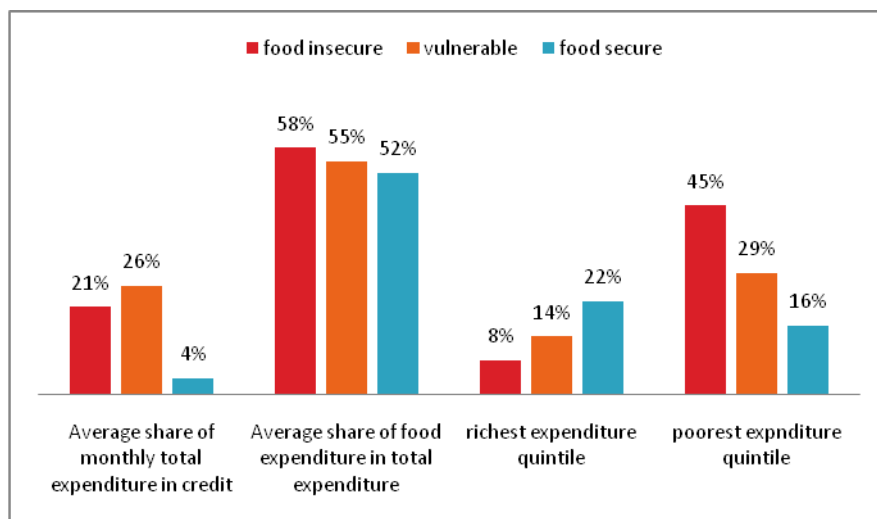


Expenditure

¹³ All differences between food insecure/vulnerable and food secure are significant (sig<0.00).

As expected, food insecure and vulnerable households have a significantly higher percentage of food bought on credit and share of food expenditure if compared with food secure households. In the poorest quintile of expenditure, 45 percent are food insecure, 29 percent are vulnerable and only 16 percent are food secure.

Figure 22. Expenditure indicators by food insecurity and vulnerability



Access to land

Food insecure households seem to have less access to land (16.5 percent) while there are no significant differences between vulnerable and food secure households (38 percent vs 35 percent). This is probably due to the fact that access to land in Armenia cannot be considered as an element influencing food security and/or vulnerability without considering the productivity of this land. Many having land are lacking inputs required for agricultural production and many lands have little or no source of water.

Food access

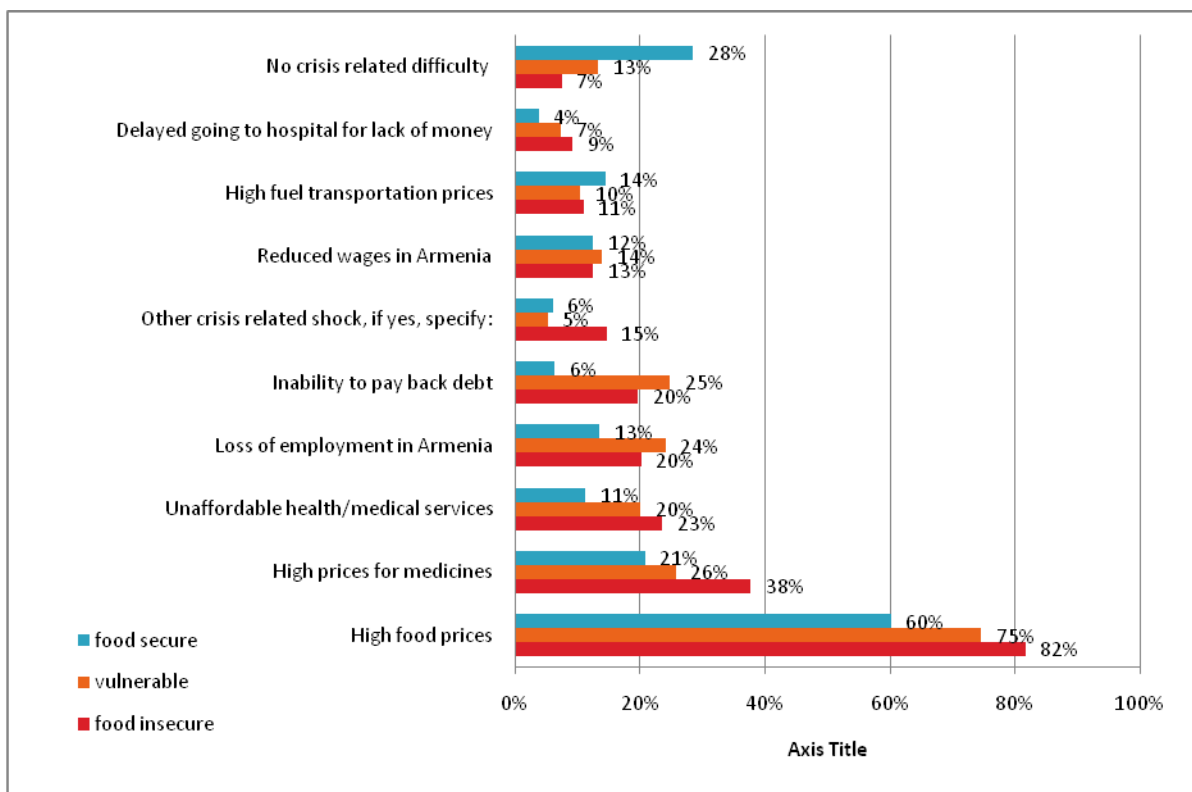
The amount of food purchased on credit significantly increased since last year for food insecure and vulnerable households (36.6 percent and 45.2 percent). Almost 1/3 of vulnerable and more than 1/3 of food insecure households did not have enough food or money to buy food in the past 7 days albeit the harvest season was ongoing. Furthermore, food insecure and vulnerable households had to resort to more coping mechanisms than food-secure households.

| | Has amount of food purchases on credit changed compared to the same period last year? | | Household did not have enough food or money to buy food in the past 7 days | Reduces Coping Strategy Index |
|----------------------|---|-------------------|--|-------------------------------|
| | Increased | No food on credit | | |
| Food insecure | 36.6percent | 32.5percent | 65.1percent | 19.8 |
| Vulnerable | 45.2percent | 16.8percent | 59.4percent | 21.4 |
| Food secure | 7.2percent | 71.1percent | 20.9percent | 12.9 |

Difficulties

Overall, food insecure and vulnerable households faced more difficulties compared with food secure households in the past year. On average, 28 percent of food insecure did not have any crisis-related difficulty while for food insecure and vulnerable households, this percentage drops to 7 percent and 13 percent respectively.

Figure 23. Difficulties contributing to food insecurity and vulnerability



9.2 Effects of the crisis on traditionally vulnerable household categories

The crisis has hit hardest the traditionally vulnerable households including households with disabled members, retired pensioners, and those with many children. Of all surveyed households, 16.4 percent have disabled members of varying age, 38.7 percent have pensioners aged 63 and above while 4.7 percent have 3 or more children under 14.

Households with disabled members

Male members with regular work (with more than 6 months duration) and irregular work (with less than 6 months duration) account for 33 percent and 5 percent respectively. In 3 percent of households, they have the status of unemployed, and in 29 percent they are not registered as unemployed. While in 3.5 percent of households, they are self-employed, in 6 percent of households they are engaged in agriculture. In 53 percent of such households male members neither work nor are looking for a job.

In 2009, the number of male and female long-term migrants both in urban and rural households did not change compared to 2008. Conditioned by the crisis, in 2009, the number of male seasonal migrants increased by 0.8 percentage points for urban families and decreased by the same number of percentage points for rural families. Urban households had up to 3 seasonal labour migrants. The numbers of female seasonal migrants have not changed. In urban as well as in rural households, internal labour migration is much less accentuated as compared to external labour migration (3-5 times).

Currently, 54.1 percent of **urban households with disabled persons** and 57.6 percent of rural households with disabled persons have debt. About 7.5 percent of urban households in debt intend to pay their debts within weeks (maximum 5 weeks), 51.4 percent within up to 6 months, 35.6 percent during the next few years; 43.4 percent of the latter group are thinking to return their debt within the next 1 year, the rest within the next 2-10 years. It is worth mentioning that a significant part of households in debt – 14.6 percent - do not intend nor have the possibility to return their debts at any time. 11.3 percent of **rural households with disabled persons in debt** intend to pay their debts within weeks (maximum 5 weeks), 49.6 percent within up to 6 months, 34.6 percent

during the next few years; 33.4 percent of the latter group are thinking to return their debt within the next 1 year, the rest within the next 2-10 years. Some 12.7 percent of rural households do not have the possibility to return their debts at any time.

Households with retired pensioners

Among **households with retired pensioners**, 26 percent of urban households and 16.5 percent of rural households do not have members of working age.

In 2008, from households with retired pensioners, male and female seasonal labour migrants accounted for respectively 2.2 percent and 0.2 percent. In 2009, they represented 2.1 percent and 0.2 percent respectively. In 2008, male and female long-term seasonal migrants belonging to this category of households represented 2.9 percent and 0.6 percent respectively. In 2009, these indicators represented respectively 2.8 percent and 0.5 percent. In other words, the number of short-term and long-term labour migrants from urban and rural households with retired pensioners has reduced by 0.2 and 0.1 percentage points. In 2009, as compared to the previous year, the number of external labour migrants has reduced by 0.2 percentage points among men (from 3.4 percent to 3.2 percent) while it has not changed for women.

Some 38.2 percent of **households with retired pensioners in debt** need to pay back at different times. Such urban and rural households that have debts account for 39.7 percent and 35.8 percent respectively. Of these households, 9.1 percent intend to pay their debts within 2-3 weeks, 56 percent of households within 2-6 months, and 36 percent of households during 1-3 years. Some 14 percent of households with retired pensioners said they are unable to ever pay back their debts.

In 2009, from 4 percent of urban households with many children and from 6.5 percent of rural households with many children

only men accounted for long-term labour migration. The number of households with many children in urban areas who have a long-term labour migrant in 2009 has increased by 2.5 percent against 2008. This indicator has remained the same for rural households with many children. In 2009, more than 50 percent of the budget of some 10 percent of households with many children comprised income received from a labour migrant family member. For urban and rural families, it represented 58 percent and 45 percent respectively, i.e. urban households with many children are more vulnerable to the impacts of the crisis. Households with many children in rural and urban areas unable to pay off their debts comprise 14.1 percent and 12.8 percent respectively.

Households in all 3 categories are trying to cope by reducing expenditures on food, medication/healthcare as well as non-food commodities and transportation.

10. Conclusion and recommendation

10.1 Conclusions

1. Data collection/seasonality:

- The survey was conducted in July/August 2009, during the peak of the harvest period when the prices for fruits, vegetables and number of other products were significantly lower compared with the rest of the year, furthermore, rural residents were consuming their own products or gathering edible plants, mushrooms and berries from the fields and/or forests. Therefore, the overall food security situation at the time of the survey can be considered better than it otherwise is.

2. Demography:

- Lori and Tavush (both rural and urban) and rural areas have a higher percentage of households with a high dependency rate (>70 percent).
- Households with a higher number of dependents were found more likely to be vulnerable.

3. Labour migration:

- Long-term migration of household members has decreased massively in Shirak, Vayots Dzor, Gegharkunik and Aragatsotn.
- Syunik Marz has been affected in terms of both long-term and seasonal migration, the number of both households categories having decreased immensely.
- In contrast, a positive difference in seasonal out-migration is noted among households in Yerevan, Vayots Dzor and Tavush.
- There is a 57 percent decrease in the number of households with an internal labour migrant. In Yerevan, such households have increased by 47.5 percent.

4. Agriculture:

- Only 62 percent of total lands is cultivated, the major share accounting for subsistence land holdings (77 percent) indicating that these lands are used better than privatized land. Privatized land holdings owned by small farmers being far from the house and without access to irrigation, require higher inputs for production activities, on the other hand yield discouragingly low income, making small farmers reluctant to undertake crop production on privatized land.
- Crops are mainly produced for own consumption but wheat, barley, and grapes are for market production.
- Almost half rural households experienced more constraints in agricultural production in 2009 than in 2008, the most important being less demand, lower profit and high irrigation and labour costs.
- Households without access to land and those that did not cultivate their land are more likely to be food insecure.

5. Expenditures:

- Average expenditures for food in households in the poorest and richest quintiles account for respectively 64 percent and 38 percent of their income. The total household expenditure in the poorest quintiles is 7.7 times less than in the richest quintile.
- Household average monthly spending on food during July accounted for 53 percent of total spending; the highest expenses were for bread/wheat flour (14 percent). After the harvest season, spending on food would obviously increase.

6. Credit/debt:

- Armavir, Shirak, Tavush and Vayots Dzor showed high percentage of households buying on credit.
- Only 59 percent of households are not buying food on credit. Buying food on credit is more characteristic to rural than urban populations (65 percent vs. 48 percent). Armavir, Gegharkunik, Kotayk and Tavush have the highest percentage of households buying food on credit (65 percent on average).
- 40 percent of all the surveyed households have a credit or debt to pay back of which 18 percent reported they would not be able to repay. This percentage is dramatically high in Aragatsotn, Gegharkunik and Armavir. Inability to pay back debts is an alarming element of vulnerability as it directly affects access to food for such households.

7. Livelihood:

- The level of unemployed in 2009 is more than 20 percent (sum total of unregistered and registered unemployed).
- Due to the crisis, social transfers including benefits and retirement pensions have increased in the structure of incomes. The share of credits/debts have the highest increase (1.2 percent) in all income sources from 2008 to 2009.
- **Livelihood profiles:** The most vulnerable livelihood groups are: (1) Social benefit receivers including retirement pensions, (2) households depending on debts/credits,
- (3) non-skilled casual labourers.

8. Remittances:

- The share of remittances declined in the income structure due to the decline in seasonal migration in 2009. The marzes with a higher level of seasonal migration are Lori, Gegharkunik and Shirak. Households that received remittances in 2008 but not in 2009 are much more likely to be vulnerable and food insecure than others.
- Shifting migration patterns have changed the dynamics of remittance flows. While the frequency of remittances has increased, their amounts have decreased (-17.5 percent).

9. Food insecurity

- 4.8 percent (more in urban than in rural areas) are food insecure while another 18 percent of households are vulnerable to food insecurity (more rural than urban). In Ararat and Armavir, more than 45 percent of the households did not have enough money to buy food the week before the survey.
- Marzes mostly affected in terms of food security are Shirak, Gegharkunik, Armavir and Yerevan. Shirak and Gegharkunik have the highest dependency on seasonal migration while Yerevan is urban only and has a high extreme poverty rate. Aragatsotn and Vayots Dzor are highly vulnerable to food insecurity.
- Female-headed households are significantly more food insecure and vulnerable than male-headed households, so are single-headed households.

10. Crisis-related difficulties/coping strategies:

- High food prices, high prices for medicines and loss of employment featured as the 3 most important difficulties. Households affected by the crisis are obliged to cope mostly by reducing expenditures on food, medication/healthcare as well as non-food commodities and

transportation. The effects of the crisis on traditionally vulnerable households - those with disabled members, retired pensioners, and with many children – are more pronounced in terms of hardship and their coping strategies.

- The crisis has negatively impacted children. Children have a) been withdrawn from schools b) had enrollments postponed and c) been engaged in income generation activities. These short term coping strategies will bear long term impacts on society.

10.2 Recommendations

Based on the results of the survey, the following measures are recommended in order to mitigate the consequences of the crisis, ensuring social protection of the population, stability of jobs and food security.

- International experience in crises indicates that as a rule, economic recovery takes years for household incomes to return to pre-crisis levels. Having said this, social and economic development plans as well as the strategic plans for the population's social protection should be reviewed annually with due consideration of the impacts and consequences of the crisis.
- It is necessary to strengthen oversight by government authorised bodies to ensure proper implementation of contractual relations between hired employees and employers in the private sector, especially with regard to working hours, salaries, working conditions and workplace safety.
- Enhance the current public works programme to increase coverage and efficiency involving not only unskilled labour but also skilled labour and establish a differentiated payment approach considering the complexity of the work and labour consumption. This measure is especially important in view of reductions of positions requiring certain professional skills that have already taken place or are expected to take place due to the crisis.
- The financial crisis is accompanied with the reduction of production capacities leading to mass labour force reductions. Based on this, expand unemployment benefits to capture new job seekers and returning migrants and raise them to gradually match the minimum subsistence level while at the same time adhering to the fundamental principle that the unemployment benefit should not become attractive to the extent that it eliminates the interest of the unemployed in actively seeking employment.
- Expand the framework and activities of the active policy on employment in the labour market, in particular professional trainings for the unemployed with a sharpened focus on the demand of the labour market.
- For each minor child in the family of a person receiving an unemployment benefit, provide for a fixed period a supplement covering the amount of the food line if that family does not receive a family benefit. The fixed period should be differentiated for families with 3 and more children. This measure is also well-placed within the framework of the state strategy for improving the demographic situation.
- Establish a pre-departure awareness-raising programme for migrants and their families, and information dissemination in the host countries to address the limited awareness about the costs and benefits of migration processes as well as the possible remittance channeling methods.
- Protect access to health services for the poor and to higher education for needy students. Use clear mechanisms in the establishment and control of real prices for food, medication, health and utility services.

- Expand the scope of food aid¹⁴ and food security, and other social protection measures. In particular, introduce as soon as possible a school feeding project in the most vulnerable communities to ensure that children at primary school level have at least one nutritious meal improving children's food security, development, health and learning. The project should support the monthly budget of poor families with an estimated average of 3,000 Drams.
- More research is needed, particularly in Lori and Armavir, to identify differences between regions inside marzes. This lack of information can be filled through qualitative information and/or specific focus group discussions if necessary.

¹⁴ Implementing such measures does not require new mechanisms or systems which would incur additional Government expenses but just using the existing social protection system.

11. Annexes

11. 1: Definition

Food Access

Measures the population's ability to acquire food, either physically (to reach the food), economically (buy the food) or socially (obtain the food through social standing) It requires analyzing markets, household supplies and income to see if people indeed have access to food;

Food Availability

Measures food that is physically available in the relevant vicinity of a population during a given consumption period through a combination of domestic national product, stocks and trade;

Food Security

Exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996).

Food Utilization:

Measures whether a person will be able to derive sufficient daily nutrition from the available and accessible food.

Stunting:

Low height-for-age index identifies past under nutrition or chronic malnutrition. It cannot measure short-term changes in malnutrition. For children below 2 years of age, the term is length-for-age; above 2 years of age, the index is referred to as height-for-age. Deficits in length-for-age or height-for-age are referred to as stunting.

The Coping Strategy Index (CSI)

Is defined for this survey as the degree of reliance on food-related coping mechanisms adapted by the extremely poor households which do not have enough food, or money to buy food.

Underweight:

Low weight-for-age index identifies the condition of being underweight, for a specific age. The advantage of this index is that it reflects both past (chronic) and/or present (acute) under nutrition (although it is unable to distinguish between the two).

Vulnerability

is a forward looking concept aimed at assessing community and household exposure and sensitivity to future shocks. Ultimately, the vulnerability of a household or community is determined by their ability to cope with their exposure to the risk posed by shocks such as droughts, floods, crop blight or infestation, economic fluctuations, and conflict. The ability to manage the risks associated with shocks is determined largely on household and community characteristics, most notably their asset base and the livelihood and food security strategies they pursue.

Vulnerability and Food Security Conceptual Framework:

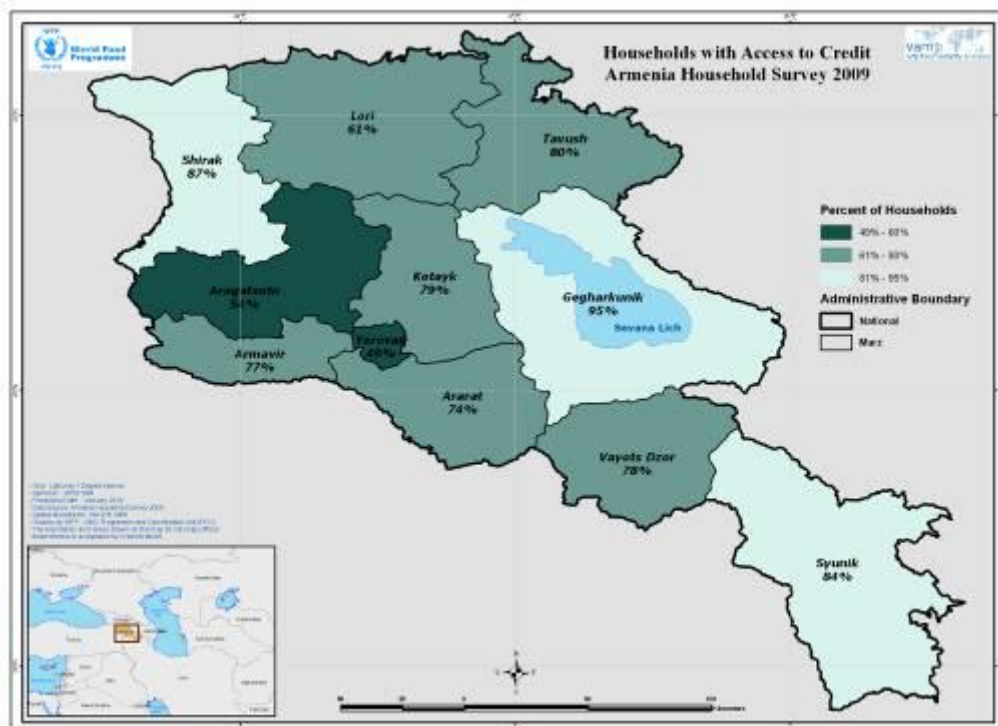
Presented in Figure 1 shows not only the selection of indicators for analysis and use in geographic targeting, but also the design of field assessment instruments and the organization of standardized reporting formats.

Wasting:

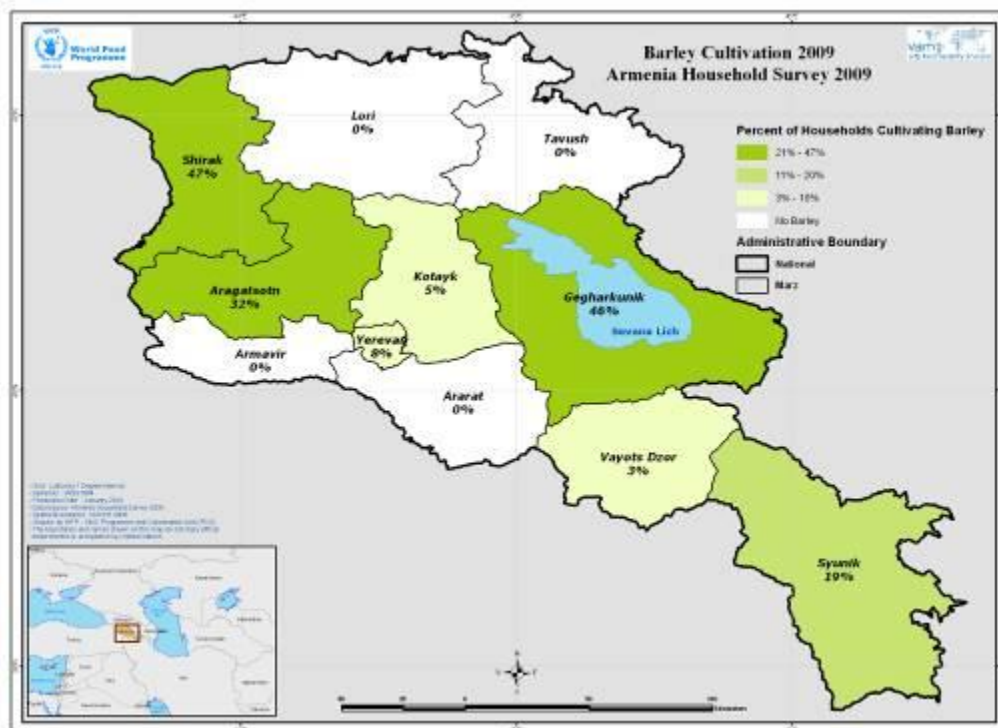
Low weight-for-height helps to identify children suffering from current or acute under- nutrition or wasting and is useful when exact ages are difficult to determine. Weight-for-length (in children under 2 years of age) or weight-for-height (in children over 2 years of age) is appropriate for examining short-term effects such as seasonal changes in food supply or short-term nutritional stress brought about by illness.

11.2: Maps

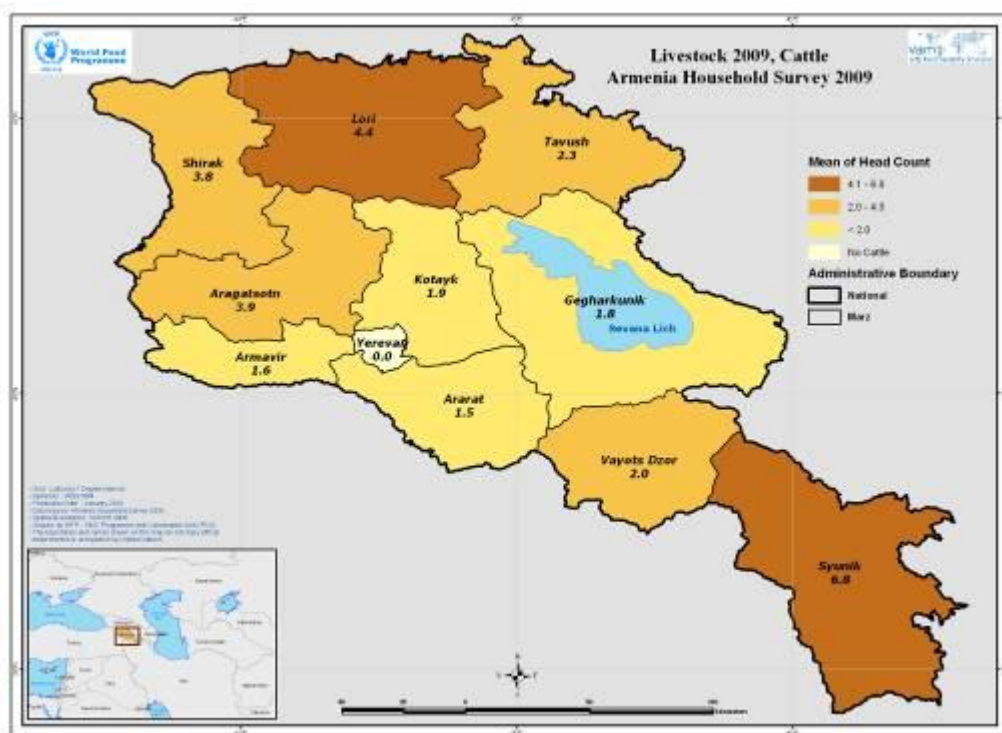
Map 1. Households with Access to Credit, Armenia Household Survey 2009



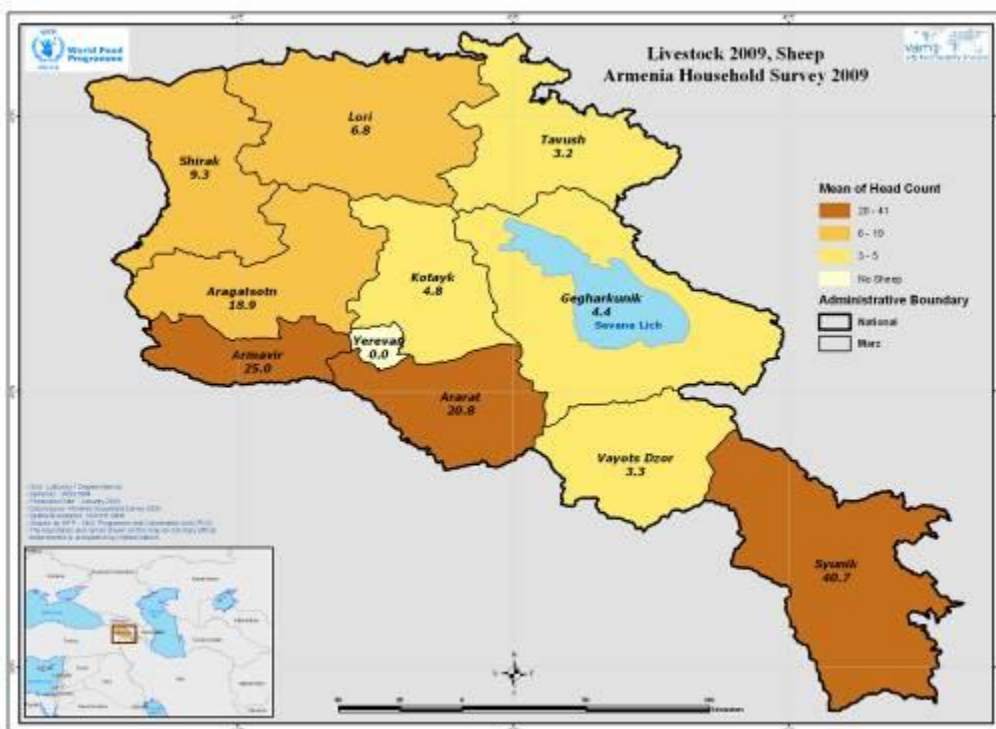
Map 2. Access to land, Barley Cultivation 2009



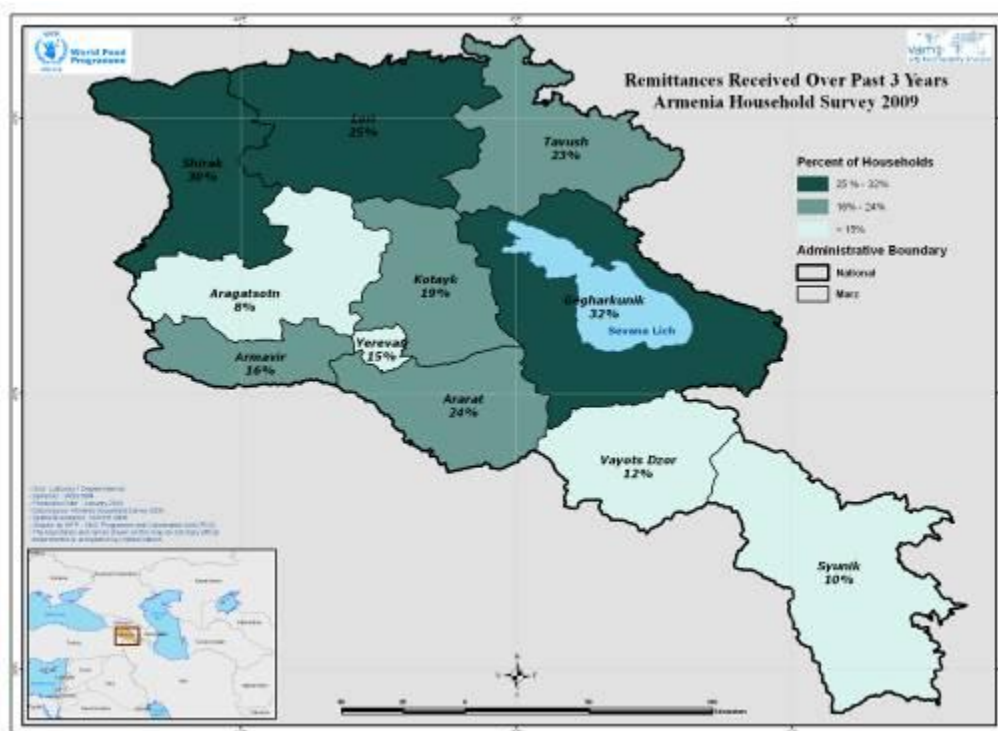
Map 5. Livestock 2009, Cattle, Mean of Head Count



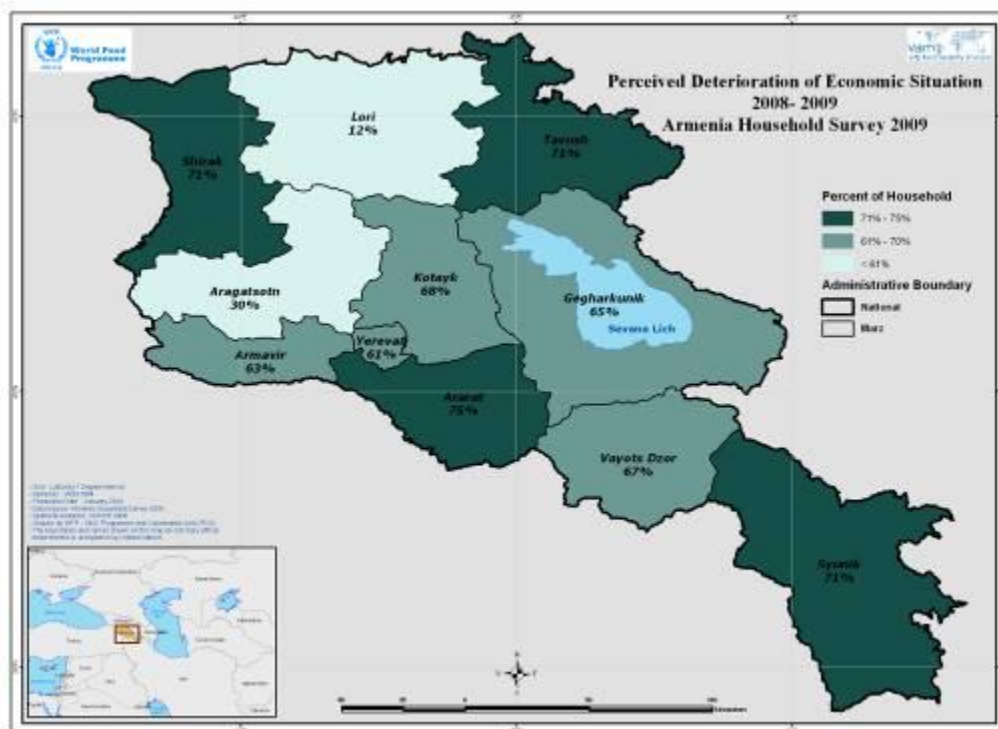
Map 6. Livestock 2009, sheep, Mean of Head Count



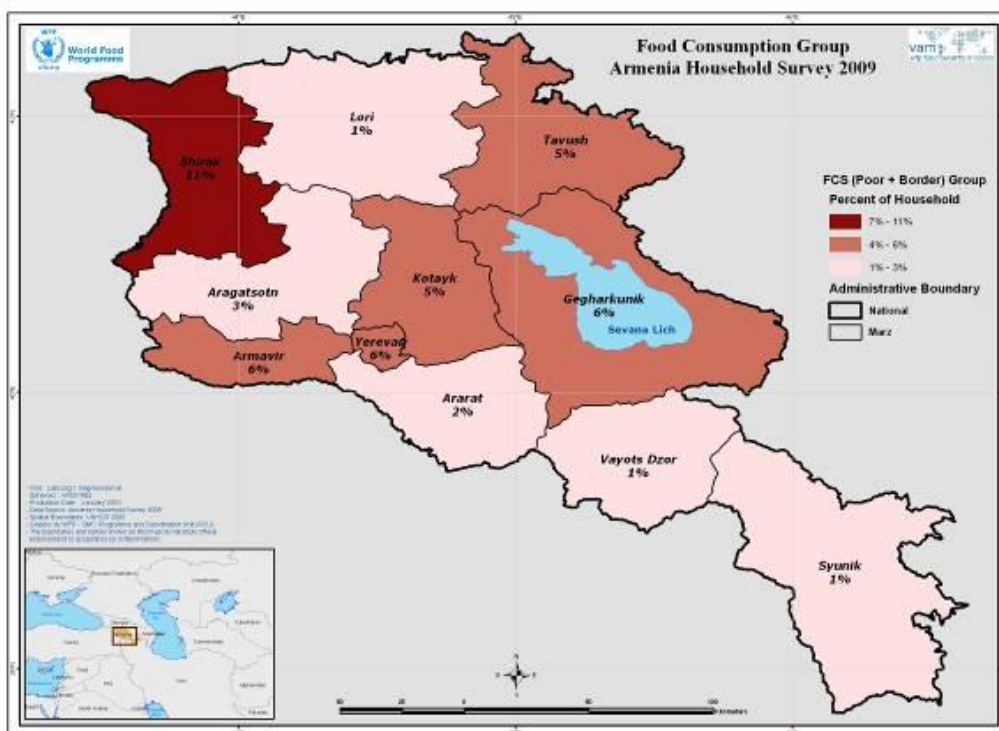
Map 7. Remittances Received Over Past 3 years 2007, 2008 and 2009



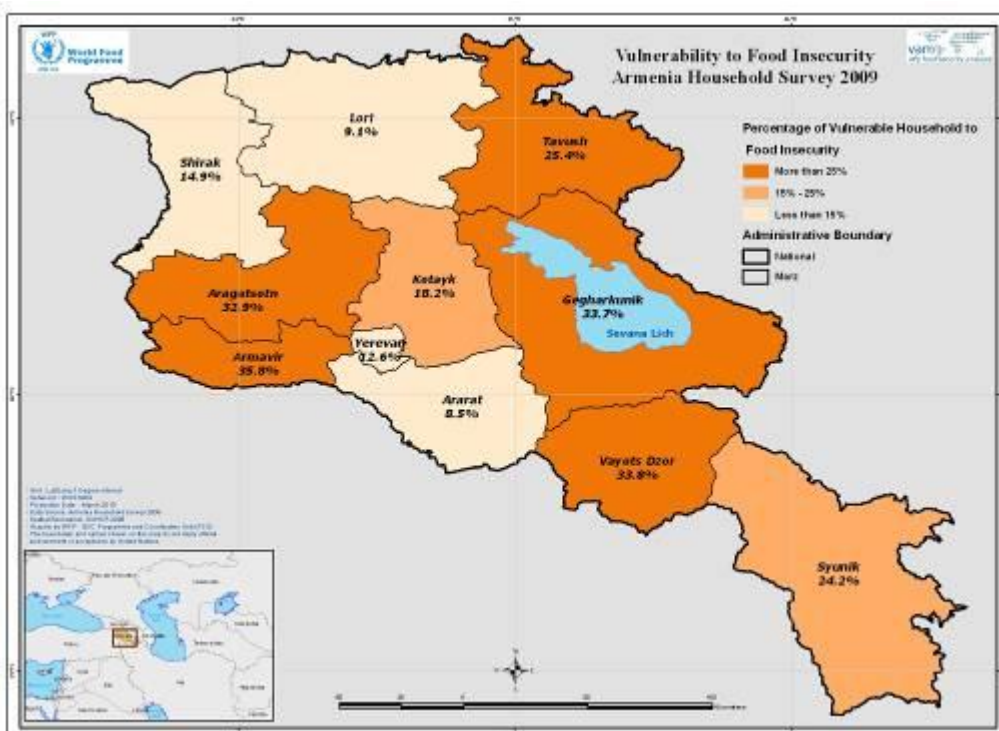
Map 8. Perceived Deterioration of Economic Situation 2008- 2009



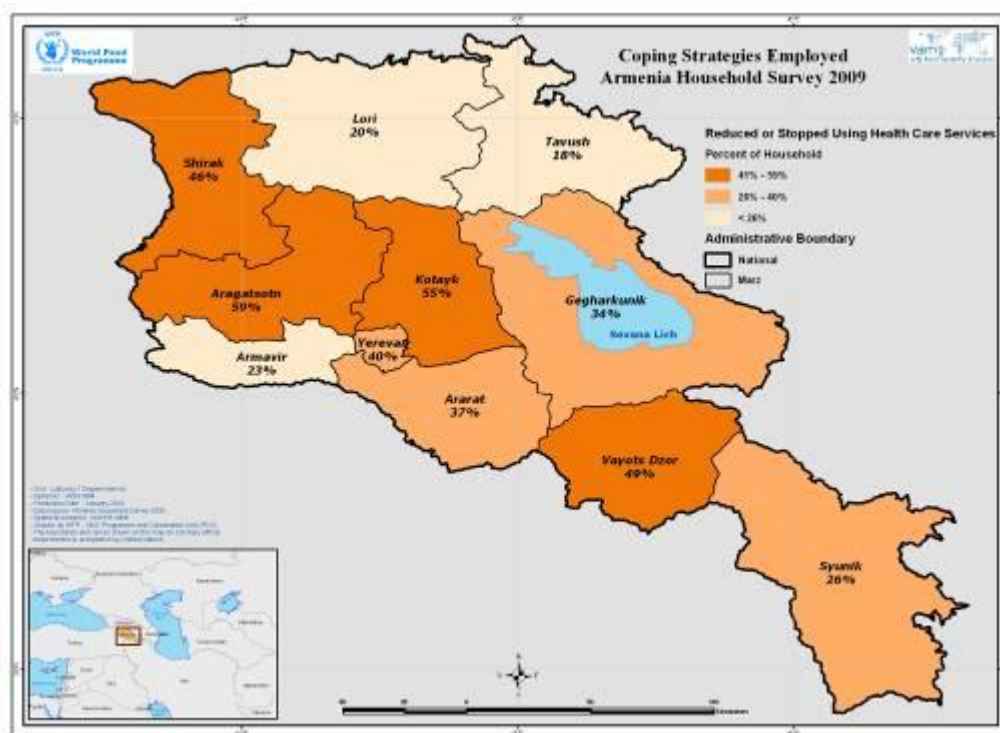
Map 9. Food Consumption Group, (Poor + Border)



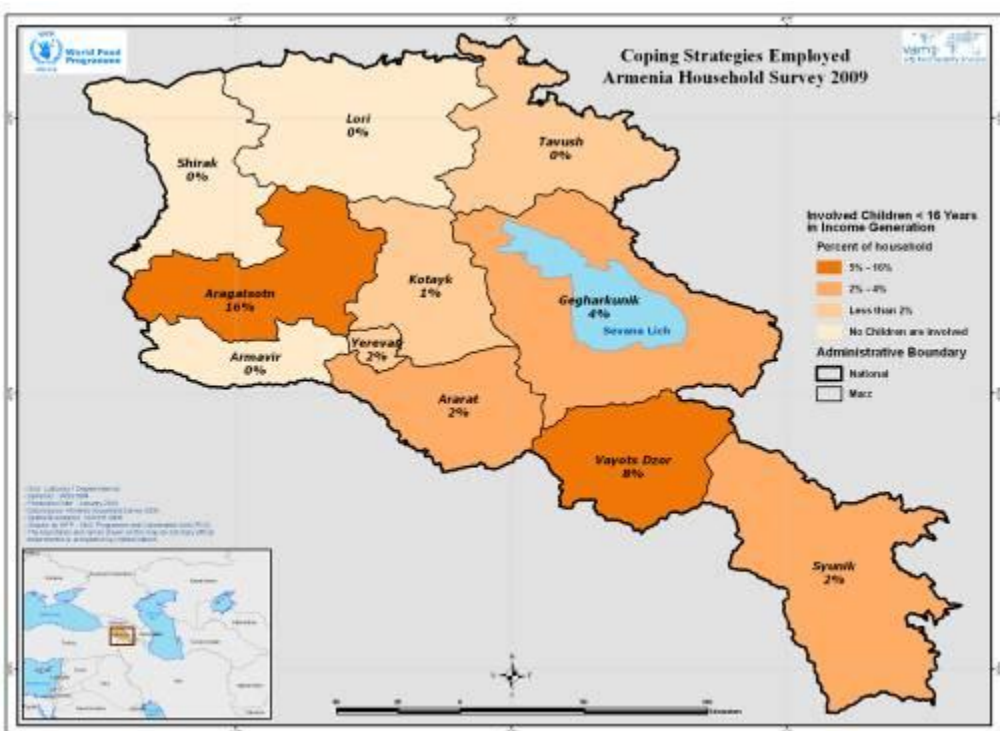
Map 10. Percent of vulnerable HH to food insecurity, Armenia Household Survey 2009



Map 13. Coping Strategies Employed, Reduce or stopping Health Care Services



Map 14. Coping Strategies Employed, Involving Children < 16 in Income Generation



Map 15. Coping Strategies Employed, Sold Household Assets

