

FOOD SECURITY ASSESSMENT IN THE KYRGYZSTAN REPUBLIC

Food Security Analysis
Integrated Household Survey 2006, 2007
& 1st Quarter of 2008



Table of Contents

EXECUTIVE SUMMARY	1
I – BACKGROUND AND OBJECTIVES OF THE ASSESSMENT	4
1.1 Background	4
1.2 Objectives of the assessment	5
II – ASSESSMENT METHODOLOGY	6
2.1 Scope and approach	6
2.2 Sampling, data collection and limitations	6
2.3 Methodology of the food security analysis	7
III – LEVELS AND NATURE OF FOOD INSECURITY	7
3.1 Food security situation and changes between 2006 and early 2008	7
3.2 Food consumption and food insecurity	11
3.3 Food economic access and food insecurity	16
IV – LIVELIHOOD ASSETS AND CHARACTERISTICS OF THE FOOD INSECURE	19
4.1 Human capital	19
4.1.1 Gender of the head of household	19
4.1.2 Age of the head of household	20
4.1.3 Education of the head of household	21
4.1.4 Size of the household	24
4.1.5 Health care and health status	25
4.2 Physical capital	28
4.2.1 Housing conditions	28
4.2.2 Sources of energy for heating and cooking	33
4.2.3 Distance to public transportation system	38
4.2.4 Access to land and crop production	40
4.2.5 Access to animals	45
4.2.6 Ownership of assets	54
4.3 Natural capital	57
4.3.1 Geography and climate	57
4.3.2 Hazards	57
4.3.3 Infrastructures	58
4.3.4 Distribution of the rural and urban population	58
4.3.5 Geographical distribution of resources	58
4.4 Financial capital	59
4.4.1 Food expenditures	59
4.4.2 Non-food expenditures	61



4.5 Social capital	64
4.5.1 Social system	64
4.5.2 Solidarity and mutual support	65
V – NUTRITIONAL STATUS OF CHILDREN AND FOOD SECURITY	67
5.1 Prevalence of malnutrition	67
5.1.1 Underweight	67
5.1.2 Stunting	67
5.2 Rural-urban and regional differences	67
5.2.1 Rural-urban differences	67
5.2.2 Regional differences	68
5.3 Main factors of malnutrition	70
5.3.1 Household food security	70
5.3.2 Micronutrient deficiencies	71
5.3.3 Water and sanitation environment	71
5.3.4 Breastfeeding and care practices	71
5.4 Relationships between food insecurity and malnutrition	72
VI – LIVELIHOOD AND COPING STRATEGIES	74
6.1 Income sources	74
6.1.1 Labour market	74
6.1.2 Income sources and poverty	75
6.2 Migration	76
6.2.1 Migration patterns in the Kyrgyz Republic	76
6.2.2 Movements prior to the current location	78
6.2.3 Reasons to moving to the current location	78
6.2.4 Registration status	78
6.3 Sources of food	79
6.4 Household food stocks	84
6.5 Main effects of the high food and fuel prices	85
6.5.1 Macro-economic effects	86
6.5.2 Effects on households' income and poverty	87
6.6 Coping strategies to high food and fuel prices and other shocks	87
VII – CONCLUSION ON THE FOOD SECURITY SITUATION AND PERSPECTIVES	89
7.1 How many, who, where and why are households food insecure?	89
7.2 How severe is the food security and nutritional situation?	90
7.2.1 Severity of the food security situation	90
7.2.2 Severity of the nutritional situation	91
7.2.3 Chronic and transitory food insecurity	91



7.3 What are the anticipated shocks and measures already taken?	92
7.3.1 Main anticipated shocks and expected food security impacts	92
7.3.2 Measures taken by the Government and other stakeholders	92
7.4 How the situation may evolve in the next 6-12 months?	94
7.4.1 Macro-economy prospects	94
7.4.2 Food availability prospects	94
7.4.3 Household food security prospects	95
VIII – RESPONSE OPTIONS AND RECOMMENDATIONS	96
8.1 Target beneficiaries and type of assistance	96
8.2 Relief response options	96
8.2.1 Food transfers	97
8.2.2 Cash transfers	97
8.2.3 Strengths, weaknesses, opportunities and threats of the relief response options	98
8.2.4 Targeting criteria for relief response	99
8.2.5 Summary of the recommended relief interventions	100
8.2.6 Other type of relief assistance	101
8.3 Livelihood support response options	101
8.3.1 Social assistance	101
8.3.2 Support to crop and animal production	102
8.3.3 Support to education	102
8.3.4 Support to nutrition	103
8.4 Monitoring and further assessment	105
8.4.1 Monitoring of the food security situation	105
8.4.2 Further assessments of the food security situation	106



LIST OF TABLES

Table 01: Food security groups estimated through the KIHS	7
Table 02: Food security groups estimated through the KIHS in urban and rural areas	8
Table 03: Food security per oblast and Bishkek town – 2006 to 1st quarter of 2008	9
Table 04: Estimated dietary intake in 2006 and 2007	12
Table 05: Estimated dietary intake by oblast and Bishkek in 2007	12
Table 06: Dietary intake per wealth quintile in 2006 and 2007	13
Table 07: Urban-rural residence and per capita food intake – 2006 and 2007	13
Table 08: Per capita food intake at oblast level – 2006 and 2007	14
Table 09: Food consumption per oblast and Bishkek town – 2006 to 1st quarter of 2008	15
Table 10: Food consumption and access - 1st quarter of 2008	16
Table 11: Food consumption and access – 2007 and 1st quarter	17
Table 12: Food consumption and access – 2006 and 1st quarter	17
Table 13: Food consumption and access – Urban areas - 1st quarter of 2008	17
Table 14: Food consumption and access – Rural areas - 1st quarter of 2008	17
Table 15: Food access per oblast and Bishkek town – 2006 to 1st quarter of 2008	18
Table 16: Gender of the head of household and food security – 2006 to 1st quarter of 2008	19
Table 17: Coverage Mandatory Health Insurance and food security– 2006 to 1st quarter of 2008	28
Table 18: Access to irrigation and food security – 2006 and 2007	42
Table 19: Potato harvest, share kept for own consumption and food security – 06 to 1st quarter 08	44
Table 20: Main hazards and areas at risk	57
Table 21: Population size, repartition and density	58
Table 22: Difference of food expenditures between 1st quarter 2008 and 1st quarter 2007	60
Table 23: Share of expenditures on services and food security – 2006 to 1st quarter 2008	62
Table 24: Children nutritional status and household food security – 2006 to 1st quarter of 2008	70
Table 25: Income sources and poverty (2005)	76
Table 26: Household wheat flour stocks and food security – 2006 to 1st quarter of 2008	85
Table 27: Household vegetable oil stocks and food security 06 to 1st quarter of 2008	85
Table 28: Consumer price inflation 2003-2009	86
Table 29: Anticipated shocks and impacts on the food insecure in the next 6-12 months	92
Table 30: Numbers of people and households requiring relief and livelihood support	96
Table 31: Strengths, weaknesses, opportunities and threats of relief response options	98
Table 32: Geographic priorities for relief interventions	100
Table 33: Household and individual targeting criteria for relief interventions	100
Table 34: Recommended relief interventions	100
Table 35: Livelihood response options	104
Table 36: Food security monitoring system	105
Table 36: Example of sampling and sources of information for a Rapid Food Security Assessment	106



LIST OF FIGURES

Figure 01: Proportion of food insecure households -2006, 2007, 1 st Quarter 2008	8
Figure 02: Levels of food insecurity urban/rural - 2006, 2007, 1 st Quarter 2008	9
Figure 03: Levels of food insecurity by oblast of - 1 st Quarter 2008	10
Figure 04: Daily kilocalorie intake per capita 2006 - 2007	13
Figure 05: Daily kilocalorie intake per capita per oblast - 2006-2007	15
Figure 06: Levels of food consumption by oblast - 1 st Quarter 2008	16
Figure 07: Levels of food access (poverty) by oblast - 1 st Quarter 2008	18
Figure 08: Levels of food insecurity among elderly heads of households-2006, 2007 & 1 st quarter 08	20
Figure 09: Levels of food insecurity by education levels of households in rural areas- 1 st Quarter 2008	22
Figure 10: Levels of food insecurity by education levels of households in urban areas- 1 st Quarter 08	23
Figure 11: Level of food insecurity and household size - 1 st Quarter 2008	24
Figure 12: Levels of food insecurity according to household size - 1 st Quarter 2008	24
Figure 13: Household size by oblast - 1 st Quarter 2008	25
Figure 14: Levels of food insecurity and health care - 2006, 2007, 1 st Quarter 2008	27
Figure 15: Levels of food insecurity according to type of dwelling	29
Figure 16: Levels of food insecurity according to Material of walls	29
Figure 17: Material of the walls by oblast - 2007	30
Figure 18: Main sources of water in urban areas - 2007	30
Figure 19: Main sources of water in rural areas - 2007	31
Figure 20: Levels of food insecurity and main sources of water in rural areas - 2007	31
Figure 21: Main sources of water by oblast - 2007	32
Figure 22: Levels of food insecurity and type of toilet in urban areas - 2007	33
Figure 23: Main type of toilet facilities by oblast - 2007	33
Figure 24: Levels of food insecurity and main source of heating in urban areas - 2007	34
Figure 25: Main sources of heating in urban areas - 2007	35
Figure 26: Main sources of heating in rural areas - 2007	35
Figure 27: Main sources of heating by oblast - 2007	36
Figure 28: Sources of cooking energy by oblast - 2007	37
Figure 29: Frequency of electricity cuts in urban areas - 2007	37
Figure 30: Frequency of electricity cuts in rural areas - 2007	38
Figure 31: Frequency of electricity cuts by oblast - 2007	38
Figure 32: Distance to public transportation in urban areas - 2007	39
Figure 33: Distance to public transportation in rural areas - 2007	39
Figure 34: Distance to public transportation by oblast - 2007	40
Figure 35: Household Cultivation - 2006, 2007 and 1 st Quarter 2008	42
Figure 36: Levels of food insecurity and harvest at least one crop in urban areas – 2006, 07	43
Figure 37: Levels of food insecurity and harvest at least one crop in rural areas – 2006, 07	43
Figure 38: Households having harvested any crop by oblast - 2006 and 2007	43
Figure 39: Levels of food insecurity and ownership of animals in urban areas-1 st Quarter of 06, 07 & 08	46



Figure 40: Levels of food insecurity and ownership of animals in rural areas - 1 st Quarter of 06, 07 & 08	46
Figure 41: Levels of food insecurity and ownership of cattle in rural areas - 1 st Quarter of 06, 07 & 08	47
Figure 42: Levels of food insecurity and size of cattle herd in rural areas - 1 st Quarter of 06, 07 & 08	47
Figure 43: Ownership of cattle by oblast - 1 st Quarter of 2006, 2007 and 2008	48
Figure 44: Levels of food insecurity & ownership of small ruminants in rural areas-1 st Quarter of 06, 07 & 08	49
Figure 45: Levels of food insecurity and size of small ruminants in rural areas - 1 st Quarter of 06, 07 & 08	49
Figure 46: Levels of food insecurity & size of small ruminants herd in rural areas-1 st Quarter of 06, 07 & 08	50
Figure 47: Ownership of small ruminants by oblast - 1 st Quarter of 2006, 2007 and 2008	50
Figure 48: Size of small ruminants by oblast - 1 st Quarter of 2006, 2007 and 2008	51
Figure 49: Levels of food insecurity and ownership of poultry in rural areas - 1 st Quarter of 06, 07 & 08	51
Figure 50: Levels of food insecurity and ownership of poultry in urban areas - 1 st Quarter of 06, 07 & 08	51
Figure 51: Levels of food insecurity and size of poultry herd in urban areas - 1 st Quarter of 06, 07 & 08	52
Figure 52: Levels of food insecurity and size of poultry herd in rural areas - 1 st Quarter of 06, 07 & 08	52
Figure 53: Ownership of poultry by oblast - 1 st Quarter of 2006, 2007 and 2008	53
Figure 54: Size of poultry herd by oblast - 1 st Quarter of 2006, 2007 and 2008	53
Figure 55: Levels of food insecurity among owners of animals - 1 st Quarter of 2006, 2007 and 2008	54
Figure 56: Levels of food insecurity and ownership of refrigerator - 2006 and 2007	54
Figure 57: Levels of food insecurity and ownership of washing machine - 2006 and 2007	55
Figure 58: Levels of food insecurity and share of food expenditures in urban areas	59
Figure 59: Levels of food insecurity and share of food expenditures in rural areas	59
Figure 60: Levels of food insecurity and increase of food expenditures 1 st Quarter of 07 & 1 st Quarter of 2008	60
Figure 61: Monthly food expenditures per capita per oblast -1 st Quarter of 2006, 2007 and 2008	61
Figure 62: Support to relatives and friends by oblast – 2006 and 2007	66
Figure 63: Levels of food insecurity and stunting rates in urban areas - 2006, 2007 & 1 st quarter 2008	68
Figure 64: Levels of food insecurity and stunting rates in rural areas - 2006, 2007 & 1 st quarter 2008	68
Figure 65: Levels of stunting by oblast - 2006, 2007 & 1 st quarter 2008	69
Figure 66: Levels of underweight by oblast - 2006, 2007 & 1 st quarter 2008	69
Figure 67: Levels of food insecurity and stunting per oblast - 1 st quarter 2008	72
Figure 68: Levels of severe food insecurity and stunting per oblast - 1 st quarter 2008	72
Figure 69: Levels of food insecurity and underweight per oblast - 1 st quarter 2008	73
Figure 70: Levels of severe food insecurity and underweight per oblast - 1 st quarter 2008	73
Figure 71: Levels of poverty and main sources of income - 2003 data	75
Figure 72: Proportion of potatoes self-produced in urban areas - 1 st Quarter of 06, 07 & 2008	79
Figure 73: Proportion of potatoes purchased in urban areas - 1 st Quarter of 2006, 2007 & 2008	80
Figure 74: Proportion of milk purchased in urban areas - 1 st Quarter of 2006, 2007 & 2008	80
Figure 75: Proportion of milk self-produced in urban areas - 1 st Quarter of 2006, 2007 & 2008	80
Figure 76: Proportion of potatoes self-produced in rural areas - 1 st Quarter of 06, 07 & 2008	81
Figure 77: Proportion of potatoes purchased in rural areas - 1st Quarter of 2006, 2007 & 2008	81
Figure 78: Proportion of milk self-produced in rural areas - 1st Quarter of 2006, 2007 & 2008	81
Figure 79: Proportion of milk received as gift in urban areas - 1st Quarter of 2006, 2007 & 2008	82
Figure 80: Proportion of milk received as gift in rural areas - 1st Quarter of 2006, 2007 & 2008	82



Figure 81: Proportion of milk purchased by oblast - 1st Quarter of 2006, 2007 & 2008	83
Figure 82: Proportion of milk self-produced by oblast - 1st Quarter of 2006, 2007 & 2008	83
Figure 83: Proportion of milk received as gift by oblast - 1st Quarter of 2006, 2007 & 2008	84
Figure 84: Consumer prices change year by year 2007 & first 2 Quarter of 2008	86

LIST OF Boxes

Box 01: Main characteristics of the education sector	21
Box 02: Main characteristics of the health care system	26
Box 03: Main characteristics of the agricultural sector	40
Box 04: Main characteristics of the livestock sector	45
Box 05: Ownership of assets and food security	55
Box 06: Main characteristics of the social system in the Kyrgyz Republic	64
Box 07: Main characteristics of the labour market in the Kyrgyz Republic	74
Box 08: External migration and remittances in the Kyrgyz Republic	77
Box 09: Main sources of food by type of food and by location	84
Box 10: Main households coping strategies to high prices and other shocks in 2008	88



EXECUTIVE SUMMARY

1 – Methodology of the assessment

The assessment of the food security situation in Kyrgyzstan was done through a re-analysis of the data collected by the nation-wide quarterly Kyrgyz Integrated Household Survey (KIHS) from 2006 to the 1st quarter of 2008. The KIHS covers about 5,000 households every three months and collects detailed information on their demographic characteristics, 2-week dietary intake, consumption expenditures, ownership of animals and assets, crops and harvests and income sources, as well as anthropometric measures on under-5 children.

Three food security groups were created by combining three levels of food consumption (using kilocalorie intake per capita) with three levels of wealth (using consumption expenditures). The groups were “profiled” against a series of characteristics to determine factors associated with food insecurity and levels of risk to lives and livelihoods.

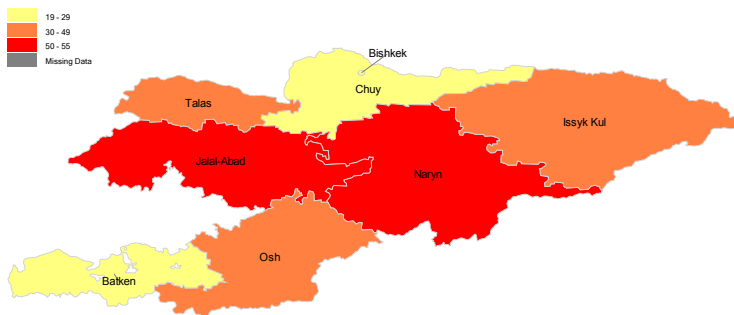
2 – How many are food insecure?

In the 1st quarter of 2008, 20% of the households were severely food insecure, 16% moderately food insecure and 66% food secure. These figures represent an estimated 1.01 million severely food insecure people (254,000 households) and 808,000 moderately food insecure people (202,000 households). No significant changes were observed between 2006 and early 2008.

3 – Where are the food insecure?

Almost twice as many severely food insecure households lived in rural areas as in urban areas, while the proportion of moderately food insecure was similar in both. The highest proportions of severe food insecurity were in Naryn (38%), Yssyk-Kul (32%), Jalal-Abad (28%), Osh (26%) and Talas (21%) oblasts. The highest proportions of moderate food insecurity were in Jalal-Abad (22%), Naryn (17%), Talas (14%), Yssyk-Kul (12%) and Osh (11%). The food security situation tended to improve in Osh and to a lesser extent in Jalal-Abad. The highest proportions of food secure households were in Batken (80%), Bishkek (79%) and Chui (77%). The trend was markedly positive in Batken, but negative in Chui.

In red: > 50% food insecure
In orange: 30-49% food insecure
In beige: < 30% food insecure



4 – Who are the food insecure?

Food insecure households live in poor dwellings with no access to in-house running water, adequate toilet facilities and connection to central sewage systems, and possess few assets, including land.

The food insecure eat less than their average kilocalorie requirements (less than 80% for the severely food insecure) and their expenditures are below the official poverty line. Only some of the poor in rural areas manage to protect an acceptable level of food consumption thanks to their crop and animal production.

Heads of food insecure households have no education or lack specialized secondary or higher education. Male-headed households are more likely to be food insecure than female-headed households. Food insecurity is directly associated with household size, especially those above 4 members. In early 2008, households headed by an elderly person tended to be more food insecure than those with younger heads, while this was not the case in the previous years.



5 – Why are they food insecure?

The lack of adequate education prevents the food insecure from accessing employment and well-remunerated jobs. They mostly rely on farm labour and their wages are not increased on a par with inflation.

The lack of income prevents the food insecure from ensuring the maintenance of their dwelling and obtaining access to facilities to improve their living conditions. The lack of good access to water and use of pit latrines do not favour good hygiene practices and increase their risk of infectious diseases and malnutrition.

Male-headed households are typically larger, comprise less pensioners and receive less remittances. Large households do not have sufficient cash and food resources to meet the requirements of their many members. Elderly-headed households may have become at higher risk of food insecurity in early 2008 due to the fact that their pensions were not increased in a context of rising food and energy prices.

The food insecure households have no land or only small acreage and cannot rely on their own production for most of their food consumption requirements. As a result, they need to buy most of their food and are thus highly vulnerable to market food price rises. Food expenditures represent about 3/4 of total expenditure for the severely food insecure and about 2/3 for the moderately food insecure. Although the share of food expenditure is also high among the food secure, they have a larger income base that enables them to augment their food expenditures sufficiently. Conversely, the diet of the food insecure has deteriorated since 2006 in terms of kilocalorie and fat content from an already low base.

Poor hygiene conditions and inadequate food have contributed to the increased rates of stunting and underweight observed among the severely food insecure. Malnutrition rates are higher in this group compared to other households. The need to dedicate an increased amount of cash resources to food has started to oblige some of the severely food insecure households to forego the use of health services even though they needed them.

Some of the moderately food insecure households who were more likely to own valuable domestic assets such as refrigerator, washing machine, sewing machine or bicycle, have started to sell them, thus decreasing their asset base. However, there were no signs of distress coping strategies yet. Stronger solidarity mechanisms exist in rural areas than in urban areas and are adequately directed towards the severely food insecure, however they are weaker in areas of high prevalence of food insecurity.

Food insecurity is clearly a chronic phenomenon, as indicated by the structural characteristics of the food insecure households as well as by the association of food insecurity with high levels of stunting. As of early 2008, there was no indication of a drastic deterioration of the food security situation, however the degradation of the diet, increased stunting rates and early signs of assets depletion are alarming signals that call for both urgent and longer-term interventions.

6 – What assistance is required?

The perspectives for the next 6-12 months do not point towards an improvement of access to food for the food insecure. Even though food prices have started to decrease in the last quarter of 2008, they remain higher than in previous years. While market food availability is not expected to be problematic, economic access to food will remain difficult. The various measures announced or already implemented by the Government to increase social benefits, build food reserves and decrease taxes, as well as the funding announced by donors such as the World Bank, the European Commission, USAID and others, are positive, but they are unlikely to reach all of the 1.01 million severely food insecure. Furthermore, there is a high risk of electricity shortages that will disrupt water supplies (for domestic and crop usage) and heating, and create increased hardship for the population.

Even though food insecurity is chronic in nature, the high food and fuel prices and the coming winter call for urgent relief assistance to severely food insecure households in order to stabilize and improve their dietary and nutritional status. Given the short time available before the winter and limited number of implementing partners, it will not be possible to assist all of them and geographic targeting combined with household targeting should be used to select priority areas and groups. This screening may enable to reach about half a million severely food insecure people. Given the urgency to restore adequate food consumption and considering the gap in kilocalorie and fat intake and the importance of bread in the diet, food transfers providing a combination of oil and bread are recommended for the 5 months during the winter period December 2008-April 2009. In rural



areas with difficult access to market, in-kind food rations would be appropriate, while vouchers for food as well as non-food items would be better for poor urban areas.

In addition, supplementary food rations including fortified food suitable for young children should be distributed to severely food insecure households hosting vulnerable members (young children, pregnant and lactating women, the elderly, chronically sick) in rural and urban areas with high rates of stunting and underweight in order to restore and maintain adequate nutritional status. Based on similar geographical and household screening, up to 101,300 under-5 children could benefit from this assistance, for the same duration of 5 months.

Livelihood-support interventions are also needed for the same group of severely food insecure households as well as for those living in poverty and who barely manage to consume a borderline diet (a total of 30% of households, i.e. 411,000). Some of these interventions could, and should, be implemented quickly, including increase of social transfers (with the support of the World Bank, as well as by expanding eligibility criteria and coverage) and distribution of agricultural inputs (in-kind or through vouchers for seed, fertilizer, animal feed and vaccines) before the start of the winter and of the next planting season.

Other measures can start a bit later, including support to specialized secondary education and vocational training (through grants and/or fees exemption) and assessment of the appropriateness and feasibility of school feeding and school garden interventions. Collaboration should also be strengthened with the National Statistics Committee and the Ministry of Health to set up/consolidate a nutritional surveillance system using the quarterly anthropometric data collected through the KIHS, and improve access to water and sanitation facilities.

The food security situation should be closely monitored to identify signs of further deterioration of food consumption and access. The KIHS would provide most of this information but priority data would need to be processed faster and directly linked to decision-making. Additional data would need to be collected from communities and agencies present on the ground.

Despite their comprehensiveness, the KIHS data do not enable an analysis of the relationships between food security and coping strategies, coverage by social benefits, child feeding practices, conflict factors and location in remote areas. It also does not include the periphery areas of towns where high numbers of poor migrants are known to concentrate. A complementary Rapid Food Security Assessment is thus recommended to collect the missing information, focusing on (i) the periphery of Osh and possibly Jalal-Abad towns (in Bishkek an assessment is ongoing), (ii) villages in remote areas in oblasts with high rates of food insecurity, (iii) villages in conflict-prone areas, and (iv) the two villages affected by the earthquake in October 2008.



I – BACKGROUND AND OBJECTIVES OF THE ASSESSMENT

1.1 Background

During the 2007-2008 winter period, the Kyrgyz Republic like the rest of Central Asia experienced extremely cold temperatures for a prolonged period, making it the worst winter in 44 years. While the same situation in Tajikistan resulted in the need for urgent humanitarian intervention, Kyrgyzstan was able to ensure essential energy and food support to its population during the winter 2007/8, averting extreme hardship. This, however, was achieved through the severe depletion of state grain and energy-generating water reserves.

Following the harsh winter, additional damage was inflicted on the agricultural sector (estimated at 2.3 billion som or US\$65 million) as a result of locust infestation, hail storms, lack of precipitation and spring frosts.

In addition, the global increases in the prices of key food and energy commodities are fuelling inflation and causing significant shortages in family income. It is estimated that inflation rose from 4.4% and 5.1% in 2005-06 to 20.1% in 2007 – mainly reflecting food price increase worldwide. The consumer price rise for food was 18.5% in 2006-07. By the end of 2008, it was projected that inflation may reach 29%.

In response to the deteriorating food security situation, the Government revised national legislation on food security, establishing new mechanisms to increase domestic investment in the agricultural sector. In order to offset the impact of growing food inflation on vulnerable groups, the government is utilizing the Universal Monthly Benefit (UMB) as the main government safety net and poverty reduction system in the Kyrgyz Republic. The programme provides cash transfers to poor families.

Though the system is effective at targeting the poor, with 75% of recipients in the poorest 40% of the population, funding constraints limit its reach to only 25% of the poorest in the country. In addition, the reference for eligibility - Guaranteed Minimum Level of Consumption (GMCL) - is fixed by the available budget, and not by the actual cost of consumption basket, and is well below the poverty line. Donors and the Banks have provided grants to support the increase of UMB transfers, in support of government's programme to subsidize fortified flour, to augment strategic grain reserves, and to purchase winter wheat seed, and by expanding their support to school feeding programmes. This report highlights the additional humanitarian interventions that would be needed on top of these to meet the needs of the most vulnerable.

In addition to increased food insecurity, the country is struggling with an energy deficit. The Government has announced that it anticipates electrical supply to provide only 67% of the requirements during the upcoming winter. A number of measures have been put in place to reduce the impact during the winter months, but in the event of another harsh winter the effects on the most vulnerable may nevertheless be severe. It is anticipated that electricity shortages during a harsh winter would further push up prices of basic commodities, including fuel and other sources of heating, and therefore aggravate the food security situation.

Given the above, the government of Kyrgyzstan has requested the UN to estimate the extent, severity and probable duration of changes in livelihoods and households' access to, and use of food as a result of past price increases and in anticipation of possible further shocks over the winter period.



1.2 Objectives of the assessment

The main objective was to assess the household food security and livelihoods situation in the Kyrgyz Republic in order to inform programming and winter contingency planning decisions on food and non-food assistance for the population.

Specific objectives and expected outputs:

- Describe the profile and estimate the approximate number of households and individuals affected by food insecurity, including their location and socio-economic characteristics;
- Elucidate the immediate and underlying causes of food insecurity, including, as far as possible, a distinction between chronic and transitory food insecurity;
- Forecast the evolution of the food security and nutrition situation in the next 12 months;
- Review ongoing and planned food, nutrition, agriculture and social responses and recommend any additional programming and contingency planning required to cover unmet needs in the next 12 months;
- *If food aid is determined to be an appropriate response:* the rapid assessment should also propose:
 - the types of food and related non-food assistance required;
 - the number of people to be provided for and during what period; and
 - if possible, how the food and related assistance should be delivered, targeted, distributed and monitored.
- Identify the main structural factors, trends and priority areas that need to be addressed by long term interventions and assistance;
- Suggest community, household, market and other indicators that should be monitored to follow-up the evolution of the food security, agriculture and nutrition situation;
- Determine whether a more in-depth food security assessment will be required and, if so, propose the timing and core elements for the terms of reference.



II – ASSESSMENT METHODOLOGY

2.1 Scope and approach

Considering the comprehensive large-scale random household survey carried out on a quarterly basis each year – including 2008 - by the National Statistics Committee¹ (Kyrgyz Integrated Household Survey, KIHS) it was decided to re-analyse some of the food security data collected in this survey rather than to repeat a nation-wide assessment. In order to capture the effects of recent food and fuel price rises, KIHS data from 2006, 2007 and the 1st quarter of 2008 (latest round available) were re-analysed to determine the proportions of severely and moderately food insecure households as well as their characteristics. Findings were disaggregated by urban and rural areas, as well as by the 7 oblasts (Yssyk-Kul, Jalal-Abad, Naryn, Batken, Osh, Talas, Chui) and the capital city Bishkek.

An important limitation of the KIHS is the exclusion of the periphery areas of the main towns from the sampling frame, due to the absence of reliable population data in these areas². The peripheries of Bishkek and Osh (the second major town of the country, located in the south) are hosting mostly migrants coming from rural areas or from smaller towns of the country in search for better economic opportunities. Their exclusion from the KIHS is problematic as these people are generally believed to be amongst the poorest. They are often not officially registered and thus do not benefit from Government assistance programmes. They also tend to originate from already poor households and face difficulties to secure a job and income in the city.

It was therefore decided to complement the re-analysis of the 2006, 2007 and early 2008 KIHS with primary data collection in the periphery of Bishkek, where most of the migrants concentrate. Results from this survey will be provided in a subsequent report.

An extensive review of existing information on agriculture, economy, poverty, nutrition, health and education was also conducted and compiled in a separate document³. This review was used to interpret the food security assessment findings.

2.2 Sampling, data collection and limitations

The KIHS uses a random sampling approach based on population data from the 1999 census. Sampling is done in each oblast proportional to size. At total, almost 5,000 households are interviewed each 3 months. Households in the sample are replaced every 2 quarters.

The main limitations of the survey are:

- the exclusion of the town peripheries, which are suspected to host a high proportion of poor (and potentially food insecure) households;
- the absence of information on coping strategies, thus limiting its use as an instrument for early warning of a deterioration of the situation;
- the absence of data on the ethnicity of the household (due to the sensitivity of this issue) and thus no possibility to analyse potential drivers of conflict based on the combination of competition over resources with ethnic divides;
- the absence of data for the 2nd and 3rd quarters of 2008; as only the 1st quarter of 2008 was analysed, the results do not capture the impact of the high food and fuel price rise which took place in the spring and summer of 2008; prices started to rise significantly in 2007, but they increased further in 2008; while households may have coped in 2007, the continuous increase may have stretched their

¹ The National Statistics Committee has received support from the World Bank at the end of the 1990s to carry out a quarterly nation-wide household survey focusing on poverty. The analysis of poverty and the questionnaire were revised in 2003 and the Kyrgyz Integrated Household Survey has been used since then by the Government and others (including the World Bank) to estimate the rates of poverty and monitor a series of food security indicators including crop and animal production, income sources, expenditures, food consumption, ownership of assets, living conditions and nutritional status of children below 5 years of age.

² The Government is preparing a census to be launched in 2009. The peripheries of Bishkek and other towns will be included and should enable to update the sampling frame of the KIHS from 2010 onwards.

³ Secondary Data Review on the Food Security Situation in the Kyrgyz Republic – A. Dhur, World Food Programme, October 2008



response capacities. It will be important to analyse the 2nd, 3rd and 4th quarters of the 2008 KIHS in order to better ascertain possible changes of food consumption, food access, assets and coping strategies.

The main strengths of the KIHS, from a food security point of view include:

- statistically representative information on the situation of the population at national, rural, urban and oblast levels;
- a wealth of detailed information on food consumption (based on a 2-week food diary maintained by the households), income, assets and housing conditions;
- simultaneous collection of anthropometric data on children below 5, enabling a combined analysis of nutrition and food security.

2.3 Methodology of the food security analysis

The re-analysis of the KIHS data was done according to the method used by the World Food Programme to determine severe and moderate food insecurity⁴. In brief, the method combines food consumption patterns with food access conditions, to identify households severely food insecure, moderately food insecure and food secure (see Annex 1). These groups are 'profiled' against a number of characteristics (e.g. gender and age of the head of household, household size, access to land, type of crops cultivated, ownership of animals and other assets, income sources, debts, expenditures, and coping strategies, as well as their access to markets and services) that enable to describe who the food insecure are and identify factors associated with food insecurity

The degree of risk to their lives and livelihoods is ascertained from their food consumption and the type of coping strategies that households employ. The evolution of the situation is forecasted on the basis of climatic, economic, social and other shocks anticipated over the next 6-12 months and recommendations for interventions are made on this basis.

III – LEVELS AND NATURE OF FOOD INSECURITY

3.1 Food security situation and changes between 2006 and early 2008

The proportion of food insecure households was estimated by combining a food consumption indicator with a food access indicator, as per the WFP methodology for the analysis of household food security (see Annex 1 for details). In brief, the food consumption indicator used for the re-analysis of the KIHS data was the per capita kilocalorie consumption estimated through the 2-week dietary diary maintained by households compared to the standard nutritional requirements.⁵ The food access indicator was the per capita consumption expenditures divided into quintiles of "wealth" using the official poverty line established by the Government.⁶

The results indicate that more than 1/3rd of the households were food insecure throughout the period from 2006 to the 1st quarter of 2008. Most of the food insecure households were severely food insecure (20% of total households).

Table 1 - Food security groups estimated through the KIHS

Food security groups:	Households		
	2006 (1 st quarter)	2007 (1 st quarter)	2008 1 st quarter
Severely food insecure	22% (24%)	22% (24%)	20%
Moderately food insecure	12% (13%)	12% (14%)	14%
Food secure	66% (63%)	65% (62%)	66%
Total	100%	100%	100%

⁴ The method is explained in the WFP Emergency Food Security Assessment Handbook, 2nd version (to be issued at the end of 2008).

⁶ For the 1st quarter of 2008, the official poverty line was set at 963 KGS/capita/month and the extreme poverty line at 640 KGS/capita/month

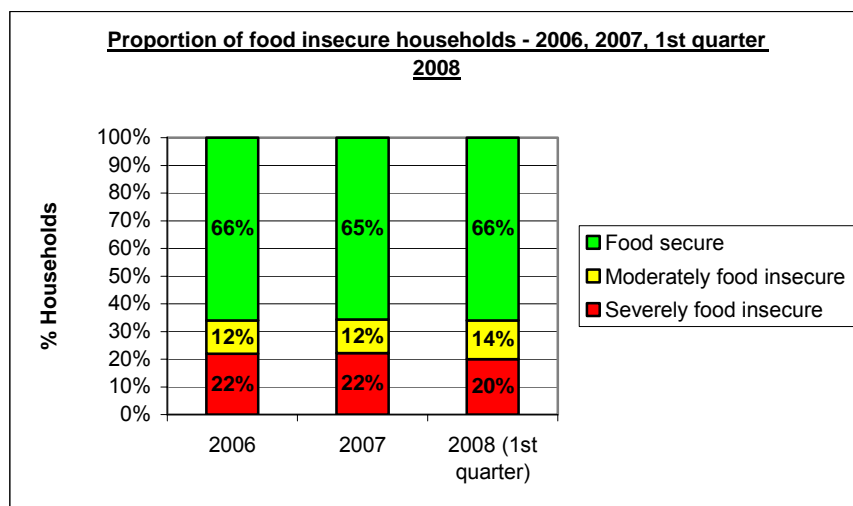


Figure 1: Proportion of food insecure households -2006, 2007, 1st quarter 2008

Urban-rural differences

As expected given the relation between poverty and food security, the proportion of food insecure households is higher in rural areas than in urban areas: about 27% of urban households were food insecure, compared to 40% of rural households. The main difference was explained by the larger proportion of severely food insecure rural households (24% in 2008) compared to the urban households (14% in 2008).

In urban areas, the proportion of food insecure households tended to be slightly higher in the first quarters of both 2006 and 2007 compared to the average for the whole year. Therefore one could expect that proportion of food insecure urban households decreases a bit during the course of 2008, but this may not happen this year due to the adverse effects of the high food and fuel prices, compounded by a looming energy crisis.

Table 2 - Food security groups estimated through the KIHS in urban and rural areas

Food security groups:	Households		
	2006 (1 st quarter)	2007 (1 st quarter)	2008 1 st quarter
Severely food insecure			
Urban areas	16% (17%)	16% (15%)	14%
Rural areas	27% (29%)	27% (31%)	24%
Moderately food insecure			
Urban areas	12% (12%)	11% (13%)	13%
Rural areas	13% (14%)	13% (14%)	15%
Food secure			
Urban areas	72% (71%)	73% (71%)	73%
Rural areas	61% (56%)	60% (55%)	61%
Total	100%	100%	100%

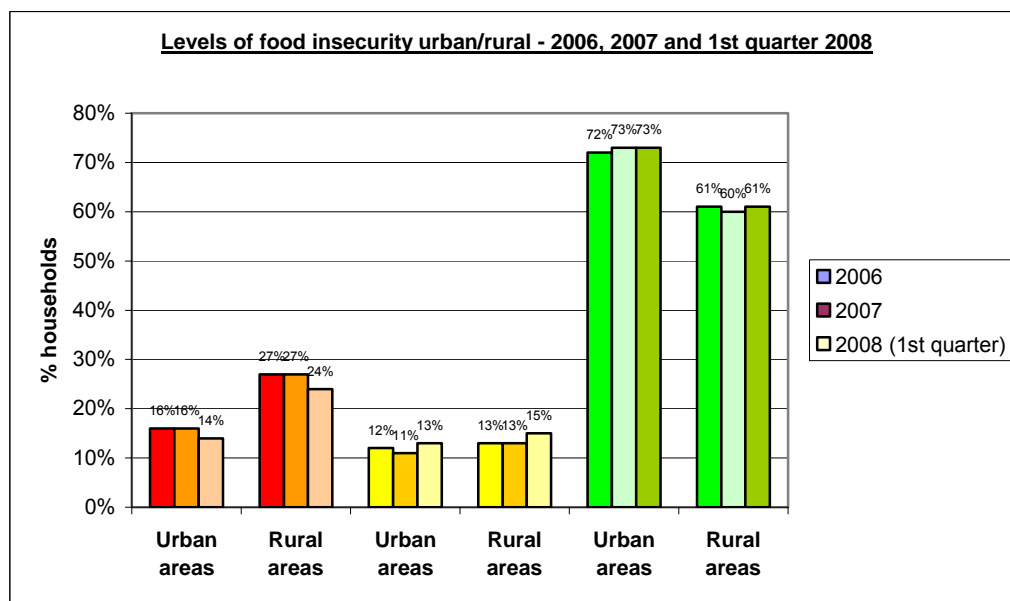


Figure 2: Levels of food insecurity urban/rural - 2006, 2007, 1st quarter 2008

Regional differences

The results by region indicate that:

- Bishkek city and the oblasts of Chui and Batken present lower rates of food insecurity than other oblasts: more than 80% of the population was food secure.
- Food insecurity rates are higher, and not improving, in Naryn and Issyk-Kul oblasts. Less than half of the population in Naryn and only slightly more than half of the population in Issyk-Kul oblasts were food secure;
- Food insecurity rates are also high in Jalal-Abad oblast, but the proportion of severely food insecure households decreased significantly between 2006 and 2008.
- In all oblasts but Naryn, Issyk-Kul and Talas, the proportion of food insecure households decreased between the 1st quarters of 2006, 2007 and 2008.

Table 3 - Food security per oblast and Bishkek town – 2006 to 1st quarter of 2008

Oblasts and town:	Households								
	Severely food insecure			Moderately food insecure			Food secure		
	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.
Yssyk-Kul oblast	24% (30%)	25% (30%)	32%	14% (14%)	15% (16%)	12%	62% (55%)	60% (55%)	56%
Jalal-Abad oblast	32% (33%)	40% (43%)	28%	16% (14%)	15% (12%)	22%	52% (53%)	45% (45%)	50%
Naryn oblast	22% (29%)	35% (37%)	38%	14% (13%)	14% (21%)	17%	64% (57%)	51% (42%)	46%
Batken oblast	24% (30%)	12% (18%)	12%	20% (9%)	11% (14%)	7%	56% (61%)	77% (67%)	80%
Osh oblast	36% (35%)	30% (32%)	26%	13% (19%)	15% (20%)	11%	51% (46%)	55% (48%)	63%
Talas oblast	27% (25%)	26% (28%)	21%	10% (11%)	8% (9%)	14%	63% (64%)	65% (63%)	65%
Chui oblast	9% (13%)	8% (11%)	10%	7% (10%)	11% (7%)	13%	84% (77%)	81% (82%)	77%
Bishkek town	5% (8%)	9% (7%)	8%	10% (11%)	8% (12%)	13%	85% (81%)	83% (81%)	79%
Total	22% (24%)	22% (24%)	20%	12% (13%)	12% (14%)	14%	66% (63%)	65% (62%)	66%



More specifically:

- From 2006 to the 1st quarter of 2008, the lowest proportion of severely food insecure households is found in Bishkek town. The proportion of severely food insecure households increased in Bishkek between 2006 and 2007 (from 5% to 9%), but in the 1st quarter of 2008, this proportion was similar to 2006 and 2007.
- The next lowest proportions of severely food insecure households were in Chui and in Batken oblasts (10% to 12% in the 1st quarter of 2008). Households in Batken saw a large improvement of their food security situation between 2006 and 2007 (decrease by half of the proportion of severely food insecure) and this positive trend seemed to continue in the 1st quarter of 2008.
- The highest proportions of severely food insecure households were in Naryn and in Issyk-Kul oblasts (32% to 38% in the 1st quarter of 2008). While the proportion of severely food insecure households decreased in the other oblasts from the 1st quarters of 2006 and 2007 to the 1st quarter of 2008, it did not improve in these two oblasts.
- In Jalal-Abad oblast, the proportion of severely food insecure households decreased significantly between the 1st quarter of 2007 and the 1st quarter of 2008, while the proportion of moderately food insecure households increased slightly, reflecting a shift between the two categories. A similar improvement, though less marked, occurred in Osh oblast.
- In Talas oblast, the overall proportion of food insecure households did not change between 2006 and early 2008, but the situation may have improved slightly, as shown by the decrease rate of severely food insecure households and increased rate of moderately food insecure.

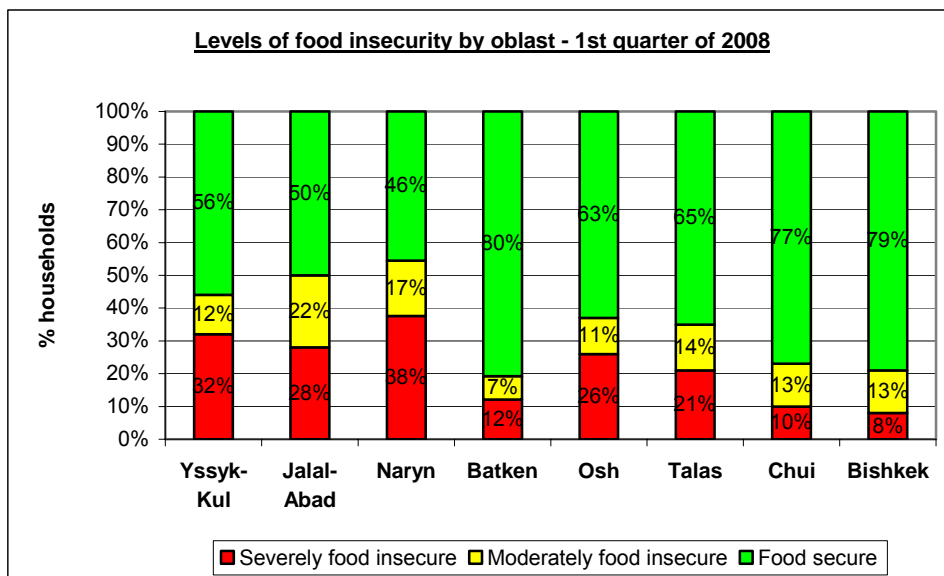
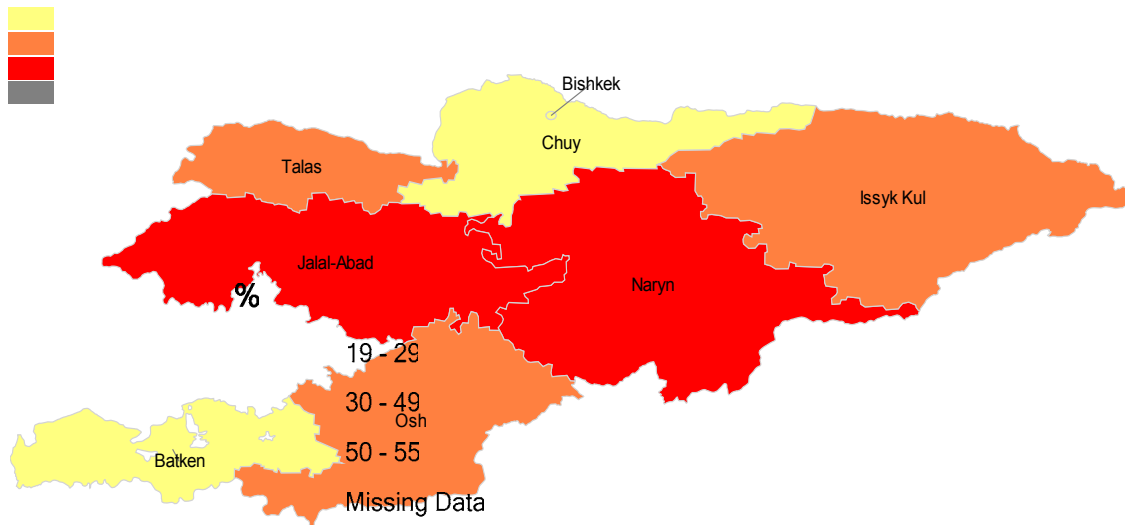


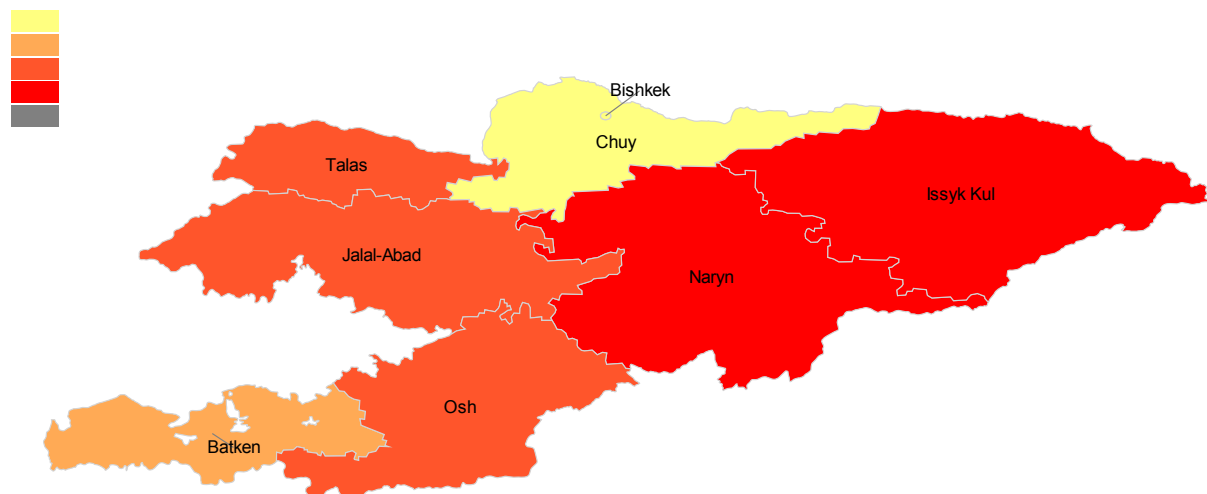
Figure 3: Levels of food insecurity by Oblast of 1st Quarter 2008



In red: > 50% food insecure
In orange: 30-49% food insecure
In beige: < 30% food insecure



In red: > 30% severely food insecure
In orange: 21-30% severely food insecure
In light orange: 11-20% severely food insecure
In beige: 8-10% severely food insecure



3.2 Food consumption and food insecurity

Combined food consumption data from FAO Food Balance Sheet and National Statistics Committee data, indicate that:

- bread, bakery products and potatoes have become the major food items consumed by the population;
- the consumption of meat and meat products, and oil crops (e.g. sunflower) has declined;
- milk and vegetables supply has increased; the contribution of vegetables to the diet increased while milk and dairy products remained stable.



At national level, per capita calorie, protein and fat intake⁷ showed a minor decrease in 2007 compared to 2006. However, the per capita kilocalorie was lower than the official requirements for Kyrgyzstan (2430 kcal/capita/day) and the gap deteriorated for kilocalories and proteins between 2006 and 2007:

- gap of 210 kcal/cap/day for 2007 compared to 160 kcal/cap/day for 2006;
- gap of 21 g of proteins/cap/day for 2007, compared to 19 g for 2006;
- gap of 16 g of fat/capita/day for both 2006 and 2007.

Table 4 - Estimated dietary intake in 2006 and 2007

	2006	2007
Kilocalories/capita/day	2,270 kcal	2,220 kcal
Proteins g/capita/day	59.9 g (10% kcal)	57.9 g (10% kcal)
Fats g/capita/day	57.4 g (23% kcal)	57.5 g (23% kcal)

Food Security Information Bulletin No.2/2008 – National Statistics Committee, Bishkek, 2008

The largest per capita kilocalorie intake was in Chui (2580 kcal) and Batken (2500 kcal) oblasts, while the lowest was in Jalal-Abad (1900 kcal), Osh (2040 kcal) and Naryn (2100 kcal) oblasts. However, the average food intake showed large variations from one year to another.

Table 5 - Estimated dietary intake by oblast and Bishkek in 2007

	Kilocalories/capita/day	Proteins g/capita/day	Fats g/capita/day
Kyrgyzstan	2220 kcal	57.9 g	57.5 g
Yssyk-Kul oblast	2300 kcal	56.8 g	59.2 g
Jalal-Abad oblast	1900 kcal	50.7 g	42.7 g
Naryn oblast	2100 kcal	62.6 g	50.7 g
Batken oblast	2500 kcal	62.2 g	70.2 g
Osh oblast	2040 kcal	51.4 g	50.3 g
Talas oblast	2380 kcal	61.6 g	60.3 g
Chui oblast	2580 kcal	67.7 g	71.5 g
Bishkek town	2340 kcal	63.9 g	68.0 g

Food Security Information Bulletin No.2/2008 – National Statistics Committee, Bishkek, 2008

In the re-analysis of the KIHS, the adequacy of food consumption was assessed from the per capita kilocalorie consumption estimated through the 2-week food diary maintained by households as follows:

- poor food consumption: per capita kilocalorie intake below 80% of the standard requirements (1,800 kcal/cap/day);
- borderline food consumption: per capita kilocalorie intake between 80% and 99% of the standard requirements (1801-2099 kcal/cap/day);
- acceptable food consumption: per capita kilocalorie intake at 100% or more of the standard requirements ($\geq 2,100$ kcal/cap/day).

The proportion of households with an unsatisfactory diet (poor or borderline) increased in 2007 (48%) compared to 2006 (38%). However, on a quarterly basis, the proportion of households with inadequate diet was similar in the first quarters of 2006 and 2007 (about 40%), and higher than in the 1st quarter of 2008 (37%), thus there may have been a slight improvement of the food consumption situation at the beginning of 2008. Nevertheless, the peak of food prices inflation took place in the 2nd and 3rd quarters of 2008 and may have negatively affected again the food consumption of the population. Analysis of the next rounds of the 2008 KIHS will be necessary to check this assumption.

All wealth quintiles decreased their kilocalorie and protein intake between 2006 and 2007, though very little for the two wealthiest quintiles. Changes in fat intake were small except for the poorest quintile.

⁷ The per capita food intake is estimated on the basis of a comprehensive food diary maintained for a period of two weeks by the households randomly selected in the quarterly Kyrgyz Integrated Household Survey conducted by the National Statistics Committee.



Table 6 – Dietary intake per wealth quintile in 2006 and 2007

	Kilocalories/capita/day		Proteins g/capita/day		Fats g/capita/day	
	2006	2007	2006	2007	2006	2007
Kyrgyzstan	2270 kcal	2430 kcal	59.9 g	57.9 g	57.4 g	57.5 g
1st quintile (poorest)	1670 kcal	1560 kcal	42.1 g	39.2 g	38.2 g	34.9 g
<i>gap/requirements</i>	<i>-760 kcal</i>	<i>--870 kcal</i>	<i>-36 g</i>	<i>-39 g</i>	<i>-35 g</i>	<i>-38 g</i>
2nd quintile	1980 kcal	1870 kcal	51.2 g	47.8 g	46.4 g	44.0 g
<i>gap/requirements</i>	<i>-450 kcal</i>	<i>-560 kcal</i>	<i>-27 g</i>	<i>-31 g</i>	<i>-31 g</i>	<i>-29 g</i>
3rd quintile	2210 kcal	2170 kcal	58.5 g	56.5 g	54.0 g	54.3 g
<i>gap/requirements</i>	<i>-220 kcal</i>	<i>-260 kcal</i>	<i>-20 g</i>	<i>-22 g</i>	<i>-19 g</i>	<i>-19 g</i>
4th quintile	2440 kcal	2450 kcal	64.6 g	64.0 g	63.2 g	65.0 g
<i>gap/requirements</i>	<i>+ 7 kcal</i>	<i>+ 21 kcal</i>	<i>-14 g</i>	<i>-15 g</i>	<i>-10 g</i>	<i>-8 g</i>
5th quintile (richest)	3070 kcal	3040 kcal	83.3 g	82.1 g	85.4 g	89.3 g
<i>gap/requirements</i>	<i>+ 640 kcal</i>	<i>+ 610 kcal</i>	<i>+ 5 g</i>	<i>+ 4 g</i>	<i>+ 12 g</i>	<i>+ 16 g</i>

Food Security Information Bulletin No.2/2008 – National Statistics Committee, Bishkek, 2008

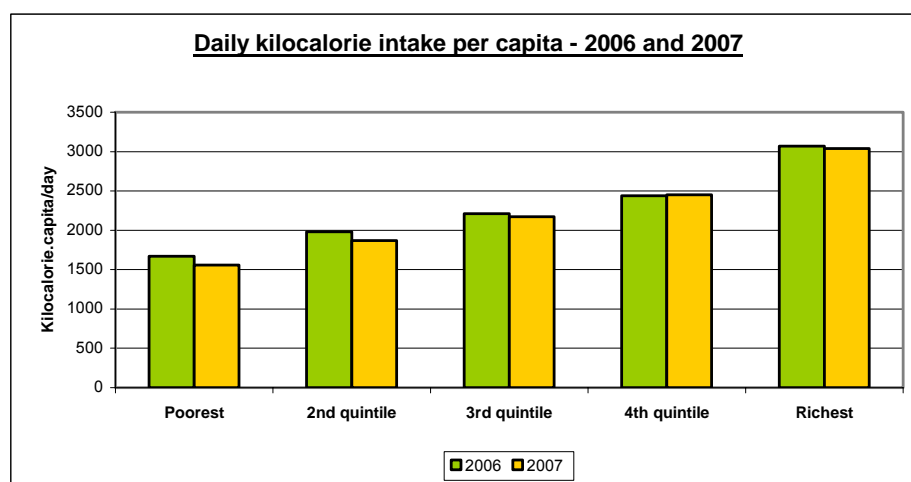


Figure 4: Daily kilocalorie intake per capita 2006 - 2007

Severity of the situation

- Households with a poor diet (20% in the 1st quarter of 2008) face serious nutritional and health risks on the short term. Their diet is clearly bringing insufficient calories and most likely to lack good quality proteins, vitamins and minerals to cover average nutritional requirements. Even though some redistribution within the household may take place, such a diet is likely to create severe deficiencies and malnutrition for vulnerable members including children, the elderly, the chronically sick and pregnant and lactating women.
- Households with a borderline diet (17%) have a diet higher in kilocalories than the former group, but still below the standard nutritional requirements and thus also likely to lack good quality proteins, vitamins and minerals which are essential for growth and health. Vulnerable members in these households are at risk of nutritional deficiencies on the medium term.

Urban-rural differences

Average per capita kilocalorie availability was lower in rural areas in 2007 (2,180 kcal versus 2,290 kcal in urban areas) and showing a deteriorating trend compared to 2006. The proportion of kilocalories coming from fat is also lower in rural areas but not the proportion of kilocalorie coming from proteins, thus indicating a diet poorer in oil or butter compared to urban areas.

Table 7 - Urban-rural residence and per capita food intake – 2006 and 2007

Residence:	Kilocalorie/capita/day		% kilocalories from proteins		% kilocalories from fat	
	2006	2007	2006	2007	2006	2007
Total	2,270	2,220	10.5%	10.4%	22.7%	23.3%
Urban	2,300	2,290	10.5%	10.5%	23.9%	24.5%
Rural	2,260	2,180	10.6%	10.4%	22.0%	22.6%

However, contrarily to poverty rates and economic access, there were small differences in the proportion of households with poor or borderline food consumption patterns between rural and urban



areas. Although poverty and low economic access are affecting a much higher proportion of rural inhabitants than urban ones, it seems that a number of poor households in rural areas do manage to protect their food consumption. The reasons may include a higher reliance on own crop and animal production for self-consumption, as well as on barter mechanisms which shields them somewhat from the effects of inflation.

Regional differences

Households' food consumption patterns are consistent with the favorable economic access patterns in Bishkek town and Chui oblasts (see section 1.3 below), but households' food consumption is better than would be expected on the basis of economic access in Batken oblast. A large share of households in Naryn, Yssyk-Kul and Jalal-Abad oblasts has an unacceptable diet, in line with the high proportion of households facing economic access difficulties.

Interestingly, the trend between 2006 and early 2008 indicate an increase of the proportion of households with acceptable food consumption patterns in Jalal-Abad, Yssyk-Kul, Osh and Talas oblasts, while the rates of households facing economic access difficulties in these oblasts did not improve. This may indicate a switch towards more self-reliance on self-produced food and/or increase in barter (non-cash) transactions. The difference between Batken and other oblasts in terms of food consumption and access is a case in point. Indeed in Batken households are more likely to procure their potatoes for example, from their own production.

At oblast level, the per capita kilocalorie intake in 2007 was particularly low in Osh, Jalal-Abad and Naryn oblasts (less than, or just at 2,100 kcal/cap/day) and decreasing between 2006 and 2007. The highest per capita kilocalorie intake was in Chui oblast (2,600 kcal/cap/day in 2007) but also showing a deterioration between 2006 and 2007. The fat content of the diet also tended to decrease in Jalal-Abad and Naryn, indicating a decrease consumption of oil (the protein content remained stable).

Table 8 - Per capita food intake at oblast level – 2006 and 2007

Oblasts and town:	Kilocalorie/capita/day		% kilocalories from proteins		% kilocalories from fat	
	2006	2007	2006	2007	2006	2007
Yssyk-Kul oblast	2,250	2,300	10.0%	9.9%	22.2%	23.2%
Jalal-Abad oblast	2,090	1,900	10.7%	10.6%	21.4%	20.2%
Naryn oblast	2,260	2,100	11.9%	11.9%	22.2%	21.7%
Batken oblast	2,230	2,500	10.1%	10.0%	24.5%	25.3%
Osh oblast	2,050	2,040	10.0%	10.1%	21.6%	22.1%
Talas oblast	2,320	2,380	10.6%	10.3%	22.3%	22.8%
Chui oblast	2,770	2,580	10.6%	10.5%	22.6%	25.9%
Bishkek town	2,300	2,290	10.9%	10.9%	25.5%	26.1%

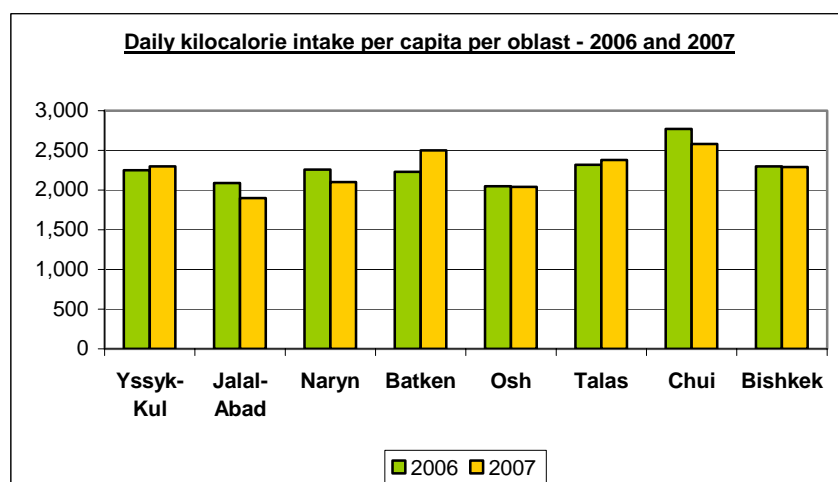


Figure 5: Daily kilocalorie intake per capita per oblast - 2006-2007



Based on the proportion of households with poor food consumption in the 1st quarter of 2008, and thus at higher nutritional and health risks, geographical priority for urgent, relief interventions to restore an adequate diet should be:

1. **Naryn** oblast: 33% poor food consumption;
2. **Yssyk-Kul** oblast: 30% poor food consumption;
3. **Osh** oblast: 24% poor food consumption;
4. **Jalal-Abad**: 23% poor food consumption;
5. **Talas** oblast: 17% poor food consumption

More specifically:

- Households in Chui and Batken oblasts, followed by Bishkek town, present the highest rates of acceptable food consumption. However, the proportion of households with a borderline diet increased in Chui and Bishkek between 2006 and early 2008, signaling a deterioration of the situation. On the contrary, the proportion of households with a poor or borderline diet decreased in Batken, mirroring the economic access improvement already noted in that oblast.
- The highest proportions of households with unacceptable diet are found in Naryn oblast, where 1/3rd of the households have a poor diet and almost 1/4th have a borderline diet. The trend is also towards an increase of the proportion of households with a poor diet between 2006 and early 2008.
- Only slightly more than half of the households have an acceptable diet in Jalal-Abad and Yssyk-Kul oblasts. However, the proportion of households with a poor diet has decreased over time in Jalal-Abad.
- The proportion of households with an acceptable diet has also increased in Osh and Talas oblasts between 2006 and early 2008, but a quarter of the households in Osh still consumed a poor diet in the 1st quarter of 2008.

Table 9 - Food consumption per oblast and Bishkek town – 2006 to 1st quarter of 2008

Oblasts and town:	Households								
	Poor consumption			Borderline consumption			Acceptable consumption		
	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.
Yssyk-Kul oblast	21% (32%)	22% (25%)	30%	19% (15%)	18% (22%)	14%	60% (53%)	60% (53%)	55%
Jalal-Abad oblast	30% (32%)	37% (44%)	23%	14% (15%)	19% (12%)	22%	55% (52%)	44% (44%)	55%
Naryn oblast	19% (28%)	30% (31%)	33%	16% (20%)	24% (29%)	23%	65% (52%)	46% (40%)	44%
Batken oblast	14% (25%)	10% (14%)	10%	25% (16%)	14% (25%)	16%	61% (59%)	76% (61%)	74%
Osh oblast	32% (33%)	26% (33%)	24%	23% (21%)	22% (21%)	16%	45% (46%)	51% (44%)	60%
Talas oblast	27% (26%)	23% (28%)	17%	12% (16%)	15% (12%)	19%	61% (59%)	62% (59%)	64%
Chui oblast	11% (18%)	11% (15%)	13%	7% (10%)	14% (10%)	15%	82% (72%)	75% (75%)	72%
Bishkek town	12% (15%)	15% (17%)	16%	15% (13%)	15% (11%)	16%	73% (73%)	71% (72%)	68%
Total	21% (25%)	22% (26%)	20%	16% (15%)	18% (16%)	17%	62% (59%)	61% (58%)	63%

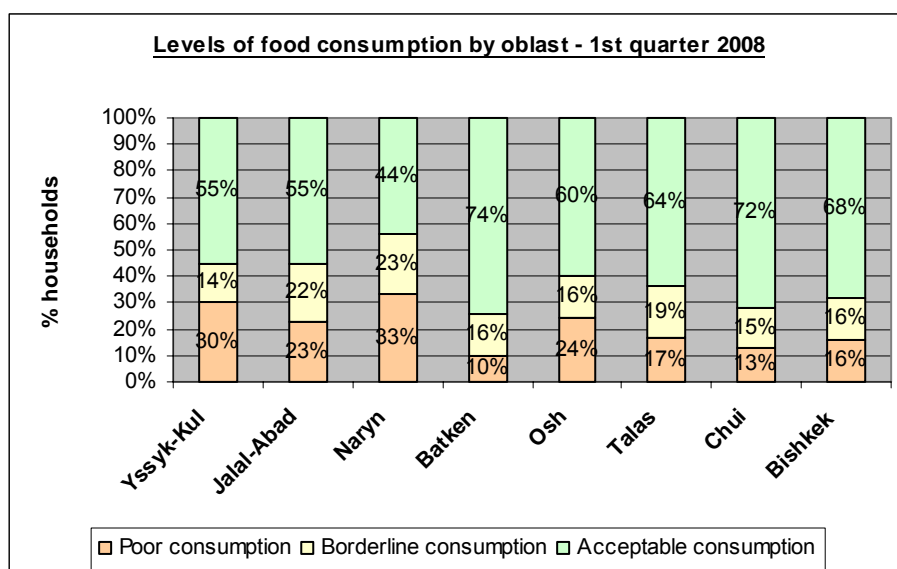


Figure 6: Levels of food consumption by oblast - 1st Quarter 2008

3.3 Food economic access and food insecurity

Food access was estimated by the per capita consumption expenditures compared to the official poverty and extreme poverty lines, as follows:

- poor access: households in the bottom wealth quintile, with consumption expenditures below the extreme poverty line;
- average access: households in the 2nd and 3rd wealth quintiles, with consumption expenditures between the extreme poverty line and the poverty line or just above the latter;
- good access: households in the 4th and top wealth quintiles, with consumption expenditures above the poverty line.

Severity of the situation

Throughout the period from 2006 to the first quarter of 2008, 14% of the population had a very poor access (lower wealth quintile), 35% were moderately poor and just above half of the households were “reasonably” above the official poverty line. These values are comparable to the poverty rates estimated by the NCS in 2007 (7% extremely poor and 35% poor).

As poverty data are not yet available for 2008, results from 2007 are used. The proportion of severely food insecure households in the whole year of 2007 was higher than the proportion of extremely poor households (22% versus 14%). Conversely, the proportion of moderately food insecure households was lower than the proportion of poor households (12% versus 34%). These findings indicate that almost half of the poor households, albeit not extremely poor, fail to maintain their food consumption level and have an alarmingly low quality and quantity of food intake.

In sum, the majority of the extreme poor cannot secure enough food, and almost half of the poor cannot either.

Taking the 1st quarter of 2008 figures, urgent interventions to restore economic access to food are required for the 17% extremely poor and poor households whose lack of access translates in a poor diet (see section 1.2 above).

Short and medium-term livelihood support interventions are required for these households as well as for 11% extremely poor and poor households whose diet is borderline as a result of their lack of economic access.

Table 10 - Food consumption and access - 1st quarter of 2008

Food access groups	Food consumption groups			Total
	Poor	Borderline	Acceptable	
Poor	9%	3%	2%	14%
Average	8%	8%	19%	35%
Good	3%	6%	42%	51%
Total	20%	17%	63%	100%



Table 11 - Food consumption and access – 2007 and 1st quarter

Food access groups	Food consumption groups			Total
	Poor	Borderline	Acceptable	
Poor	10% (11%)	3% (2%)	1% (1%)	14% (14%)
Average	10% (10%)	9% (8%)	16% (15%)	34% (34%)
Good	2% (5%)	6% (5%)	44% (42%)	52% (52%)
Total	22% (26%)	18% (16%)	52% (58%)	100%

Table 12 - Food consumption and access – 2006 and 1st quarter

Food access groups	Food consumption groups			Total
	Poor	Borderline	Acceptable	
Poor	9% (13%)	3% (2%)	2% (0%)	14% (14%)
Average	9% (9%)	8% (10%)	18% (14%)	34% (34%)
Good	3% (3%)	5% (4%)	43% (45%)	51% (52%)
Total	21% (25%)	16% (15%)	62% (59%)	100%

Urban-rural differences

As expected, low economic access is much more frequent in rural areas than in urban areas. About 2/3rd of rural households were in the bottom three quintiles of consumption expenditures compared to 1/3rd of urban households.

Compared to urban areas, a higher share of poor households in rural areas is unable to maintain acceptable food consumption, even though they are not in extreme poverty. On the other hand, it is only in rural areas that some of the poor households do manage to protect their food intake to an acceptable level, given that the overall proportion of food insecure households is lower than the proportion of poor households:

- in urban areas, the proportion of severely food insecure was 16% in 2007 compared to 3% extremely poor, and the proportion of moderately food insecure was 11% compared to 23% poor;
- in rural areas, the proportion of severely food insecure was 27% in 2007 compared to 8% extremely poor, and the proportion of moderately food insecure was 13% compared to 42% poor.

Table 13 - Food consumption and access – Urban areas - 1st quarter of 2008

Food access groups	Food consumption groups			Total
	Poor	Borderline	Acceptable	
Poor	5%	1%	1%	6%
Average	8%	7%	11%	26%
Good	5%	8%	55%	68%
Total	18%	16%	66%	100%

Table 14 - Food consumption and access – Rural areas - 1st quarter of 2008

Food access groups	Food consumption groups			Total
	Poor	Borderline	Acceptable	
Poor	12%	5%	3%	20%
Average	7%	9%	25%	42%
Good	2%	4%	32%	38%
Total	21%	18%	61%	100%

Regional differences

Based on the KIHS, the poorest oblasts in 2007 were Jalal-Abad (53% poor), Osh (47%) and Naryn (45%). With the exception of Osh, the high poverty rates are consistent with the high rates of food insecurity observed. Although at a much lower scale, the improvement in the poverty rates in Batken and Jalal-Abad are in line with the decreased rates of severe food insecurity there.

The analysis between 2006 and 1st quarter of 2008 indicates that:

- Economic access is by far the best amongst households in Bishkek city, with a very low proportion of households having poor access. However the trend between 2006 and the 1st quarter of 2008 is not favorable, possibly reflecting the negative impact of high food and fuel prices on this specific urban population.
- Economic access is also better in Chui oblast, although there again the trend is towards higher proportions of households facing access problems.
- The highest proportions of households with economic difficulties are in Jalal-Abad and Naryn oblasts, with more than 70% of households with poor or average access. Osh, Yssyk-Kul and Talas oblasts



comprise each more than 60% of households with poor or average economic access. In these 5 oblasts, the economic situation is not showing any significant improvement between 2006 and early 2008.

- Slightly less than half of the households in Batken oblast have low economic access and the trend over time is rather positive.

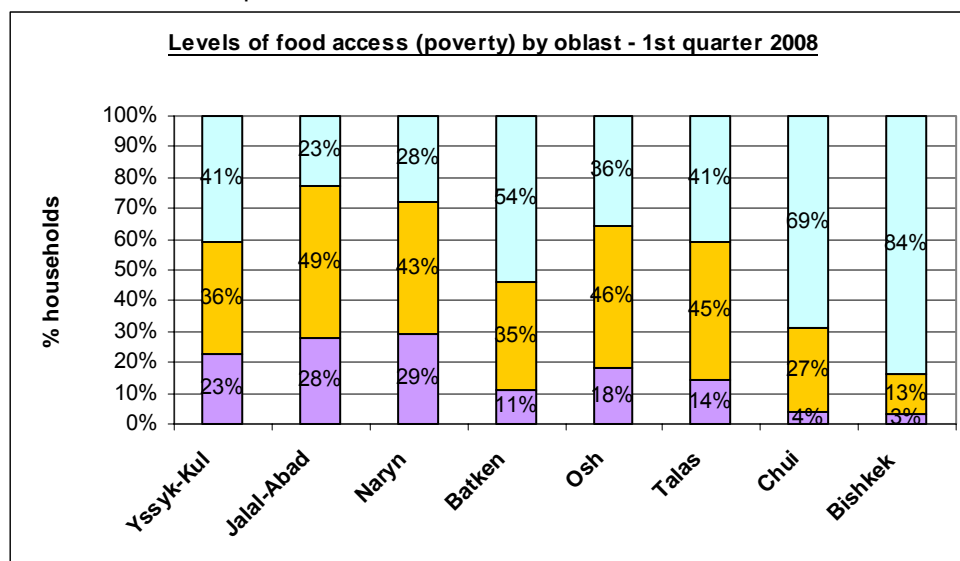


Figure 7: Levels of food access (poverty) by oblast - 1st Quarter 2008

Based on the proportion of households with poor and average economic access in the 1st quarter of 2008 and thus less able to secure an acceptable diet, urgent interventions to improve economic access should be:

1. **Naryn** oblast: 29% poor access;
2. **Jalal-Abad** oblast: 28% poor access;
3. **Yssyk-Kul** oblast: 23% poor access;
4. **Osh** oblast: 18% poor access;
5. **Talas** oblast: 14% poor access.

Table 15 - Food access per oblast and Bishkek town – 2006 to 1st quarter of 2008

Oblasts and town:	Households								
	Poor access			Average access			Good access		
	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.
Yssyk-Kul oblast	16% (22%)	17% (23%)	23%	39% (38%)	38% (37%)	36%	45% (40%)	45% (40%)	41%
Jalal-Abad oblast	29% (22%)	31% (27%)	28%	46% (50%)	50% (53%)	49%	24% (28%)	19% (20%)	23%
Naryn oblast	20% (15%)	28% (25%)	29%	44% (39%)	37% (44%)	43%	36% (46%)	35% (31%)	28%
Batken oblast	16% (22%)	9% (12%)	11%	50% (41%)	47% (40%)	35%	34% (37%)	44% (47%)	54%
Osh oblast	23% (25%)	18% (21%)	18%	41% (49%)	41% (46%)	46%	36% (26%)	40% (32%)	36%
Talas oblast	10% (9%)	20% (13%)	14%	43% (31%)	34% (39%)	45%	47% (60%)	46% (48%)	41%
Chui oblast	3% (5%)	3% (4%)	4%	28% (19%)	25% (21%)	27%	69% (77%)	72% (75%)	69%
Bishkek	1% (1%)	0% (1%)	3%	11% (13%)	13% (9%)	13%	88% (86%)	87% (90%)	84%
Total	14% (14%)	14% (14%)	14%	34% (34%)	34% (34%)	35%	51% (52%)	52% (52%)	51%



IV – LIVELIHOOD ASSETS AND CHARACTERISTICS OF THE FOOD INSECURE

4.1 Human capital

4.1.1 Gender of the head of household

On average, 36% of the households were headed by a woman. The trend indicates a slight increase in the proportion of female-headed households from 2006 to early 2008 (3 percentage points).

About 40% of male-headed households were food insecure throughout 2006 to early 2008, significantly more than female-headed households (27%). A similar discrepancy has been observed with poverty rates. Reasons may include the fact that a number of female-headed households are in fact supported economically by a male migrant abroad and are in a better economic situation than many other households, as well as the fact that female-headed households tend to be of a smaller size and with a large representation of pensioners given the longer life expectancy of women compared to men.

Rural-urban and regional differences

- The proportion of female-headed households was much higher in urban than rural areas (44% versus 29% respectively in the 1st quarter of 2008).
- Rural versus urban residence did not change the fact that female-headed households were less likely to be food insecure than male-headed households.
- The highest proportion of female-headed households was in Bishkek, where almost half of the households were headed by a woman in the 1st quarter of 2008. High proportions of female-headed households were also observed in Chui (38%), Yssyk-Kul (36%), Osh (32%) and Jalal-Abad (30%), while relatively lower proportions were found in Naryn and Talas oblasts (26% each).
- The difference of food insecurity rates between gender heads was less pronounced in Jalal-Abad oblast. Similar proportions of female-headed households were also noted among the severely food insecure and the food secure households in Chui oblast.

Table 16 - Gender of the head of household and food security – 2006 to 1st quarter of 2008

Residence	Heads of household					
	Man			Woman		
	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.
Total	100%	100%	100%	100%	100%	100%
Severely food insecure	25% (27%)	25% (27%)	22%	17% (18%)	17% (19%)	16%
Moderately food insecure	14% (15%)	13% (15%)	16%	9% (9%)	10% (12%)	10%
Food secure	61% (58%)	61% (59%)	62%	74% (73%)	73% (69%)	73%
Urban areas	100%	100%	100%	100%	100%	100%
Severely food insecure	20% (21%)	18% (18%)	16%	10% (12%)	13% (11%)	12%
Moderately food insecure	14% (15%)	13% (15%)	14%	9% (8%)	8% (12%)	11%
Food secure	67% (64%)	68% (67%)	70%	81% (80%)	79% (77%)	78%
Rural areas	100%	100%	100%	100%	100%	100%
Severely food insecure	28% (31%)	30% (32%)	26%	24% (25%)	20% (28%)	21%
Moderately food insecure	14% (16%)	13% (15%)	16%	9% (11%)	13% (13%)	10%
Food secure	58% (54%)	66% (53%)	58%	66% (64%)	66% (59%)	68%



4.1.2 Age of the head of household

There were very few households headed by a person younger than 18 years of age. Almost 2/3^d of the heads of households were aged between 18 and 63 years.

In the 1st quarter of 2008, there were no differences in the rates of household food insecurity according to the age of the head of households. The pattern differed in the preceding years: in 2006, there was a higher proportion of severely food insecure among households with younger (non-elderly) heads of households, and in 2007 there was a higher proportion of moderately food insecure among households with younger heads. The reasons for this evolution are not clear but may signal a deterioration of the food security situation of households headed by an elderly person starting in 2007, particularly in rural areas. Whether this trend is confirmed in the next quarters of 2008 will need to be monitored. It could be due to a loss of purchasing power of the pensions and other income sources of the elderly in the context of rising food and fuel prices.

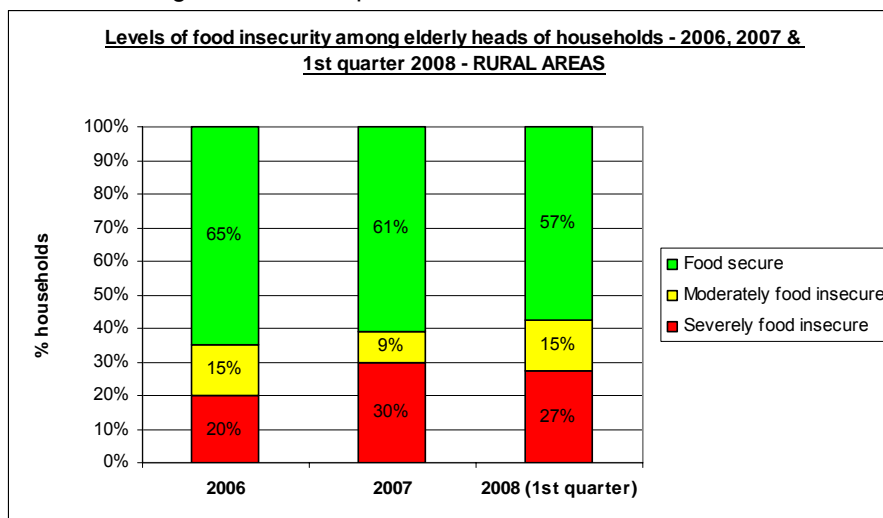


Figure 8: Levels of food insecurity among elderly heads of households – 2006, 2007 & 1stquarter 08-rural areas

Urban-rural and regional differences

In urban areas, households headed by an elderly person (above 63 years) were slightly less likely to be moderately food insecure than younger heads (9% versus 14% respectively). In rural areas, the reverse was observed in terms of severe food insecurity, with a slightly higher proportion of households headed by an elderly person who were severely food insecure compared to younger heads (27% versus 24% respectively). These discrepancies may be due to different household size and entitlements (e.g. pension levels).

A slightly higher proportion of households headed by an elderly person was noted in Naryn (31% in 2007) and Chui (24%) oblasts.

Differences in rates of severely food insecure among households headed by an elderly person in 2006 were more pronounced in Yssyk-Kul, Batken, Osh, Talas and Chui oblasts. However, the situation was the opposite in Naryn oblast, with a higher proportion of severely food insecure among households headed by an elderly person. In 2007, rates of moderate food insecurity were higher among households headed by a non-elderly in Yssyk-Kul and the same trend was observed in other oblasts but less prominently. The proportion of food insecure households among those headed by an elderly person seemed to increase in the 1st quarter of 2008 compared to previous years in Yssyk-Kul, Naryn and Talas oblasts as well as in Bishkek town. This negative trend and the situation of such households warrant attention.



4.1.3 Education of the head of household

Education sector in the Kyrgyz Republic

Education is highly valued generally. Official figures indicate that gross primary enrolment is 98% for boys and 97% for girls, and 97% of the population is literate. According to the research company “El-Pikir” that studied pupils’ achievements in 2003 and 2006, non-attendance figure is in fact 6 times higher, and particularly problematic in depressed districts in the south of the country. Other NGOs suggest non-attendance figure of about 40 000 (rather than the official 1619).⁸

A summary of the main characteristics of the education sector is provided in the Box below.

Box 1 – Main characteristics of the education sector

The country is covered with a network of educational institutions in proportion to the population density. There are primary education schools and basic education schools in small and remote villages, while the majority of schools cover the full eleven years of schooling. However, due to an insignificant number of newly built schools, more than 80% of village schools and 70% of city schools worked in two sessions, and 9% and 19% respectively worked even in 3 sessions in 20019.

The quality of education has fallen sharply due to under-funding and the resulting outflow of qualified teachers (from the country and from the sector), and the deterioration of materials and technical supplies within schools (particularly textbooks and teaching aids). A review conducted in 2006¹⁰ showed that all schools suffer from a shortage of teachers, especially of junior classes and some particular topics (e.g. mathematics etc.). Short-term measures have resulted in an increase workload of working teachers, replacement of teachers by non-specialists and necessity to invite external students to work as teachers (the latter typically in Talas oblast and, to a less extent, Yssyk-Kul oblast).

In many rural schools using coal for heating, the heating season begins later and finishes earlier than the officially established time, due to insufficient funding. Characteristic features of rural schools are frequent breakages of heating and lighting systems, and roof leaks.

In actual fact, the Republican budget finances salaries and utilities (water, heating, electricity), while the remainder of school expenses are financed from parents’ payments. In addition, there is non-formal collection of money from parents, to buy chalk, floor cloths, buckets, curtains etc. The share of household’s income dedicated to education was estimated at 22% for the two lowest wealth quintiles (40% poorest) while it was 39% for the highest quintile (20% richest).

Local oblast budgets differ between regions. Expenditures per student are higher in Bishkek and Naryn and lower in Osh, Batken and Jalal-Abad oblasts. Financial support provided by international organizations to the education sector is very important. The Asian Development Bank (ADB) has supported a major project since 1997 to increase the effectiveness of the sector; the World Bank implements projects to support rural schools, and other donors provide small grants to pre-school and school education.

Shortage of textbooks and the collection of payment for them resulted in a certain discrimination against children from poor families: those who cannot rent textbooks are not supplied with them free of charge. Children from poor households were more likely not to attend school than those from the richest wealth quintile. Difficulties to pay for school expenses and fees and need for families to diversify their income earning strategies by putting their children in the tobacco and cotton industry also limit these children’s access to education. Migrant and street children are also restricted in their ability to access good education. Continuation after the 9-year basic education is lower for rural children, children in lower wealth quintiles, and children of less educated parents. Continuation rates are particularly low in Jalal-Abad, Naryn and Talas oblasts, which are also the oblasts with some of the highest incidence of poverty

⁸ Draft Education for All Mid Decade Assessment, Almaty, 2008 at www.unescobkk.org/fileadmin/user_upload/efa/EFA_MDA/SSR_Drafts/CentralAsia_EFA_MDA_SSReport_June_16_2008.doc, p81

⁹ Monitoring and Achievements in the Educational Sphere, Bishkek 2001 – Quoted in “Public Expenditure Review on Social Sector in the Kyrgyz Republic” – UNICEF, 2006

¹⁰ Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006



Education of the head of household and food security

Overall, the analysis of the KIHS shows that about 9% of heads of households had no education, 5% primary, about 36% secondary, 28% specialized secondary, and 20% higher education. There were no noticeable changes between 2006 and early 2008.

The results indicate that primary, specialized secondary and higher education of the head of household make a difference in terms of food security situation in rural areas, while only specialized secondary and higher education are more important in urban areas. This may be due to the type of skills required in rural versus urban areas. Poverty studies in Kyrgyzstan have also shown a comparative advantage of having benefited from vocational and specialized training, as compared to only education at secondary level, possibly owing to a better match with the kind of skills required in the labor market. While the absence of education is related to lower access to employment and to better paid occupations, the reason for higher [moderate] food insecurity among rural households whose head has a secondary education level is unclear.

Rural-urban and regional differences

- As expected, the proportions of uneducated and secondary education level were higher in rural areas (respectively 11% and 43% rural versus 6% and 4% urban) while the proportion of heads of household with higher education is higher in urban areas (32% versus 12%). There were not many differences in the proportions of heads of households with primary or specialized secondary education levels between urban and rural areas.
- In rural areas (but not in urban areas), the proportion of food insecure households was higher among those without education as well as those with secondary education, compared to those with primary, specialized secondary or higher education. However, the proportion of severely food insecure households in rural areas was generally above 20% whatever the education level of the head of households except when the head has reached a higher education level (16%).
- In urban areas, the proportion of food insecure households was higher amongst those without education as well as those with primary and secondary education, compared to those with specialized secondary or higher education.

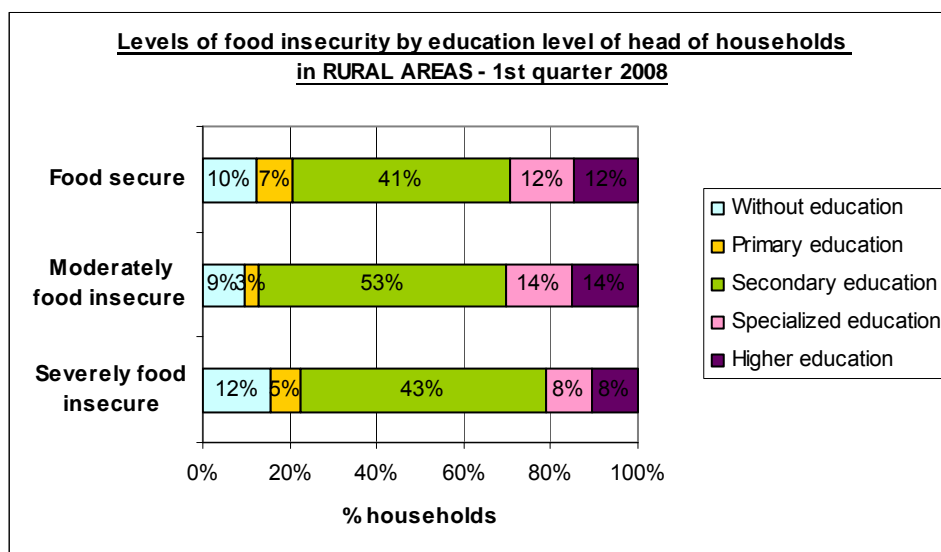


Figure 9: Levels of food insecurity by education levels of households in rural areas- 1st Quarter 2008

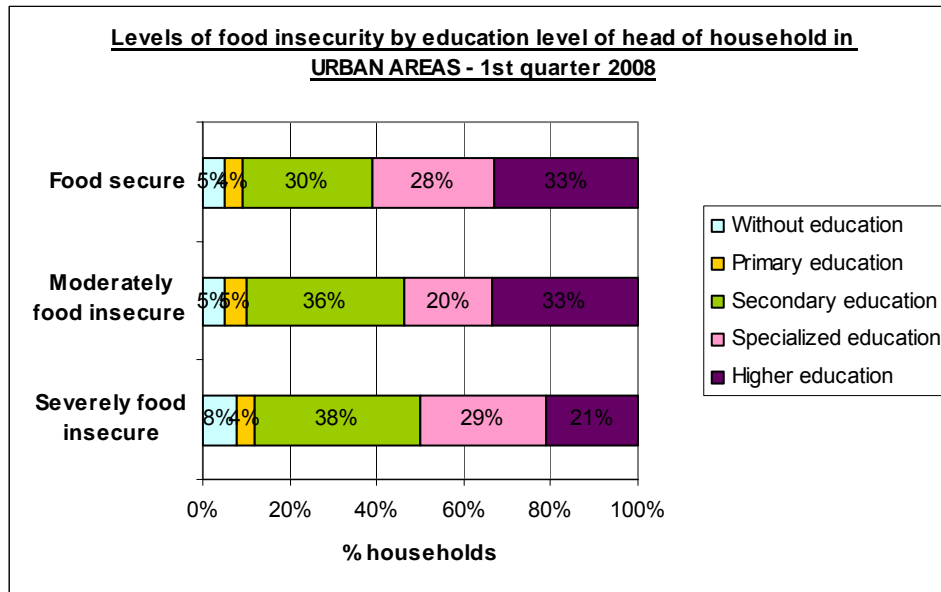


Figure 10: Levels of food insecurity by education levels of households in urban areas- 1st Quarter 2008

The highest proportions of heads of households without education were in Naryn and Batken (11% each), Yssyk-Kul (10%) and Jalal-Abad (9%) oblasts.

- Naryn oblast was also characterized by a low proportion of households with specialized secondary education (20% versus 27% or more in other oblasts).
- The proportions of heads of households with higher education were lower in Yssyk-Kul and Naryn (14% each) and in Osh (15%) oblasts. These results contribute to explain the higher rates of food insecurity in these oblasts. The proportion was also low in Chui oblast (7%) but a higher proportion of heads of households had specialized secondary education in this oblast (35% versus 20-28% elsewhere).
- The proportion of heads of households with higher education was much higher in Bishkek (41%) than in the oblasts.
- The difference in the rates of food insecurity according to whether the head of household had secondary versus specialized secondary education was relatively large in Naryn and Osh oblasts, perhaps reflecting a stronger competition for labor (and thus income earning opportunities) in these regions with a large proportion of households facing economic difficulties.



4.1.4 Size of the household

The average size of households was 4 members. There were few households with more than 6 members and most of the households had less than 4 members. Similarly as for poverty rates, there is a clear increase in the proportion of food insecure households as the size of the household augments. This increase is essentially due to a higher proportion of food insecure households when the number of members gets over 4.

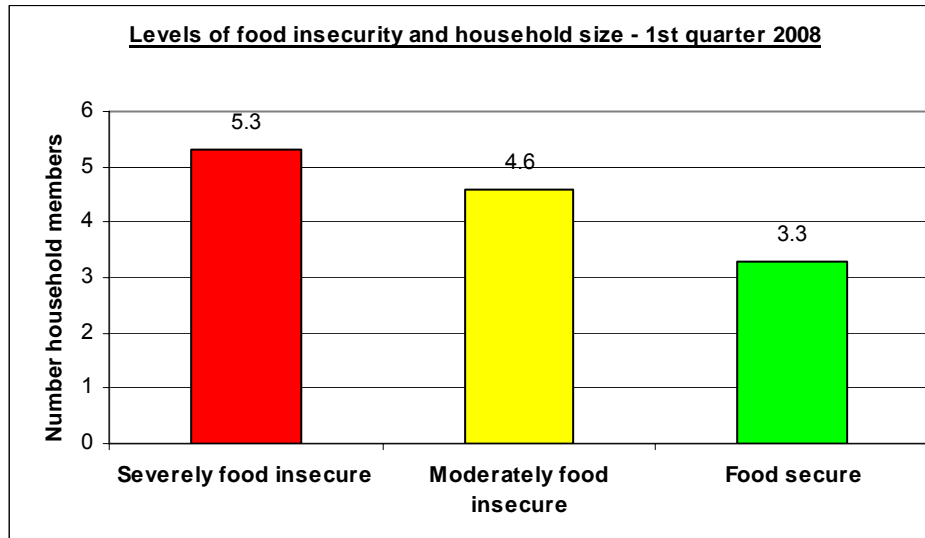


Figure 11: Level of food insecurity and household size - 1st Quarter 2008

Of the food insecure, 43-44% had 4-6 members were food insecure compared to 20% of the food secure. Of the severely food insecure, 19% had more than 6 members compared to 12% of the moderately food insecure and only 4% of the food secure.

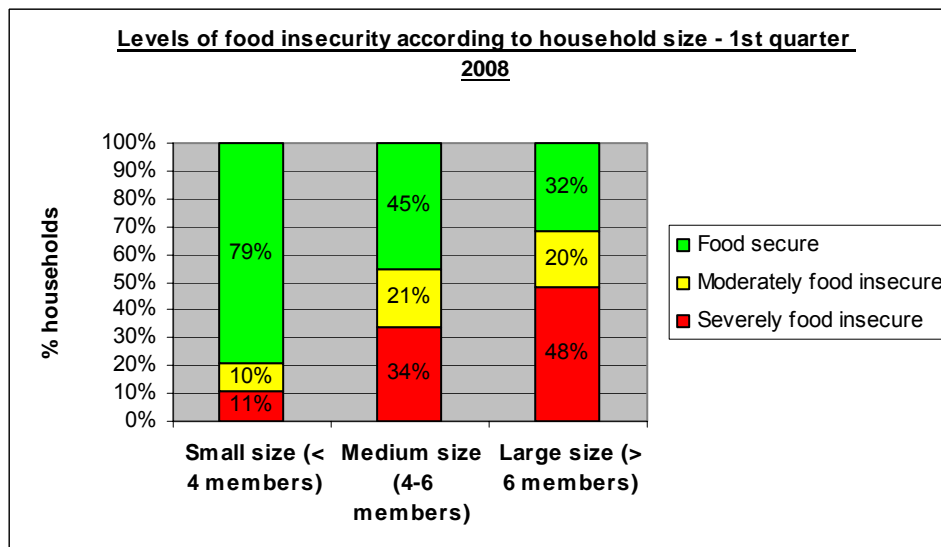


Figure 12: Levels of food insecurity according to household size - 1st Quarter 2008

Rural-urban and regional differences

The average family size was larger in rural areas (4.3 members) than in urban areas (3.3 members). The proportion of large families was also higher in rural areas than urban areas: 33% of rural households comprised 4-6 members compared to 19% of urban households, and 11% of rural households had more than 6 members compared to 3% of urban households. This factor contributes to explain the different proportions of food insecure between urban and rural areas, given the positive relationship between household size and food insecurity.

The gap in the rates of food insecurity between small and large households persists across rural and urban locations. However, in rural areas, both small (less than 4 members) and large (more than 6



members) households were more likely to be food insecure than in urban areas, while there was no effect of the location for households of medium size (4-6 members).

The highest proportions of large families were in Batken (40% with 4-6 members and 13% more than 6 members) and Jalal-Abad (36% with 4-6 members and 8% with more than 6 members). A relatively high proportion of very large families was also noted in Osh (15% with more than 6 members). Chui oblast and Bishkek town included the highest proportions of small families (73% and 85% respectively). The high proportion of large families in Batken is surprising given the relatively lower proportion of food insecure households in this oblast compared to others, but results indicate that the differences of food insecurity according to size were smaller in Batken than elsewhere.

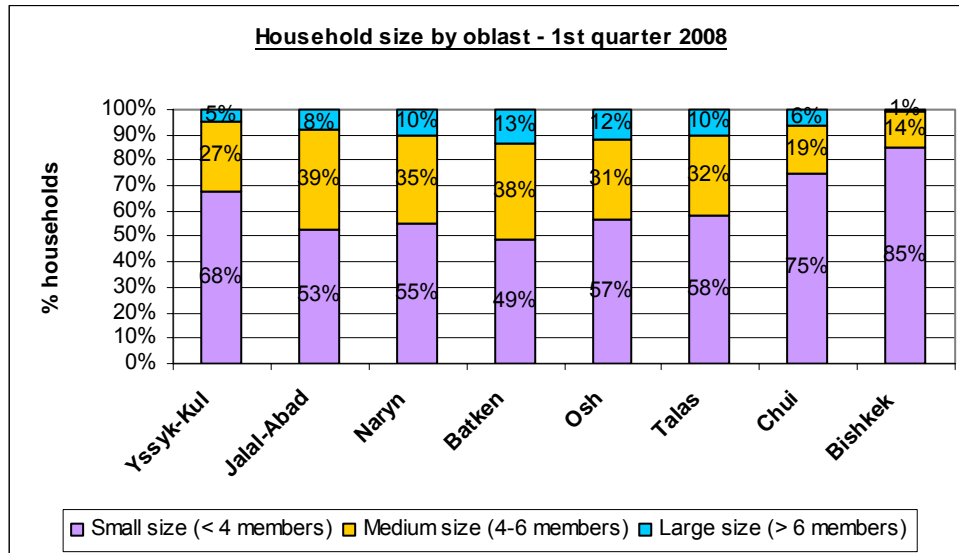


Figure 13: Household size by oblast - 1st Quarter 2008

4.1.5 Health care and health status

Prevalence of diseases

About 97% children covered by the National Preventive Immunization Programme and 97% of children aged 12-23 months are immunized against measles¹¹ (WID 2007).

Tuberculosis (TB) incidence is high (123 per 100,000 persons) and increasing. TB incidence is higher in urban areas than in rural areas. Prevalence of HIV is low at 0.1% (females 15-24 years, and all population 15-49 years), but increasing. HIV/AIDS prevalence is higher in the capital Bishkek and the southern city of Osh.

Field inspections carried out under a UNICEF-commissioned study on public expenditures in the social sector 12 showed that rampant poverty was accompanied by worsening nutrition, increased tuberculosis incidence, anaemia and other diseases. Acute Respiratory Infections (ARI) are the 2nd most important cause of death of under-5 children (40% of all under-5 deaths). This high mortality rate is an indicator of the low quality of health services, as fatal outcomes can be prevented through timely diagnosis of danger signs and access to antibiotics. The prevalence of ARI was highest among children living in rural areas and in the southern oblasts (Batken, Osh, Jalal-Abad). Diarrhoea is the leading cause of illness for children under 5, particularly in rural areas and amongst children aged 6-23 months.

¹¹ World Development Indicators Database – Millennium Development Goals progress for Kyrgyzstan

¹² Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006



Health care system

The main characteristics of the health care system are summarised in the Box below.

Box 2 – Main characteristics of the health care system

The free public healthcare system is poorly equipped and the staff is underpaid. Salaries decreased from 92% of average pay in 1994 to 50% in 2004. In most of the cases, families provide hospitalized patients with meals, bedding supplies, medicines and various medical materials and services. However, for needy people even a small shared payment has become a serious obstacle for applying to hospitals. Private hospitals and clinics provide better, but more expensive care.

Health infrastructure exists in urban areas but has not been established in peri-urban areas, especially in the new squatter areas. There are also serious problems with providing rural areas with qualified personnel. Low salaries, poverty of the patients, lack of sanitary conveniences and high levels of responsibility do not encourage specialists to work in health institutions in remote regions and rural areas.

The Government has implemented a programme of reforms aimed at improving the situation with regard to financing and quality of health services. The introduction of Mandatory Health Insurance (in 2006) has enabled an increase in the total budget for health care. However, public funding (central and local) is insufficient and there are many cases of informal payments to health care staff as well as out-of-pocket expenses related to treatment. Many people who are unemployed or working in the informal sector are not insured, particularly women¹³.

Given the lack of budget funds, implementation of a number of health programmes is financed with the support of international organizations, such as: JICA and UNICEF for vaccination, UNICEF for the programme on Integrated Monitoring of Children's Diseases, and USAID and UNFPA for reproductive health activities.

Distribution of public health funds between the regions is quite uneven. Geographic allocation is not based on actual need (poverty levels, health care needs, population dynamics and density) but on the inherited infrastructures (available quantity of facilities). As a result, the largest portions of funds were allocated to those regions that had the most health institutions and personnel. Historically, Bishkek, having the largest grouping of such institutions, relatively advanced technology for treatment, and no shortage of professional personnel, received the greatest amount of funds from the Republican budget. As a result, average per capita expenditure for health care in Bishkek exceeds the average national level by 60%. At the same time, public health expenditure per capita is almost 1/3 less than the national average in Jalal-Abad oblast, and half the figure for Bishkek. Bishkek residents and the population of Chui oblast represent 73% of the total number of patients of the national medical institutions.

Need for health care in previous year

More than half of the households reported a need for health care in the past year. There were no significant differences between rural and urban areas.

At the beginning of 2008, food insecure households were more likely to have needed health care than the food secure, however this was not the case in 2006 and 2007. This apparent deterioration of the health status of food insecure households was already noticeable in rural areas between 2006 and early 2008, but not in urban areas and will need to be confirmed with the data for the whole year of 2008.

¹³ Kyrgyz Republic: Poverty Reduction Strategy Paper Progress Report – International Monetary Fund Country Report No.04/200, July 2004

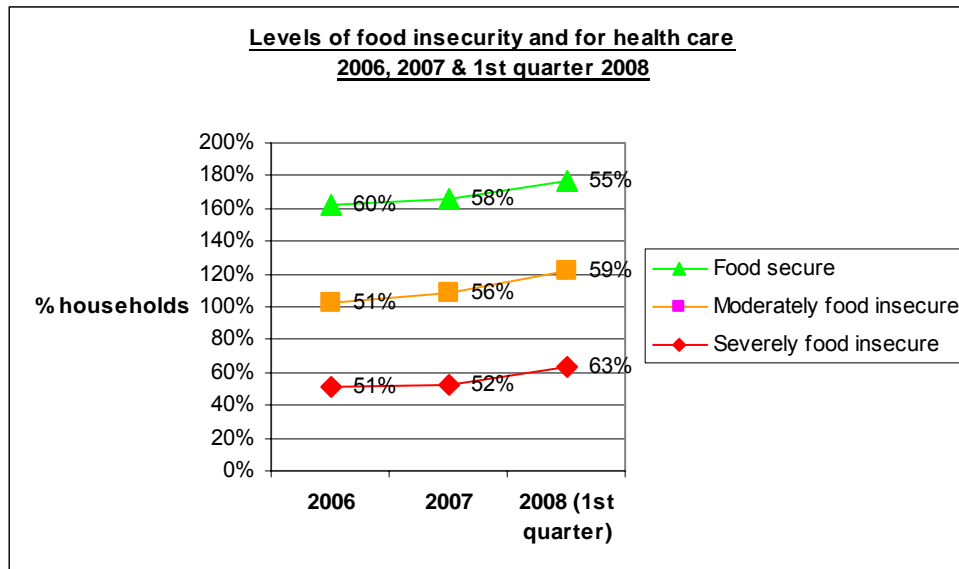


Figure 14: Levels of food insecurity and health care - 2006, 2007, 1st Quarter 2008

There were differences between oblasts in the proportions of households having needed health care, the evolution since 2006 and the relationship with food insecurity, which are not easy to explain. Essentially:

- The proportion of households needing health care was high in early 2008 in most oblasts (generally above 60%) except Jalal-Abad (36%).
- The proportion of households needing health care increased at the beginning of 2008 in Yssyk-Kul, Batken and Jalal-Abad oblasts. This may signal a deterioration of the health situation in these oblasts. The food security situation did deteriorate in Jalal-Abad over the past years but not in the other two oblasts, thus pointing out the role of non-food factors in these locations (e.g. water, sanitation, economic access to health services).

Economic access to health care

A low proportion of households indicated that they had to forego the use of health services because they could not afford the cost (less than 5%). Because of the small numbers, it is difficult to distinguish possible differences between food security groups and between rural and urban areas. There was a slight trend towards a higher proportion of severely food insecure households having difficulties to pay for health services compared to food secure households, as well as for rural households compared to urban households.

No significant changes in the economic access to health services was noted between 2006 and early 2008.

The highest proportion of households who could not afford the cost of health services was in Chui oblast (12% in 2007), especially among the severely food insecure households but also among the food secure.

Coverage by the Mandatory Health Insurance

Most of the households had at least one member covered by the Mandatory Health Insurance (MHI). The proportion of food insecure households covered by the MHI was not significantly different from the proportion of food insecure households in the general population, indicating that food insecurity was not associated with coverage by the MHI.

The average number of household members covered was 3.7 throughout 2006 to the beginning of 2008. There was a higher number of members of food insecure households covered by the MHI compared to food secure households but this is also linked to the larger size of food insecure households. There was a higher average number of household members covered by the MHI in rural than in urban areas (4.2 versus 3.2 members) but this is linked to the larger size of rural households. No significant changes of coverage were noted between 2006 and early 2008.



The number of household members covered by the MHI is smaller in Yssyk-Kul and larger in Jalal-Abad oblasts compared to other oblasts presenting similar household sizes. The reasons for these differences are not clear but were not associated to food security.

Table 17 - Coverage Mandatory Health Insurance and food security– 2006 to 1st quarter of 2008

Residence	Coverage by Mandatory Health Insurance		
	Average number of members covered		
	2006	2007	2008 1 st quart.
Total	3.7	3.7	3.8
Severely food insecure	4.7	5.1	5.0
Moderately food insecure	4.3	4.4	4.6
Food secure	3.2	3.2	3.2
Urban areas	3.1	3.1	3.2
Severely food insecure	4.2	4.4	4.6
Moderately food insecure	3.9	4.1	4.1
Food secure	2.7	2.7	2.8
Rural areas	4.1	4.2	4.2
Severely food insecure	5.0	5.4	5.3
Moderately food insecure	4.6	4.6	4.9
Food secure	3.7	3.6	3.7
Yssyk-Kul oblast	3.7	3.6	3.7
Jalal-Abad oblast	4.6	4.5	4.6
Naryn oblast	4.1	4.1	4.1
Batken oblast	4.5	4.5	4.3
Osh oblast	4.2	4.2	4.3
Talas oblast	3.7	4.0	4.2
Chui oblast	2.8	3.2	3.1
Bishkek town	2.8	2.8	2.9

4.2 Physical capital

4.2.1 Housing conditions

Type of dwelling

Almost half of the households in urban areas lived in separate apartments and 42% lived in separate houses. In rural areas, most of the households lived in separate houses (89%) and only 5% in separate apartments.

In both rural and urban areas, food insecure households were more likely to live in separate houses than food secure households, who tended to live more often in separate apartments. Between 2006 and 2007 there was an increase in the proportion of severely food insecure households living in separate houses and almost a corresponding decrease in the proportion of moderately food insecure living in separate houses. Whether this indicates a sustained trend will need to be checked with 2008 data.

Reflecting the proportions of rural and urban areas, the proportion of households living in separate apartments was higher in Osh and Chui oblasts and obviously in Bishkek town.

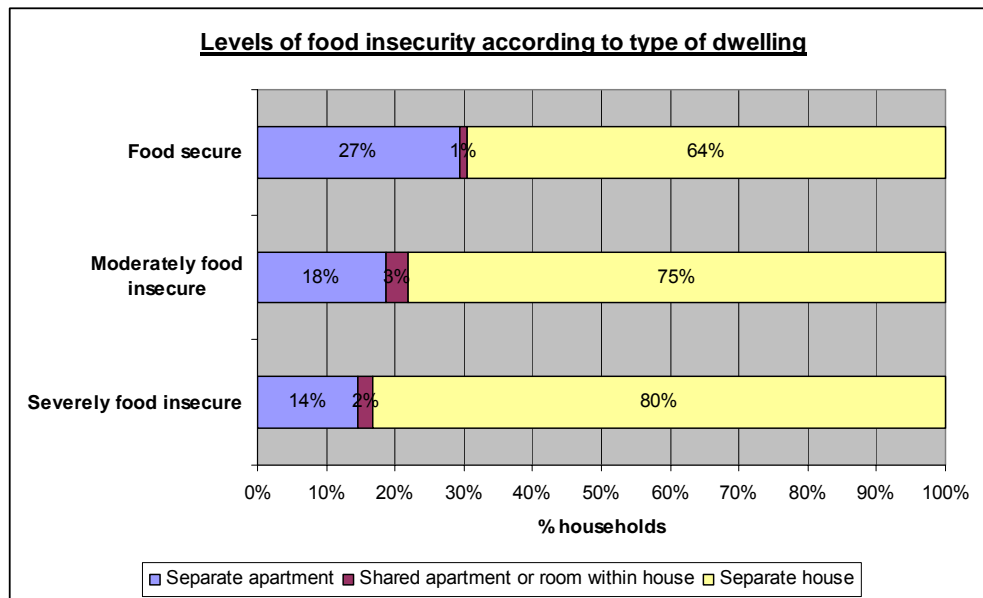


Figure 15: Levels of food insecurity according to type of dwelling

Material of roof and walls

In both rural and urban areas, most of the households were living in habitations with concrete/slate/tiles roofs (94%) and less than 5% had metal sheets/row bricks roofs. The roof material was not related to the food security status of the households.

Most of the households in urban areas were living in dwellings with walls made of bricks or concrete. This was also the case for about 2/3rds of the households in rural areas; however the rest of rural households (27%) had mostly walls of tarpaulin, slabs or another such poor material.

Food insecure households were more likely to live in dwellings with walls made of poor material. There were no noticeable changes between 2006 and 2007, except for a decrease in the proportion of moderately food insecure households living in such poor dwellings (from 40% to 30%).

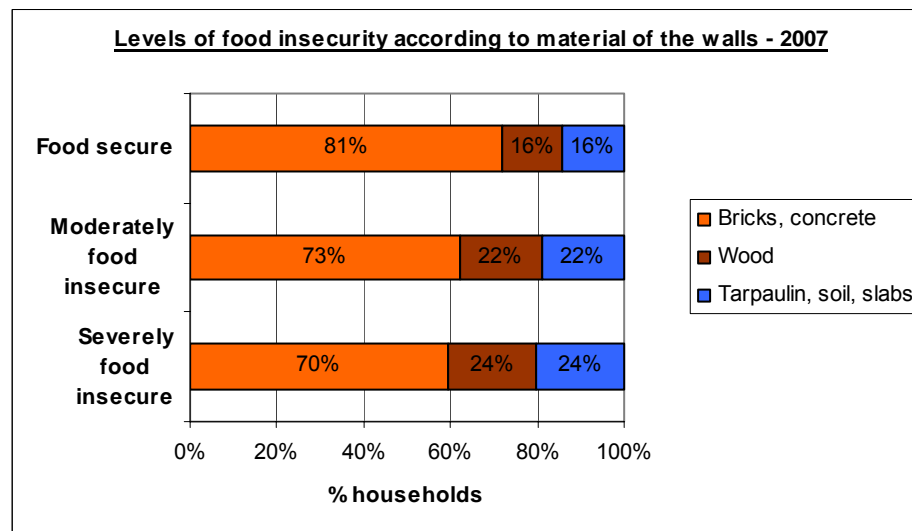


Figure 16: Levels of food insecurity according to Material of walls

Regional differences:

The highest proportion of households living in dwellings with walls made of poor material was in Batken oblast (59% in 2007). This is a bit surprising given the lower rates of food insecurity in that oblast compared to others. High proportions of households with similar poor dwellings were noted in Jalal-Abad (36%), Talas (30%) and Yssyk-Kul (25%) oblasts.

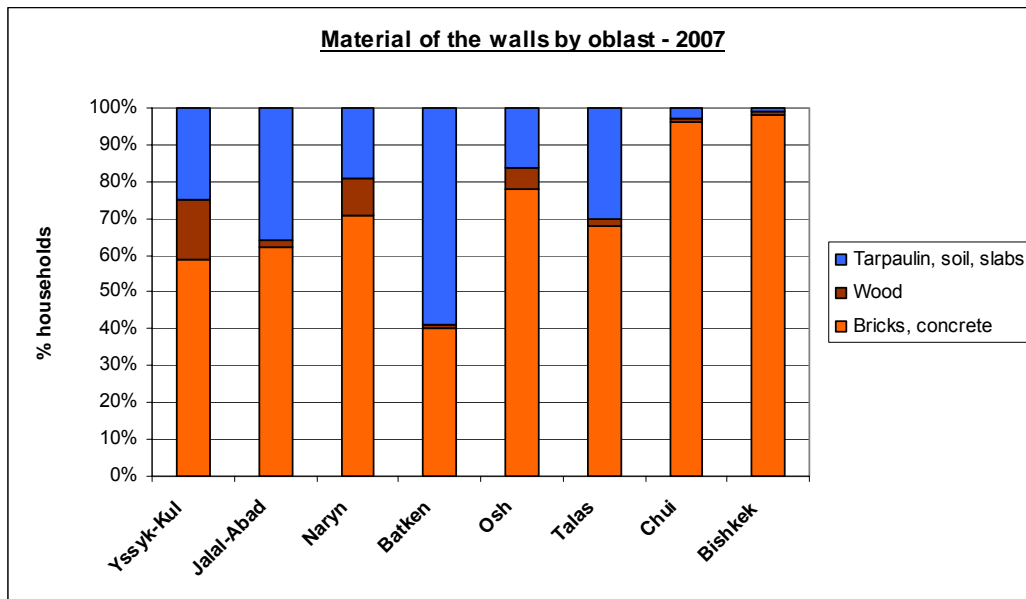


Figure 17: Material of the walls by oblast 2007

Source of water

The majority of households in urban areas (88%) used safe water sources, including 2/3 with access to in-house running water, 1/4 individual water pipes and 10% public water pipes. Access to safe water sources was also widespread in rural areas (80%) but almost half depended on public water pipes, while only 12% had running water in-house.

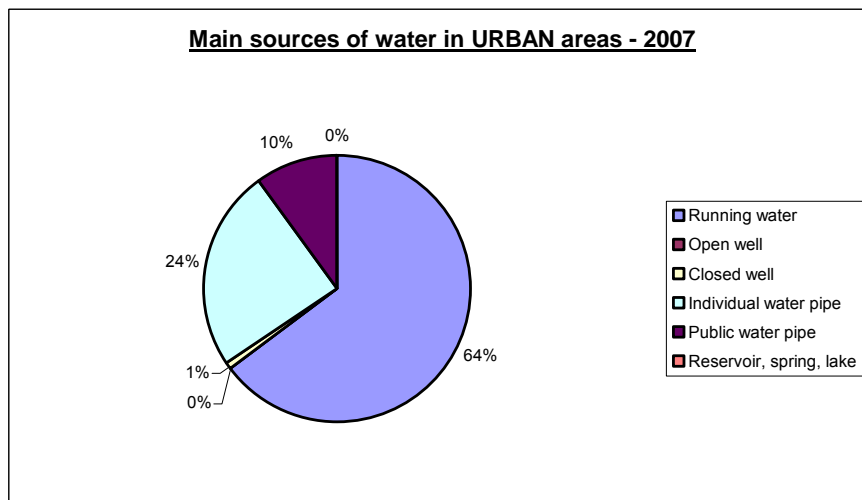


Figure 18: Main sources of water in urban areas - 2007

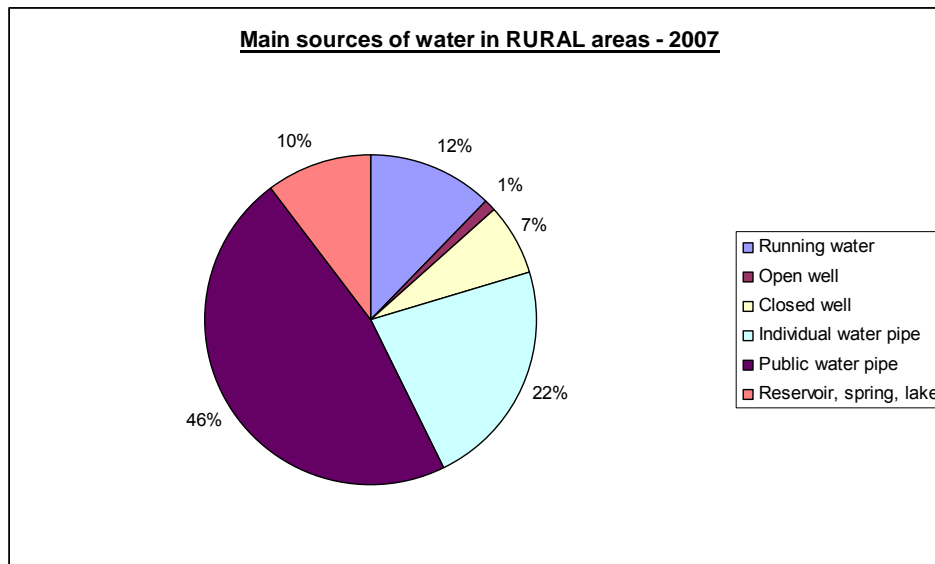


Figure 19: Main sources of water in rural areas - 2007

Surprisingly, overall food insecure households tended to have better access to individual and public water pipes than food secure households, but the situation varied between oblasts. Food insecure households were less likely to have access to in-house running water, especially in rural areas.

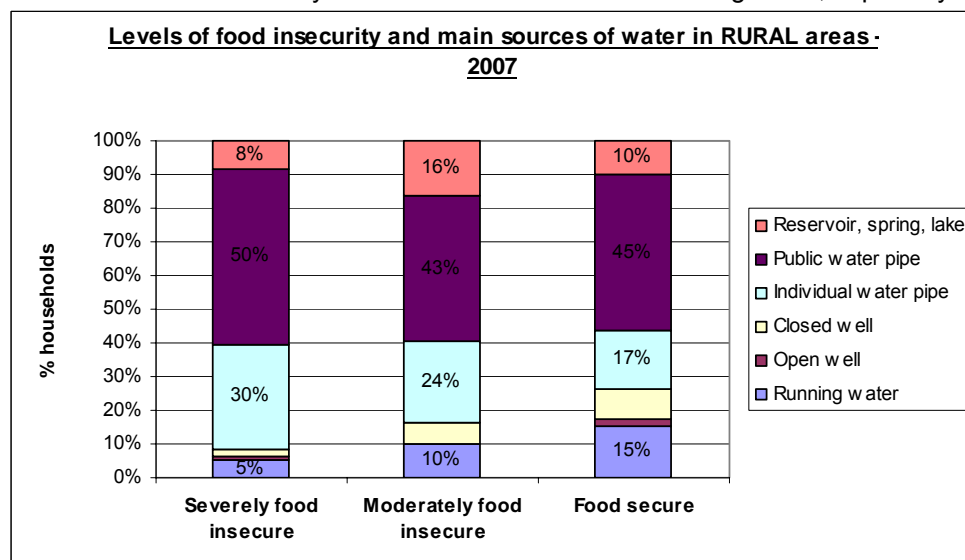


Figure 20: Levels of food insecurity and main sources of water in rural areas – 2007

Accordingly, most of the households (94%) had access to clean water. The proportion of households with access to clean water was slightly lower in rural than urban areas (88% versus 99% in 2007). There was no association between food insecurity and access to clean water.

Regional differences:

Access to safe water sources was worse in Batken oblast (half of the households used water from reservoirs or springs in 2007) and best in Chui oblast (almost half of the households using running water) and Bishkek (86%). In Batken, access to public water pipes had drastically decreased between 2006 and 2007, thus apparently pushing households to use reservoir or spring water instead. On the contrary, access to individual and public water pipes improved in Naryn oblast and to a lesser extent in Osh and Talas oblasts.

As a result, access to clean water was lower in Batken (80% in 2007) and Osh oblasts (83%), although it had improved a lot between 2006 and 2007 in these oblasts. In Batken oblast (but not elsewhere) the food insecure households were less likely to have access to clean water than the food secure (65-69% versus 84%), possibly due to a different type of housing and water service supply.

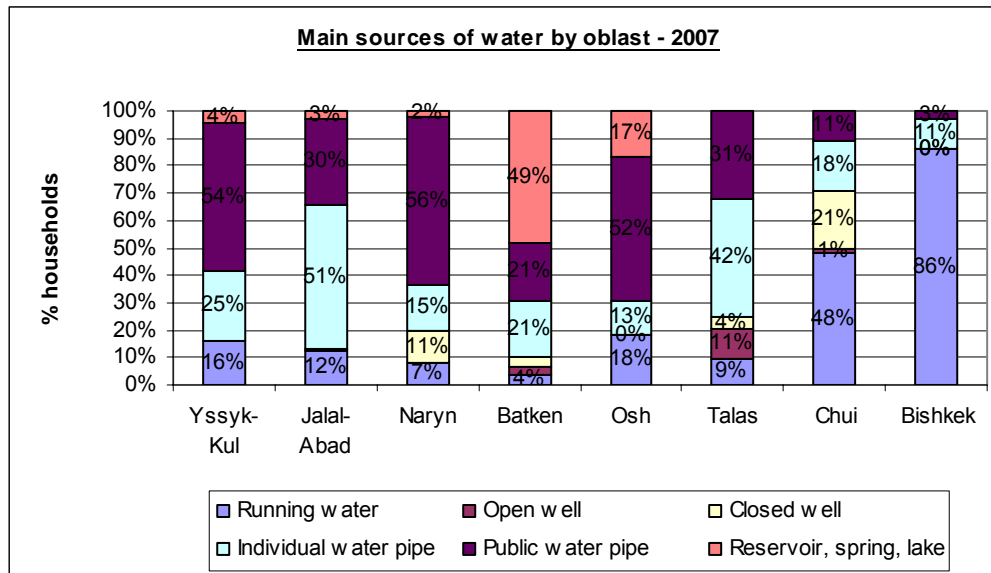


Figure 21: Main sources of water by oblast - 2007

Access to hot water, bath or shower

Access to hot water facilitates hygiene practices and indicates access to both water and a reliable source of heating. Availability of bath or shower facilities also contributes to better hygiene practices.

Only 1/3rd of households in urban areas had access to hot water and practically none in rural areas (2%, food secure households). Food insecure households were less likely to have access to this facility, particularly the severely food insecure. As expected, access to hot water was much better in Bishkek (almost 2/3rd of households), and it had improved for the severely food insecure between 2006 and 2007 (from 48% to 61%).

Almost half of the households in urban areas had a bath or shower, compared to only 4% in rural areas. Again, food insecure households were less likely to have access to a bath/shower. In Bishkek, 2/3 of households had a bath/shower and similarly as for hot water, access had markedly improved for the severely food insecure between 2006 and 2007 (from 41% to 61%).

Type of toilet facility and access to sewage

Globally, 3/4 of the households were using pit latrines and less than 1/4 benefited from toilets connected to the central sewage system. There were large differences however between rural and urban areas and between oblasts. As expected, food insecure households were more likely to use pit latrine and to lack access to improved toilet facilities.

Rural-urban differences

- The vast majority of rural households used pit latrines (95%), compared to almost half of the urban households.
- Half of urban households had access to toilets connected to the central sewage system.
- In rural areas, virtually all the severely food insecure used pit latrines in 2007 and their access to toilets connected to the central sewage system seemed to have decreased slightly since 2006, possibly reflecting a deterioration of their housing conditions.
- More than 60% of the food insecure households in urban areas used a pit latrine, compared to 44% of the food secure. There was a marked increase in the proportion of food insecure households using pit latrines from 2006 to 2007.

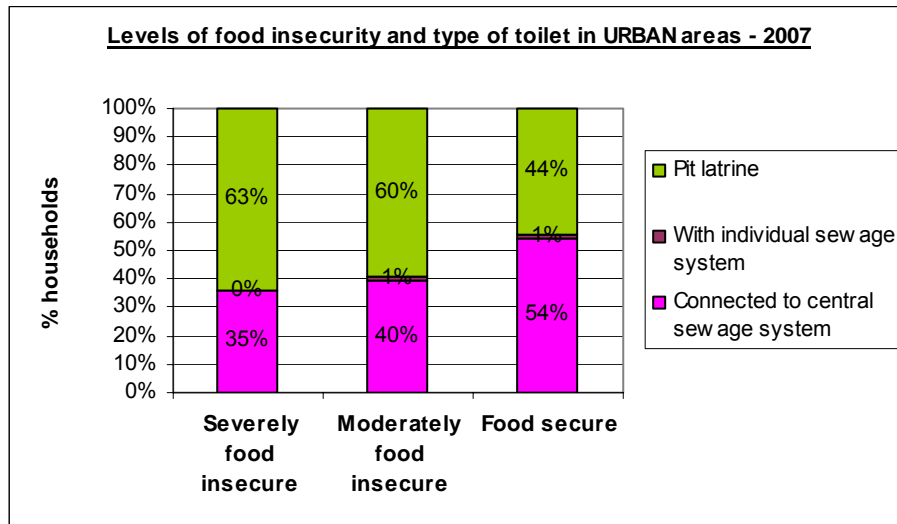


Figure 22: Levels of food insecurity and type of toilet in urban areas - 2007

Regional differences:

- Access to toilets connected to the central sewage system was much better in Bishkek (2/3rds of the households) than in the oblasts. The next “best placed” oblasts in this regard were Chui (19%) and Osh (17%).
- The “worst” situation was in Talas, Batken and Naryn oblasts where less than 5% of the households had access to these improved toilet facilities.

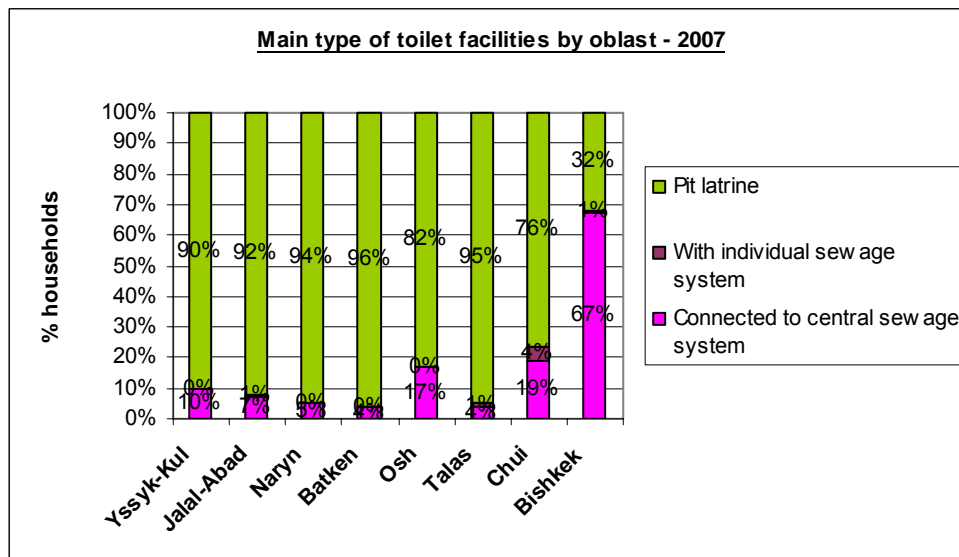


Figure 23: Main type of toilet facilities by oblast - 2007

4.2.2 Sources of energy for heating and cooking

Heating facilities

Given the likelihood of severe energy shortages during the coming 2008/09 winter, it is important to identify the main source of energy used by households for heating and cooking and the extent to which food insecure households may be at further risk due to their particular use of energy sources.

About 7% of the households did not have heating at all in their dwelling. The proportion was higher in urban areas (12%) than in rural areas (3%). Food insecure households in urban areas were slightly more likely to lack heating compared to food secure households. The highest proportions of households without heating were in Batken (16% in 2007), Jalal-Abad (12%) and Osh oblasts (10%). An increase in this proportion was noted in Batken and Jalal-Abad between 2006 and 2007 and would need to be monitored.



The majority of households in rural areas used a stove for heating (94% compared to 38% of urban households). Conversely, about 10% of urban households used gas heating, versus only 3% of rural households in 2007.

Central heating was accessible to 40% of the households in urban areas but practically not in rural areas except a few food secure households. Food insecure households in urban areas were less likely to rely on central heating (30% versus 44% of the food secure). The proportion of households relying on central heating was the highest in Bishkek (64%), and was similar among all food security groups. Should there be disruption in the central heating system, the situation of food insecure households in Bishkek will need to be closely followed up. It was also relatively higher in Chui oblast (13%) than in other oblasts (4-7%).

Electric heating was apparently seldom used (4% of both rural and urban households), even though some 20% of the households owned an electric heater. The highest proportion of electric heating users was in Naryn (9%), Chui (7%) and Talas oblasts (6%). The possession of an electric heater mirrored somewhat the lack of access to central heating. Severely food insecure households were more likely to own one than food secure households, in both urban and rural areas. The highest proportions of owners of electric heater were in Talas (45%) and Jalal-Abad (40%) oblasts.

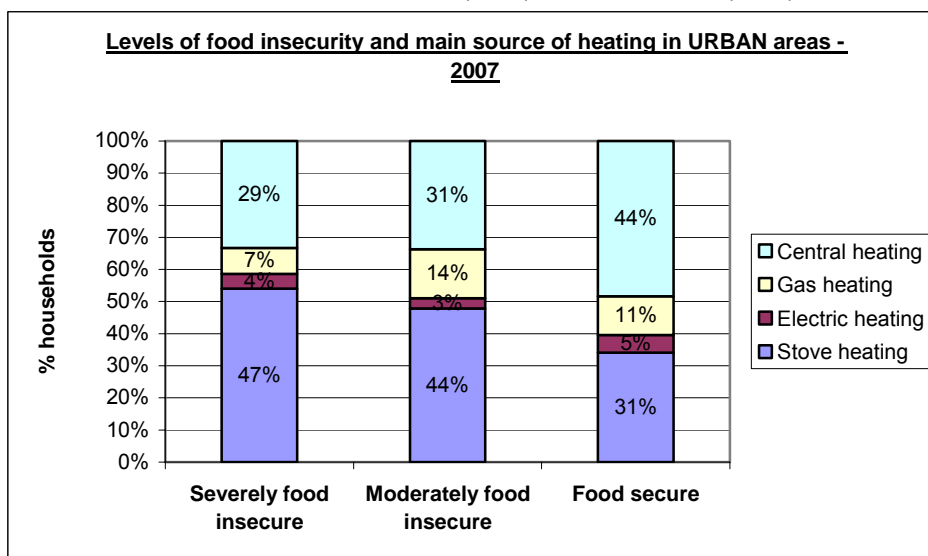


Figure 24: Levels of food insecurity and main source of heating in urban areas – 2007

Central gas was available to more than half of households in urban areas (57%) but only to 6% in rural areas. Food insecure households were less likely to have access to central gas supply, however their situation had improved between 2006 and 2007 (from 36% in 2006 to 45% in 2007). Households had no access to central gas supply in Yssyk-Kul, Naryn and Talas oblasts. Access had improved slightly in Batken oblast from 2006 to 2007 (7% to 14%). The highest access was in Bishkek, with 78% of households served, including a marked improvement in the access of severely food insecure households between 2006 and 2007 (from 48% to 61%).

In urban areas, food insecure households were more likely to rely on stove heating than electricity or gas, compared to food secure households. However, in Yssyk-Kul, Batken and Osh oblasts, food insecure households were equally or more likely to use stove heating than food secure households. Between 2006 and 2007, a slight trend towards increased use of gas heating and decreased use of stove heating was noted but would need to be confirmed with data from 2008. This trend was noted in Batken and Chui oblasts.

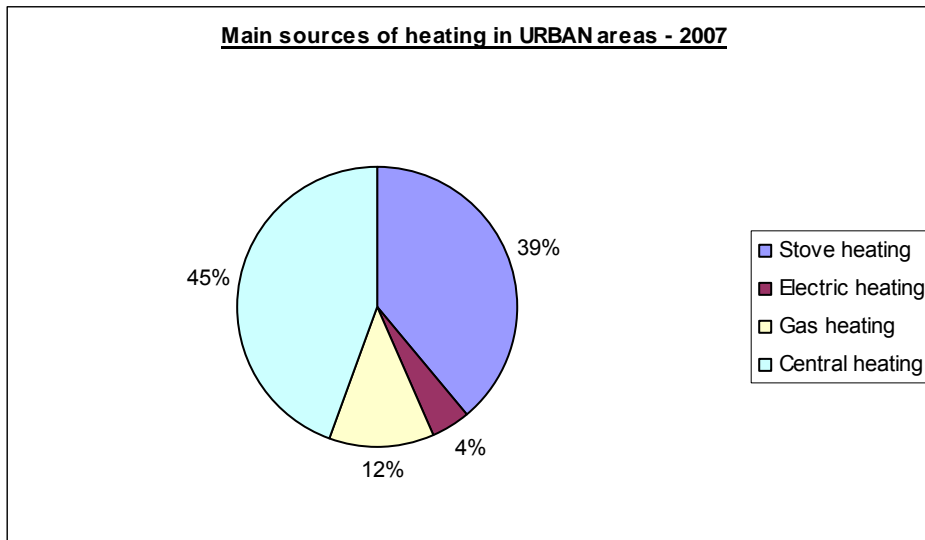


Figure 25: Main sources of heating in urban areas - 2007

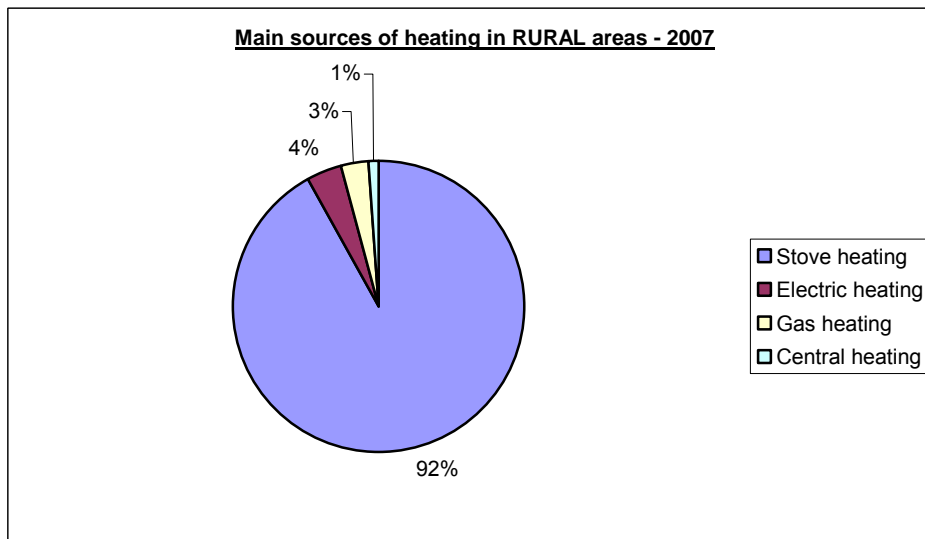


Figure 26: Main sources of heating in rural areas - 2007

In sum, given their reliance on either central heating or electric heating, the situation of households in Jalal-Abad, Naryn, Talas and Chui oblasts, as well as in Bishkek, will need to be closely monitored during the coming winter.

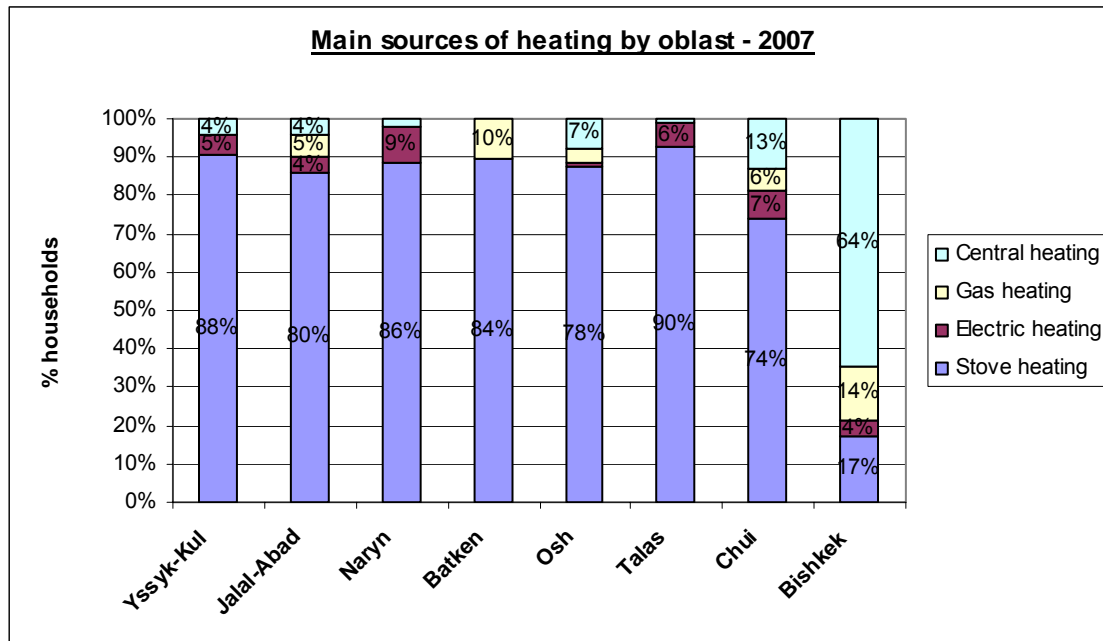


Figure 27: Main sources of heating by oblast - 2007

Cooking energy

Households use various sources of energy for cooking, with notable differences between rural and urban areas, and between oblasts.

Rural-urban differences:

- The fireplace and electric stove were common sources of energy for cooking in rural areas (about 70% of the households). The fireplace was seldom used in urban areas (16%) where 40% of households used an electric stove.
- The proportion of electric stove users in rural areas increased markedly between 2006 and 2007 among moderately food insecure households, while it remained stable for the other rural households.
- Food insecure households in urban areas were more likely to use the fireplace and electric stove for cooking than food secure households.
- Gas stove was an important source of energy for cooking in urban areas (64% of the households versus 8% in rural areas in 2007). The proportion of urban users increased slightly among severely food insecure households between 2006 and 2007 but decreased for the other households. Between 2006 and 2007, the proportion of gas stove users decreased in rural areas for all households.

Regional differences:

- The vast majority of households in Yssyk-Kul (97% in 2007) and Naryn (96%) oblasts, more than 80% in Talas and more than 70% in Jalal-Abad and Chui oblasts, used an electric stove for cooking. As most households in these oblasts also use the fireplace for cooking, electricity cuts may not be too damaging for them. The situation would warrant monitoring in Yssyk-Kul and Chui where less households used wood for cooking.
- Few households used electric stoves in Batken oblast and only 21% in Bishkek town.
- The fireplace was used by at least 80% of households in Jalal-Abad, Naryn, Batken and Talas oblasts, but only 35% in Chui, 62% in Osh and 52% in Yssyk-Kul oblasts, and 1% in Bishkek town.
- Gas stove was more frequently used for cooking in Bishkek (80% of households in 2007) and Chui oblast (62%) and also by a significant share of households in Osh (27%) and Yssyk-Kul (18%) oblasts.

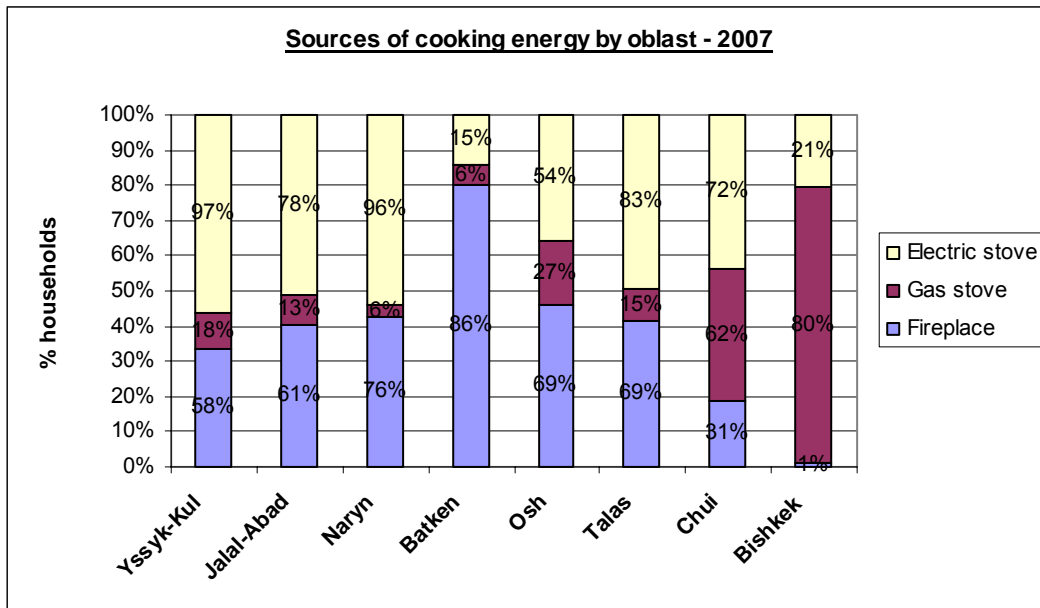


Figure 28: Sources of cooking energy by oblast - 2007

Frequency of electricity cuts

The frequency of electricity cuts has increased slightly between 2006 and 2007 and affected more than 60% of the households several times in the year in 2007. Rural areas were more affected than urban areas: 28% of urban households did not report any electricity cuts in 2006 or 2007, compared to only 5% of rural households. In rural areas, 66% of households had cuts several times a year in 2007 versus 57% in urban areas, and almost 20% of rural households were cut once a month compared to 11% of urban households. Nevertheless, very frequent electricity cuts (once a week) tended to decrease in rural areas between 2006 and 2007 (13% and 6% of households affected respectively).

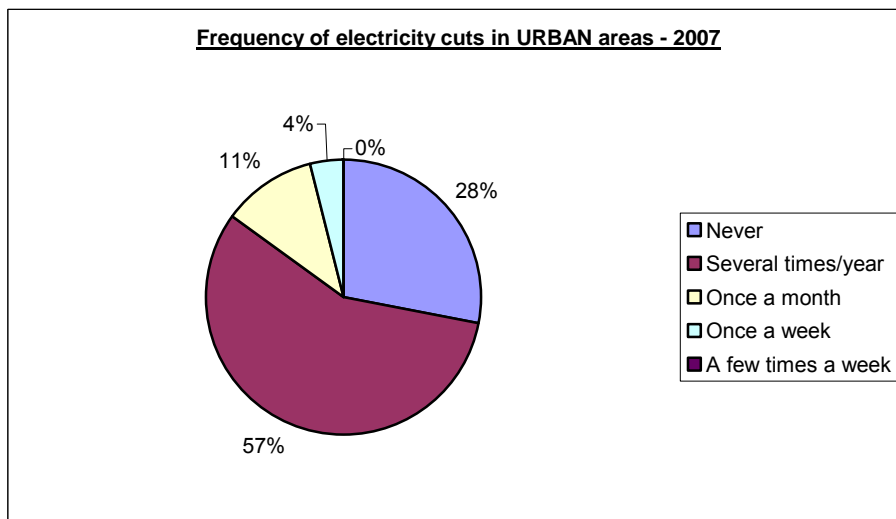


Figure 29: Frequency of electricity cuts in urban areas - 2007

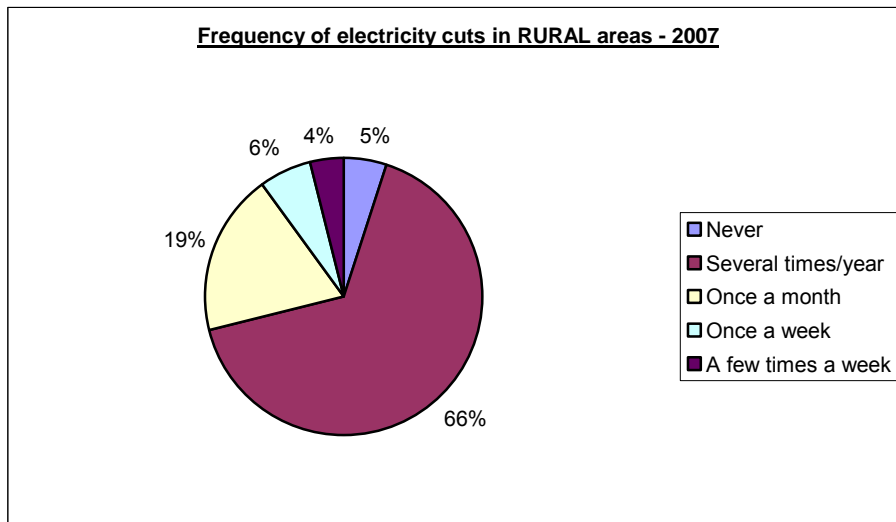


Figure 30: Frequency of electricity cuts in rural areas - 2007

Moderately food insecure households were more likely to report electricity cuts several times a year, than other households but the reason for this is unclear.

Electricity cuts occurred in all oblasts, but were particularly frequent in Batken (40% had cuts once a month in 2007), Naryn (31%), Jalal-Abad (25%) and Talas (22%). Naryn also had the highest proportion of households reporting electricity cuts once a week (17%). The situation deteriorated in all oblasts except Talas, Osh and to some extent Naryn.

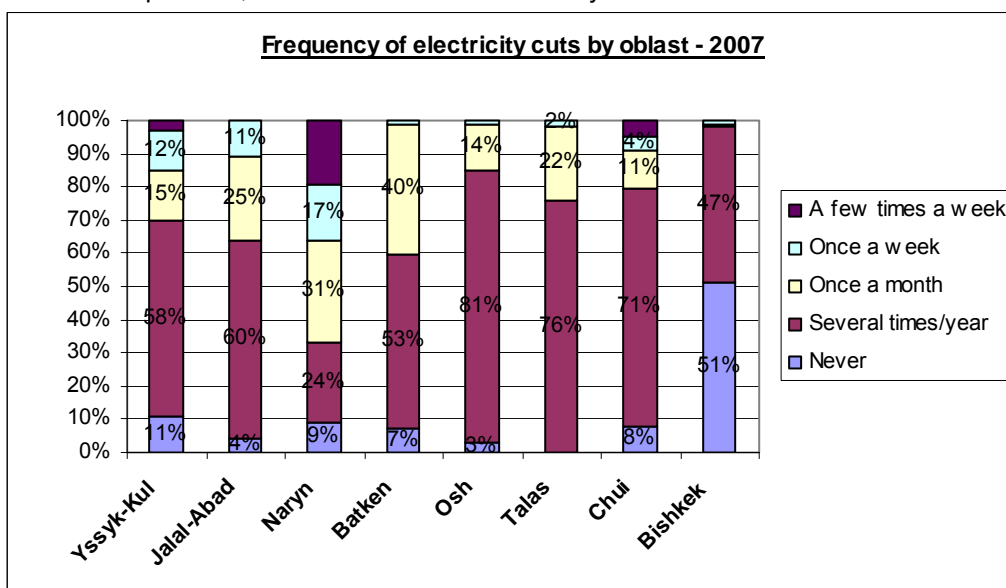


Figure 31: Frequency of electricity cuts by oblast - 2007

4.2.3 Distance to public transportation system

Slightly more than 1/3rd of the households were located next to a public transportation system and almost half were located at 15 minutes walking distance. Less than 20% had to walk for 16-30 minutes and 2% more than 30 minutes. There were differences between rural and urban areas and between oblasts, but not between food security groups. No major changes were noted between 2006 and 2007.

Rural-urban differences:

- 30% of rural households were located next to a public transportation system (versus 47% in urban areas). About 1/4th of rural households were located at 16-30 minutes walking distance, which is 4 times more than urban households (6%).



- In rural areas, there were no differences between food security groups in terms of distance to the transportation system. In urban areas, moderately food insecure households tended to be located slightly more far away but still at very reasonable walking distance time (6-15 minutes).

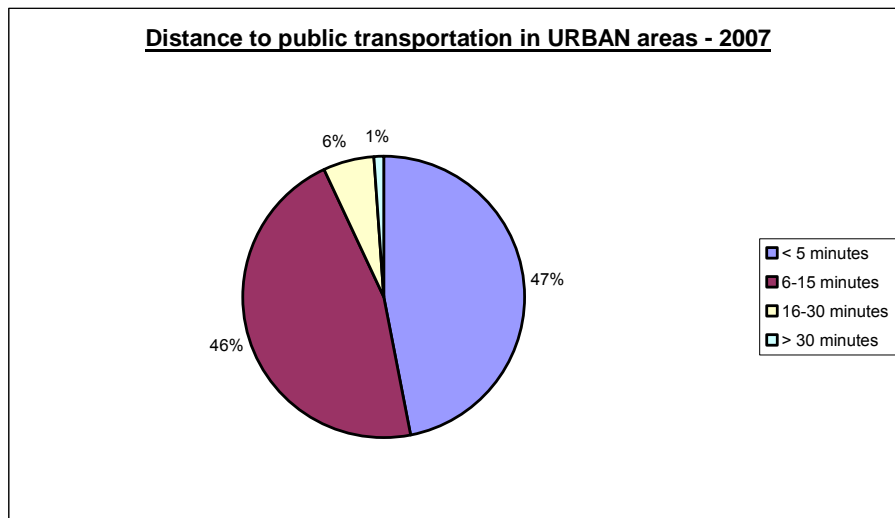


Figure 32: Distance to public transportation in urban areas - 2007

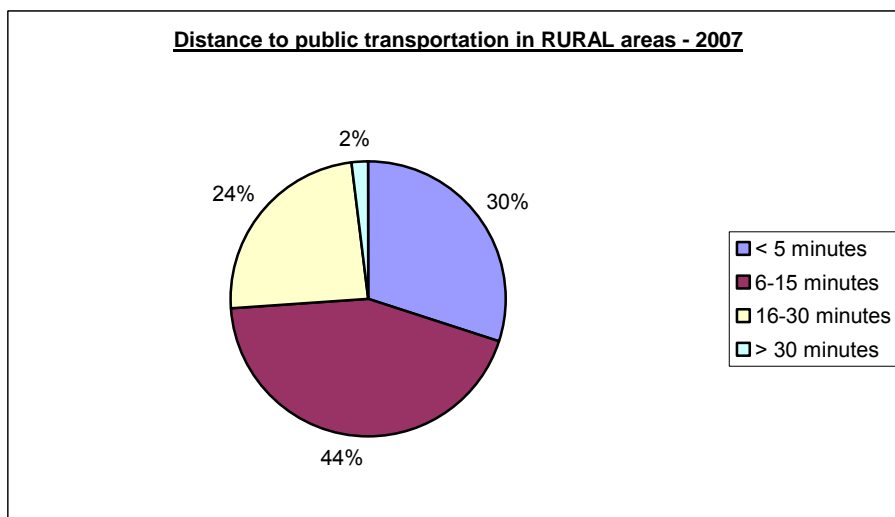


Figure 33: Main sources of heating by oblast – 2007

Regional differences:

- The highest proportions of households with rather poor access to public transportation were in Talas (39% located at more than 15 minutes walking distance in 2007), Jalal-Abad (32%) and Yssyk-Kul (30%) oblasts. About 20% of the households were also located at that distance in Naryn, Batken and Osh oblasts.
- The highest proportions of households with good access were in Chui oblast and in Bishkek town (less than 2% located at more than 15 minutes walking distance).
- There were no clear relations between the food security status of households in the oblasts and their distance to a public transportation system.

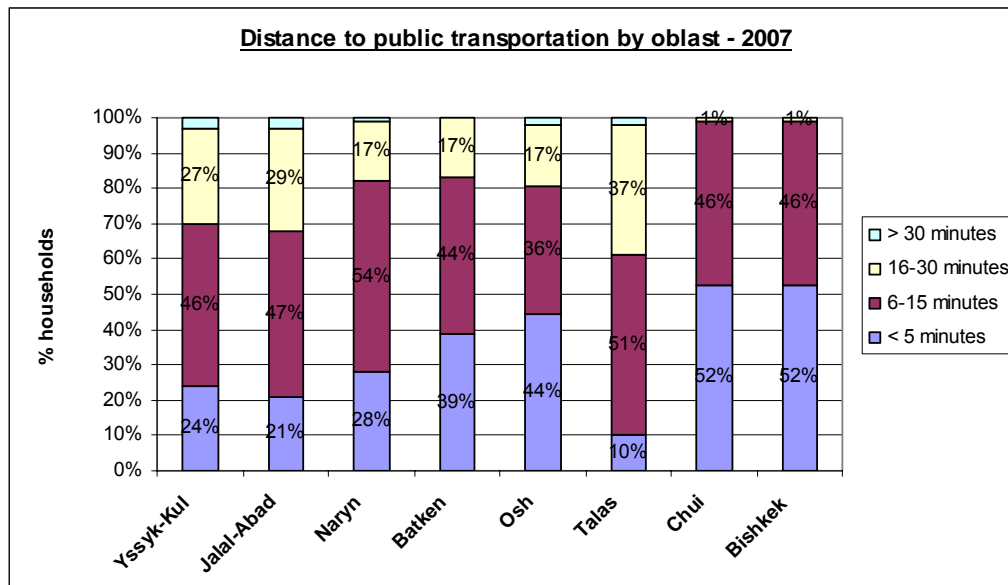


Figure 34: Distance to public transportation by oblast - 2007

4.2.4 Access to land and crop production

Agricultural sector in the Kyrgyz Republic

Much of the country consists of high-altitude steppe that is used mainly for livestock grazing. Grain production is concentrated in the lower valleys. In general, the necessary conditions exist for the cultivation of a wide range of product and to reach productivity equal to Europe. The north of the country possesses 2/3rd of the arable land (however, 60% of the rural population resides in the south, thus putting pressure on land). Wheat is grown in most oblasts, with Chui and Yssyk-Kul oblasts being the major producers. Potatoes are mainly produced in Yssyk-Kul and Talas oblasts, while vegetables are grown mostly in the northern oblasts, principally Chui and Talas.

Although its share has declined since the mid-1990s, mainly owing to the start of large-scale gold mining in the country, agriculture still accounted for 34% of GDP in 2007 (19% for services and 47% for industry). It employs an even larger share of the workforce, of more than 50% of the working population in 2000-05. At present, about 2/3rd of the population live in rural areas and most depend on agriculture for their livelihoods. Even in urban areas, part of the population depends on garden and field production for their food and part of their income. It is estimated that 1/3rd of urban inhabitants are growing crops of some variety.

The main characteristics of the agricultural sector are summarized in the Box below.

Box 3 – Main characteristics of the agricultural sector

- The country's cropland per person is roughly equal to the European average, despite the fact that only 6.5% of total land is arable. Most of the cropland is irrigated, further south and enjoys a milder climate than much of Europe. Wheat is by far the most important crop grown, generally using between half and 2/3rd of all cultivated land. Nearly 40% of the wheat is cultivated in summer and 60% in winter. Potatoes are the second most important crop.
- Thanks to its mountains, Kyrgyzstan is rich in water resources. Between 40-70% of winter crops are cultivated in irrigated conditions¹⁴. The Ferghana Valley, crossing Kyrgyzstan, Uzbekistan and Tajikistan, is the most fertile and most densely populated region in the whole of Central Asia.
- During the Soviet era, the country was the main provider of high quality wool, cotton silk, tobacco, fruits, vegetables and mutton. The industrial decline after the break up of the former Soviet Union was accompanied by an increase of agriculture in the livelihoods of the population. Agriculture's role as a 'labour sink' precipitated the migration of Kyrgyz workers from urban areas to village life, and led to numerous small-scale operations. Workers decided that it was better to farm on a small peasant

¹⁴ Crop Monitoring in Central Asia, April-May 2008 – MARS FOODSEC, European Commission Joint Research Center, 10 June 2008



parcel, eating part of the output and selling the surplus, than to remain unemployed in urban areas.

- Initially, the higher output per unit of land increased farm incomes enough to support families. Over time, the sector has become the country's de facto welfare system. Many households turn to farming as a social safety net, rather than a business¹⁵. Agriculture, which was previously partially oriented towards commercial production, has become largely of a subsistence character, oriented towards the satisfaction of basic food needs of the households. Most of the crops produced are geared towards meeting the consumption needs of the producers (wheat, potatoes, vegetables) and do not reach the market. For this reason, variations of agricultural production have significant impacts on households' food consumption.
- Growth in agriculture (as well as the overall economy) slowed since 2001 and new problems began to arise, such as soil degradation and a diminishing marginal product of labour.
- The agricultural sector comprises today 4 types of production units:
 - 1) the peasant farms (average area of 3 ha/farm),
 - 2) large enterprises (average area of 546 ha/farm),
 - 3) leased land units,
 - 4) household plot (korajai).
- The first three types are registered as 'businesses'. The fourth type, household plot, with an average area of 0.1 ha/farm, is an unregistered source of most of the potatoes and vegetables, a modest proportion of grain and fodder, and about half of the livestock products.
- The trends between 1990 and 2005 in terms of *crops* indicate that:
 - the area under wheat, potatoes, and sunflower has increased;
 - fodder crops (e.g. corn, barley) have decreased but picked up in recent years;
 - cultivation of export crops like tobacco, cotton and sugar beet, has decreased, owing largely to low purchasing prices and high price of inputs.

Agriculture in Kyrgyzstan: Growth Engine or Safety Net? – M.K. Light, University of Colorado, October 2007

Regional Market Survey for the Central Asia Region – World Food Programme, Draft, September 2008

Access to land

About 2/3rd of households had access to land. In 2007, a slightly higher proportion of food insecure households owned land compared to the food secure, especially in urban areas (about 38% versus 34%). The difference was much clearer in 2006.

As expected, almost twice as many households in rural areas owned land as in urban areas (64% versus 34%). Food insecure households were slightly more likely to own land than food secure households.

The lowest proportions of households owning land in 2007 were in Chui (46%, down from 84% in 2006), Osh (48%, down from 74% in 2006) and Naryn (50%, down from 93% in 2006) oblasts. The highest proportions of land owners were in Jalal-Abad and Talas (75% each, down from above 90% in 2006), followed by Batken (68%, down from 94%) and Yssyk-Kul (66%, down from 92%). Almost 1/4th of households in Bishkek owned land in 2007 (down from 35% in 2006).

Cultivation

Overall 3/4 of the households had cultivated at least one plot in the 1st quarter of 2008, a proportion slightly higher than in the corresponding quarters of 2006 and 2007 (71% and 69% respectively), particularly in rural areas.

As expected, most rural households had cultivated (95%) while less than half of the urban households had (46%). In rural areas, all food security groups had cultivated to a similar extent, while in urban areas the severely food insecure were more likely to have cultivated than the other households (62% versus 45%), possibly because they tried to minimize the amount of food they had to purchase on the market.

The proportion of households having cultivated was relatively lower in Osh and Chui (83% each) oblasts and of course Bishkek (29%), reflecting a higher share of urban population in these oblasts. The proportion of households cultivating increased between the 1st quarters of 2006 and 2008 in all oblasts except Batken and was especially high in Osh oblast.

¹⁵ Agriculture in Kyrgyzstan: Growth Engine or Safety Net? – M.K. Light, University of Colorado, October 2007

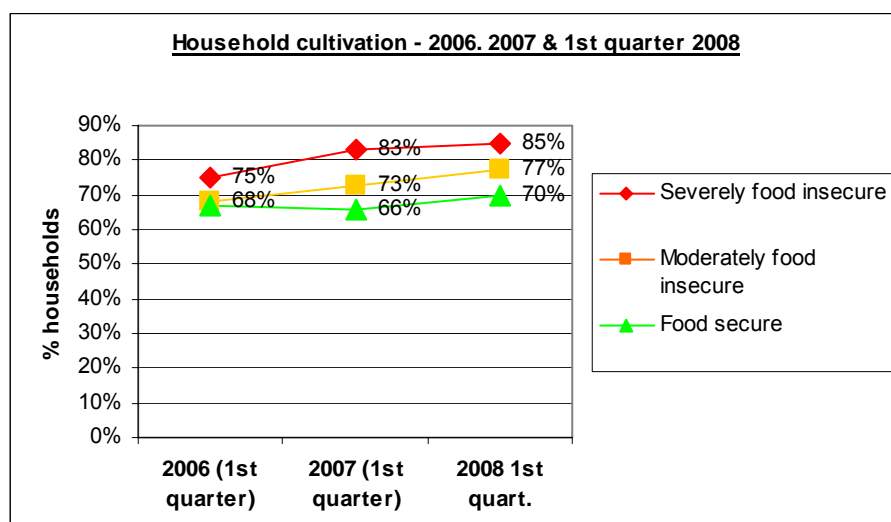


Figure 35: Household Cultivation - 2006, 2007 and 1st Quarter 2008

Access to irrigation

Some 60% of rural households had access to irrigation, but only 25% of urban households. There were no differences according to the food security situation of the households in 2007.

In 2007, the lowest proportions of households with access to irrigation were in Jalal-Abad (66%), Osh (67%) and Naryn (68%) oblasts. The highest proportions were in Talas (95%), Batken (90%) and Yssyk-Kul (89%) oblasts. Only 10% of households in Bishkek had access to irrigation. Access to irrigation had decreased between 2006 and 2007 in Jalal-Abad and Naryn.

Table 18 - Access to irrigation and food security – 2006 and 2007

Residence	Households who have irrigation
	2006
Total	65%
Severely food insecure	67%
Moderately food insecure	72%
Food secure	63%
Urban areas	38%
Severely food insecure	44%
Moderately food insecure	45%
Food secure	35%
Rural areas	86%
Severely food insecure	78%
Moderately food insecure	91%
Food secure	89%
Yssyk-Kul oblast	89%
Jalal-Abad oblast	79%
Naryn oblast	78%
Batken oblast	90%
Osh oblast	66%
Talas oblast	95%
Chui oblast	71%
Bishkek town	21%

Harvests

About 80% of rural households harvested at least one crop in 2007, slightly less than in 2006 (86%). However, a higher proportion of rural households had already harvested in the 1st quarter of 2008 than in the corresponding quarters of 2006 and 2007, reflecting the increased cultivation in rural areas. In urban areas, only 1/4th of the households harvested at least one crop in 2007, also slightly less than in 2006.

Severely food insecure households in rural areas were less likely to have harvested any crop in 2006 or 2007, than other households (74% versus 82% in 2007). This is somewhat contradictory with the fact that a higher proportion of severely food insecure households had cultivated at least one plot (as mentioned before) and may reflect a higher crop failure in these households who are less likely to have access to irrigation, fertilizer or improved seeds.

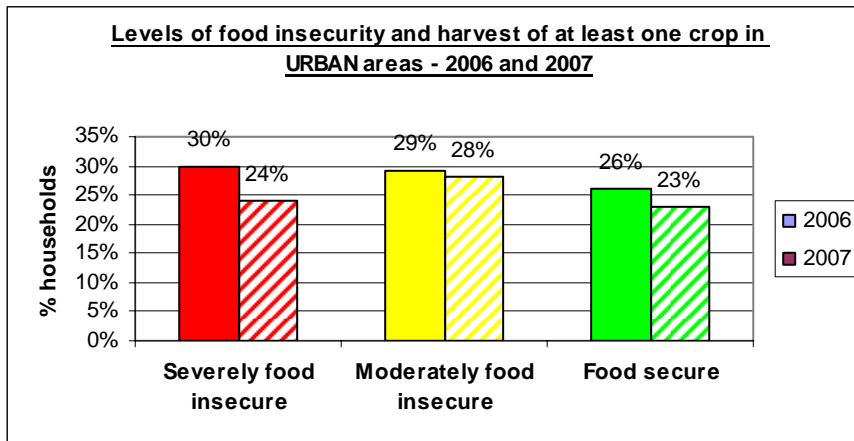


Figure 36: Levels of food insecurity and harvest of at least one crop in urban areas – 2006, 2007

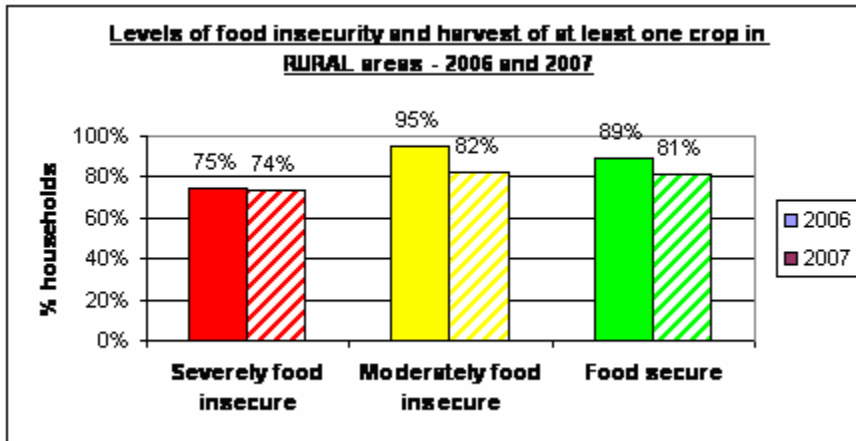


Figure 37: Levels of food insecurity and harvest at least one crop in rural areas – 2006, 2007

The proportion of households who harvested at least one crop in 2007 was lower in Osh (55%) and Jalal-Abad (56%). While the relatively higher proportion of urban households in Osh may explain this result (cultivation was less frequent than in other oblasts), the result in Jalal-Abad rather indicates a higher risk of crop failure in this oblast.

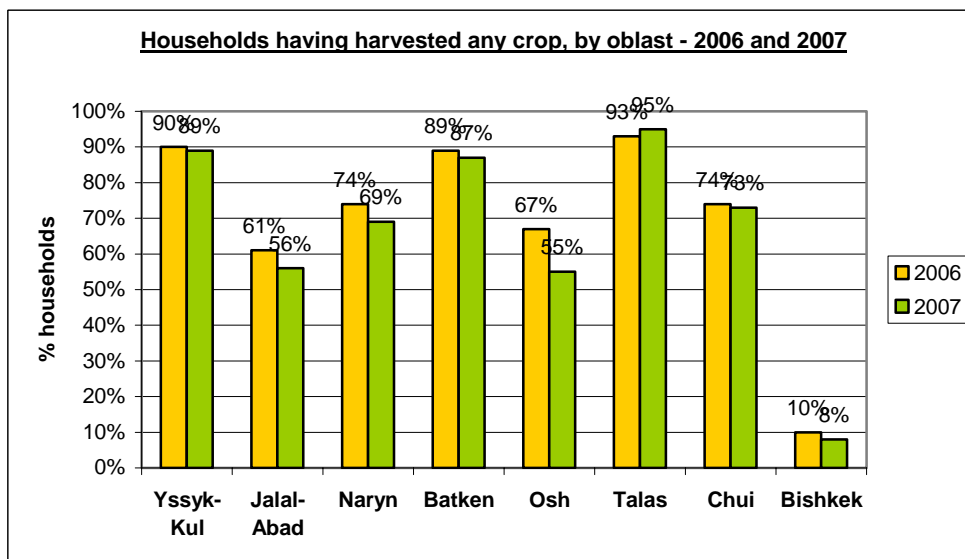


Figure 38: Households having harvested any crop by oblast - 2006 and 2007

Wheat harvest

Unfortunately, the number of households having provided information on their wheat harvest is too small to derive reliable statistics. It is not possible to estimate the average amount harvested and stored, and the answers on the share of harvest kept for own consumption cannot be used either.



Potato harvest

In urban areas, households cultivating potatoes harvested on average 545 kg in 2007, less than the 637 kg obtained in 2006. In rural areas, households harvested almost 1500 kg in 2007 and 1292 kg in 2006. In rural areas, severely food insecure households had a lower harvest while moderately food insecure had a higher harvest than food secure households: respectively 1093 kg, 1708 kg and 1584 kg in 2007. In 2006, both severely and moderately food insecure households had a lower harvest than food secure households in rural areas.

The average amount of potatoes harvested was lower in Chui (233 kg/household) and Jalal-Abad (709 kg/household). It was very high in Yssyk-Kul (2760 kg/household) and Osh (2045 kg/household) oblasts. Severely food insecure households systematically harvested less than other households in these oblasts except in Chui where the harvest was similar in all food security groups.

Households kept only 6% of the harvest for the family consumption in 2007 (8% in 2006). The proportion kept for own consumption was higher in urban than rural areas (10% versus 6%). In rural areas, severely food insecure households tended to keep a slightly higher share of the harvest for own consumption than other households (8% versus 4-6%).

The share of harvest kept for family consumption was slightly higher in Chui oblast (10%) and lower in Yssyk-Kul (3%), perhaps reflecting different marketing and price conditions.

The amount of potatoes kept in store at household level was higher than the harvest, possibly reflecting carry-over stocks from the previous year as well as seed reservation.

Assuming that 10% of the amount would be used for seeds, and 6% kept for family consumption, the amount available for own consumption would be 51 kg for urban households and 103 kg for rural households. Based on an average family size of 3.3 members in urban areas and 4.3 members in rural areas, these amounts represent 15.4 kg/capita (42 g/day) in urban areas and 23.9 kg/capita (66 g/day) in rural areas. These values are below the amount estimated in the official minimum food basket for Kyrgyzstan (120 g potatoes/capita/day).

Based on the amount of potatoes sold, most of rural and many urban households would be net sellers of potatoes.

Table 19 - Potato harvest, share kept for own consumption and food security – 2006 to 1st quarter 2008

Residence	Potatoes					
	Harvest (kg/household)		Storage (kg/household)		% kept for own consumption	
	2006	2007	2006	2007	2006	2007
Total	1200	1369	1371	1730	10%	8%
Severely food insecure	880	1093	1135	1488	6%	5%
Moderately food insecure	1356	1569	1330	1657	8%	6%
Food secure	1268	1410	1448	1821	8%	7%
Urban areas	637	545	556	566	10%	10%
Severely food insecure	473	1084	445	890	10%	9%
Moderately food insecure	1624	417	1379	345	8%	11%
Food secure	455	529	400	545	10%	10%
Rural areas	1292	1498	1510	1907	8%	6%
Severely food insecure	928	1094	1229	1542	10%	8%
Moderately food insecure	1302	1708	1321	1787	6%	4%
Food secure	1407	1585	1632	2058	8%	6%
Yssyk-Kul oblast	2800	2760	3678	3901	10%	3%
Jalal-Abad oblast	725	709	586	472	6%	7%
Naryn oblast	848	1077	587	946	5%	7%
Batken oblast	765	1174	478	646	9%	5%
Osh oblast	1420	2045	1707	3179	8%	6%
Talas oblast	1438	1817	1496	1463	5%	5%
Chui oblast	365	233	223	207	10%	10%
Bishkek town	-	-	-	-	-	-



Cash crops (sugarbeet, sunflower, tobacco, cotton)

Similarly as for wheat, the number of households having provided information on the amounts of these crops harvested is too small to enable to derive meaningful statistics.

4.2.5 Access to animals

Livestock sector in the Kyrgyz Republic

The livestock sector suffered dramatic production decreases after the break up of the former Soviet Union. Its recovery was slower than the crop sector. The main characteristics of the sector are summarized in the Box below.

Box 4 – Main characteristics of the livestock sector

- Sheep and goat numbers fell by 60% between 1991 and 1996 and currently represent 2.7 million heads. Cattle numbers fell by 15% and represent 0.6 million heads. There are also horses (0.15 million) and yaks (9,000), as well as a small pig sub-sector and poultry industry (0.5 million layers).
- Livestock is predominantly owned in households and peasant farmer units. As such, livestock numbers per unit are very small and easily managed. Winter carrying capacity limits the number per holding and regulates summer grazing stocking rates¹⁶.
- An estimated 40,000 people are seasonal nomads.
- The small size of land plots in southern oblasts explains the fact that more households in the south are engaged in raising livestock. In the north, livestock is owned mostly by richer households: the 2 top quintiles own 53% and 47% of the total stock of cattle and small ruminants. Livestock ownership is more evenly distributed in the south. This fact is partly explained by availability of land for crop production and difference in coping mechanisms of rural population in north and south regions.
- Spring-born male calves are usually sold off the mountain ranges or fed with home-grown fodder and grain during winter and sold as fattened steers. Some households regularly build up cattle herds to 2-3 milking cows in order to produce extra female followers to sell after calving as cow-calf couples in spring.
- Sheep and goat systems are seasonal, involving:
 - spring lambing;
 - transhumant mountain grazing (jailoo) of the whole flock by family members or in groups of flocks by village shepherds;
 - late summer/autumn weaning of male lambs for sale as slaughter stock or stores;
 - retention of around 50% of ewe-lambs to replace older ewes as breeding stock members;
 - sale of surplus ewe-lambs for slaughter, stores or breeding stock;
 - fattening of older, cull ewes at the household for eating or sale.
- Winter-carrying capacity determines the size of the household's breeding flock which, in turn, depends on a variety of home-produced feeds including the poorer quality wheat, maize and barley grain, and by-products such as straw, stover and bran to supplement in-bye grazing and locally-produced meadow and lucerne hay.
- Around 25% of pasture has become more or less degraded, and more than 90% of the territory of the country is prone to desertification¹⁷.
- The poultry sector has massively declined in the post-independence period. Out of 11 poultry factories, only 4 were left.
- Livestock productivity is generally low (e.g., 75-80% lambing). However, productivity and overall production of livestock products (milk, meat, eggs) in January-June 2008 increased compared with the corresponding period in 2007¹⁸.

Cattle, sheep, goats and horses' conditions observed during a WFP mission in August 2008 were good. Transhumant patterns were normal in both the northern and southern grazing areas. Selling practices were following the traditional trends. Prices were firm and traders' expectations were that the prices

¹⁶ Regional Market Survey for the Central Asia Region – World Food Programme, Draft, September 2008

¹⁷ Kyrgyz Republic: Poverty Reduction Strategy Paper Progress Report – International Monetary Fund Country Report No.04/200, July 2004

¹⁸ Food Security Information Bulletin of the Kyrgyz Republic, No.2/2008 – National Statistics Committee, Bishkek 2008



would remain firm until the regular annual sales began in September, as stock return from summer grazing, and when prices usually fall.

Livestock ownership and food security

The KIHS data analysis indicate that some 44% households owned at least one animal. The proportion of animal owners was clearly higher in rural areas, with almost 2/3rd of households owning animals in 2007 compared to 12% in urban areas.

There was no sign of decreased animal ownership between 2006 and early 2008 except for a slight reduction among food secure households in rural areas. Food insecurity was not associated with ownership of animals.

The proportions of households owning animals were lower in Talas (31% in 2007), Osh (38%) and Jalal-Abad (39%) than in other oblasts. Only 2% of households in Bishkek had animals. The highest proportions of owners were in Batken (74%), Naryn (70%) and Yssyk-Kul (61%). In Yssyk-Kul and Naryn, food insecure households were more likely to own animals than food secure households, but this was the reverse in Batken.

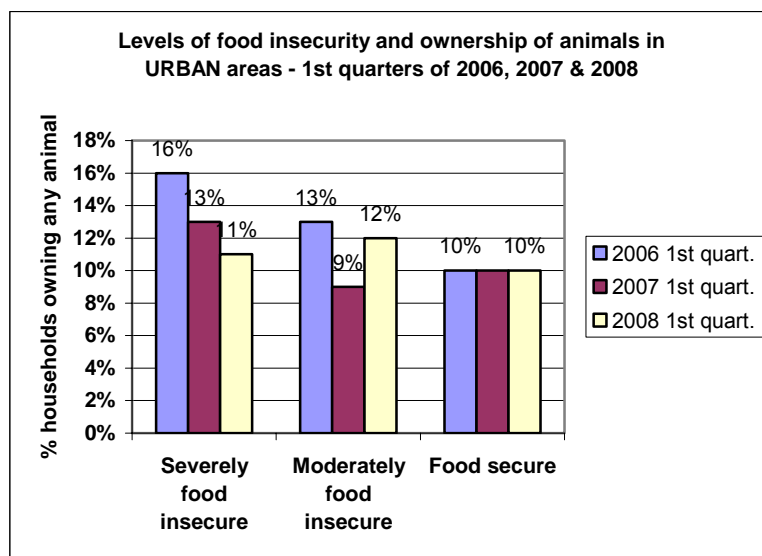


Figure 39: Levels of food insecurity and ownership of animals in urban areas - 2006, 2007, 1st Quarter 2008

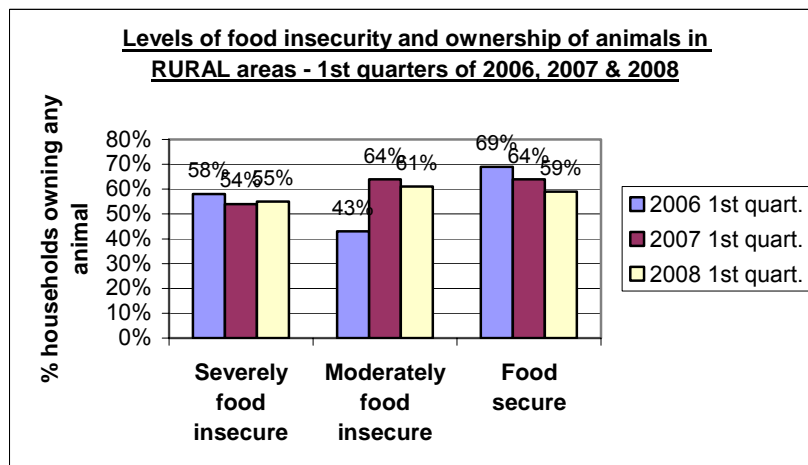


Figure 40: Levels of food insecurity and ownership of animals in rural areas - 2006, 2007, 1st Quarter 2008



Cattle

Slightly less than 45% households owned cattle in rural areas in 2006 and 2007 but none in urban areas. Food insecure households were slightly less likely to own cattle than food secure households: 42% of the severely food insecure, 44% of the moderately food insecure, 46% of the food secure.

Between 2006 and 2007, the proportion of cattle owner decreased among the food secure households (from 53% to 46%) and the moderately food insecure (from 53% to 44%) but increased slightly among the severely food insecure (from 39% to 42%). Further analysis of the data for the whole year of 2008 will be needed to check whether these trends continue or not.

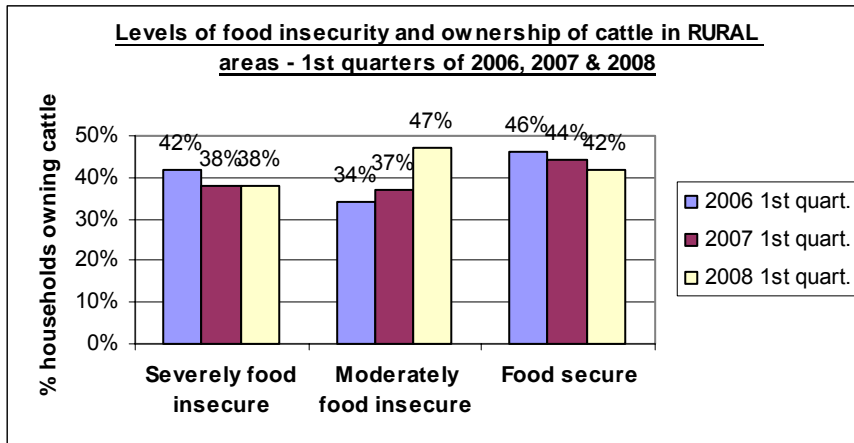


Figure 41: Levels of food insecurity and ownership of cattle in rural areas - 2006, 2007, 1st Quarter 2008

The average number of cattle owned by those who raised these animals was 3.3. It was higher in rural areas than urban areas (3.4 versus 2.2). There was no indication of decrease in the number of cattle owned between 2006 and the 1st quarter of 2008, on the contrary. The relationship between food security and cattle ownership was weak. Food insecure households owned only slightly less cattle than the other households (3.1-3.2 versus 3.6 in rural areas for example).

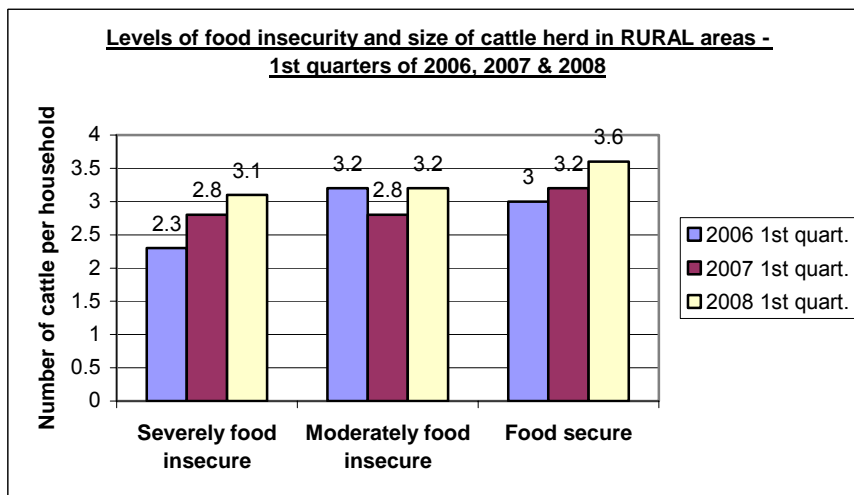


Figure 42: Levels of food insecurity and size of cattle herd in rural areas - 2006, 2007, 1st Quarter 2008



Regional differences

The proportion of cattle owner was lower in Talas (21%), Chui (22%), Osh (26%) and Jalal-Abad (30%) oblasts, but was high in Naryn (54%) and Batken (59%) oblasts, reflecting different urbanization levels as well as agro-ecologic conditions and potentials for animal raising. Food insecurity was associated to a lower ownership of animals only in Naryn, Batken and to some extent Chui oblasts. This has implications in terms of targeting criteria, as it means that ownership of cattle cannot be systematically equated to better food insecurity.

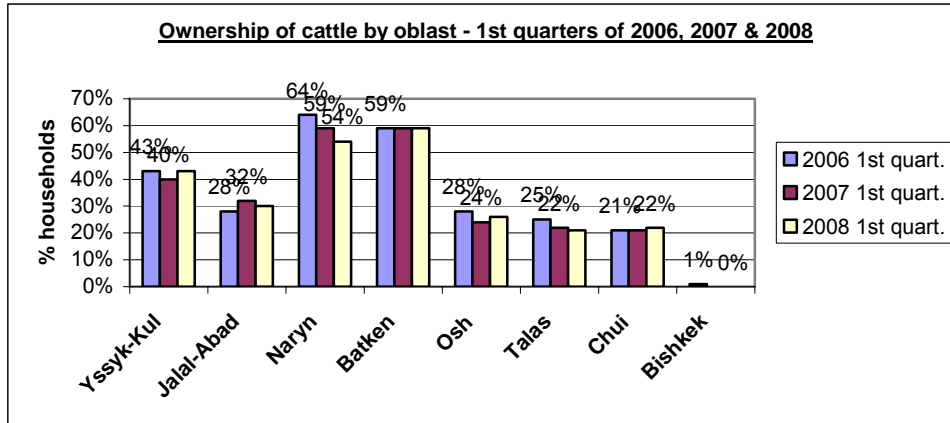


Figure 43: Ownership of cattle by oblast - 1st Quarter of 2006, 2007 and 2008

The average number of cattle owned was lower in Bishkek and Chui (2 cattle/household in each) and Yssyk-Kul (2.4) oblasts. It was higher in Osh (4) and Batken (3.9) oblasts.



Small ruminants

About 30% households owned small ruminants in rural areas in 2006 and 2007, and almost none in urban areas. In 2007, moderately food insecure households were more likely to own small ruminants than other households (34% versus 28% in 2007). This was not the case in 2006 where all the food insecure households were less likely to own small ruminants than the food secure households (23% versus 35%).

This may reflect different response mechanisms according to food security levels, whereby the food secure increase their cash income by selling small ruminants while the moderately food insecure buy these animals as asset and 'insurance' mechanism. The severely food insecure lack the means to expand their animal ownership but also did not seem to have opted for animal sales as a strategy to increase their cash resources.

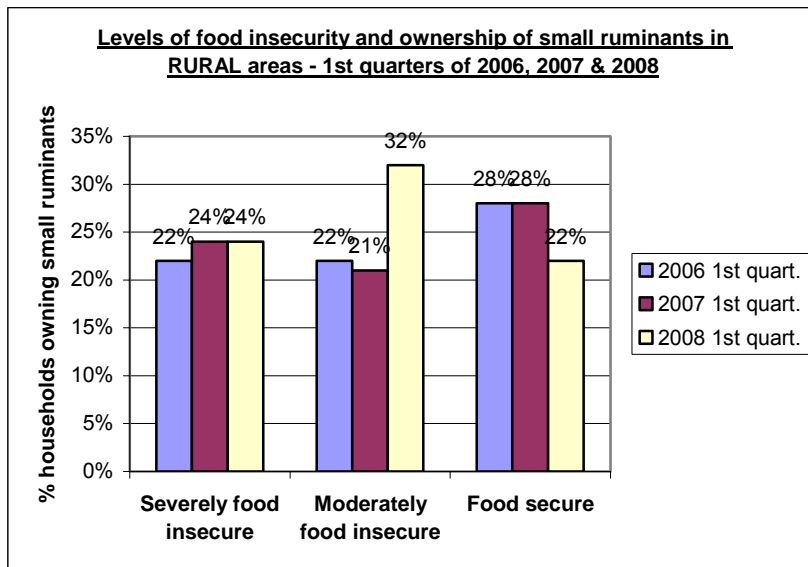


Figure 44: Levels of food insecurity and ownership of small ruminants in rural areas - 1st Quarter of 2006, 2007 & 2008

On average, rural households owned 19 and urban households 8 small ruminants in the 1st quarter of 2008. There was no decrease in the number of animals owned between 2006 and early 2008. On the contrary, moderately food insecure households and to a lesser extent food secure households seemed to own more small ruminants in the 1st quarter of 2008 than in the corresponding quarters of 2006 and 2007.

Severely food insecure households in rural areas owned less small ruminants than other households: 16 in 2007 versus 23 for the moderately food insecure and 20 for the food secure.

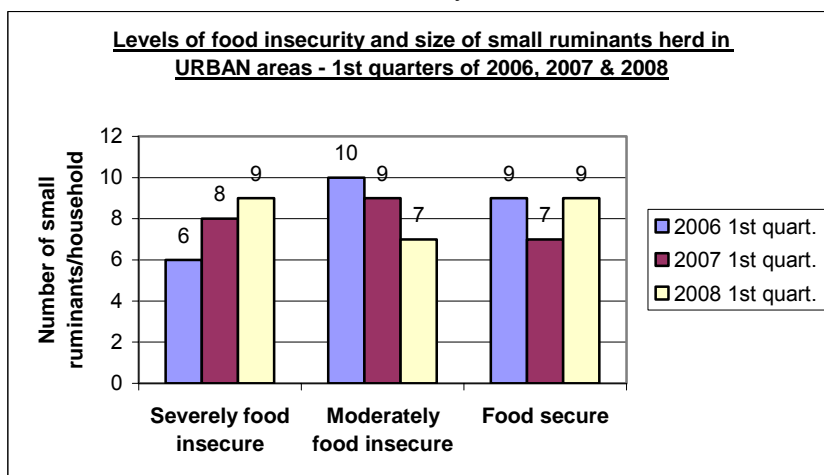


Figure 45: Levels of food insecurity and size of small ruminants in rural areas - 1st Quarter of 2006, 2007 and 2008

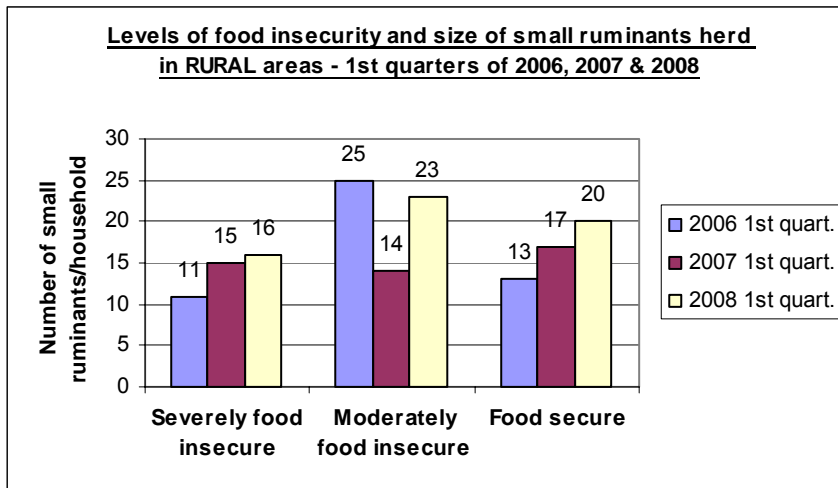


Figure 46: Levels of food insecurity and size of small ruminants herd in rural areas - 1st Quarter of 2006, 2007 and 2008

Regional differences

The proportions of households owning small ruminants were lower in Chui (8%), Talas (10%), Osh (14%) and Yssyk-Kul (28%) and higher in Naryn (52%), Jalal-Abad (42%) and Batken (41%) oblasts, again reflecting different degree of urbanization and animal raising agro-ecological potential. In Yssyk-Kul oblast, the severely food insecure households were more likely to own small ruminants than other households (45% versus around 20%) but this was not the case in other oblasts. In this oblast therefore, ownership of small ruminants would not be an appropriate targeting criteria to exclude households from food security assistance.

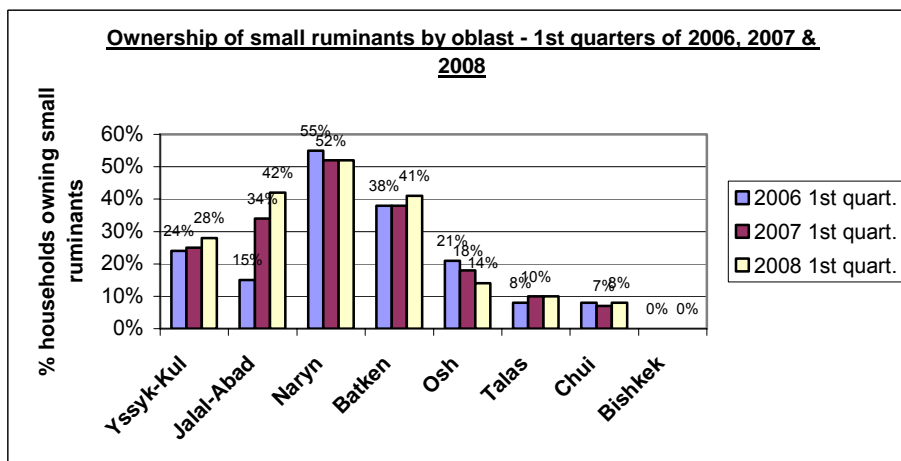


Figure 47: Ownership of small ruminants by oblast - 1st Quarter of 2006, 2007 and 2008

The smaller sizes of small ruminant herds were in Bishkek (5 in the 1st quarter of 2008), Chui (9), Jalal-Abad (12), Yssyk-Kul (15) and Batken (17) oblasts. Herds were the largest in Talas (59) oblast.

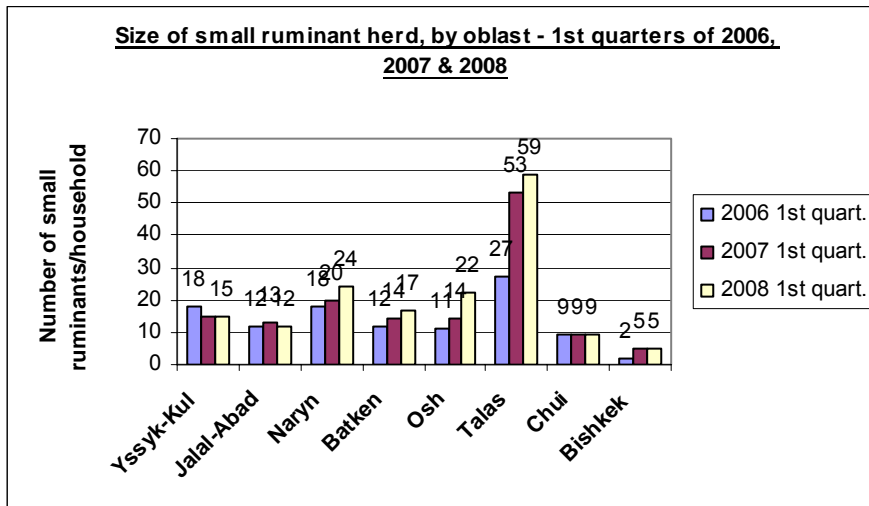


Figure 48: size of small ruminants by oblast - 1st Quarter of 2006, 2007 and 2008
 Poultry

About 1/3rd of rural households owned poultry and 6% of urban households. It seems that the proportion of households owning poultry seemed to have decreased in the 1st quarter of 2008 compared to the 1st quarters of 2006 (42%) and 2007 (39%). This was particularly the case for food secure and moderately food insecure households but not for the severely food insecure in rural areas, a similar trend as was observed for small ruminants. Again, it may reflect different livelihood strategies according to the food security situation.

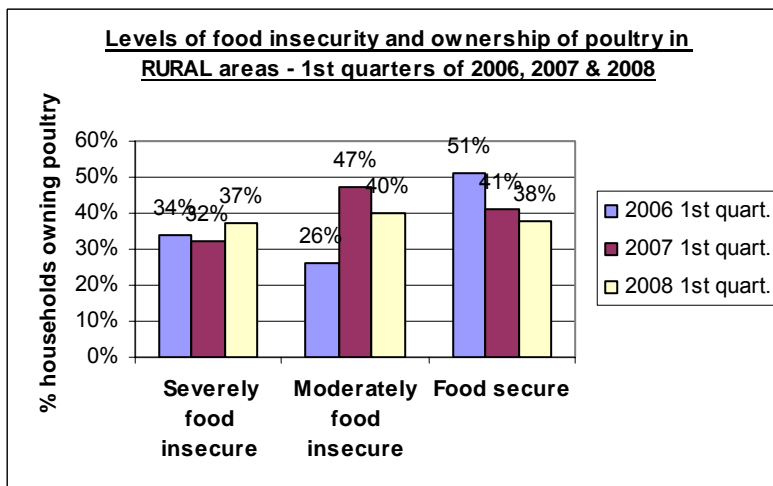


Figure 49: Levels of food insecurity and ownership of poultry in rural areas - 1st Quarter of 2006, 2007 and 2008
 Poultry

In urban areas, the proportion of severely food insecure households owning poultry has decreased between 2006 and early 2008, possibly reflecting the sales of these animals to increase households' income.

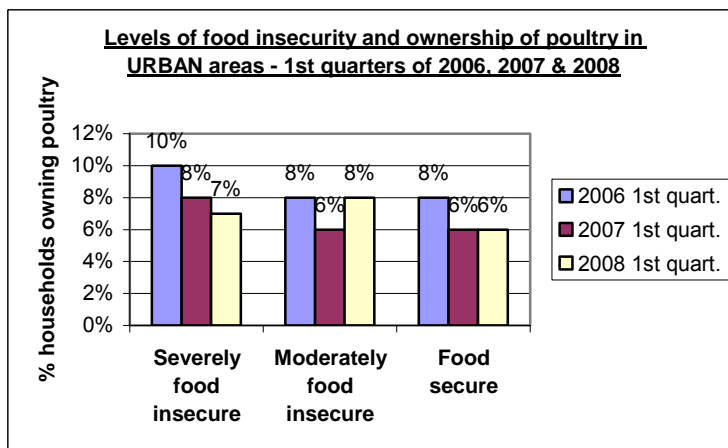


Figure 50: Levels of food insecurity and ownership of poultry in urban areas



Households owned on average 13 poultry. Food insecure households owned a lower number of poultry than food secure households: 8 versus 15 in urban areas and 14 versus 16 in rural areas in 2007. There were no signs of a decrease in the number of poultry owned between 2006 and beginning of 2008.

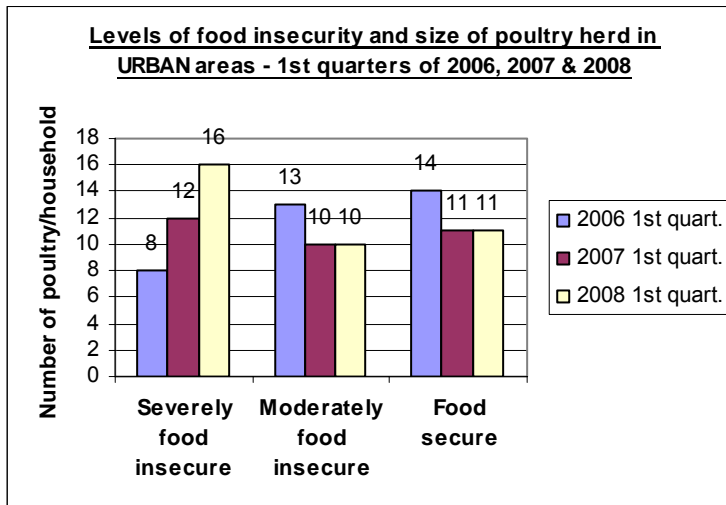


Figure 51: Levels of food insecurity and size of poultry herd in urban areas - 1st Quarter of 2006, 2007 and 2008

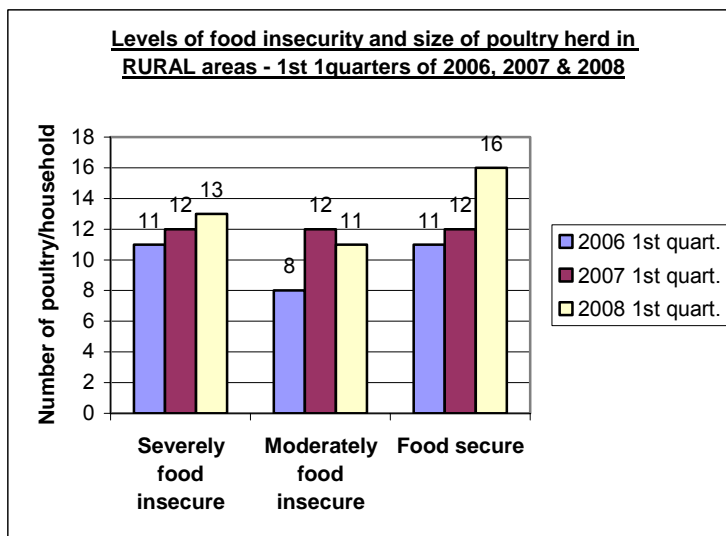


Figure 52: Levels of food insecurity and size of poultry herd in rural areas - 1st Quarter of 2006, 2007 and 2008

Regional differences

The lowest proportions of households owning poultry were in Talas (14%), Osh (23%) and Jalal-Abad (26%) while the highest proportions were in Batken (45%), Chui (40%), Yssyk-Kul (38%) and Naryn (35%) oblasts.

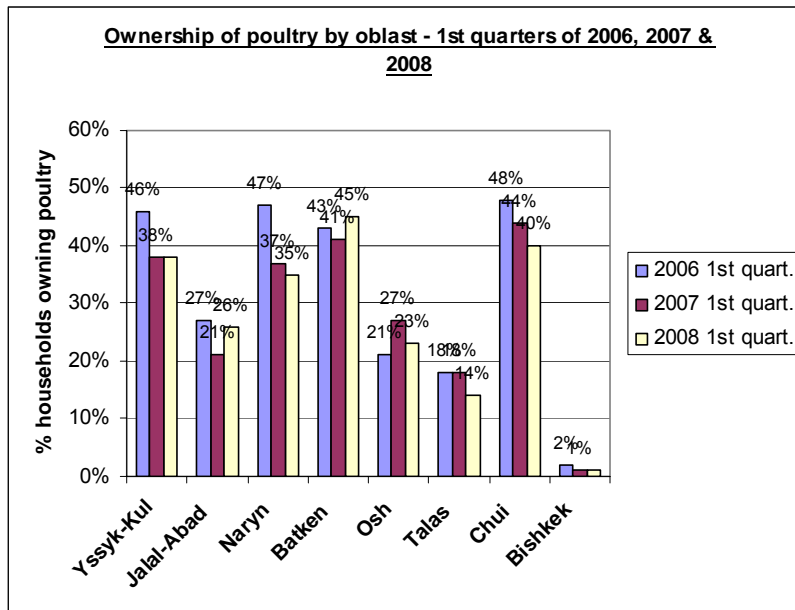


Figure 53: Ownership of poultry by oblast - 1st Quarter of 2006, 2007 and 2008

Lower numbers of poultry by household were noted in Batken (7 in the 2007) and Naryn (8) oblasts. The number was surprisingly high in Bishkek (22), and also high in Chui (16), Osh (15) and Jalal-Abad (14) oblasts.

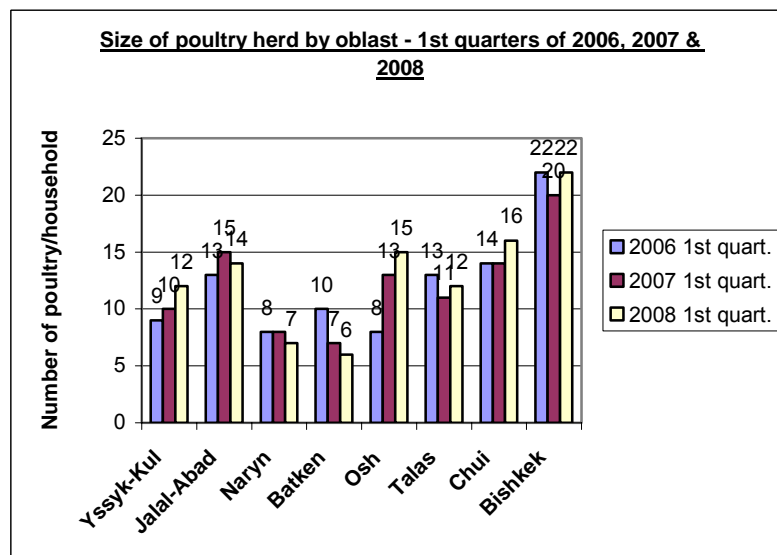


Figure 54: Size of poultry herd by oblast - 1st Quarter of 2006, 2007 and 2008

Donkeys and horses

Only 3% of households owned horses, including none in urban areas and 5% in rural areas in 2007. The proportion of horse owners was higher in Yssyk-Kul oblast (14%) and to a lesser extent in Naryn oblast (8%) than in the other oblasts (less than 4% in general).

The proportion of households owning donkeys was similarly low and almost exclusively concentrated in rural areas (3% owners). The highest proportions of households owning donkey were in Batken (10%), Osh (5%) and Naryn (4%) oblasts. The proportion of horse and donkey owners tended to decrease in Naryn but increased in Batken between 2006 and 2007.

Animal ownership and targeting criteria

In the 1st quarter of 2008, about 22% of households owning any animal were severely food insecure (27%) and 15% were moderately food insecure. In rural areas, more than half of the food insecure households owned animals, more than 40% owned some cattle, between 24 and 32% owned some small ruminants and more than 34% owned some poultry.



These findings call for caution against using animal ownership as a targeting criteria, particularly in Naryn, Yssyk-Kul, Osh and Talas oblasts where the proportion of severely food insecure among animal owners were respectively 38%, 32%, 26% and 21%. The relationship seemed to hold true for the various animal species (cattle, small ruminants, poultry).

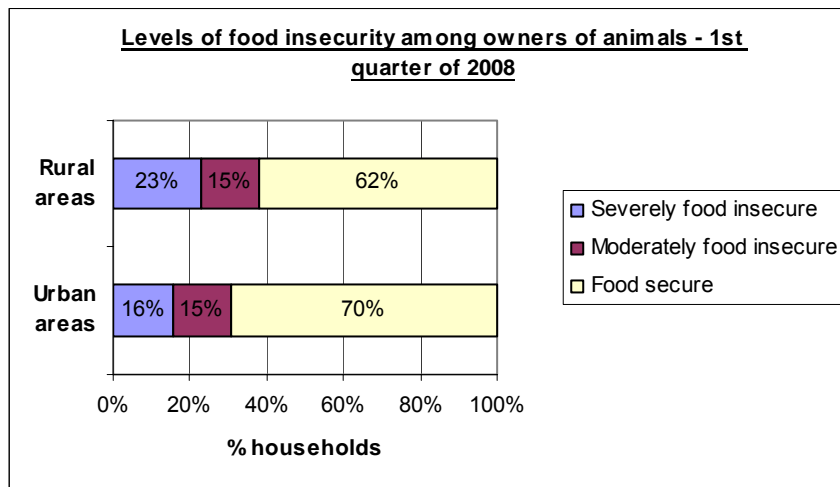


Figure 55: Levels of food insecurity among owners of animals - 1st Quarter of 2006, 2007 and 2008

4.2.6 Ownership of assets

Generally speaking there was no depletion of electronic assets such as radio, black-and-white TV or video device between 2006 and 2007. On the contrary, some of the food insecure households, especially the moderately food insecure, gained access to some “luxury” assets such as video device.

However, in a number of oblasts (Yssyk-Kul, Naryn, Batken, Osh), the proportion of refrigerator and washing machine owners and to a lesser extent of sewing machine and a bicycle, decreased among the moderately food insecure and the food secure households between 2006 and 2007.

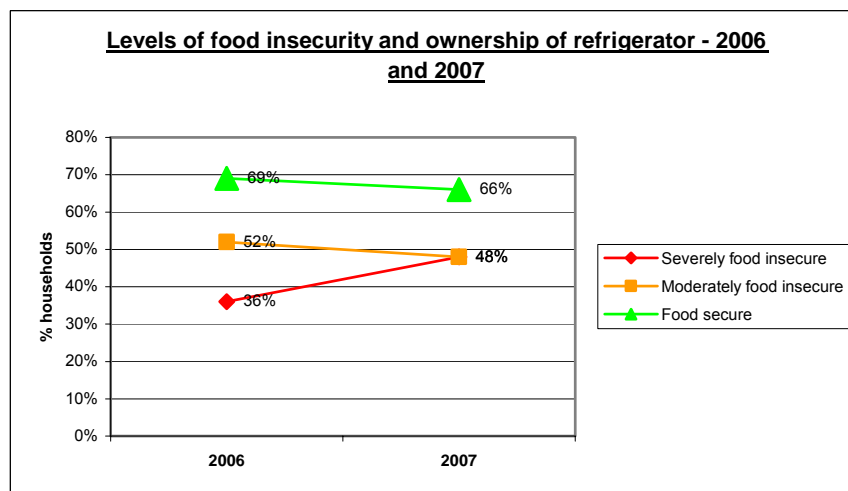


Figure 56: Levels of food insecurity and ownership of refrigerator – 2006 and 2007

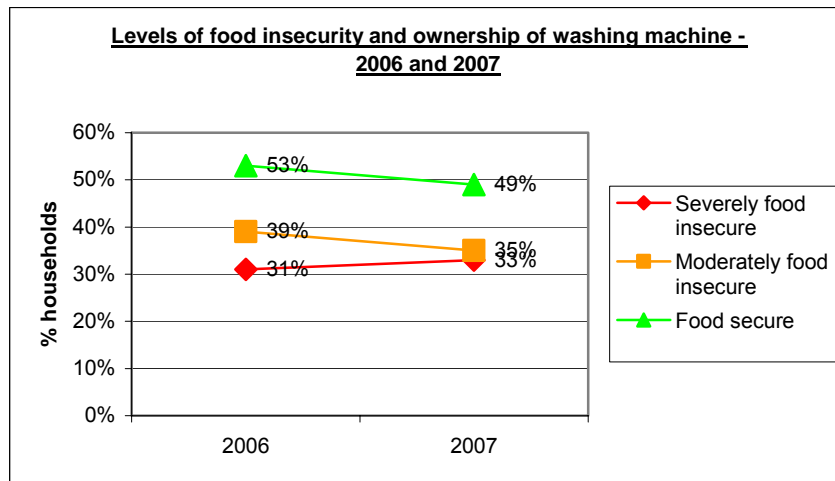


Figure 57: Levels of food insecurity and ownership of washing machine - 2006 and 2007

It may be that the sale of a radio or black-and-white TV would give a low economic return compared to the sale of a refrigerator, washing machine or sewing machine, thus explaining the different trends of ownership of these items between 2006 and 2007. The sale of these items could indicate that moderately food insecure and food secure households, who are more likely to own these valuable assets than the severely food insecure households, started to sell them off as a coping strategy to respond to higher food and fuel prices. Considering that most of the food and fuel price rise occurred in 2007 and afterwards, this pattern of sales of assets would be expected to increase in 2007 and would then be reflected in 2008. Analysis of assets ownership in 2008 will be important to confirm whether this is the case.

Any increase in the ownership of assets between 2006 and 2007 was more likely to happen in urban than in rural areas but the pattern varied between oblasts. Detailed description of the pattern of asset ownership between 2006 and 2007 and across locations is included in Annex XXX. The most relevant findings are summarized in the Box below.

Box 5 – Ownership of assets and food security

Radio

- Only about 1 every 10 households owned a radio. Between 2006 and 2007, the proportion of radio owners decreased among the food secure households only (from 16% to 12%). Radio ownership is slightly higher in rural areas (14% of rural households owned one in 2007, versus 9% of urban households).
- The proportion of radio owners decreased among food secure households between 2006 and 2007 in all oblasts and Bishkek town. On the contrary, the proportion of radio owners increased among severely food insecure households in Yssyk-Kul, Jalal-Abad, Naryn and Talas oblasts, and in Bishkek town.
- As of 2007, the proportion of radio owners was highest in Naryn (27%) and Jalal-Abad (21%) oblasts, followed by Chui (18%) and Yssyk-Kul oblasts (16%). The lowest proportion of radio owners was in Osh oblast (3%).

Black-and-white television

- Practically all households owned a black-and-white television (97%) and the proportion of owners did not change significantly between 2006 and 2007. The proportion of TV owners was similar in urban and rural areas and there were no clear changes between 2006 and 2007, except for a slight increase in the proportion of TV owners among the severely food insecure in urban areas.
- The proportion of food insecure households owning a TV tended to decrease between 2006 and 2007 in Jalal-Abad oblast, while it tended to increase in most of the other oblasts and Bishkek town.

Video device

- Less than 20% of households owned a video device, but the proportion of owners increased between 2006 and 2007 for all food security groups. The proportion of video owners increased in rural and urban areas between 2006 and 2007 and as of 2007 was similar in both areas (18-19%). In urban areas, the increase of owners was mainly the fact of moderately food insecure households, while in rural areas the proportion of owners increased more among the food secure households than other households.
- The proportion of video-owners increased between 2006 and 2007 in all oblasts except Yssyk-Kul and Bishkek town.



Personal computer

- Only 3% of households owned a personal computer (PC) in 2007, showing no significant changes compared to 2006. As expected, food insecure households were less likely to own a PC than food secure households. Ownership of a PC was slightly more frequent in urban areas (5% versus 1% respectively in 2007). It seemed that the proportion of PC owners increased slightly among food secure households in urban areas while it decreased among moderately food insecure.

Mobile phone

- The proportion of owners of mobile phone increased significantly between 2006 and 2007 for all food security groups but especially for the moderately food insecure and the food secure households whose proportions of owners almost doubled. In 2007, more than a quarter of the moderately food insecure and of the food secure households owned a cell phone, compared to only 14% among the severely food insecure.
- In rural areas increased mobile phone ownership concerned almost exclusively the moderately food insecure and the food secure households, with a much lower and unchanged proportion of mobile phone owners among the severely food insecure households (8% in 2007). In urban areas, the proportion of mobile phone owners increased in all three food security groups but was surprisingly higher among the moderately food insecure households (37%) compared to both severely food insecure and food secure households (25-26%).
- The increase was small in Talas oblast where the proportion of mobile phone owners was the lowest of all oblasts in 2007 (7%).

Telephone

- Less than 40% of the households had a telephone, with only a slight progression from 2006 to 2007. Food insecure households were less likely to have a telephone, even though their access improved more than for the other households between 2006 and 2007.
- More than 60% of urban households had a telephone, compared to less than 20% rural households. Food insecure households were less likely to own a telephone in both areas.

Table

- While a table would seem a quite basic domestic asset, only 16% of households owned one in 2007, with only a marginal progression compared to 2006 (14%). This change reflected an increase of owners among the food insecure households. Nevertheless, food insecure households remained less likely to own a table than food secure households.
- Table owners were more frequent in urban than in rural areas (20% and 13% respectively in 2007). Very low proportions of table owners were found in Baken (1% in 2007), Osh (5%), Talas (7%) and Naryn (10%) oblasts, compared to the others. The highest proportions of owners were in Chui oblast and Bishkek town (24% and 26% respectively).

Refrigerator

- About 60% of the households owned a refrigerator, but ownership was less frequent among the food insecure households (48% versus 66% of the food secure in 2007). Urban households were more likely to own a refrigerator than rural households: almost 3/4th of the urban households owned one, compared to one half of the rural households. Between 2006 and 2007, the proportion of owners increased among the severely food insecure in urban and rural areas, but decreased among other households in rural areas (it remained stable in urban areas).
- The lowest proportions of refrigerator owners were in Batken (27% in 2007) and Osh (31%) oblasts. In these two oblasts, as well as in Yssyk-Kul and Naryn oblasts, the proportion of refrigerator owners decreased quite significantly among the moderately food insecure households while it increased among the severely food insecure. The proportion of refrigerator owners also decreased among the food secure households in Naryn, Batken and Osh oblasts. The highest proportions of refrigerator owners were in Chui oblast (86% in 2007), Bishkek town (84%) and Yssyk-Kul oblast (69%).

Washing machine

- Only 44% of the households owned a washing machine in 2007, down from 47% in 2006. Food insecure households were less likely to own a washing machine than food secure households. The proportion of owners tended to decrease among moderately food insecure and food secure households between 2006 and 2007.
- Urban households were more likely to own a washing machine than rural households: 63% versus 49% respectively in 2007. In urban areas, between 2006 and 2007 the proportion of owners increased among the severely food insecure households but decreased in the other households. In rural areas, the proportion of owners tended to decrease among the moderately food insecure and the food secure households.
- The lowest proportions of washing machine owners were in Batken (18%), Osh (21%) and Naryn (29%) oblasts.



Sewing machine

- Overall, slightly less than half of the households owned a sewing machine. There were no clear differences in the ownership of a sewing machine between food insecure and food secure households.
- A higher proportion of households owned a sewing machine in rural areas than in urban areas (53% versus 39% respectively in 2007). In both areas, the proportion of sewing machine owners increased among the severely food insecure and decreased among the moderately food insecure between 2006 and 2007.
- The lowest proportions of households owning a sewing machine were in Talas (33% in 2007) and Osh (45%) oblasts, and in Bishkek town (34%). The highest proportion of owners was in Naryn and Batken oblasts (68% each).

Bicycle

- Only about 10% of households owned a bicycle, with no significant changes between 2006 and 2007 except for a slight decrease of the proportion of bicycle owners among the moderately food insecure households.
- Ownership of a bicycle was more frequent in rural than urban areas (13% and 5% respectively in 2007). The proportion of owners tended to decrease among the moderately food insecure households in rural areas between 2006 and 2007.
- The lowest proportions of bicycle owners were in Osh oblast (2% in 2007) and in Bishkek town (3%). The largest proportions of bicycle owners were in Chui (21%) and Jalal-Abad (19%) oblasts. However, in these two oblasts the proportion of owners decreased among the food insecure households between 2006 and 2007.

Motorcycle

- Only 1% of households owned a motorcycle.

4.3 Natural capital

The KIHS does not collect data that would enable to relate the situation of households with their natural capital endowment (access to rivers, pastures, type of soil, rainfall, roads etc.). The following is a brief overview of the main geographical, climatic and infrastructures conditions prevailing in the country.

4.3.1 Geography and climate

The Kyrgyz Republic is a small, double land-locked country– Next most important town: Osh (in the south). The climate is characterized by cold winters and hot, dry summers

The country is mountainous with most regions at least moderately mountainous, the exception being Bishkek and Chui oblast. Nearly 90% of the total territory lies in altitudes of 1,500 m above the sea level, and more than 40% lies above 3,000 m.

4.3.2 Hazards

The country is at high risk of natural disasters: mudflows, floods, landslides, earthquakes (the latest ones being in December 2007 and October 2008) and avalanches. According to the Ministry of Emergency Situations, nearly 90% of all disasters occur in the south in the Ferghana Valley oblasts of Osh, Jalal-Abad and Batken. There are between 200 and 300 hazard events every year, mostly seasonal in nature.

Table 20 - Main hazards and areas at risk

Hazard	Areas at risk
Earthquake	<ul style="list-style-type: none"> • Bishkek, Ferghana Valley
Landslides	<ul style="list-style-type: none"> • South of Osh city (Kara-Suisky district) • Osh oblast (Alay, Uzgen, Pakhtabad, Malay-Suu, Jala-Kuduk districts)
Floods	<ul style="list-style-type: none"> • Batken oblast (Batken district) • Jalal-Abad oblast (Chatkal district) • Osh oblast (Uzgen, Pakhtabad, Malay-Suu, Jala-Kuduk districts)
Water contamination	<ul style="list-style-type: none"> • Osh oblast (Mayluu-Suu district)
Avalanches	<ul style="list-style-type: none"> • Bishkek-Osh highway • Bishkek-Naryn highway • Osh oblast (Kara-Kulja district)
Civil unrest	<ul style="list-style-type: none"> • Bishkek city • Issyk-Kul oblast • Ferghana Valley (Osh, Jalal-Abad, Batken oblasts)



Poverty, Livelihood Vulnerability and Food Insecurity in the Kyrgyz Republic – M. Abi Samra, World Food Programme, March 2007 (unpublished)

Kyrgyzstan also has a combination of technological disasters due to the proliferation of industrial sites in disuse and/or not properly maintained or environmentally safe. Unstable uranium tailings pose a serious risk and can affect the whole Ferghana Valley.

Poverty and unequal distribution of resources (particularly land and water) between various ethnic groups in rural areas can spark tensions. The Ferghana Valley, the most fertile and densely populated area in Central Asia, has been described as “the most explosive region of Central Asia” because of its mixed population of Uzbek and Kyrgyz, and because of the high rates of poverty and unemployment¹⁹. It crosses Kyrgyzstan, Uzbekistan and Tajikistan.

4.3.3 Infrastructures

The north and the south of the country are connected only by high mountain road, which can be cut in case of disaster. Railway transport between the north and the south requires crossing Uzbekistan and Kazakhstan. Roads are the main means of transport, accounting for 60% of freight-haulage and 80% of passenger transport²⁰.

4.3.4 Distribution of the rural and urban population

Due to topographic conditions, the majority of the population is concentrated in the south of the country. More than half of the population lives in the densely populated Ferghana Valley. Accordingly, the highest population densities are observed in Osh (44 inhab./km²), Jalal-Abad (28 inhab./km²) and Batken (25 inhab./km²).

Table 21 - Population size, repartition and density

	Population (2005)	% total population	Density (inhabitants/km ²)
Total country	5.2 million	100%	26
Bishkek city	798,000	15%	76
Chui oblast	752,300	15%	?
Yssyk-Kul oblast	428,500	8%	10
Talas oblast	213,600	4%	19
Naryn oblast	267,000	5%	6
Batken oblast	418,100	8%	25
Jalal-Abad oblast	960,800	19%	28
Osh oblast	1,299,600	25%	44

National Statistics Committee 2006, quoted in “Poverty, Livelihood Vulnerability and Food Insecurity in the Kyrgyz Republic – M. Abi Samra, World Food Programme, March 2007” (unpublished)

About 37% of the population is urban (2007). The two main towns are the capital Bishkek, in the north, and Osh, in the south.

4.3.5 Geographical distribution of resources

Generally speaking, the north is wealthier and more industrial in nature, while the south is poorer and more agrarian. The northern population tends to gravitate more towards Kazakhstan and to a lesser extent towards Russia, while the south with its sizable Uzbek minority (majority in some areas), gravitates towards Uzbekistan.

¹⁹ Poverty, Livelihood Vulnerability and Food Insecurity in the Kyrgyz Republic – M. Abi Samra, World Food Programme, March 2007 (unpublished)

²⁰ World Bank, quoted in “Kyrgyz Republic Country Report – The Economist Intelligence Unit, 2008”



4.4 Financial capital

4.4.1 Food expenditures

Share of food expenditures

The share of food expenditures out of total consumption expenditures was very high across all food security groups: 64% on average. Furthermore, it tended to increase from 2006 to early 2008 (60% in 2006), particularly among the severely food insecure households: food expenditures represented 74% of total expenditures in that group early 2008. This most probably reflects the effects of the rising food prices.

In 2006, 30% of the poor households' food expenditures were on cereals, compared to 17% of the wealthiest's food expenditures. Compared to richer quintiles, the poorest quintile dedicated a lower share of their food expenditures to milk and meat, but a higher share to potatoes and fats.

The share of food expenditures was rather similar between urban and rural areas, possibly owing to the obligatory non-food expenditures in towns (rent, utilities, transportation) and the lower self-consumption possibilities there.

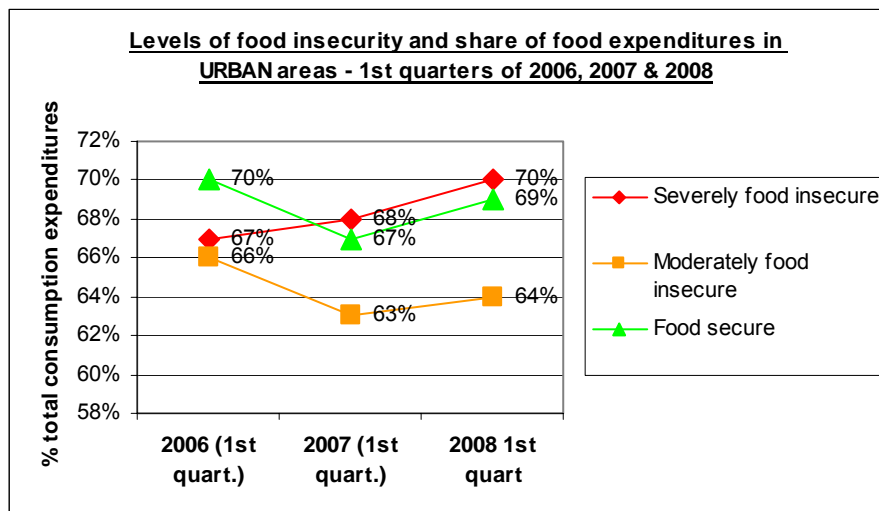


Figure 58: Levels of food insecurity and share of food expenditures in urban areas

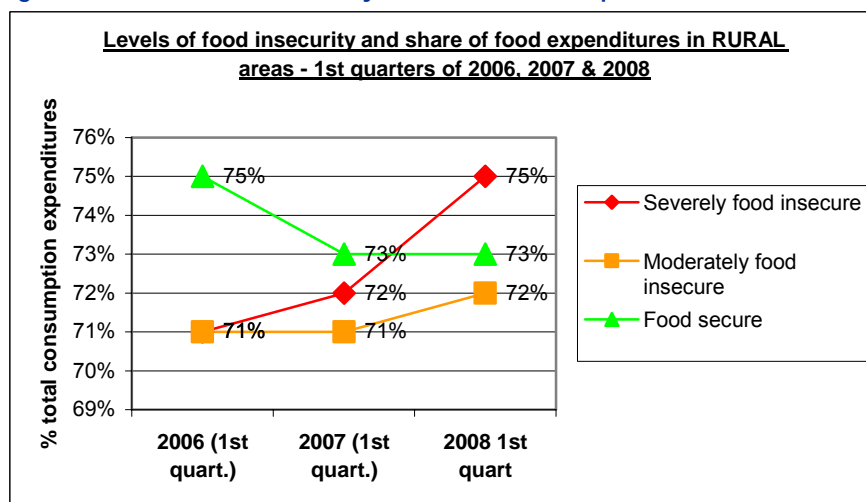


Figure 59: Levels of food insecurity and share of food expenditures in rural areas

Regional differences:

The share of food expenditures was slightly lower in Osh oblast (61%) compared to the other oblasts, while it was highest in Talas (69%), Yssyk-Kul and Naryn (68% in each), and Jalal-Abad (67%) oblasts. This finding is consistent with the high proportions of food insecure households in these oblasts.



Amount of food expenditures per capita per month

Average per capita monthly expenditures increased markedly in the 1st quarter of 2008 compared to the corresponding quarters of 2006 and 2007.

There was a clear relationship between food security and food expenditures, with the severely food insecure spending systematically less than the moderately food insecure, and the latter spending less than the food secure.

Per capita food expenditures increased in all food security groups but the absolute increase between the 1st quarter of 2008 and the 1st quarter of 2007 was lower among the food insecure: + 229 for the severely food insecure and + 276 for the moderately food insecure, versus + 391 for the food secure. This may be due to the lower capacity of the food insecure to mobilize additional resources for food purchases, and would thus be expected to affect their food consumption down the line.

Urban-rural differences:

The increase of per capita food expenditures occurred in both rural and urban areas. It was higher for the food secure households in urban areas compared to the food secure in rural areas, but similar for the food insecure households in both areas, reflecting their similar inability to mobilize more resources for food.

Table 22: Difference of food expenditures between 1st quarter 2008 and 1st quarter 2007 (KGS/capita)

	Difference of food expenditures between 1 st quarter 2008 and 1 st quarter 2007 (KGS/capita)
Urban areas	+451
Severely food insecure	+242
Moderately food insecure	+265
Food secure	+499
Rural areas	+328
Severely food insecure	+223
Moderately food insecure	+288
Food secure	+328

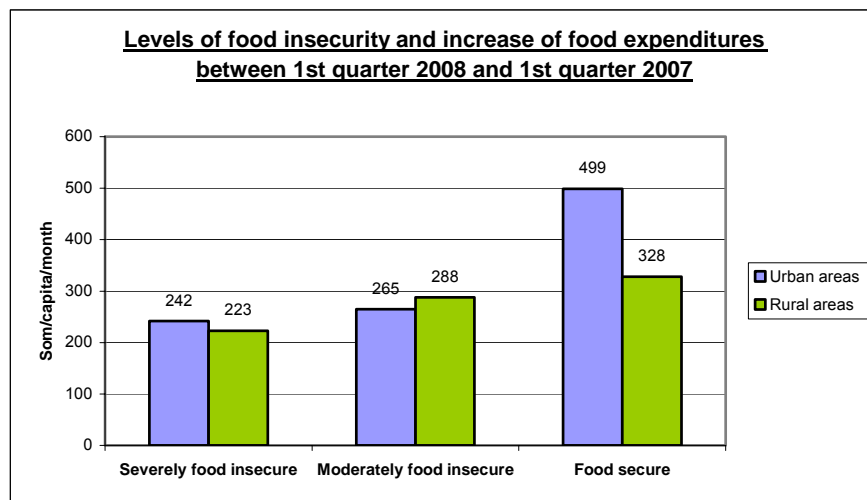


Figure 60: Levels of food insecurity and increase of food expenditures between 1st Quarter of 2007 and 1st Quarter of 2008

In the 1st quarter of 2008, monthly per capita food expenditures were higher in Bishkek and in Chui oblast (more than 1800 KGS). They were also relatively high in Batken (1270 KGS) and Yssyk-Kul oblasts (1209 KGS). The lowest food expenditures were in Naryn (1028 KGS) and Jalal-Abad (1070 KGS) oblasts. All these values were above the official poverty line of 2007 (963 KGS) but this was not the case for the preceding year: in 2007, per capita food expenditures were below the average poverty line in Jalal-Abad (765 KGS), Osh (890 KGS) and Naryn (960 KGS) and only slightly above in Batken (1042 KGS) and Yssyk-Kul (1052 KGS) oblasts. These results are consistent with the high proportion of food insecure households in these oblasts, although the situation of households in Batken improved significantly in 2008.

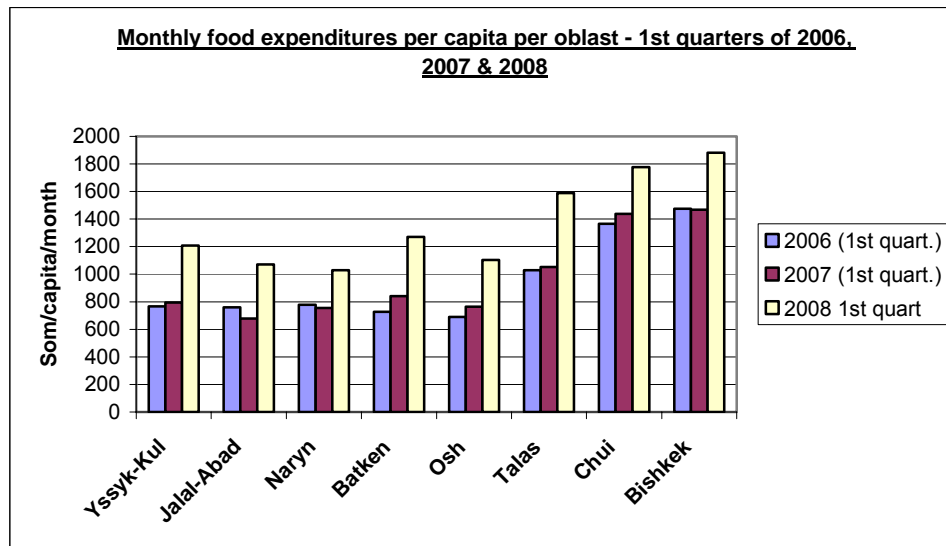


Figure 61: Monthly food expenditures per capita per oblast -1st Quarter of 2006, 2007 and 2008

4.4.2 Non-food expenditures

Health expenditures

The share of health expenditures out of total consumption expenditures was very low, at less than 2%. Such a low value does not enable to distinguish differences between urban and rural areas, or between food security groups.

It is known however, that households have to incur significant expenses to get health treatment, but these expenses are often under the form of food and material support for the patient (bedsheets, soap etc.) and in-kind “gifts” to the health care providers and would thus not be registered as cash expenditures for health.

The share of health expenditures tended to be slightly higher in Naryn oblast (around 4% in 2007 and 1st quarter of 2008) compared to other oblasts. It was particularly low in Jalal-Abad and Talas oblasts.

Education expenditures

The share of education expenditures out of total consumption expenditures was also very low, at about 2%. It is thus not possible to identify differences between urban and rural areas, or between food security groups. Nevertheless, the trend was, as expected, towards lower education expenditures among the severely food expenditures.

As for health expenditures, parents are likely to incur education-related expenditures which are not recorded as such because they take the form of in-kind support with food, school maintenance and “gifts” to teachers.

As for health, the share of education expenditures was particularly low in Jalal-Abad and Talas oblasts.

Utilities expenditures

The share of expenditures for water, electricity, gas and other such utilities represented only 4% of total expenditures. It was higher in urban areas than in rural areas: 6% and 3% respectively. There were no noticeable differences in the share of utilities expenditures between food security groups, or between oblasts, and no significant changes between 2006 and the 1st quarter of 2008.

Transportation expenditures

Only 3% of total consumption expenditures were dedicated to transportation. Surprisingly, there were no noticeable differences between urban and rural areas. Food insecure households tended to dedicate a slightly larger share of expenditures to transportation but the values are too low to demonstrate clear dissimilarities. No trend was noted between 2006 and the 1st quarter of 2008. The share of transportation expenditures was particularly low in Yssyk-Kul oblast (less than 2%)



Services expenditures

The share of expenditures on services was high at 19% in 2007. It was lower in 2006 (16%) but the comparison between the 1st quarter of 2008 and corresponding quarter of 2007 do not signal a further increase. Services expenditures tended to represent a slightly larger share of total expenditures in urban areas than rural areas (16% and 13% respectively).

There were no clear relationship between food security and the share of services expenditures. The moderately food insecure households tended to spend a larger share than the other households in both urban and rural areas.

The share of services expenditures was higher in Bishkek (22% in 2007) and in the oblast of Chui (21%) followed by Osh (19%), Batken (18%), Naryn (17%) and Jalal-Abad (16%). It was lowest in Yssyk-Kul and Talas oblasts (14% in each).

Clothing expenditures

The share of clothing expenditures amounted to 7% of total consumption expenditures in 2007. It decreased compared to 2006 (11%) and the decreasing trend seemed to continue in the 1st quarter of 2008, possibly reflecting a decision to reduce this "non essential" expenditures. There were no significant differences between rural and urban areas.

The decrease was observed among all food security groups, although proportionally it tended to be larger among the food insecure, particularly the severely food insecure. The share of clothing expenditures was only marginally lower among the food insecure households compared to the food secure households.

Table 23 - Share of expenditures on services and food security – 2006 to 1st quarter 2008

Residence	Households		
	Share of services expenditures		
	2006 (1 st quart.)	2007 (1 st quart.)	2008 1 st quart.
Total	16% (13%)	19% (14%)	14%
Severely food insecure	13% (13%)	18% (13%)	13%
Moderately food insecure	16% (14%)	17% (16%)	16%
Food secure	16% (12%)	19% (15%)	14%
Urban areas	16% (15%)	20% (17%)	16%
Severely food insecure	15% (17%)	19% (16%)	16%
Moderately food insecure	17% (16%)	20% (20%)	19%
Food secure	16% (17%)	20% (17%)	16%
Rural areas	15% (11%)	18% (12%)	13%
Severely food insecure	13% (11%)	18% (12%)	12%
Moderately food insecure	16% (13%)	15% (12%)	14%
Food secure	16% (10%)	18% (12%)	12%
Yssyk-Kul oblast	17% (12%)	14% (12%)	10%
Jalal-Abad oblast	12% (9%)	16% (10%)	10%
Naryn oblast	15% (12%)	17% (15%)	16%
Batken oblast	15% (13%)	18% (12%)	18%
Osh oblast	16% (13%)	19% (15%)	14%
Talas oblast	10% (7%)	14% (7%)	7%
Chui oblast	17% (11%)	21% (14%)	14%
Bishkek town	18% (18%)	22% (20%)	19%

Agricultural inputs expenditures

The share of expenditures for agricultural inputs and for the maintenance of animals was low (3% each in 2007). As expected it was higher in rural areas (4% and 5% respectively versus less than 1% in urban areas). The trend from 2006 to beginning of 2008 showed a decrease in the share of expenditures dedicated to agricultural inputs and animal maintenance, possibly reflecting a decision of households to reduce these in a context of higher fertilizer, animal feed and fuel prices. This strategy will have negative effects on yields and thus on food available for consumption and sales.

Severely food insecure households in rural areas tended to dedicate a slightly lower share of expenditures to agricultural inputs compared to other households (3% versus 5% in rural areas). Conversely, they tended to dedicate a similar share of expenditures to animal maintenance (5% versus 4%).



The share of agricultural inputs expenditures was particularly low in Talas and Naryn oblasts and markedly decreasing from 2006 to the 1st quarter of 2008. The share of expenditures for animal maintenance was also low in Talas and comparatively high in Osh and Chui oblasts.

Equipment and construction expenditures

About 1% of total consumption expenditures was dedicated to equipment and related expenditures and a similar amount to construction material and related. There were no noticeable differences between rural and urban areas (slight tendency towards higher share of construction expenditures in rural areas).

Even though the values remain very low, severely food insecure households tended to dedicate a still lower share of their expenditures to equipment/related in urban areas, but a higher share in rural areas, perhaps related to the different type of housing and repair requirements in these locations.

The share of expenditures on equipment was particularly low in Talas and Jalal-Abad oblasts. The share of expenditures on construction was particularly low in Jalal-Abad and Batken oblasts.



4.5 Social capital

4.5.1 Social system

The main characteristics of the social system in the Kyrgyz Republic are summarised in the Box below. Additional information is provided in Annex XX.

Box 6 – Main characteristics of the social system in the Kyrgyz Republic

The social sector including education, health and social systems, is important in the Government's budget and in general shows a rising tendency. In 2006, social sector expenditures it made up about half of the public budget²¹. Despite this, the total level of public expenditures per recipient is insufficient and does not permit to maintain the earlier attained scale and quality standards in the education and health sectors. The salaries paid to public educational, health and social institutions are not competitive, resulting in an outflow of qualified professionals from the sector and undermining its capacity to restore the quality of services in the medium-term.

The range of social services remains almost the same as during the Soviet period but their quality has deteriorated significantly. There is a huge gap between the generous formal entitlements and the limited financial resources available. Even though beneficiaries of the various assistance programmes generally receive their entitlements on a timely manner and in cash, the support is low. At present, the average pension benefit represents only 40% of the minimum consumption basket. Drastic measures are required to avoid the collapse of the social sector²².

The social system is managed by the Ministry of Labour and Social Protection (MoLSP) and includes old-age pensions, child and disabled allowances, funeral allowances and payments to 'vulnerable' families. The distribution of benefits, according to nationally-established criteria, is at the discretion of local authorities.

- According to the MoLSP, more than 50% of the total population are supported by the State system of social protection²³. Programmes comprise (see Annex XXX for details):
- Unified Monthly Benefit (UMB);
- lump-sum child birth benefit;
- benefit to non-working mother until a child is 1.5 year old;
- Monthly Social Benefits (MSB).

These programmes provide benefits, price discounting and lump-sum annual payments for:

- energy sources and public utilities;
- public transportation;
- socially-protected prices;
- housing subsidies (in Bishkek only);
- categorical State cash benefits for medicines, prosthetic appliances and facilities in health centres and resorts for special contingent citizens;
- old person homes and at-home social services, and homes for children with psycho-neurological problems.

Type of benefit/beneficiary	Amount
On child birth	Lump sum (300% GMCL in 2006)
On twin births	Lump sum (100% GMCL in 2006)
On triplets or more children birth	Lump sum (150% GMCL in 2006)
Old age (pensioner) worker: men above 63 years and women above 58 years	Average US\$ 31.5/months, corresponding to US\$ 12.7/month + work adjustments
Old age (pensioner) never worked	US\$ 20/month
Pensioners	US\$ 3.7/month pension top-up (discretionary)
Disabled pension	Variable allowances and free care and prostheses
Child care for working mothers	US\$ 20/month for 4 months + 1x minimum wage (US\$103)
Mothers with many children	225% GMCL/month in 2006
Children who lost a bread winner	150% GMCL/month in 2006
Children who lost both parents	225% GMCL/month in 2006

²¹ Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006

²² Kyrgyzstan at a New Stage of Development – UNDP and Government of the Kyrgyz Republic, Bishkek, 2005

²³ Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006



Funeral allowance	?
UMB – Children under 21 years in poor families	US\$ 3.5/month/child
'Vulnerable' families (320,000 in 2008, 310,000 in 2007)	One-off 25 kg wheat flour at 20-40% discount (was 50 kg in 2007)
<i>Regional Market Survey for the Central Asia Region, WFP, Draft, September 2008</i> <i>Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006</i>	
<p>Disabled persons constitute the largest number of MSB social service beneficiaries. As with UMB, the benefit accounts for 1/4th of all income of recipients, but both the value of social service benefits and total incomes of this category of the population, as well as variation in living standards, appear to be higher than for UMB beneficiaries. The group of beneficiaries from electric power privileges is less homogeneous. An analysis showed that privileges for the budget of a recipient family covered 1/3rd to half of expenses for electric power, but in the total sum of expenses, the share of privileges was only 2-4%.</p> <p>Privileges for other energy sources (coal etc.) play a more important role in the budget. In Bishkek, the share of privileges for energy sources seemed notably higher than in other parts of the country. However, there is a growing debt on the 'privileges' component, which stresses the need to improve targeting. Housing subsidies are one of the most targeted public assistance programmes. Their recipients are mainly pensioners in Bishkek. The majority of them are so-called "new poor", i.e. retaining some assets but earning very small incomes. However subsidies appeared helpful but insufficient.</p> <p>Since 1996, part of the MoLSP expenses is supported by the Food Security Programme of the European Commission (grant of 10 million Euro per year).</p>	

4.5 2 Solidarity and mutual support

The KIHS data indicate that, overall, almost 20% of the households helped relatives or friends not living with them in 2006 and 2007. The proportion of households helping others was not different in the 1st quarter of 2008 from the 1st quarters of 2006 and 2007.

Rural-urban differences:

- The proportion of households helping relatives or friends was slightly higher in rural areas than urban areas, especially among the food insecure households in rural areas. For example, 20% of the severely food insecure households in rural areas helped others in 2007, compared to 12% of severely food insecure households in urban areas. This mechanism may play an important role to cushion somewhat the food insecure from the economic and other shocks that may affect them.
- In urban areas, severely food insecure households were slightly less likely to help others, compared to food secure households. There was no difference according to food security status in rural areas, possibly reflecting stronger social links in these areas.
- Increased mutual support between 2006 and 2007 was confined to the severely food insecure and the food secure households in urban areas. This was not the case in rural areas, where increased support benefited to all food security groups.

Regional differences:

- The highest proportion of households helping relatives or friends was in Naryn oblast, with 71% of the households in 2006-07. This confirms the findings on food sources which had indicated a higher proportion of households receiving food as gift, compared to other oblasts. It may be explained by the small size and isolation of most villages in that oblast.
- Solidarity was also relatively high in Chui oblast (23% in 2007) but less so among severely food insecure households.
- Mutual support was particularly low in Talas and Yssyk-Kul oblasts (6% in 2007), as well as in Jalal-Abad oblast (11% in 2007).
- With the exception of Naryn, the low levels of mutual support mirror the high levels of food insecurity in the oblasts, thus possibly indicating a stretch of the solidarity mechanisms as most of the population faces food and economic difficulties.

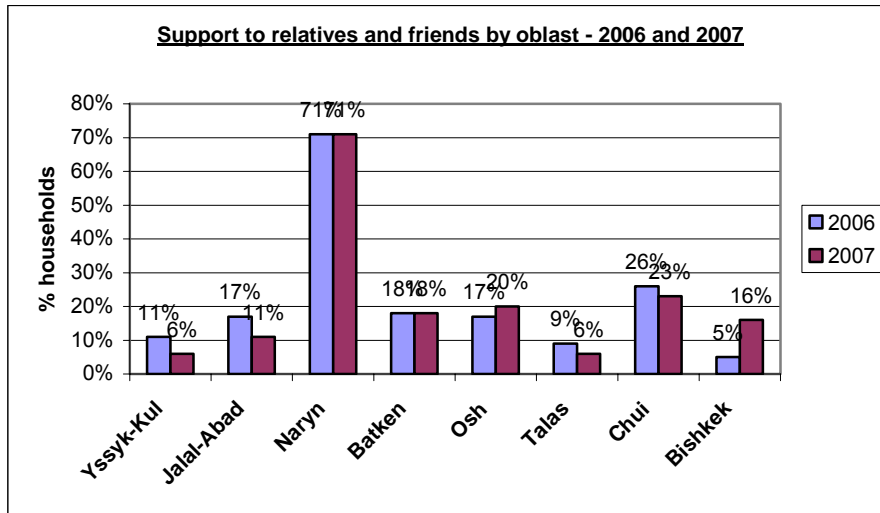


Figure 62: Support to relatives and friends by oblast – 2006 and 2007



V – NUTRITIONAL STATUS OF CHILDREN AND FOOD SECURITY

5.1 Prevalence of malnutrition

5.1.1 Underweight

Overall, the proportion of underweight²⁴ (low weight for age) children was low but seemed to increase between 2006/07 and the 1st quarter of 2008 mainly because of an increase in the proportion of underweight children in severely food insecure households. Early 2008, about 2.5% of under-5 children were underweight.

Even though the numbers of underweight children are small within each household food security group, the trend is towards a higher proportion of underweight children among severely food insecure households and no improvement overtime. In contrast, the proportion of underweight children in moderately food insecure and in food secure households tended to decrease between 2007 and the 1st quarter of 2008. Data over the whole year of 2008 will be needed to confirm this tendency.

The proportion of underweight children is close to the value reported in the Multi-Indicator Cluster Survey (MICS) carried out in 2006 (3.4%).

5.1.2 Stunting

The proportion of children under 5 years of age stunted²⁵ (low height for age) tended to increase between 2006 and 2007 and remained stable in the 1st quarter of 2008, affecting almost 30% of children. This rate is much higher than the 13% stunting reported in the MICS of 2006, but this may be explained by different sampling methodologies as well as by the use of a different reference (NCHS for the MICS and the new WHO Growth Standards for the KIHS)²⁶. More important here is the deteriorating trend observed of stunting rates among children of severely food insecure households in rural areas (see below), which may reflect a degradation of food consumption, health, water, sanitation and care practices among severely food insecure rural households over the past two years.

5.2 Rural-urban and regional differences

5.2.1 Rural-urban differences

Underweight

The proportion of underweight and stunted children was higher in urban areas than in rural areas: respectively 3.5% versus 1.7% underweight and 34.1% versus 22.0% stunted in the 1st quarter of 2008. The same pattern was noted in the 2006 MICS.

- In urban areas, the trend is towards an increased in the rate of underweight children among moderately food insecure and food secure households between 2006 and the 1st quarter of 2008. In the beginning of 2008, the proportion of underweight children was quite similar in all 3 food security groups.

²⁴ Underweight reflects the combination of chronic (long-term) and acute malnutrition. It is defined by a ratio of weight-for-age below -2 Z-scores of the WHO Growth Standards (April 2008). Severe underweight corresponds to a ratio weight-for-age below -3 Z-scores, and moderate underweight to a ratio weight-for-age between -3 and -2 Z-scores.

²⁵ Stunting reflects chronic (long-term) malnutrition. It is defined by a ratio of height-for-age below -2 Z-scores of the WHO Growth Standards. Severe stunting corresponds to a ratio height-for-age below -3 Z-scores, and moderate stunting to a ratio height-for-age between -3 and -2 Z-scores.

²⁶ The sample for the Kyrgyz Multiple Indicator Cluster Survey was designed to provide representative estimates of nutritional status (and other) indicators at the national level, in urban and rural areas, as well as for the 7 oblasts and Bishkek town. This is similar to the KIHS sampling approach, however for the MICS only households with under-5 children were included. The total sample consisted of 5,200 households and 3,000 children under 5 years of age



- In rural areas, after a slight increase in 2007, the proportions of underweight children decreased and were low in the 1st quarter of 2008 in all 3 food security groups.

Stunting

- In rural areas, the proportion of stunted children was higher among severely food insecure households than moderately food insecure or food secure households (47% stunted children in severely food insecure households versus about 24-25% in other households early 2008). This difference was not noted in urban areas where, on the contrary, the proportion of stunted children was slightly lower in severely food insecure households than in other households (18% versus about 24%).
- The deterioration of stunting rates was profound in rural areas between 2006 and 2007, and showed no improvement in the beginning of 2008, but only for children of severely food insecure households. No such deterioration was apparent in other households or in urban areas.

Figure 63: Levels of food insecurity and stunting rates in urban areas - 2006, 2007 & 1st quarter 2008

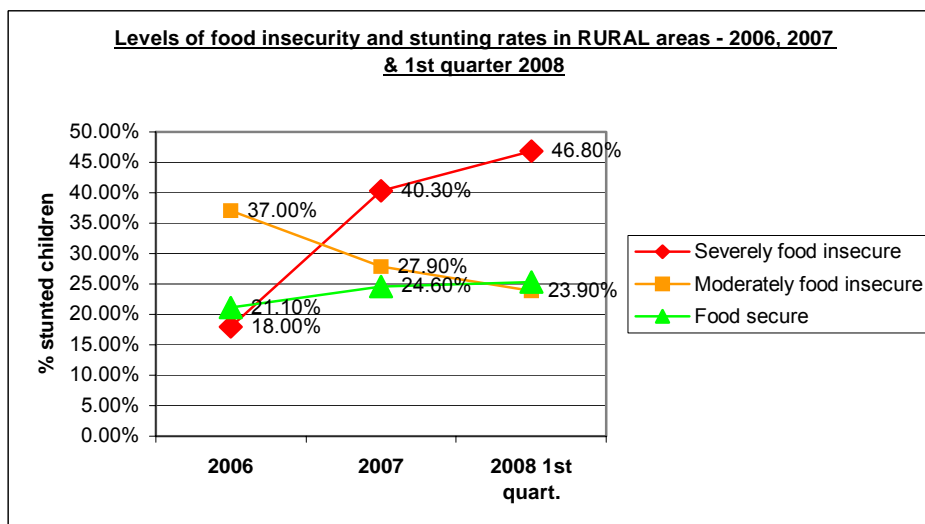
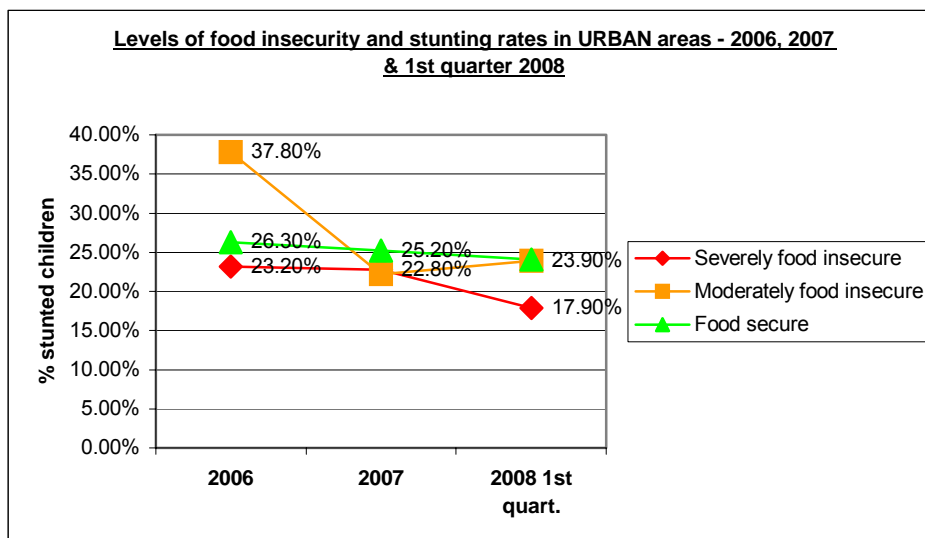


Figure 64: Levels of food insecurity and stunting rates in rural areas - 2006, 2007 & 1st quarter 2008

5.2.2 Regional differences

With the exception of the oblasts of Yssyk-Kul and Osh and Bishkek town, the rates of underweight increased between 2006 and 2007 but seemed to return to the 2006 levels at the beginning of 2008. Rates of stunting increased in all oblasts except in Chui oblast and Bishkek town between 2006 and 2007. No improvement was noted in the 1st quarter of 2008 except in Talas oblast - although they still remained higher than in 2006 – and in Bishkek town – where the improvement of stunting rates persisted from 2006 to early 2008. Confirmation of the trends for 2008 will be needed using data collected throughout the year.

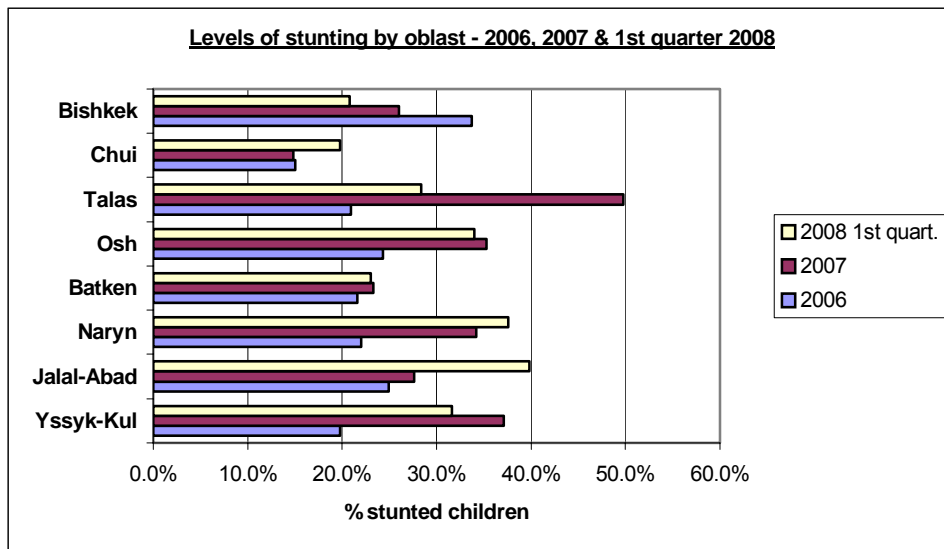


Figure 65: Levels of stunting by oblast - 2006, 2007 & 1st quarter 2008

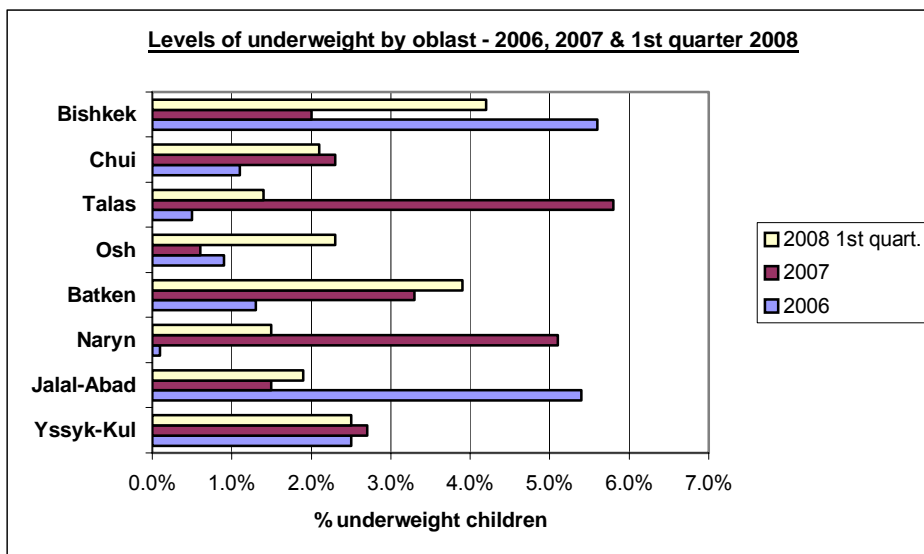


Figure 66: Levels of underweight by oblast - 2006, 2007 & 1st quarter 2008

In the 1st quarter of 2008:

- The highest proportions of underweight children were found in Bishkek town (4.2%) and Batken oblast (3.9%), followed by the oblasts of Yssyk-Kul (2.5%), Osh (2.3%) and Chui (2.1%). Less than 2% of the children were underweight in Jalal-Abad, Naryn and Talas oblasts.
- The highest proportions of stunted children were found in the oblasts of Jalal-Abad (39.8%), Naryn (37.6%), Osh (34%) and Yssyk-Kul (31.6%), followed by Talas (28.4%), Batken (23%), Bishkek town (20.8%) and Chui (19.8%).
- In the MICS of 2006, Yssyk-Kul, Talas and Batken were the oblasts with the highest prevalence of stunted children. The findings of the KIHS done afterwards indicate a deterioration in the nutritional situation in Jalal-Abad, Naryn and Osh oblasts. The poor growth of young children is consistent with the high levels of household food insecurity noted before in these same oblasts.



In red: 30-39.9% stunting (serious)
In orange: 20.1-29.9% stunting (poor)
In beige: 19.8-20% stunting (acceptable)

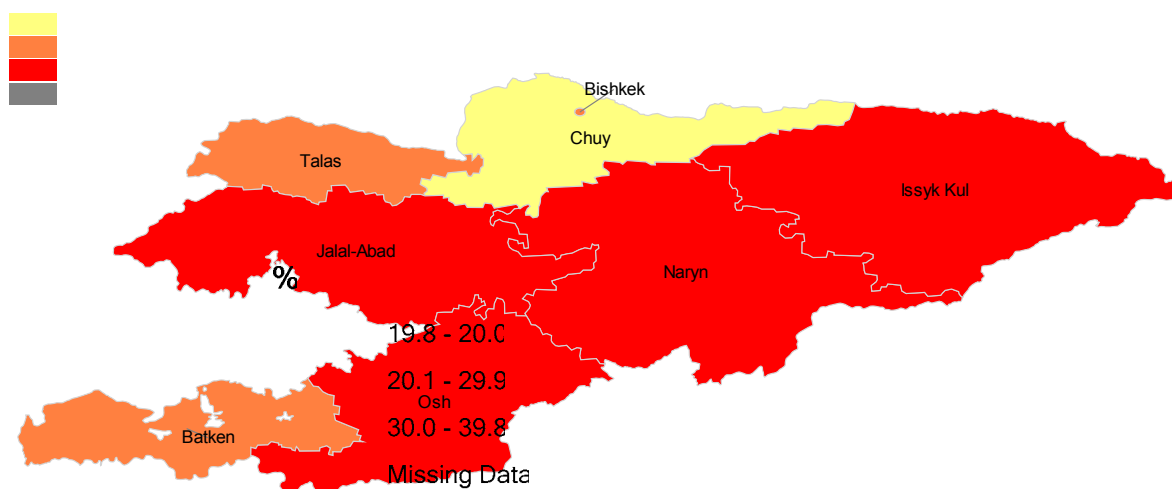


Table 24 - Children nutritional status and household food security – 2006 to 1st quarter of 2008

Residence	Under-5 children					
	Underweight (weight-for-age)			Stunting (height-for-age)		
	2006	2007	2008 1 st quart.	2006	2007	2008 1 st quart.
Total	2.5%	2.0%	4.1%	24.0%	29.3%	29.8%
Severely food insecure	4.5%	1.5%	4.1%	19.4%	35.1%	38.3%
Moderately food insecure	0.1%	2.4%	1.6%	37.3%	26.0%	23.8%
Food secure	1.3%	2.3%	1.0%	23.2%	24.8%	24.8%
Urban areas	3.9%	2.9%	3.5%	27.9%	23.8%	22.0%
Severely food insecure	7.3%	0.5%	4.9%	23.2%	22.8%	17.9%
Moderately food insecure	0.5%	2.8%	4.5%	37.8%	22.2%	23.9%
Food secure	1.8%	2.7%	3.5%	26.3%	25.2%	24.1%
Rural areas	1.7%	2.0%	1.7%	22.2%	32.2%	34.1%
Severely food insecure	0%	2.1%	0%	18.0%	40.3%	46.8%
Moderately food insecure	0.4%	2.0%	0.2%	37.0%	27.9%	23.9%
Food secure	1.7%	2.0%	1.7%	21.1%	24.6%	25.3%
Yssyk-Kul oblast	2.5%	2.7%	2.5%	19.8%	37.1%	31.6%
Jalal-Abad oblast	5.4%	1.5%	1.9%	24.9%	27.6%	39.8%
Naryn oblast	0.1%	5.1%	1.5%	22.0%	34.2%	37.6%
Batken oblast	1.3%	3.3%	3.9%	21.6%	23.3%	23.0%
Osh oblast	0.9%	0.6%	2.3%	24.3%	35.3%	34.0%
Talas oblast	0.5%	5.8%	1.4%	20.9%	49.8%	28.4%
Chui oblast	1.1%	2.3%	2.1%	15.0%	14. %	19.8%
Bishkek town	5.6%	2.0%	4.2%	33.7%	26.0%	20.8%

5.3 Main factors of malnutrition

5.3.1 Household food security

The gap between children's food intake and official food requirements for this group was larger than for other individuals, particularly for children belonging to households in the poorest and 2nd wealth quintiles. These results indicate the important role played by food consumption factors on the nutritional situation of children in severely food insecure households in rural areas, while non-food factors played a more important role in other households and in urban areas.

Generally, the ranking of locations based on the rates of underweight differs from the ranking according to the rates of stunting and from the ranking according to the rates of household food insecurity. This is because:

- (1) Underweight reflects a combination of short and longer-term factors, while stunting reflects the effects of longer-term factors predominantly, and
- (2) food and non-food factors play a different role according to the locations.



- In the 1st quarter of 2008, some consistency between the rates of food insecurity and underweight was noted in Yssyk-Kul, Chui, Osh and Talas oblasts. When severe food insecurity was considered, ranks remained reasonably consistent with underweight ranks for Yssyk-Kul, Chui and Osh oblasts, highlighting the importance of food factors in these areas.
- Ranks of food insecurity and ranks of stunting were consistent in rural areas but not in urban areas in 2008 and 2007.
- Rates of food insecurity and rates of stunting were consistent in all oblasts and Bishkek town in the 1st quarter of 2008. The same was true in 2006 except for Bishkek town (low food insecurity but high stunting rates). In 2007, ranks according to food insecurity and stunting were consistent in Talas, Batken, Osh and Chui oblasts and in Bishkek town.

5.3.2 Micronutrient deficiencies

Vitamin A deficiency (VAD) is a public health problem in Kyrgyzstan, with almost 20% of children vitamin A deficient. However, the country has some of the better developed national programmes (together with Tajikistan and Uzbekistan) compared to other countries where VAD is a public health problem. Twice yearly the Ministry of Health carries out mass distribution of high-dose vitamin A capsules for children aged 6-59 months, in addition to vitamin A supplements that are distributed to new mothers to boost their levels during breastfeeding. About 2/3rds of children below 5 years old benefited from this campaign in 2006.

Between 40% to 60% of 6-24 month-old children are iron deficient and up to 38% of women suffer from anemia²⁷. These levels put Kyrgyzstan in the severe category with regard to anemia. Large scale fortification programmes are difficult because a lot of wheat flour comes from household sources of very small mills. Only 13% of households consume flour that is fortified with iron. The widespread consumption of tea is also interfering with iron absorption.

Kyrgyzstan falls into the mild iodine deficiency category (median urinary iodine concentration in school children is between 50-99 mcg/l). Iodine deficiency is more important in some regions. While about 3/4th of households consume adequately iodized salt, urban households are more likely to do so (84%) than rural households (70%).

5.3.3 Water and sanitation environment

As described earlier, the food insecure tend to live in poorer dwellings, with very limited access to in-house running water, hot water, bath/shower and central sewage system. These various factors complicate hygiene practices and increase the risk of infectious diseases, with ensuing negative effects on nutritional status.

5.3.4 Breastfeeding and care practices

The reported rates of exclusive and continued breastfeeding (respectively 37% and 28%) fall short of recommendations (exclusive breastfeeding for 6 months and continued breastfeeding, with timely, adequate and safe complementary food, up to 2 years and beyond. The relatively low rates of exclusive breastfeeding, and the consequent early introduction of other fluids and foods, deprive infants of essential nutrients, with immediate effects on growth.

However, in Kyrgyzstan the trend for exclusive breastfeeding at 0-5 months seems to be pointing upwards. The rate of timely complementary feeding at 6-8 months is 50%, and 15% at 4-5 months. Infants given complementary foods and fluids before 6 months usually get cow milk or formula (sometimes fortified, or not), fruit and vegetables. Fortified complementary foods are not available. Few get tubers, legumes and meat, fish or eggs; more are given carbohydrate-rich foods (porridge, bread, pasta, biscuits). Data from Kyrgyzstan and some other CEE/CIS countries (Armenia, Moldova, Kazakhstan, Turkmenistan) showed that the percentage of infants given protein-rich foods (meat, fish, eggs, dairy products), increases between 6 and 9 months, to 14-19%. Only in the 2nd year of life does the percentage of recipient infants go beyond 50%. Protein-rich foods are given more and earlier in urban than in rural areas.

²⁷ Damage Assessment Report on Micronutrient Deficiencies – UNICEF, 2004



5.4 Relationships between food insecurity and malnutrition

Although a number of factors affect children's nutritional status, the findings highlight the importance of food security factors on child linear growth and long-term nutritional status in all locations. At the beginning of 2008, non-food factors played an important role on malnutrition, in addition to food security, in Jalal-Abad, Naryn, Batken and Talas oblasts as well as in Bishkek town and urban areas in general. These factors include access to safe water sources and adequate sanitation facilities; housing conditions; access to, and use of, health services; and care practices (child feeding).

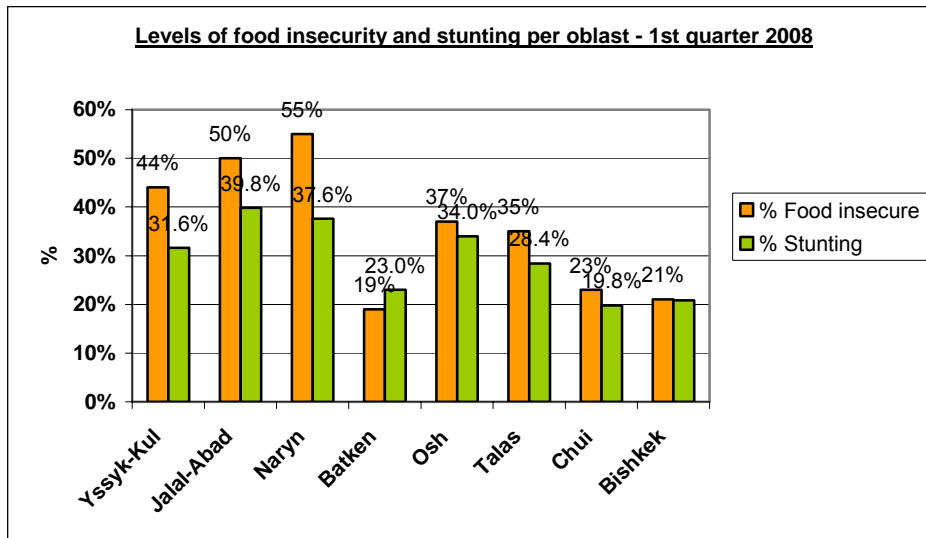


Figure 67: levels of food insecurity and stunting per oblast - 1st quarter 2008

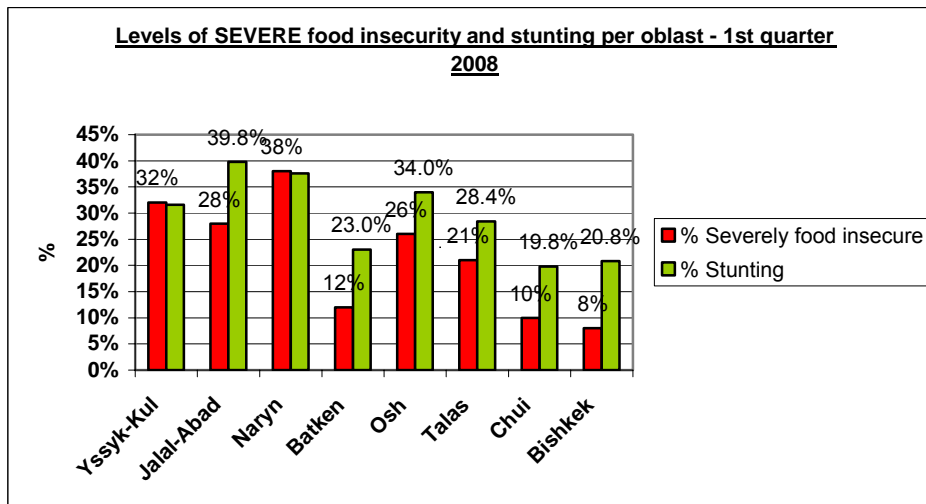


Figure 68: Levels of severe food insecurity and stunting per oblast - 1st quarter 2008

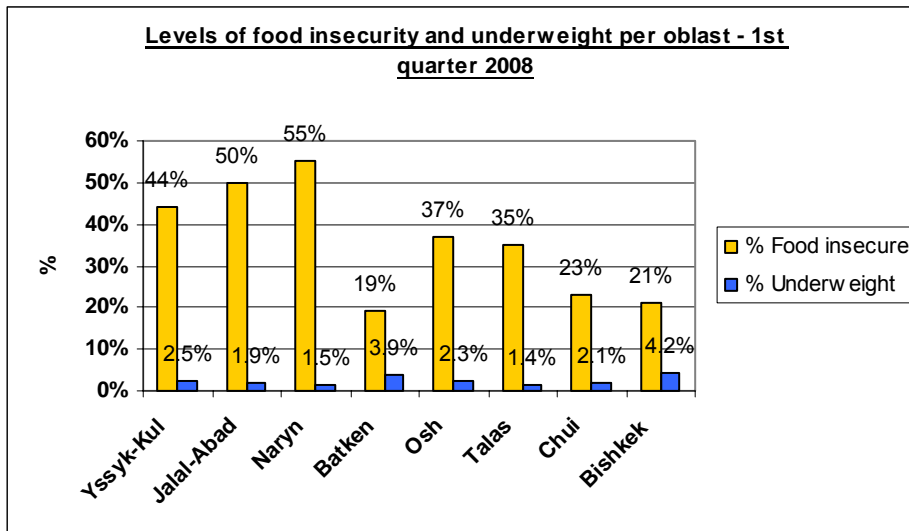


Figure 69: Levels of food insecurity and underweight per oblast - 1st quarter 2008

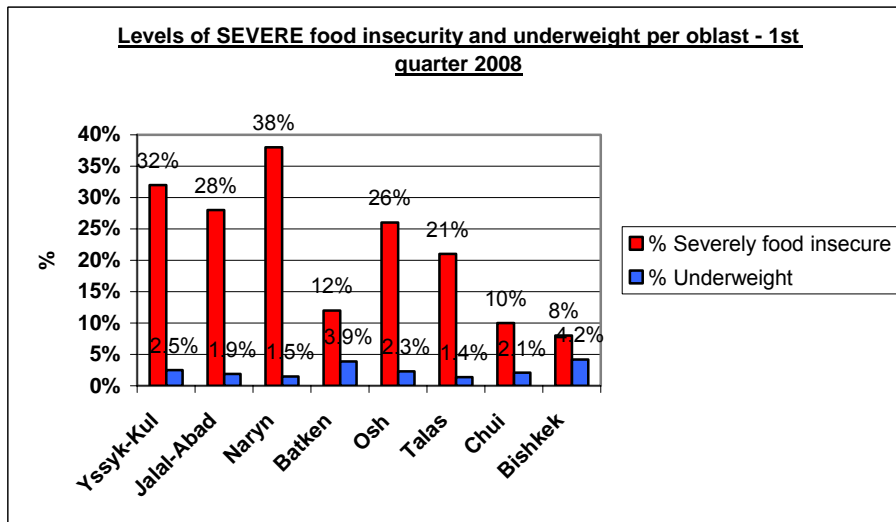


Figure 70: Levels of severe food insecurity and underweight per oblast - 1st quarter 2008



VI – LIVELIHOOD AND COPING STRATEGIES

6.1 Income sources

Unfortunately, it was not possible to access the KIHS data on income sources. However, based on the extensive poverty studies carried out by the World Bank in 2003 and 2005, and the relationship between poverty and food insecurity, it can be assumed that food insecure households mostly rely on labour in the agricultural sector in rural areas, and in informal sector work in urban areas. The following is a summary of the main findings of the World Bank studies.

6.1.1 Labour market

The main characteristics of the labour market in the Kyrgyz Republic are given in the Box below.

Box 7 – Main characteristics of the labour market in the Kyrgyz Republic

Labour markets in the Kyrgyz Republic are highly segmented. There is a divide between urban and rural markets, between formal and informal labour markets, and between opportunities available to women and men.

- In rural areas, about 2/3rd of all jobs were in the rural sector (2003 data) and the majority of these (63%) are in agriculture. Employment provided 79% of cash income, and sale of agricultural produces provided 31%. Rural non-farm activities include public services (e.g. education, health, public administration), followed by commercial services (especially the trade sector) which provided 12% of jobs, and industry (mostly mining) which provided the remaining 8%.
- In urban areas, trade services, manufacturing and public sector services were dominating; in rural areas, services – predominantly the public sector- accounted for only 28% of the jobs in 2003. Employment provided 79% of the cash income, including some 20% of employment in the agricultural sector. The 2nd significant source of income was pensions, at 8%;

Only 1/3rd of employed persons are self-employed, another 1/3rd are employees and 20% are unpaid family workers. Half of the jobs are in the informal sector²⁸, with its many negative implications (job insecurity, low pay, irregularity of work). Informality is more prevalent in rural areas (54% versus 39% in urban areas). Women are also more prone to work in the informal sector because they are more likely to work in the agricultural sector. As many as 86% of workers with no education are employed in the informal sector, and even those with 9 years of completed basic education are 76% informally employed.

Wage earnings are the most important source of income among rural households. More than half of the rural households also rely on crop and livestock sales.

Since 2005, the State sector has seen rapid wage growth. However, in 2007-08, raising consumer price inflation has led to higher wage demands elsewhere, with nominal wage growth reaching 36% in June 2008. Recorded wages remain low, but many supplement their incomes with remittances sent from relatives working abroad, and with incomes earned in the large shadow economy.

Activity	Average monthly salary
Doctor (2004)	1126 KGS/month (US\$31)
Teacher, highly qualified , high workload compared to standards (2004)	1380 KGS/month (~US\$38)
Young graduate of higher educational institutions	400-500 KGS/month (~US\$11-14)
Child mentor in orphanage or boarding school (2004)	800 KGS/month (~US\$22)
Forester (2005)	600-800 KGS/month (~US\$15-22)

Public Expenditure Review on Social Sector in the Kyrgyz Republic – UNICEF, 2006
Ensuring Sustainable of Forests and Livelihoods through Improved Governance and Control of Illegal Logging for Economies in Transition - Working document, Kyrgyz Republic for the World Bank, 2005

²⁸ The National Statistics Committee defines informal sector activities as those that take place in unregistered units as well as in units that have fewer than 5 employees. The results presented here (World Bank) consider as informally employed all those who run or work in an unregistered firm or activity (employed in informal sector) AND all those who work with a verbal contract in registered firms (informally employed in the formal sector). All unpaid family workers as well as those working in households are also considered to be informal workers.



6.1.2 Income sources and poverty

Although the connection between employment and poverty did not seem so strong, the poor were more likely to be unemployed. There was no large rural/urban difference between the poor and non-poor in terms of economic activity, but unemployment rates of the poor were twice higher than of non-poor in both rural and urban areas. In general, poor women were the group who had the hardest time finding a job in the labour market.

The agriculture sector presented the highest incidence of poverty (more than half of those employed in this sector were poor -56%). Within the industry sector, higher risks of being in poverty were for those employed in construction. In the services sector, unexpectedly high poverty rates were observed among those employed in trade and catering, while those employed in health care and education had slightly lower poverty rates than average for this sector.

There were small differences in the patterns of income sources between different wealth groups. However, the difference between urban and rural areas in the reliance on income sources was very significant for some items.

The vast majority of the employed poor work in the farm sector (60% of all farm workers) – consequently, agricultural growth plays an important role in poverty alleviation in the country. The poor are under-employed and work 20% fewer hours than the non-poor. Of those working in non-farm sectors, 60% are non-poor. Rural residents employed in non-farm activities are better off than those working in farming.

Salary, self-employment, seasonal and additional earnings were the most prevalent sources of income (about 80% of households) and the most important based on share of total income on average (around 60%). There was no large difference in the share of income earned from these sources between the poorest and the richest quintiles. However, as the working poor are locked into activities with low productivity and high informality, they obtain lower wages and live with more insecure working conditions overall.

Other sources of income included pensions (38% of households on average, 13% of income), sale of property (9% of households, 7% of income), social transfers (45% of households, 1.5% of income) and private transfers (49% of households, 10% of income).

Pensions were a more important source of income for poorer households, although in monetary terms an average pension in the top quintile was 1.6 times higher than in the poorer quintile. Private transfers tended to be more important among poor households, but as in the case with pensions, the average size of the transfers received by the richest quintile was almost twice higher than that of the poorest quintile. Social transfers were more frequent and represented a larger share of the income of poorer households. The average monetary value of these transfers was largest for poor households, suggesting that social programmes are well targeting the poorer households.

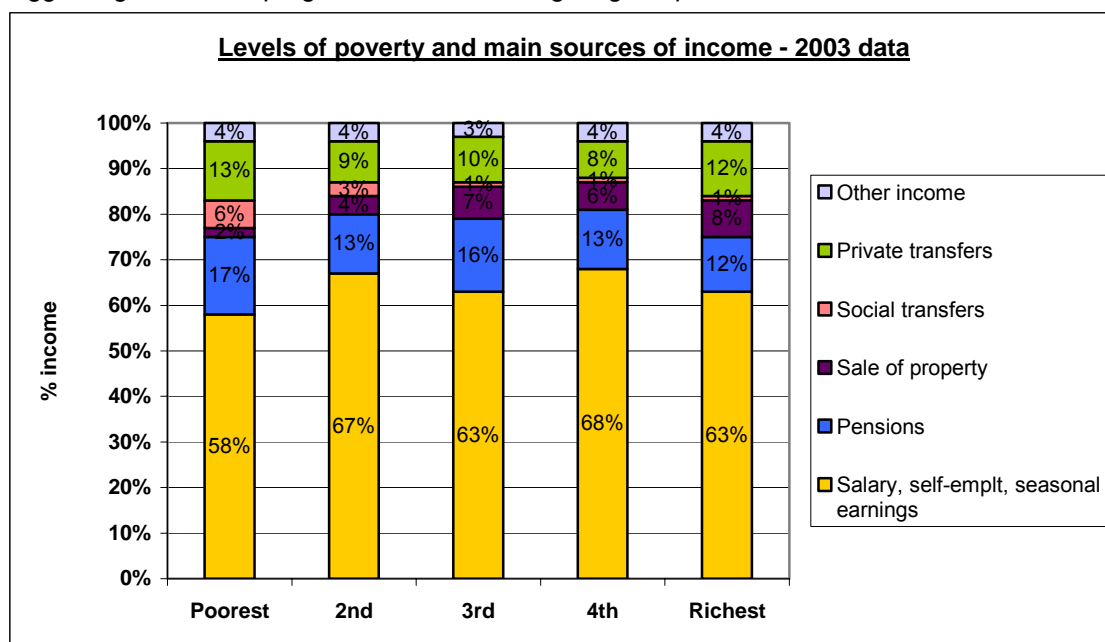


Figure 71: Levels of poverty and main sources of income - 2003 data



Table 25 - Income sources and poverty (2005)

		Wealth quintiles					Location		Total
		Poorest	2nd	3rd	4th	Richest	Rural	Urban	
Salary, self-emplt, seasonal earnings	% HHs	80%	86%	83%	82%	78%	79%	85%	81%
	% income	58%	67%	63%	68%	63%	59%	68%	64%
Pensions	% HHs	36%	33%	42%	40%	36%	41%	34%	38%
	% income	17%	13%	16%	13%	12%	17%	10%	13%
Sale of property	% HHs	7%	10%	9%	8%	9%	9%	8%	9%
	% income	2%	4%	7%	6%	8%	5%	8%	7%
Social transfers	% HHs	52%	42%	42%	41%	49%	35%	59%	45%
	% income	6%	3%	1%	1%	1%	2%	1%	1%
Private transfers	% HHs	52%	37%	52%	48%	52%	46%	52%	49%
	% income	13%	9%	10%	8%	12%	10%	10%	10%
Other income	% HHs	21%	19%	14%	18%	17%	22%	11%	18%
	% income	4%	4%	3%	4%	4%	6%	2%	4%

Kyrgyz Republic Poverty Update. Profile of Living Standards in 2003 – World Bank Report No.36602, August 2005

6.2 Migration

6.2.1 Migration patterns in the Kyrgyzstan Republic

Rural areas, because of low income levels and lack of diverse job opportunities, are the major source of internal and external migrants in the Kyrgyz Republic.

Internal migration seems to have reached a peak in 1994-98, with some 100,000 migrants per year, but fell between 1999 and 2003, with some 50,000 people (1% of the population), changing their place of residence each year²⁹. Only Bishkek city and the Chui oblast in the north saw in-migration, and all other oblasts had negative balances. This shows clear direction of labour from mostly rural peripherals into economically developed capital city and relatively land abundant Chui oblast.

New established settlements around capital city ('novostroiki') are mainly occupied with internal migrants with most of the residents not being registered. As of 2007, there were 50 such settlements around Bishkek, with an estimated 200,000 people, but the real number is higher due to lack of residence permission for a large portion of residents. Internal migration is putting pressure on urban labour markets. It increases demand for public services, puts pressure on housing prices, and creates tensions in urban labour markets.

With regard to external migration, since 2000, remittances played a significant role in raising welfare and reducing poverty both directly and indirectly. Yet, these remittances are mostly used to increase private consumption and the construction of housing rather than investment in the economy. The increase in money from abroad led to an expansion in the demand for services locally and an increase in imports.

Estimates of the number of Kyrgyz labour migrants working abroad vary widely. Some put it at 1 million³⁰, while others mentioned about half this number³¹. The majority of the migrants are from the rural south, including Osh, Jalal-Abad and Batken oblasts.

²⁹ These are data based on administrative records, and the number of internal migrants is likely to be considerably higher (Kyrgyz Republic Poverty Assessment. Volume 1: Growth, Employment and Poverty - World Bank Report No.40864, September 2007)

³⁰ Kyrgyzstan Country Report August 2008 – The Economist Intelligence Unit

³¹ Kyrgyzstan at a New Stage of Development – UNDP and Government of the Kyrgyz Republic, Bishkek, 2005



Migration significantly mitigates the problem of unemployment inside the country and serves as an important source of foreign exchange inflow. However, the majority of migrants who work in Russia and Kazakhstan have neither proper registration nor employment permits, which makes them legally and socially very vulnerable (no legal protection and access to basic social services). Also, inefficient and costly channels for remittances decrease their economic value, especially in poor and rural areas for which they represent a crucial source of income.

The poverty profiling conducted by the World Bank in 2003 indicated that private transfers tended to be more important among poor households. However (as in the case with pensions), the average size of the transfers received by the richest quintile was almost twice higher than that of the poorest quintile³².

Early 2007, the Asian Development Bank (ADB) undertook a regional study on remittances and poverty³³ which covered Armenia, Kyrgyzstan and Tajikistan. Results are summarized in the Box below.

Box 8 - External migration and remittances in the Kyrgyz Republic

The main findings from the survey of 4,200 households selected randomly throughout the country and Bishkek city were the following:

- about 20% of households had at least 1 migrant member. The majority went to Russia (83%) and most of the rest to Kazakhstan (21%);
- about 79% of the migrants did send back remittances, hence 16% of households received remittances from migrants abroad.
- average remittances per household amounted to US\$1,400 per year in cash, representing about half of the recipient household's total income. The equivalent of almost US\$300 was sent in-kind.
- the number of remittance-receiving households was lower in the poorest income quintiles and higher in the richer quintiles and the poorest households received lower amounts than the richest (from US\$490 to US\$2,380). Including remittances, their share of total incomes was 51% for the poorest quintile and 63% of the richest quintile. Results indicate that remittances can significantly contribute to the transfer of households towards better-off income quintiles.
- Almost 78% of migrants used bank or money transfer office services to send their remittances; households in the poorest quintile were less likely to use banks and money transfer offices (68%);
- the number of male migrants was much larger than female migrants (73% versus 27%). In the majority of the cases, migrants were young men from rural areas (70%) or other secondary urban areas (21%), aged 16-34 years (66%) and with secondary education.
- The largest outflow of migrants was observed in Osh (37%) and Jalal-Abad (20%) oblasts. This may be explained by the lack of employment in these oblasts and/or higher mobility of the population. In terms of amount of remittances, the largest was in Osh oblast (39%), followed by Jalal-Abad (19%), Bishkek (16%), Osh city (9%) and Batken (8%).
- The majority of beneficiaries used remittances to cover their basic consumption expenses (78%), particularly in the first 4 income quintiles. There was no relation between receipt of remittances and share of expenditures on health or education. Remittances also did not influence the proportion of households with children not attending school (about 8%).
- Remittances strongly supported the propensity of households to save: 60% of remittance-receiving households had savings, compared to 38% of non-receivers. Most of the savings were done to respond to future emergencies, but a higher proportion of beneficiaries also used savings for home improvements and for special events, compared to non-beneficiaries.

A Study on International Migrants' Remittances in Central Asia and South Caucasus. Country Report on Remittances of International Migrants and Poverty in the Kyrgyz Republic – Draft for discussion at the Country Seminar in Bishkek, November 2007 – S. Ibragimova, T. Burzhubaev, A. Temirov, Center for Social and Economic Research (SocEconic), November 2007.

According to the national balance of payments, the volume of remittances increased by 15 times between 2002 and 2006. Although difficult to estimate, remittances could amount to 27% of GDP, at more than US\$1 billion per annum³⁴. Other estimates put remittances at US\$700 million in 2007³⁵,

³² Kyrgyz Republic Poverty Update. Profile of Living Standards in 2003 – World Bank Report No.36602, August 2005

³³ A Study on International Migrants' Remittances in Central Asia and South Caucasus. Country Report on Remittances of International Migrants and Poverty in the Kyrgyz Republic – Draft for discussion at the Country Seminar in Bishkek, November 2007 – S. Ibragimova, T. Burzhubaev, A. Temirov, Center for Social and Economic Research (SocEconic), November 2007.

³⁴ Quoted in "Regional Market Survey for the Central Asia Region", WFP, Draft, September 2008



representing about 70% of net private transfers. The ADB study conducted in 2007 estimated the total cash remittances inflow at US\$253 million. This lower value than other estimates may be explained by the fact that it did not include remittances related to capital of businesses.

However, remittances are reported to have dropped significantly since the beginning of 2008. This drop is likely to stem from a slowdown in the construction sector in Kazakhstan, which is one of the main destination for Kyrgyz labourers. However, the picture remains brighter in Russia, the other main importer of Kyrgyz labour. There was employment from the Sverdlovsk region and the city of Samara, and Moscow authorities have announced plans to simplify the life of labour migrants in the city. Saudi Arabia is also planning to sign agreements with the Kyrgyz Republic (and Tajikistan) on labour migration to the country.

While migration can increase household income and contribute to economic growth and poverty reduction, it can also have important negative socio-economic effects: rising flows of women migrants means that more children are left in the care of older children or grand-parents, often with worse results for the children. However, this does not seem to happen so far in the Kyrgyz Republic.

6.2.2 Movements prior to the current location

The KIHS data indicate that less than 2% of households had lived in a different settlement in the 10 years preceding the surveys of 2006, 2007 and 2008. This low proportion makes it difficult to distinguish differences between rural and urban areas or between food security groups. However, in rural areas, households who had lived in another settlement in the previous 10 years were more likely to be food insecure than those who had not moved. This trend was noted in particular in Yssyk-Kul and Osh oblasts and in Bishkek town but was less clear in other regions.

6.2.3 Reasons to moving to the current location

The main reason for moving to the current location was family circumstances (about 60% of the households in 2006-07 and 85% in 2008), followed by job transfer (20-24% in 2006-07 and 8% in 2008). Moving to find a job was seldom mentioned.

There were large variations between years and between food security groups across the years, making it difficult to identify a possible relationship between food insecurity and reasons for moving. Generally speaking, severely food insecure households were less likely to have moved to their current location for education reasons, while moderately food insecure households were more likely to have moved due to job transfers.

Rural-urban and regional differences

- In 2008 in urban areas, severely food insecure households were more likely to have moved to their current location in order to find a job, compared to other households.
- In 2008 in rural areas, moderately food insecure households in urban areas were more likely to have moved due to job transfers, while family circumstances were the main reason for the food secure.

The main reason for moving for households in Yssyk-Kul, Naryn, Osh and Talas oblasts was family circumstances. In Batken oblast, job transfer was a particularly frequent reason in 2006 and 2008. Job transfer was also frequently mentioned in Chui oblast.

6.2.4 Registration status

Only 2% of households were not registered in 2008, slightly less than in 2007 (3%) and 2006 (4%). The proportion of unregistered households was higher in urban areas than rural areas (4% and 1% respectively) but registration of urban households improved over the previous years (7% in 2006 and 5% in 2007). There was no relation between the food security status of households and their registration status, but the survey did not include the periphery areas of Bishkek in particular where a high proportion of unregistered households is suspected along with high levels of poverty and food insecurity.

³⁵ Kyrgyzstan Country Report August 2008 – The Economist Intelligence Unit



As expected, the proportion of unregistered households was higher in Bishkek town (7% in 2008) and was also higher in Chui oblast (6%) compared to other locations. Improvement was noted between 2006 and 2007 in Bishkek town, but not between 2007 and 2008, while no improvement took place in Chui oblast.

6.3 Sources of food

Bread and wheat flour are mostly purchased and practically never produced by the household themselves or received as gift. Meat is also essentially purchased. Overall, some 30% of the households consume potatoes from their own production, 20% consume their own produced milk, and a bit more than 10% their own produced vegetables. Gifts concern mostly milk (17% of the households in the 1st quarter of 2008) and to a lesser extent bread, meat and vegetables (no more than 5% of the households).

Households received a larger proportion of meat and milk as gift in 2007 compared to 2006 (independently of their food security situation). However the proportions of these gifts in the 1st quarter of 2008 were similar to the values observed in the 1st quarters of the previous years. Analysis of data from subsequent quarters will be needed to identify possible departures from previous years.

Compared to other households, the food insecure were less likely to procure milk, meat, vegetables and potatoes from their own production. This reflects their lower access to animals and land as well as more limited access to agricultural land, pasture and work capacity. However, food insecure households were slightly more likely to receive milk as gift (about 19-21% in the 1st quarter of 2008, compared to 16% of the food secure households). A smaller proportion of food insecure households, but still higher than others, also received meat as gift.

Rural-urban differences

As expected, a larger proportion of rural households than urban households rely on their own production for the consumption of some items, particularly potatoes, milk (about 38% versus 2% of urban households in the 1st quarter of 2008) and vegetables. There were no significant differences in the reliance on market purchase for bread, wheat flour and meat between rural and urban areas. About 6% of households relied on their own production for meat in rural areas, versus less than 1% of urban households.

In urban areas, food security was not associated to a different pattern of food sources, except for potatoes which were slightly more often coming from the own production in food secure households (7%) compared to other urban households (4%).

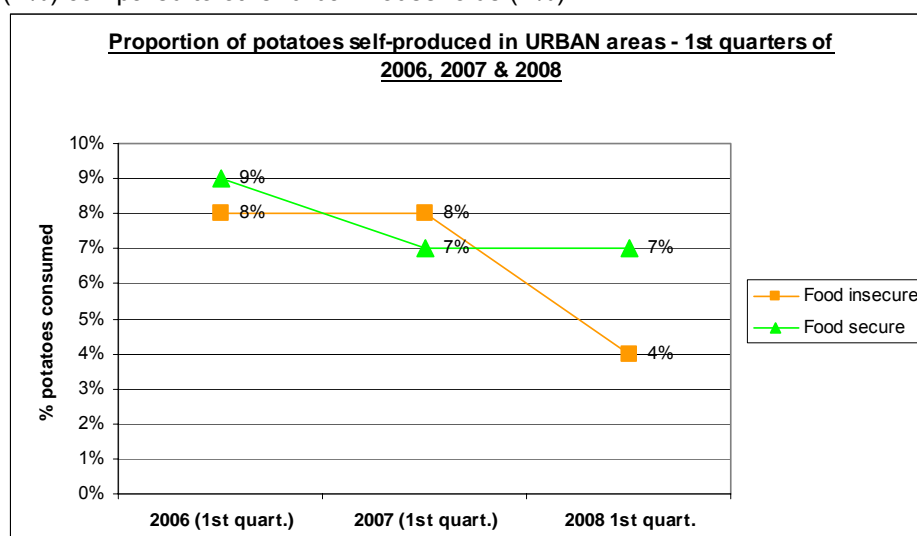


Figure 72: Proportion of potatoes self-produced in urban areas - 1st Quarter of 2006, 2007 and 2008

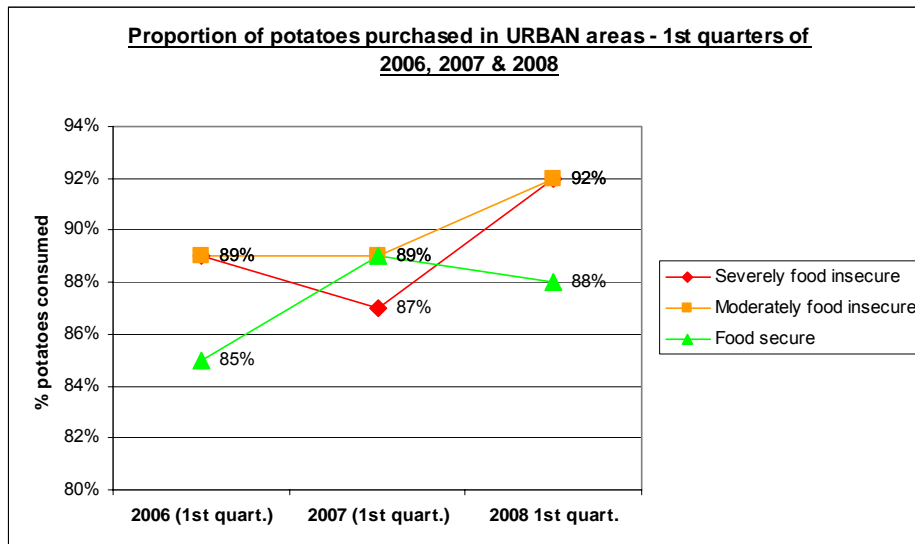


Figure 73: Proportion of potatoes purchased in urban areas - 1st Quarter of 2006, 2007 & 2008

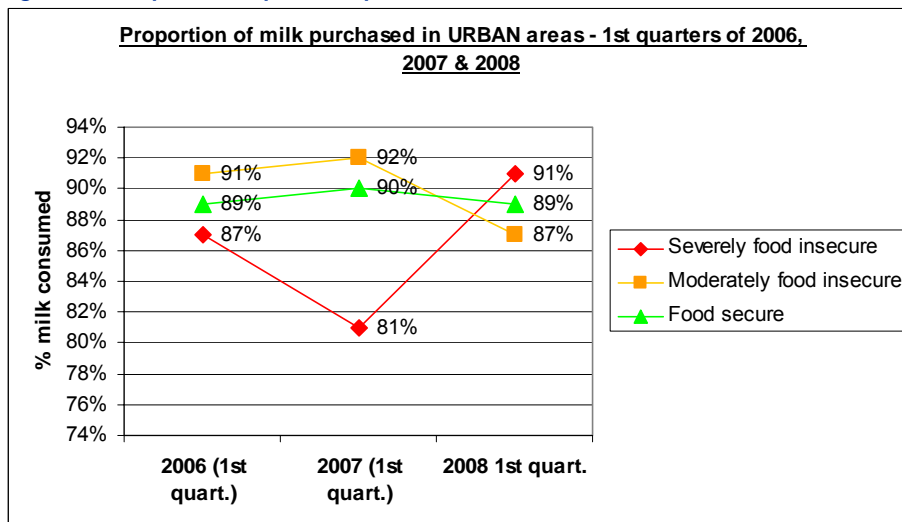


Figure 74: Proportion of milk purchased in urban areas - 1st Quarter of 2006, 2007 & 2008

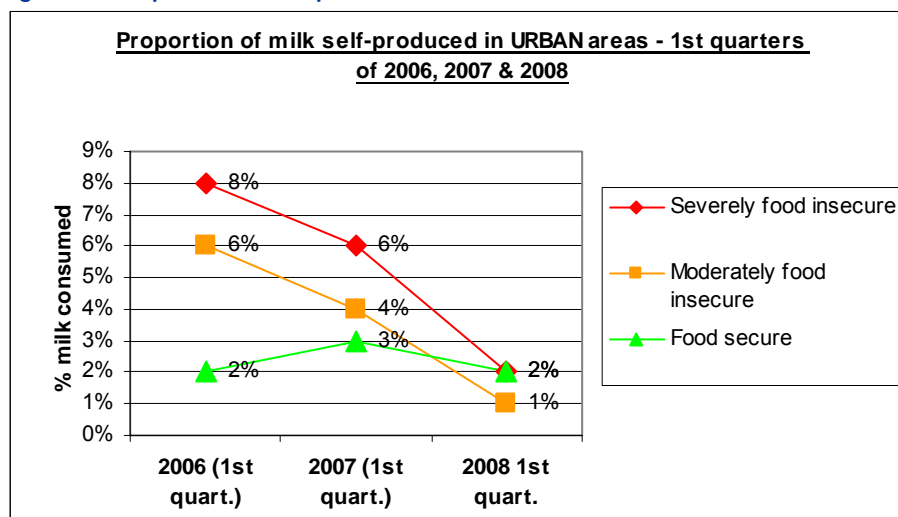


Figure 75: Proportion of milk self-produced in urban areas - 1st Quarter of 2006, 2007 & 2008

In rural areas:

- Food insecure households were less likely to rely on their own production for milk, potatoes and vegetables consumption compared to the food secure. As a result they were more dependent on market purchase and thus more vulnerable to food price rise.
- Between 2006 and the 1st quarter of 2008, a trend was also noted among food insecure households in rural areas towards higher reliance on own production and gifts, and lower market



purchase. This trend needs to be confirmed by information for the rest of the year 2008 but would be a logical response to the increase of food prices.

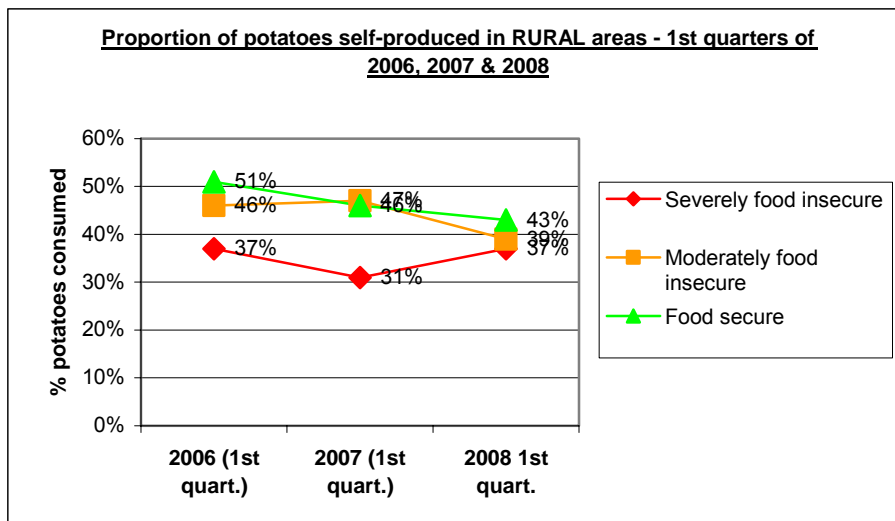


Figure 76: Proportion of potatoes self-produced in rural areas - 1st Quarter of 06, 07 & 2008

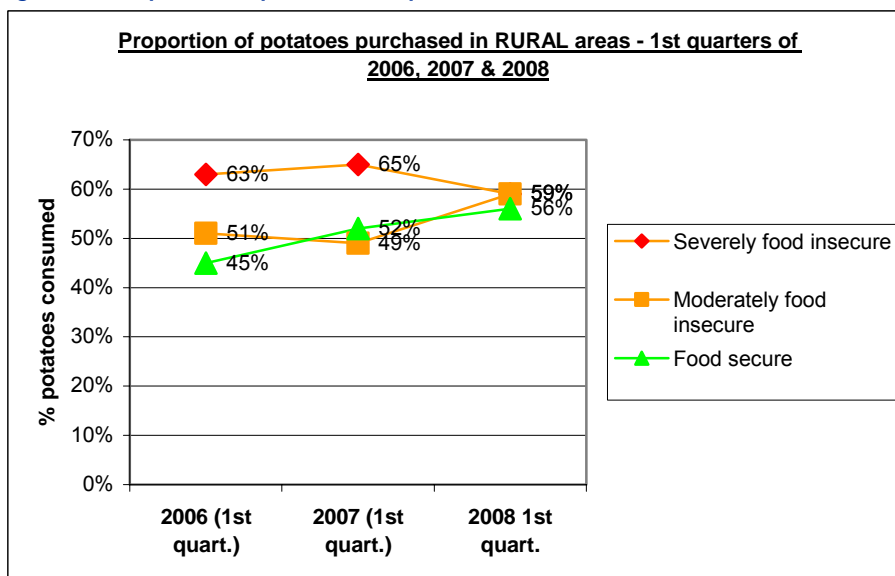


Figure 77: Proportion of potatoes purchased in rural areas - 1st Quarter of 2006, 2007 & 2008

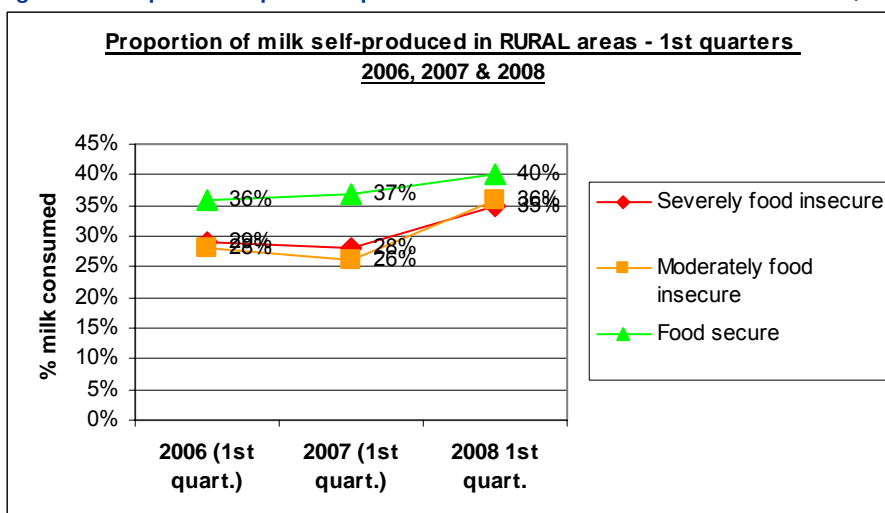


Figure 78: Proportion of milk self-produced in rural areas - 1st Quarter of 2006, 2007 & 2008

Gifts of food items coming from agricultural and animal productions (i.e. milk, potatoes, vegetables) were more frequent in rural areas compared to urban areas. For example, rural households were more



likely to receive milk as gift compared to urban households (on average 24% versus 9% respectively in the 1st quarter of 2008). Conversely, slightly more urban households received bread as gift than rural households (more than 5% versus less than 2%) and again the difference affected mostly the severely food insecure households.

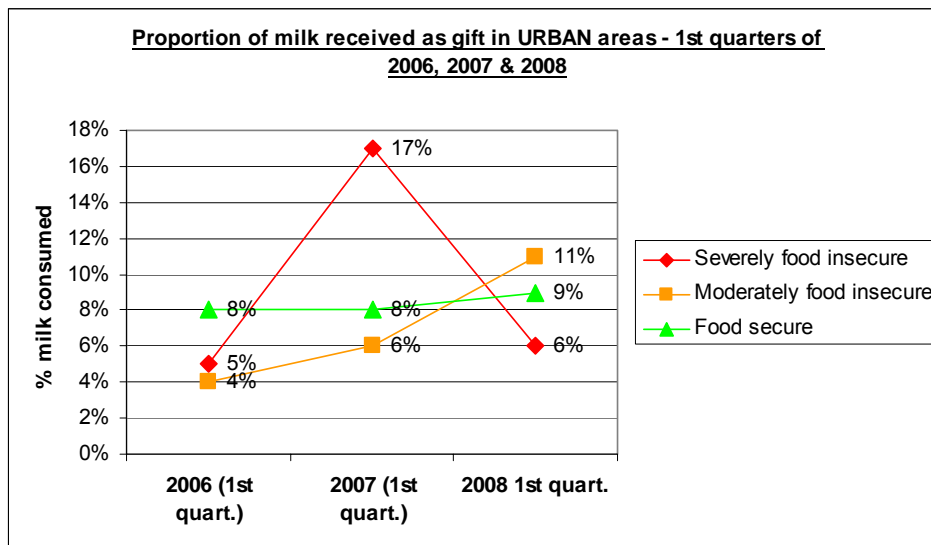


Figure 79: Proportion of milk received as gift in urban areas - 1st Quarter of 2006, 2007 & 2008

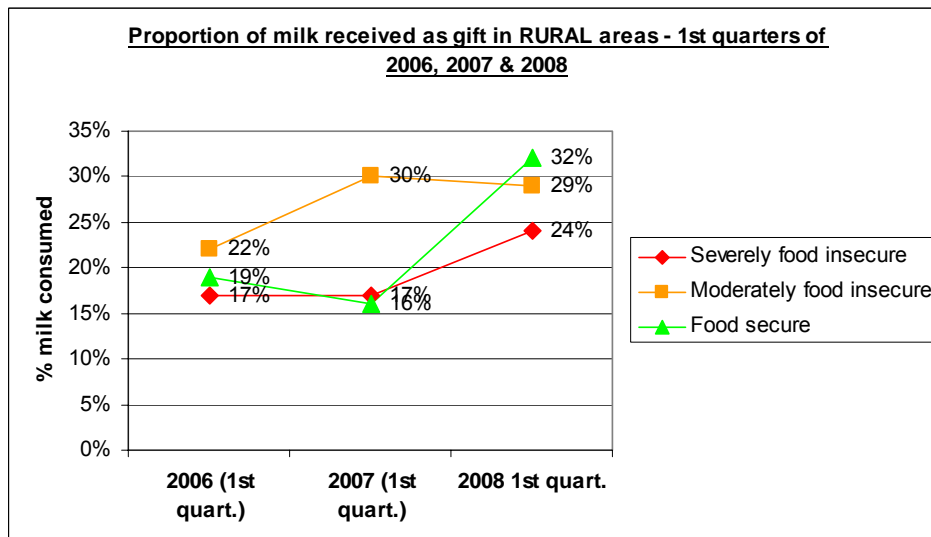


Figure 80: Proportion of milk received as gift in rural areas - 1st Quarter of 2006, 2007 & 2008

Regional differences

Significant differences are observed in the sources of food between the oblasts, reflecting the differences in the proportions of urban and rural populations and in the natural resources endowments that enable or constrain various types of crop and livestock productions.

The main features were as follows:

Reliance on the market for the basic staples bread and wheat flour was almost total everywhere (more than 98% of households bought them, very few received some bread as gift). As a result, households in all locations are affected by cereals price rise.

The proportion of households relying on the market for their food was very high in Bishkek town, much more than in the oblasts. In the capital city, less than 1% of households obtained some of their food from their own production (e.g. potatoes) and no more than 5-7% received some food as gift. Reliance on the market for food purchase was also high in Jalal-Abad, Osh, Talas and Chui oblasts (potatoes, milk). This renders households in Bishkek and in Jalal-Abad, Osh and Chui oblasts more vulnerable to food price rise.

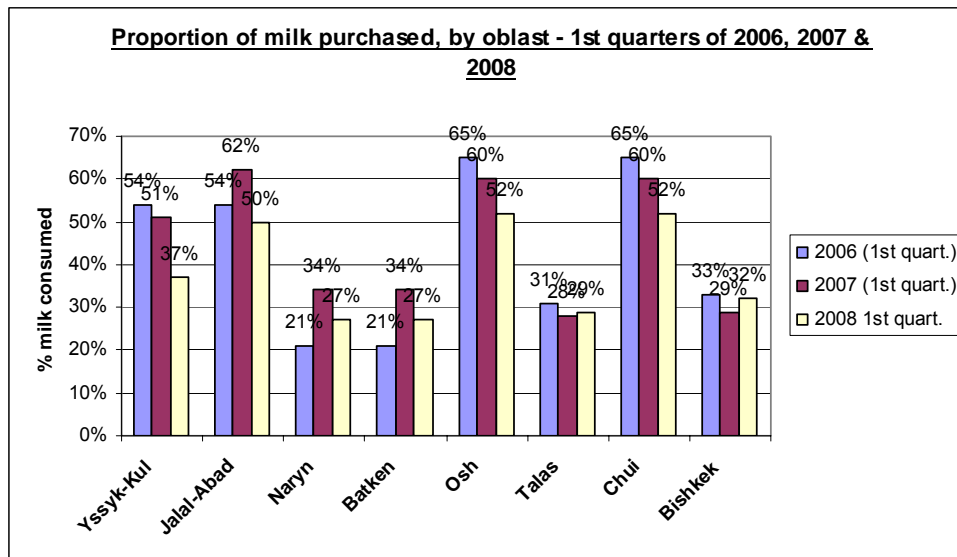


Figure 81: Proportion of milk purchased by oblast - 1st Quarter of 2006, 2007 & 2008

- Self-consumption of some products (potatoes, milk and to a lesser extent vegetables) was important in Yssyk-Kul oblast. It was also important for potatoes in Talas and Naryn (and to a lesser extent Batken) oblasts, and for milk in Batken (and to a lesser extent Naryn) oblasts. Net producing households in Yssyk-Kul, Talas, Naryn and Batken oblasts are thus better protected from market food price rise, as long as their production is not affected by other events. Net consumers in these oblasts will still be affected by high food prices however.

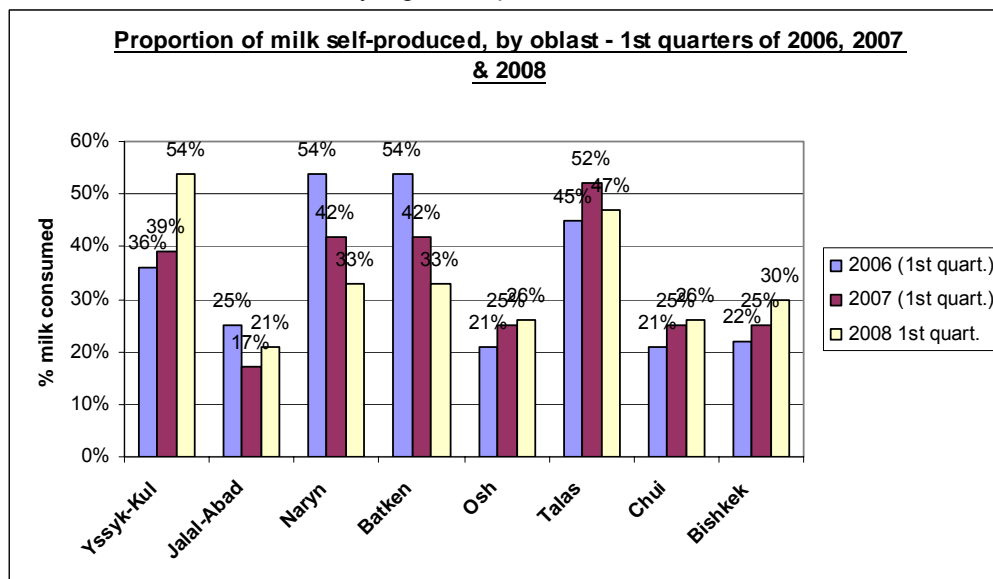


Figure 82: Proportion of milk self-produced by oblast - 1st Quarter of 2006, 2007 & 2008

- The proportion of households receiving food (meat, milk) as gift was higher in Naryn and to some extent Talas oblasts than in other locations (as well as in Bishkek for milk). This may be the result of a variety of factors, including high proportion of food insecure households, stronger solidarity mechanisms, and/or higher level of productions in these areas that facilitate food donations.

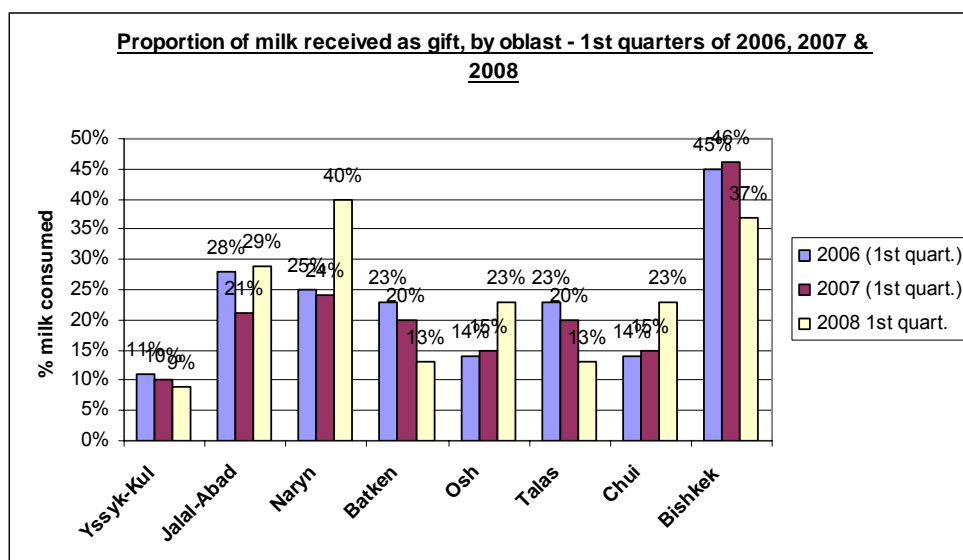


Figure 83: Proportion of milk received as gift by oblast - 1st Quarter of 2006, 2007 & 2008

A summary of the main sources of food by location is provided in the Box below.

Box 9 – Main sources of food by type of food and by location

- **Wheat flour:**
 - A higher proportion of households in Naryn oblast received wheat flour as gifts (9% versus generally less than 2% in the other locations).
- **Meat:**
 - A lower proportion of households in Batken and Talas oblasts were receiving meat as gift compared to other locations (more than 10% versus less than 5% elsewhere).
 - The highest proportion of households receiving meat gift was in Naryn oblast (17%).
- **Potatoes:**
 - About 70% of the households in Yssyk-Kul and Talas oblasts obtained potatoes from their own production, 64% in Naryn oblast and 45% in Batken oblast.
 - The majority of households in Bishkek town (97%), Jalal-Abad (83%), Osh (77%) and Chui (72%) oblasts were depending on the market for their potato consumption.
- **Milk:**
 - About half of the households in Yssyk-Kul and Batken oblasts and 37% in Naryn oblast relied on their own production for milk, compared to 30% in Talas, 26% in Osh, 21% in Jalal-Abad and 18% in Chui oblasts.
 - About half of the households in Jalal-Abad and Osh oblasts, and 65% in Chui oblast, relied on the market for milk.
 - The majority of households in Bishkek purchased their milk and a few received it as gift.
- **Vegetables:**
 - Some 28% of households in Talas, 22% in Yssyk-Kul and 17% in Batken oblasts consumed their vegetables from their own production.
 - The majority of households in the other oblasts and in Bishkek town depended on the market for their vegetables.

6.4 Household food stocks

Caution may be needed in the answers provided by the households on their wheat and vegetable oil stocks, as some figures are sometimes missing.

Wheat flour stocks

On average, households had 131 kg of wheat flour in stock in 2007, more than in 2006. The amount in stock in the 1st quarter of 2008 was between the values of the 1st quarters of 2006 and 2007. In 2007 and 1st quarter of 2008, wheat flour stocks of severely food insecure households were almost 3 times lower than the stocks of other households (22 kg versus 56-60 kg).

The amount in stock was higher in urban than rural areas (145 kg versus 130 kg in 2007). In urban areas, food insecure households had larger wheat stocks than food secure households, possibly because the food insecure opted to store in a context of continuously rising food prices, while the food



secure could mobilize additional resources. Conversely, in rural areas, food insecure households had lower wheat flour stocks than the food secure (230-257 kg versus 151 kg).

Household wheat flour stocks seemed to be smaller in Osh (77 kg in 2007), Jalal-Abad (78 kg) and Chui (90 kg) oblasts, while they appeared high in Talas (367 kg) and Yssyk-Kul (209 kg) oblasts, but as mentioned these values must be taken with caution.

Table 26 -Household wheat flour stocks and food security – 2006 to 1st quarter of 2008

Residence	Households		
	2006 (1 st quarter)	2007 (1 st quarter)	2008 1 st quart.
Total	119 (20)	131 (64)	49
Severely food insecure	130 (24)	121 (35)	22
Moderately food insecure	124 (23)	125 (77)	60
Food secure	113 (17)	150 (71)	56
Urban areas	430 (7)	145 (50)	60
Severely food insecure	528 (2)	230 (?)	?
Moderately food insecure	178 (17)	257 (?)	?
Food secure	447 (?)	133 (50)	60
Rural areas	110 (20)	130 (64)	49
Severely food insecure	107 (24)	120 (35)	22
Moderately food insecure	123 (23)	125 (75)	60
Food secure	106 (17)	151 (71)	55
Yssyk-Kul oblast	176 (86)	209 (58)	63
Jalal-Abad oblast	106 (?)	78 (?)	8
Naryn oblast	148 (39)	142 (73)	48
Batken oblast	158 (?)	163 (73)	79
Osh oblast	59 (16)	77 (27)	40
Talas oblast	401 (?)	367 (?)	?
Chui oblast	206 (140)	90 (?)	33
Bishkek town	?	?	?

Vegetable oil stocks

On average, households had 49 kg of oil in stock in 2007, slightly more than in 2006 (44 kg). Stocks were much larger in urban than rural areas (153 kg versus 42 kg). In rural areas, it seems that food insecure households held lower vegetable oil stocks than food secure households.

Table 27 -Household vegetable oil stocks and food security – 2006 to 1st quarter of 2008

Residence	Households		
	2006 (1 st quarter)	2007 (1 st quarter)	2008 1 st quart.
Total	44 (3)	49 (21)	26
Severely food insecure	32 (1)	34 (2)	2
Moderately food insecure	70 (2)	20 (?)	2
Food secure	40 (3)	59 (22)	32
Urban areas	156 (?)	153 (?)	?
Severely food insecure	92 (?)	152 (?)	?
Moderately food insecure	179 (?)	50 (?)	?
Food secure	121 (?)	159 (?)	?
Rural areas	36 (3)	42 (21)	26
Severely food insecure	27 (1)	17 (2)	2
Moderately food insecure	26 (2)	20 (?)	2
Food secure	38 (5)	53 (22)	32

6.5 Main effects of the high food and fuel prices

As is well known, many commodities reached record prices on the world market in nominal terms in 2008. Prices accelerated in 2007. Reasons include:

- economic growth in developing and emerging countries, including China and India, as their growth is more commodity intensive;
- gradual reduction of world grain stocks twinned with weather-related production shortfalls (e.g. in cereals exporting countries Canada and Australia);
- rising biofuels production in advanced economies;



- depreciation of the US dollar twinned with falling short-term real interest rates and rising credit risk (prices for most food commodities are quoted in US\$, and storable commodities became attractive as alternative assets).

6.5.1 Macro-economic effects

The foreign trade deficit in Kyrgyzstan continued to widen in the first half of 2008. Exports rose by 22% but were outpaced by import growth of 50%. Inflation rose sharply since the summer of 2007³⁶. In that year, the increase of food prices in Kyrgyzstan was the highest amongst countries of the Central Asia region: 31% compared to 27% in Kazakhstan and 23% in Ukraine. Unemployment rates also increased in July 2008 by 1.2% compared to July 2007³⁷.

Since 2000, energy prices have increased (in June 2008, electricity tariffs rose by 13%) and more recently food prices have increased markedly, especially bread (increased by 63% in 2007), bakery products and rice. Consumer price inflation accelerated to 32% year-on-year in June 2008 (compared with 5.5% in June 2007), driven by high food prices (mostly) and fuel prices. Growth in private consumption and fixed investment will suffer from this sharp rise in inflation.

Table 28 – Consumer price inflation 2003-2009

	2003	2004	2005	2006	2007	2008 forecast	2009 forecast
Consumer price inflation	3%	4.1%	4.3%	5.6%	10.2%	22.5%	10.0%

Kyrgyzstan Country Report August 2008 - The Economist Intelligence Unit

In June 2008, food prices rose by 5.7% compared with May. Bread and bakery products as well as vegetable oil increased by 15%, meat 10% and sugar 5%. Petrol and diesel prices rose by 5% and 8.5% month-on-month, respectively.

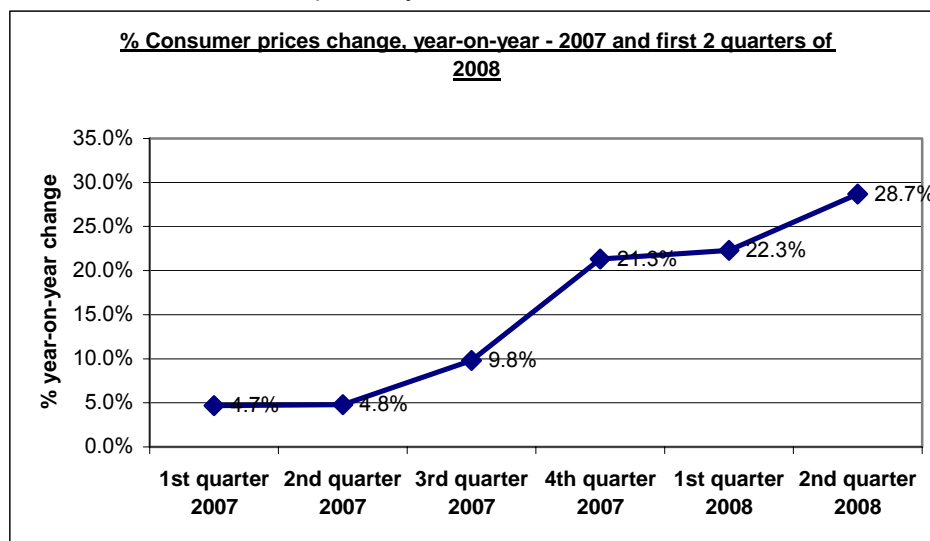


Figure 84: Consumer prices change year by year 2007 & first 2 Quarter of 2008

The sharp increase in Kazakh wheat prices was one of the major factors which triggered large increase in Kyrgyz bread prices in 2007³⁸. Dairy foodstuffs increased by 32% in 2007, vegetable oil 49% and fruits 55%. These increases were partially explained by the transmission mechanisms from the bread prices. Growing regional demand from Kazakhstan, Russia and China also contributed, particularly for dairy products and fruits.

³⁶ 2008 Inflation Control and Required Measures – National Bank of the Kyrgyz Republic, Bishkek, 25-26 June 2008

³⁷ Food Security Information Bulletin of the Kyrgyz Republic, No.2/2008 – National Statistics Committee, Bishkek, 2008

³⁸ The Kyrgyz Republic: Short Overview of the Recent Increases in Prices – ECA PREM team – Government/World Bank/IMF Workshop, Bishkek, 25-26 June 2008



In addition to the global food prices pressure, it is likely that speculative behaviour of the traders contributed to the domestic food inflation. Kyrgyz retail trade of food products features oligopolistic practices and collusion at certain stages. This is particularly the case for foodstuff sales which take place at 2 major food markets (bazaars) in Bishkek and Karasuu (in the south). It means that a small group of people, owners and closely affiliated parties, can control wholesale food prices in the country. Therefore, the prices at the domestic market could have been increased to a greater extent than the import prices.

Energy products saw the second largest increase in prices after the foodstuffs in 2007. Prices of natural gas went up by 22%. Non-food, non-energy inflation also rose to almost 14% in the spring 2008.

6.5.2 Effects on households' income and poverty

Farm-gate wheat prices have increased since 2007, in line with international prices. As of June 2008, they stood at about US\$0.45/kg (~US\$22 for 50 kg) for state producers and peasant farms and about US\$0.35/kg (~ US\$17 for 50 kg) for households.

The average nominal wage of an employee in January-June 2008 increased by 35% compared to the same period in 2007, but real increase (deflated by the Consumer Price Index) was only about 8%. The average wage in January-June 2008 was valued at US\$137/capita/month (about US\$4.6 per day). The largest increases in January-June 2008 compared to January-June 2007, were observed in public administration, real estate business, renting and services to consumers (32%), construction (150%), mining (42%) and transportation and communications (35%).

Despite growth of nominal wages, the initial impact of higher food and energy prices will be to reduce growth of real income/wages, and therefore increase competitiveness vis-à-vis Kazakhstan and Russia. If investment is maintained and productivity continues to increase, real wages should also increase subsequently. Real wages could be depressed in slowdowns in the Kazakh and Russian economies lead to a reduction in inflows from remittances and transit trade, and return of migrants³⁹.

Compared to the national average, cash incomes were higher in Chui oblast and Bishkek and to some extent in Yssyk-Kul oblast. Incomes were significantly lower in Talas, Jalal-Abad and Naryn oblasts. Incomes of the population in Batken and Osh oblasts became nearer to the national average.

Some 47% of the population are net food producers. Of these, about 44% are poor, versus 35% of net consumers. About 19% of the population are both poor and net consumers, and will be especially hard hit by food price increases⁴⁰.

Because food price increases are accompanied by wage increases, the net impact is uncertain and depends upon employment status and level of wages increases. Projections indicate that extreme poverty (7% of the population in 2007) will increase sharply, by 56% to 84% (between 264,000-398,000 persons), while total poverty could increase or decrease by 2-3 percentage points. The extreme poor are being hit the hardest, and urban poverty is expected to increase sharply. As real incomes decline, vulnerability to poverty will also increase.

6.6 Coping strategies to high food and fuel prices and other shocks

Data collected in the KIHS do not enable a proper identification and analysis of households' coping strategies that may have been activated in response to the high food and fuel prices. A tentative analysis of households' response was done by looking at changes between 2006, 2007 and the 1st quarter of 2008. However, the rise of prices started in 2007 mostly and peaked after the 1st quarter of 2008 and as a result, few changes are expected to be visible in the 1st quarter of 2008. Subsequent analysis of the whole year will be necessary to confirm or infirm the trends and hypotheses that have been made.

³⁹ Sustaining the Momentum of Growth in the Context of Global Food and Energy Price Increases – World Bank PREM Team, Joint Government/WB/IMF Workshop on “Coping with Short-term Risks and Vulnerabilities and Accelerating Long-term Growth” – Bishkek, 25-26 June 2008

⁴⁰ Kyrgyz Republic: Impact of Food Price Increases on Poverty – S. Sattar, World Bank, Bishkek, 24 June 2008



The main coping strategies identified are summarized in the Box below.

Box 10 - Main households coping strategies to high prices and other shocks in 2008

- Food insecure households tended to rely more on their own food production (in rural areas especially) to protect their food consumption, which is a logical response in a context of increased food and fuel prices.
- Most households, but especially the severely food insecure, increased their harvest starting 2006, particularly in Jalal-Abad, Osh and Chui, which may reflect an effort to increase own food production and decrease dependence on food purchases. This will need to be confirmed by further analysis of the whole year of 2008.
- The proportion of households who collect wild food was low (2% in 2007) and did not seem to increase over time. The practice was slightly more widespread in rural areas than in urban areas (respectively 3% versus 1% in 2007), reflecting also the easier access to these resources in rural settings. It was also slightly more frequent in Jalal-Abad oblast (5% in 2007) than in other oblasts (no more than 2%). Collection of wild foods was not associated with food insecurity.
- Food insecure households in urban areas were only slightly more likely to own cattle than other households, possibly reflecting a strategy to secure some animal food at lower cost than through purchase as well as providing a small income source with the sale of products.
- Depletion of some assets was noted (sales of refrigerator, washing machine and to a lesser extent sewing machine and bicycle), especially among the moderately food insecure and the food secure households (most likely to own these items in the first place) and in rural areas more than in urban areas.
- The amount of food expenditures increased sharply among all households in the 1st quarter of 2008 compared to the 1st quarter of 2007, reflecting the necessary adjustment of households' expenditures in the context of high food prices. At the same time, households tended to decrease the share of expenditures dedicated to clothing as well as on agricultural inputs and for animal maintenance. These strategies will decrease yields and thus food available for consumption and sales, thus negatively affecting diet, income and future livelihoods.
- The share of expenditures on health and education was already low in 2006 (2-3%) and did not change noticeably in 2007 and early 2008.
- In the 1st quarter of 2008, an increased proportion of severely food insecure households had to forego the use of health services because they could not afford the cost, but this will also need to be confirmed with additional data from the whole of 2008.
- Solidarity and mutual support mechanisms seemed to intensify from 2006 to early 2008, especially for the severely food insecure and more so in rural areas.



VII – CONCLUSION ON THE FOOD SECURITY SITUATION AND PERSPECTIVES

7.1 How many, who, where and why are households food insecure?

	Severely food insecure	Moderately food insecure	Food secure
How many are the food insecure?	20% (1 st quarter 2008)	14% (1 st quarter 2008)	66% (1 st quarter 2008)
Where are the food insecure?	<p>Rural areas: 24% (Urban areas: 14%)</p> <p>Naryn: 38% - ± stable over 2006-08 Yssyk-Kul: 32% - ± stable over 2006-08 Jalal-Abad: 28% - decreasing over 2006-08 Osh: 26% - decreasing over 2006-08 Talas: 21% - decreasing over 2006-08</p>	<p>Rural areas: 15% Urban areas: 13%</p> <p>Jalal-Abad: 22% - increasing over 2006-08 Naryn: 17% - ± stable over 2006-08 Talas: 14% - increasing over 2006-08 Yssyk-Kul: 12% - ± stable over 2006-08 Osh: 11% - decreasing over 2006-08</p>	<p>Rural areas: 61% Urban areas: 73%</p> <p>Batken: 80% - increasing over 2006-08 Bishkek: 79% - ± stable over 2006-08 Chui: 77% - decreasing over 2006-08</p>
Who are the food insecure?	<ul style="list-style-type: none"> • Most are poor: more than half of those in poverty, although not in extreme poverty, fail to maintain their food consumption at an acceptable level. Only some of the poor, mostly in rural areas, do manage to protect an acceptable level of food consumption, mainly thanks to the self-consumption of their agricultural production • They do not have education or lack specialized secondary or higher education. • Male-headed households are more likely to be food insecure than female-headed households • Large households (> 4 members) are more likely to be food insecure than smaller ones • Although it was not the case in 2006 and 2007, at the beginning of 2008 there was a trend towards a deterioration of the food security situation of households headed by an elderly • They live more often in separate houses and less often in separate apartments, but the dwellings are often decrepit and their access to facilities such as in-house running water, hot water, bath/shower and central sewage system is low. • Their asset base is reduced (few electro-domestic equipment). 		
Why are they food insecure?	<ul style="list-style-type: none"> • A large part of the food insecure live in rural, mountainous areas, with limited or no land available for cultivation, and prone to natural hazards • The lack of education, including specialized secondary and higher education, limits their opportunities for employment and better remunerated jobs. • Food insecure households living in separate houses are unable to ensure proper maintenance and the walls are likely to be made of non concrete, poor material, thus contributing to poor living conditions. • Food insecure households have access to public pipes but seldom to in-house running water or individual water pipes. The lack of hot water and bath or shower facilities also make it more difficult to ensure good hygiene practices, particularly in cold periods. • They are more likely to use pit latrines and this trend increased from 2006 to 2007. These toilet facilities also do not support adequate hygiene and may contribute to higher rates of infectious diseases. • Even though severely food insecure households who have land have increased their cultivation recently, they still depend a lot on market purchase for the bulk of their food consumption and are less likely to obtain milk, meat, potatoes and vegetables from their own production. Bread, wheat flour and oil must be systematically bought on the market. • Food expenditures represent 2/3rd of the consumption expenditures and have increased since 2006, most likely due to the rise in food prices, and particularly among the severely food insecure (74% of total expenditures early 2008). However, 		



	Severely food insecure	Moderately food insecure	Food secure
	<p>the severely food insecure spend less than the moderately food insecure, who in turn spend less than the food secure. The food insecure households are also less able to increase the amount of expenditures dedicated to food. The amount dedicated to food does not secure an acceptable diet.</p> <ul style="list-style-type: none"> • The main income sources of the food insecure are in the agricultural sector. Levels of wages are low and not increased in parallel to inflation. • The poor or borderline diet of the food insecure households has begun to reflect in a deterioration of the health status of some members, but the severely food insecure face more difficulties to pay for health services and an increasing proportion have to forego the use of health services even if they need them. • Underweight among under-5 years old children tend to be slightly higher among the severely food insecure and increased between 2006-07 and early 2008. Stunting has also increased during the period and was higher among the severely food insecure, reflecting the negative effects of changes in the diet on child growth, compounded by unfavorable health, water, sanitation and care conditions. • While stronger solidarity mechanisms exist in rural areas than in urban areas and are directed towards the severely food insecure, food gifts are not sufficient to enable a proper diet for this group. Mutual support is also more limited in areas with high rates of food insecurity. • Food insecure households are less likely to own a refrigerator or a washing machine. In fact, some of the moderately food insecure households seem to have started to deplete their domestic assets (fridge, washing machine, sewing machine, bicycle) to increase their income, thus decreasing their asset base. • Higher food insecurity among male-headed households is related to various factors: they tend to be larger, include less pensioners, and receive less remittances • Higher food insecurity among large households is due to their insufficient income, land and animals to meet the higher food and other essential expenditures required to maintain the whole family • The possible deterioration of the food security situation of the elderly observed at the beginning of 2008 may be due to the loss of purchasing power of their pension and other income sources in the context of rising food prices. 		

7.2 How severe is the food security and nutritional situation?

7.2.1 Severity of the food security situation

One household out of five can be considered at high nutritional and health risk owing to its poor food consumption. Their diet is extremely low in calories, and the consumption of fats and oil show a decreasing trend from 2006 to 2007. A deterioration of the health status of the food insecure households was also noted at the beginning of 2008. The vast majority of these households (17% at total) also lack economic access to food and are thus severely food insecure.

Interestingly, the proportion of severely food insecure estimated from the re-analysis of the KIHS data corresponds to the estimate of 19% of the population who is both poor and net food consumers made by the World Bank⁴¹. However, discrepancies between the estimated proportions of severely food insecure households and proportions of net consumers are noted at the oblast and Bishkek levels⁴². The proportions of severely food insecure are much higher in Naryn, Talas and Yssyk-Kul than the proportions of net consumers, and much lower in Bishkek. Levels are closer in the other oblasts (Jalal-Abad, Osh, Chui and Batken). This is because although households may produce more than they buy in Naryn, Talas and Yssyk-Kul, they still consume a very poor diet. Conversely, households are very

⁴¹ Kyrgyz Republic: Impact of Food Price Increases on Poverty – S. Sattar, World Bank, Bishkek, 24 June 2008

⁴² According to the World Bank (2008), Only 2% of net consumers live each in Naryn and Talas oblasts, while 29% are in Bishkek, 27% in Osh and 15% in Chui oblast. 22% of net producers live in Jalal-Abad oblast, 23% in Osh oblast, 15% in Chui oblast and 13% each in Issyk-Kul and Batken oblasts.



much dependent on the market in Bishkek but better able to secure an acceptable level of food consumption.

About half of the households are extremely poor or poor: 14% in extreme poverty and 35% in poverty. More than half of these households (28% at total) are unable to secure an acceptable diet and eat a poor or borderline diet. Those who manage (21%), do so by increasing their reliance on their own production (thus decreasing market food expenditures) and some of them by selling domestic assets such as refrigerator, washing machine, sewing machine or bicycle.

While solidarity mechanisms are quite strong in rural areas and benefiting primarily the severely food insecure, they are weaker in oblasts with high rates of food insecurity, reflecting the limits of such support for the food insecure.

It must also be noted that the KIHS does not include the periphery areas of the major towns (Bishkek, Osh) which are suspected to include a large number of poor migrants from rural areas and smaller towns, likely to be food insecure. The KIHS also does not include individuals hosted in institutions such as orphanage, elderly house or chronically sick people in hospitals. These population groups are also expected to be food insecure or at risk of being so given the frequent shortage of resources in these institutions. The electricity cuts anticipated for the coming winter will add to their often difficult living conditions.

This analysis also did not cover the area affected by earthquakes in October 2008. Loss of assets and livelihood are clearly expected to worsen the food security situation of households in the affected villages.

7.2.2 Severity of the nutritional situation

While the proportion of underweight children remains relatively low, the proportion of stunting (delayed growth) among under-5 years old has increased between 2006 and 2007. Compared to the nutritional survey done in 2006, the nutritional situation has deteriorated in Jalal-Abad, Naryn and Osh oblasts. The deteriorating trends are alarming and warrant immediate action to prevent further decline.

The proportion of stunted children is higher among the severely food insecure households and high levels of food insecurity are associated with high levels of stunting in all oblasts and in Bishkek, showing the importance of food factors for the long-term growth of children and point towards chronic food insecurity. Underweight also tended to be associated with severe household food insecurity, but at oblast level, high levels of food insecurity and high levels of underweight coexisted only in Yssyk-Kul, Osh and Talas oblasts. In the other oblasts, non-food factors also played an important role on child nutritional status.

7.2.3 Chronic and transitory food insecurity

The characteristics of the severely food insecure households indicate that food insecurity among them is essentially chronic. They lack the type of education that enable to obtain employment and well remunerated jobs, they have large families to sustain, they live in poorer dwellings, they own less domestic assets, and their income is not sufficient to compensate the increase cost of food and other basic necessities.

However, the food and fuel price increase in the past two years, especially sharp in 2008, has further increased the severity of chronic food insecurity. It is not possible to estimate how many households have become transitorily food insecure due to the high food and fuel prices and in fact, the evolution of many factors susceptible to affect food security between 2006 and the beginning of 2008 does not point out to a drastic deterioration of the food security situation of households. Rather, in the 1st quarter of 2008, households seemed to have just started to activate coping strategies to try and maintain their current food and economic status. However, prices continued to rise in the subsequent quarters and may have pushed a number of households, particularly the moderately food insecure, towards more negative response strategies.



7.3 What are the anticipated shocks and measures already taken?

7.3.1 Main anticipated shocks and expected food security impacts

The main shocks that may affect the population in the next 6 to 12 months and expected impacts on the food insecure are shown in the table below.

The food insecure will be negatively affected by all of these shocks. Importantly, the risks identified comprise both rural and urban areas. While food insecurity is more widespread and severe in rural areas, food and fuel price rise and electricity cuts are likely to damage seriously the food access capacity of urban households and thus increase the levels of food insecurity in urban areas.

Table 29 – Anticipated shocks and impacts on the food insecure in the next 6-12 months

Anticipated shock	Likelihood	Impacts on the food insecure
Resumption of food (especially cereals), fertilizer and fuel price increase	Medium-high	<ul style="list-style-type: none"> • Decreased purchasing power, unless real incomes and other benefits are adjusted to match the price increase. However such a measure will increase inflation. • Decreased amount of food bought and consumed • Switch to less expensive, less nutritious food, with increased risks of mineral and vitamin deficiencies • Crowding out of expenditures on health and education to meet increased food costs, with negative effects on the use of health services and schooling • Further deterioration of nutritional status of vulnerable individuals • Decreased yields of crop and animal productions • Increased migration to Bishkek, Osh and abroad • Increased sales of domestic and other assets • Increased impoverishment • Search for additional income sources, with potential negative effects on school enrolment and attendance, and on care practices
Energy deficit and associated electricity cuts	High	<ul style="list-style-type: none"> • Disruption of heating and water supplies, with negative effects on health • Increased expenditures for alternative heating and water sources; • Decreased school attendance for lack of heating and water • Dysfunction of irrigation devices, with negative effects on crop yields • Disruption of industrial functions, with negative effects on employment and income
Natural hazards (earthquakes, avalanches, snow storms, mudslides, floods)	Medium-high	<ul style="list-style-type: none"> • Loss of personal belongings, productive equipment, crops and animals, and food stores • Increased impoverishment and food insecurity • Decreased access to food markets • Decreased access to health services and to schools
Social unrest (mostly in urban areas)	Low	<ul style="list-style-type: none"> • Forced displacement • Loss of assets • Disruption of food markets • Loss of income • Increased impoverishment and food insecurity

7.3.2 Measures taken by the Government and other stakeholders

The Government of the Kyrgyz Republic has announced, and partially taken, a number of measures to address the first and second risks (price rise, energy deficit). Measures already implemented include:

- release of 4,500 tons of wheat flour from the State Fund of Material Reserve;
- subsidized sale of 10 million litres of diesel for spring ploughing at 27% discount to farmers;
- introduction, in July 2008, of a 100% export tax on wheat, wheat flour, vegetable oil and sunflower seeds, effectively blocking export of home-produced goods and the re-export of imported goods;
- decrease of the Value Added Tax (VAT) on producers, importers and sellers of grain, flour and bakery products and vegetable oil;
- simplification of customs procedures for small importers of grain or flour (less than 20 tons);



- increase of minimum salary level (currently US\$103/month) to 100% of the cost of the minimum food basket;
 - increase of pensions up to 43% of the cost of the minimum food basket (400 KGS, ~US\$11);
 - increase of the insurance amount of pension by 10%;
 - increase of Monthly Social Benefits (MSB) by 100-300 KGS (~US\$2.7-8.2)
 - issuance of a decree in June 2008 to establish a special account for accumulation of funds and targeted maintenance of the welfare of vulnerable groups, with the view to compensate for soaring food prices.
- In addition, other measures have been planned but their implementation is yet to be confirmed:
 - purchase of 50,000 tons of wheat from domestic producers to build up the State Wheat Reserves, in order to minimize the risk of food shortages (threat of export restrictions on wheat from Russia and Kazakhstan); the stock will cover 3 months of consumption of 300,000 families (1.3 million persons)⁴³;
 - establishment of a 90-day food stock for 8 key commodities;
 - allocation of US\$0.8 million for the purchase of fertilizer for further crediting of farmers;
 - release of US\$3 million (100 million KGS) for easy term loans (7% interest) to farmers through Aiyl Bank;
 - provision of all pensioners with monthly compensatory payments on a sliding scale depending on the amount of the pension, with a maximum top-up of 132 KGS (~US\$3.6) with a pension under 200 KGS (~US\$5.5), with the view to compensate for soaring electricity and heating prices.
- The World Bank has earmarked US\$10 million for Kyrgyzstan under its Global Food Crisis Response Programme (including US\$4 million for social sectors and US\$4 million for agriculture). In May 2008, the World Bank revised a project (“Additional Financing for the Health and Social Protection Project”) to support the Ministry of Labour and Social Protection in the context of high food prices. The project comprises three interventions:
 - a health component to reduce nutritional vulnerability of at-risk pregnant women and infants/young children, through the provision of nutritional supplements and nutrition education;
 - a temporary scale-up of targeted cash transfers under the government’s Unified Monthly Benefit (UMB) programme, during 10 months (October 2008-July 2009);
 - a third intervention is also being proposed to support activities to enhance longer-term food supply (addressed through “Additional Financing for the Agricultural Investment Project”).

The World Bank project would support the scaling up and strengthening of the UMB by:

- financing a topping up of unit benefits for 10 months spanning the 2008-09 winter (October 2008-July 2009), by US\$1/beneficiary/month on top of the US\$3.5/month; this amount closely corresponds with the 30% loss of purchasing power due to food price rises since 2005;
- technical assistance, including monitoring and evaluation of UMB.

The European Commission is considering to take over the World Bank’s assistance up to the end of 2009. The EC project, for a budget of 5 million Euros, would also increase the MSB by US\$1 per beneficiary per month, and include piloting the new criteria for the State’s benefits’ assignments in several regions.

The **World Bank** and **FAO** have pledged US\$4.45 million to purchase wheat (enough for about 100,000 tons).

⁴³ The Government plans to pay 17 KGS/kg (US\$0.47/kg). This price may not offer farmers enough encouragement to enable the government to meet its target. It is an increase of over 50% on the 2007 purchase price (11 KGS/kg) but average world wheat prices in the first half of 2008 were over 90% higher year-on-year. Furthermore, it seems that in late June, private sector food-processors were paying a farm-gate price of around 18-20 KGS/kg (Kyrgyzstan Country Report, August 2008 - The Economist Intelligence Unit)



7.4 How the situation may evolve in the next 6-12 months?

7.4.1 Macro-economy prospects

Growth in the Kyrgyz Republic (excluding gold production) is expected to slow to 5% in 2008, mainly due to the spill-over effects from the banking sector difficulties in neighbouring Kazakhstan. Growth in two of the Kyrgyz Republic's most important economic partners, Kazakhstan and Russia, is expected to slow down in 2008-09 relative to 2007, especially given the impact of the global financial turbulence since mid-2007 and the ensuing effect on global growth. The 2 countries are important destinations for Kyrgyz non-gold exports, as well as the major host countries for Kyrgyz migrant labour.

Prices for oil and gas will continue to be high until the end of the year, adversely affecting the government's import bill. The rise in oil prices is expected to have a much larger effect on the balance of payments than the increase in food prices. However, the rise in food prices is a greater concern than the oil price increases for the impact on inflation, household incomes and poverty. On the other hand, prices for gold, the country's main export commodity, are also expected to remain historically high (average gold prices are forecast to rise by a further 29% in 2008, before declining by around 5% in 2009).

The increase of international commodity price is not expected to be temporary and will have to be passed on to domestic consumer and producer prices. Full pass-through is expected to encourage producers to increase supply, and consumer to decrease demand. This should also alleviate balance of payments pressures and shield public finances from excessive costs. However, passing international price increase onto consumers can also result in a significant drop in real incomes for households, especially the poor. The policy challenge is therefore to ensure economic efficiency and stability while at the same time protecting vulnerable groups⁴⁴.

The continuing surge in consumer price inflation in the first half of 2008 led to upward revisions of the inflation projection⁴⁵ to an average of 22.5% in 2008, before falling in 2009. Real GDP growth is expected to fall to an average of around 6% annually in 2008-09, from over 8% in 2007. Temporary cuts in the rate of VAT on some food products, introduced in the context of rapidly rising inflation, may affect government's revenue targets. The authorities will be reluctant to cut expenditure too aggressively, because of the need to offset the impact of higher inflation through wage and pension increases.

Public protests on issues of harsh economic conditions and controversial privatisations cannot be ruled out – and are even probable in the context of spiralling living costs – but the government is likely to be able to contain them⁴⁶.

7.4.2 Food availability prospects

Farmers have rationally responded to market signals, including by increasing the area sown under wheat for the 2008 cropping season⁴⁷. Agricultural production rose by 2.9% in the first half of 2008, partly owing to an increase of 31,000 ha (2.8% of total area) under cultivation.

The areas sown to cotton, tobacco, vegetable oil crops and beet continued to decline, but the area sown to grain rose by 7% and to vegetables by 3%. Together with improved yields, production of grains and vegetables rose by around 30% year-on-year.

World fertilizer prices have peaked in the first quarter of 2008 and are expected to remain high in the next 3-4 years if the energy prices continue to be high as well.

Despite increased cultivation, the food supply situation in 2008 has been tense owing to high cereal prices and a ban on exports of wheat and vegetable oil from Kazakhstan during the final months of the

⁴⁴ Follow-up Workshop on Macroeconomic Policy and Mitigating Inflation Pressures – Joint Government/World Bank/IMF Workshop on “Coping with Short-term Risks and Vulnerabilities and Accelerating Long-term Growth” – Bishkek, 26 June 2008

⁴⁵ Kyrgyzstan Country Report, August 2008 - The Economist Intelligence Unit

⁴⁶ Kyrgyzstan Country Report August 2008 – The Economist Intelligence Unit

⁴⁷ An Overview of Fertilizer Situation in the Context of Food Crises - World Bank, Bishkek 26 June 2008



2007/08 marketing year. The ban on wheat exports was lifted in September and, according to FAO, the country should not face difficulties in mobilizing its cereal import requirements. Given good harvests in Russia, Ukraine and Kazakhstan, and expectations for Kyrgyzstan itself, prices for wheat have begun to fall from the high levels of the summer.

For the next winter and next planting season, some of the main concerns are:

- lack of wheat seeds: poor wheat harvest in some areas has restricted the availability of seeds;
- lack of hay and fodder for animals in areas when the drought in the spring of 2008 affected pastures and crops;
- high prices of fertilizer, rendering their already limited use all the more difficult;
- possible disruptions of irrigation due to the very low level of water in the main reservoirs, particularly the Togtogul reservoir that covers 40% of the energy needs of the country;
- electricity cuts may also affect the working schedules of wheat mills in remote areas, hence making it difficult for families to obtain flour.

7.4.3 Household food security prospects

Some of the measures taken by the Government attempt to ease inflationary pressure, but could take time to filter through lower prices. Also, higher social payments to shield vulnerable groups from higher prices run the risk of adding to inflationary pressures. A further increase in the cost of gas imports in 2008 will exert additional upward pressure on prices. Furthermore, the safety net programme remains relatively small and modest in its poverty impact due to: (i) low unit value of transfers; (ii) low overall coverage; and (iii) low coverage of the poor.

Even in rural areas, food insecure households are not self-sufficient with their wheat production and must buy a significant amount of food on the market. The urban food insecure households buy almost all their food on the market even if they have access to a small land plot. Food expenditures represent almost 2/3rd of total consumption expenditures and increased between 2006 and early 2008, particularly among the severely food insecure. The recent trend towards decreased food prices on the international markets will thus be beneficial to the households, if it is sustained.

However, households will face increased expenditures for heating during the winter. Some of them will already have incurred additional expenses for the schooling of their children in the autumn.

The estimates of the proportion of households with poor food consumption were taken from data of the 1st quarter of 2008, i.e. at a rather unfavorable period but before subsequent rise of food and fuel prices. Even though food consumption patterns may have improved for some households after the summer 2008 harvest (especially taking into account the increased cultivation and harvest noted for the food insecure), they will have faced higher food prices on the market. Furthermore, 1/4th of the severely food insecure did not report any harvest in 2007.

In sum, considering the absence of opportunities to increase food availability and access in the very short term, the diet of the 20% severely food insecure households can be expected at best to stay the same, if not to deteriorate, during the coming winter months.

At the same time, the capacities of households with poor access to increase their income in the next 6 to 12 months are limited. Sending migrants to the periphery of major towns (Bishkek, Osh) and abroad (Kazakhstan, Russia) remains an option for those with able-bodied members - essentially young men - but does not guarantee when, and how much remittances will be sent back given the uncertainties on the employment possibilities and type of jobs available, and lack of access to social assistance in the destination areas. A recent study⁴⁸ indicated that about 21% of migrants did not send any remittances back. The number of migrants and remittances sent back was also reported to be lower than usual this year, due to a slow-down of economy in Kazakhstan.

⁴⁸ A Study on International Migrants' Remittances in Central Asia and South Caucasus. Country Report on Remittances of International Migrants and Poverty in the Kyrgyz Republic – Draft for discussion at the Country Seminar in Bishkek, November 2007 – S. Ibragimova, T. Burzhubaev, A. Temirov, Center for Social and Economic Research (SocEconic), November 2007.



VIII – RESPONSE OPTIONS AND RECOMMENDATIONS

8.1 Target beneficiaries and type of assistance

Severely food insecure households (20%) require urgent – relief - interventions to restore their diet immediately, protect it during the winter and pre-harvest period, and avoid further degradation of child nutritional status. The objective is to stabilize and improve the nutritional and health status of the vulnerable members of these households, including young children, pregnant and lactating women, the elderly and the chronically sick.

Based on a total population of 5.2 million people, about 1.01 million people, or 253,650 households, require relief assistance for about 5 months. The assistance should preferably start in November, but may not be feasible to launch before December 2008, and should last at least until April 2009.

In addition to the severely food insecure households, two other groups of households are at risk of falling into severe food insecurity: poor households who only manage a borderline diet (8%) and extremely poor households who somehow still manage an acceptable diet (2%). All these households (30%) require livelihood-support interventions to prevent a degradation of their diet and depletion of assets. The objective is to restore and strengthen their economic access to food on the short- and medium-term so as to prevent a degradation of the nutritional and health status of the vulnerable members of the households as well as protect and strengthen livelihoods.

Households requiring livelihood support interventions represent 1,64 million persons, or 411,010 households. Livelihood assistance should also start rapidly to avoid losing windows of opportunities (e.g. for agricultural inputs and other support for cultivation and animal raising) and face physical access problems during the winter. Some of the interventions will be one-off (e.g. for agriculture, shelter, education) while others should last for a longer period (e.g. training, specialized education, income-generation activities) and others should be linked to permanent programmes such as the governmental social safety net scheme.

Table 30 - Numbers of people and households requiring relief and livelihood support

	Population (2005)	RELIEF Severely food insecure			LIVELIHOOD SUPPORT Severely food insecure + at risk		
		%	Persons	Households ⁴⁹	%	Persons	Households
Total country	~5,2 million	~20%	~1,01 m	253,650	~30%	~1,64 m	411,010
Yssyk-Kul oblast	428,500	32%	137,120	34,280	40%	171,400	42,850
Jalal-Abad oblast	960,800	28%	269,020	67,260	50%	480,400	120,100
Naryn oblast	267,000	38%	101,460	25,360	53%	141,510	35,380
Batken oblast	418,100	12%	50,170	12,540	19%	79,440	19,860
Osh oblast	1,299,600	26%	272,920	68,230	34%	441,860	110,470
Talas oblast	213,600	21%	44,860	11,210	35%	74,760	18,690
Chui oblast	752,300	10%	75,230	18,810	19%	142,940	35,730
Bishkek town	798,000	8%	63,840	15,960	14%	111,720	27,930

8.2 Relief response options

Given the deteriorating trend in the kilocalorie intake of households, particularly with regards to fat intake, and considering that bread, wheat flour and oil are the items that (i) bring the larger share of kilocalories and (ii) are systematically bought by all households and represent the largest share of their food expenditures⁵⁰, interventions to facilitate access of the households with poor food consumption to these items would make sense. Options are described below.

⁴⁹ Based on an average of 4 members per household

⁵⁰ In 2006, 30% of the poor households' food expenditures were on cereals, compared to 17% of the wealthiest's food expenditures. Compared to richer quintiles, the poorest quintile dedicated a lower share of their food expenditures to milk and meat, but a higher share to potatoes and fats.



8.2.1 Food transfers

Food transfers should preferably provide access to vitamin- and mineral-fortified commodities. As electricity and fuel are expensive, and bearing in mind the likely electricity cuts during the winter, wheat flour distribution or through stamps may not be appropriate. Instead, arrangements with bakeries could be envisaged for the production and sale of subsidized bread, or distribution for free for the target group. Limiting food assistance to bread and oil would also limit procurement and logistic difficulties.

Under this option, several modalities can be envisaged (see below for targeting criteria):

- **Household food rations** targeted to the severely food insecure households; distribution could be done through community-based organizations working with socially- and economically-deprived populations;
- **Food stamps** targeted to the severely food insecure households; arrangements would need to be made with bakeries and local shops or traders (wheat flour, redemption of stamps);

Given the estimated kilocalorie short-fall (870 kcal and 560 kcal for the extremely poor and the poor respectively in 2007), the food ration or food stamps should provide at least 1/3rd of the standard requirements, i.e. about 700 kcal/capita/day. This represents about 77 g of oil or 175 g of bread per day. The amount of oil would be too high compared to the average consumption⁵¹ and the ideal would be a combination of oil and bread entitlements, or only bread. For a 4-member household, the transfer could thus be a daily 700 g bread-entitlement, or a combination of the two items such as 4 liters of oil and 400 g of daily bread-entitlement. Bakeries would receive wheat flour, and households would access free bread using their ration card.

- Distribution of supplementary rations (oil, sugar, fortified food such as Corn-Soya-Blend-CSB) targeted to severely food insecure households hosting vulnerable individuals (children below 5, pregnant and lactating mothers, elderly, chronically sick), possibly through mother-and-child health care programmes, institutions (orphanages, elderly houses, hospitals), and community-based organizations working with socially- and economically-deprived populations; an accompanying household food ration or food stamps should be distributed as well in order to avoid excessive dilution of the supplementary food to the non-vulnerable household members.

Assuming that a 700-kcal transfer is also provided to the household through food rations or food stamps, the supplementary ration for vulnerable members should provide at least an additional 500 kcal in a combination of oil, sugar and fortified blend. It should preferably be distributed twice a month to avoid depreciation of the fortified blend. The ration could include, for example, 80 g CSB + 15 g oil + 10 g sugar per target member, corresponding to 1.2 kg CSB, 225 g oil and 150 g sugar per beneficiary for a 2-week period.

- Public kitchens would be a last resort option in the event of an extremely harsh winter, with widespread electricity cuts and further increase of food and fuel prices. They would provide one daily meal of about 1,100 kilocalories per beneficiary.

8.2.2 Cash transfers

Several modalities can also be envisaged (see below for targeting criteria):

- Cash grants targeted to the severely food insecure households; transfers could be done through banks for those having a bank account or using the existing social benefits system (Unified Monthly Benefits, Monthly Social Benefits, pensions) for those already enrolled;

Tentatively, the amount of the cash transfer could be the market value of the food ration/food stamps described above, i.e. a cash amount equivalent to the market cost for a 4-member of household of 700 g bread per day or a combination of 4 liters oil + 400 g bread, whatever represents the higher economic value. A higher amount may be considered given that it is unlikely that the whole cash

⁵¹ The official food basket indicates an average consumption of 390 g bread/capita/day and 27 g oil/capita/day (Kyrgyz Republic Poverty Update. Profile of Living Standards in 2003 – World Bank report No.36602, August 2005). The proposed bread assistance would thus provide almost half of the daily bread consumed per capita.



transfer will be exclusively dedicated to food purchase, and may thus not achieve fully the objective of improving households' diet.

- Vouchers for both food and non-food items, targeted to the severely food insecure households; vouchers may include bread, oil, soap and other essential hygiene products; arrangements with bakeries and local shops or traders would need to be made;

Tentatively, the food component of the voucher could be calculated as above (oil and bread equivalent to 700 kilocalories/capita/day) and the non-food component would represent about 25% of the food value, i.e. 20% of the total value of the voucher.

- Fees exemption for school and health expenditures, targeted to severely food insecure households with school-age children and to other severely food insecure households; arrangements with schools and health services or with the targeted households would need to be made to cover the expenditures incurred.

8.2.3 Strengths, weaknesses, opportunities and threats of the relief response options

The main strengths, weaknesses, opportunities and threats (SWOT) associated to the various relief response options are summarized in the table below.

Table 31 – Strengths, weaknesses, opportunities and threats of relief response options

	Strengths	Weaknesses	Opportunities	Threats
Food rations	<ul style="list-style-type: none"> • More likely to directly improve food consumption • Benefits are not affected by price rise 	<ul style="list-style-type: none"> • May be sold to cover other priority needs • Logistics of food distributions may be heavy • Arrangements with bakeries may take time 	<ul style="list-style-type: none"> • Economic support to local bakeries 	<ul style="list-style-type: none"> • Delays in setting up pipelines and/or arrangement with bakeries may mean that assistance does not reach beneficiaries on time • Rising commodity and fuel prices will increase the cost of the programme
Food stamps	<ul style="list-style-type: none"> • More likely to directly improve food consumption • Benefits are not affected by price rise • Logistics are light • Stimulate local economy 	<ul style="list-style-type: none"> • May lead to a parallel market • Stamps can be falsified • Requires time to set up • Arrangements with local traders and bakers may take time • Requires experienced partners for design and implementation 	<ul style="list-style-type: none"> • Economic support to local bakeries and traders • Can be combined with vocational training (?) 	<ul style="list-style-type: none"> • Same as above • Implementing partners may not be available
Supplementary food rations	<ul style="list-style-type: none"> • More likely to directly improve food consumption of vulnerable individuals • Benefits are not affected by price rise • Includes specific food to prevent/address malnutrition 	<ul style="list-style-type: none"> • May be shared with less vulnerable members and benefits diluted • High cost of commodities (e.g. CSB) • CSB (or equivalent) may be re-sold or fed to animals if beneficiaries are not sensitized 	<ul style="list-style-type: none"> • Build on existing mother-and-child care programmes and/or school network • Can be combined with health care services and with communication & sensitization on feeding practices 	<ul style="list-style-type: none"> • Rising commodity and fuel prices will increase the cost of the programme



	Strengths	Weaknesses	Opportunities	Threats
Public kitchens	<ul style="list-style-type: none"> • Self-targeting • Directly improves food consumption • Benefits are not affected by price rise 	<ul style="list-style-type: none"> • Target beneficiaries may avoid it due to stigma • Heavy and costly to implement 	<ul style="list-style-type: none"> • Can contribute to foster community links if public kitchen workers come from the same area • Can be combined with health care and other social services 	<ul style="list-style-type: none"> • No clear exit criteria as beneficiaries are likely to be in chronic extreme poverty
Cash grants	<ul style="list-style-type: none"> • Offer a choice to beneficiaries • Logistics are light • Can be fast to set up • Stimulate local economy 	<ul style="list-style-type: none"> • Benefits eroded by price rise • Food consumption may not improve sufficiently if cash used for other purposes • Requires experienced partners for design and implementation 	<ul style="list-style-type: none"> • Transfer channels can build on existing social assistance programmes for part of the beneficiaries • Implementing partners may not be available 	<ul style="list-style-type: none"> • Inflation will require constant adjustment of the value of the grant and of the budget of the intervention • Implementing partners may not be available
Vouchers for food + non-food	<ul style="list-style-type: none"> • Cover both food and essential non-food needs • Benefits are not affected by price rise • Logistics are light • Stimulate local economy 	<ul style="list-style-type: none"> • May lead to a parallel market • Vouchers can be falsified • Requires time to set up • Requires experienced partners for design and implementation 	<ul style="list-style-type: none"> • Economic support to local traders 	<ul style="list-style-type: none"> • Rising commodity prices will increase cost of intervention • Implementing partners may not be available

8.2.4 Targeting criteria for relief responses

The number of people requiring urgent assistance is high and unfortunately it may not be possible to assist all of them during the winter period, given the short timeframe available for programme design and limited number of operational partners on the ground. It is suggested to prioritize the interventions on a geographical basis first, followed by household screening based on defined criteria in the selected areas.

1) Geographic targeting criteria

Geographic targeting is based on the concentration of households with poor food consumption and stunting rates and vulnerable to price increase. An overview of the main food security characteristics of each oblast and Bishkek town is given in Annex XX. The following factors are considered:

- large concentration of households facing severe food consumption problems is found in Naryn (33% of the oblast population), Yssyk-Kul (30%), Osh (24%), Jala-Abad (23%) and Talas (17%) oblasts;
- at the beginning of 2008, the highest proportions of underweight children were found in Bishkek (4.2%) and Batken oblast (3.9%), while the highest proportions of stunted children were found in Jalal-Abad (39.8%), Naryn (37.6%), Osh (34%) and Yssyk-Kul (31.6%) oblasts;
- levels of food insecurity and malnutrition are systematically higher in rural than urban areas;
- high proportion of households in Jalal-Abad, Osh and Chui oblasts and Bishkek depend on the market for their food purchase and are thus particularly vulnerable to high food prices

On that basis, the following priorities can be established:



Table 32 - Geographic priorities for relief interventions

	Oblast/ town	Number of beneficiaries		
		Households		Under-5 children (*)
Rural areas	Naryn	101,460 persons	25,360 households	12,175
	Yssyk-Kul	137,120 persons	34,280 households	16,455
	Jalal-Abad	269,020 persons	67,260 households	32,280
	Osh	272,920 persons	68,230 households	32,750
Urban areas, focusing on the poorest neighborhoods including the periphery	Osh town	<i>included in rural count</i>	<i>Included in rural count</i>	
	Bishkek	63,840 persons	15,960 households	7,660
	Jalal-Abad town	<i>Included in rural count</i>	<i>Included in rural count</i>	
Total:		571,440 persons	211,090 households	101,320 children

(*) assuming 12% under-5 children in the population

The number of beneficiaries is based on the assumption that all the needy households and individuals would be reached. However, even within the prioritized oblasts and towns, a smaller of beneficiaries may eventually be assisted due to imperfect targeting criteria and constraints of time, funding and staff resources.

2) Household targeting criteria

Given the profile of the severely food insecure households, a number of selecting criteria can be proposed. Households meeting at least 2 of a set of 3 criteria, or 3 of a set of 4 criteria, could be considered eligible for the relief assistance.

Table 33 – Household and individual targeting criteria for relief interventions

Targeting criteria for relief interventions	
General criteria	<ul style="list-style-type: none"> • 4 members or more • No more than 1 pension or wage income earner (casual work)
Additional criteria for rural areas	<ul style="list-style-type: none"> • Small area of land cultivated • Remote location
Additional criteria for urban areas	<ul style="list-style-type: none"> • Not connected to public services (gas, electricity) • Poor dwelling (particularly wall material)
Additional criteria for supplementary food ration	<ul style="list-style-type: none"> • Presence of children under-5 years of age, pregnant or lactating women, elderly, chronically sick in the households or within specialized institutions (orphanage, elderly houses, hospitals) • Attendance to health care services
Additional criteria for exemption of fees	<ul style="list-style-type: none"> • Presence of primary or secondary school-age children • Use of health services by household members

8.2.5 Summary of the recommended relief interventions

On the basis of the SWOT analysis, the recommendations are for the implementation of:

- 1) Household food rations for rural areas remote from markets and bakeries;
- 2) Vouchers for food and non-food in urban areas;
- 3) Supplementary food rations in areas with high rates of child malnutrition.

The modalities of the recommended relief interventions are summarized in the table below.

Table 34 – Recommended relief interventions

Type of relief intervention	Modalities	Target beneficiaries	Duration
Household food ration	<ul style="list-style-type: none"> • 4 liters of oil/month + 400 g bread/day (or 700 g bread/day without oil) for a 4-member family 	<ul style="list-style-type: none"> • Remote rural areas in Naryn, Yssyk-Kul, Osh Jalal-Abad • 4 members or more • No more than 1 pension or wage income earner (casual work) 	5 months December 2008 to April 2009
Vouchers for food and non-food items	<ul style="list-style-type: none"> • Entitlement for 4 liters oil/month + 400 g bread/day (or 700 g bread/day without oil) 	<ul style="list-style-type: none"> • Urban poor areas of Bishkek, Osh and Jalal-Abad • 4 members or more • No more than 1 pension or wage 	5 months December 2008 to April 2009



Type of relief intervention	Modalities	Target beneficiaries	Duration
	for a 4-member family <ul style="list-style-type: none"> • Soap, hygiene items, water up to 25% of the food value (20% of total value) 	income earner (casual work) <ul style="list-style-type: none"> • Not connected to public services • Poor dwelling 	
Supplementary food ration	<ul style="list-style-type: none"> • 1.2 kg CSB, 225 g oil and 150 g sugar per beneficiary for a 2-week period 	<ul style="list-style-type: none"> • Rural areas in Naryn, Yssyk-Kul and Jalal-Abad with high levels of stunting and undernutrition • Poor urban areas in Bishkek, Osh and Jalal-Abad • Through health care services • 4members of more, with at least 1 vulnerable individual • No more than 1 pension or wage income earner (casual work) 	5 months December 2008 to April 2009

8.2.6 Other type of relief assistance

Although not directly linked to food consumption, the coming winter and likelihood of electricity and power shortages are causing further concerns for the food insecure, as cold temperatures and lack of heating may affect their health and also divert scarce resources away from food. Electricity cuts were particularly frequent in Batken, Naryn, Jalal-Abad and Talas in 2007.

A relatively high and increasing proportion of households in Batken and Jalal-Abad are without any heating system and these households should be identified and supported with heating and/or winterization assistance.

A significant number of urban households rely on central heating, particularly in Bishkek (64%). Should there be disruptions in the central heating system, the situation of food insecure households will need to be closely monitored. Owners of electric heaters were also numerous in Talas (45% of households) and Jalal-Abad (40%). Electricity cuts will also disturb their heating conditions and particularly affect the food insecure.

8.3 Livelihood support response options

Because food insecurity and malnutrition in the country are essentially chronic and very much related to poverty, medium- and long-term interventions would be required to address the underlying and basic causes of poverty, including in the social, education, economic and health sectors. However, a number of interventions may be sought of in the relatively short term to mitigate the negative effects of food insecurity on the population's health, nutrition and livelihoods. Different kinds of interventions are required depending on the profile of the targeted extremely poor and poor households.

8.3.1 Social assistance

Reviews of the Government social assistance system have identified some limitations. In addition to the low value of the social support provided under the UMB programme (GMCL is even lower than the extreme poverty line), eligibility criteria remain an issue:

- the methodology of Unified Monthly Benefits (UMB) calculation on the basis of documents certifying the value of money incomes in the context of the Kyrgyz economy, with its large informal sector and a limited role for commodity-money relations (especially in rural areas), is not logical; thus, a significant share of incomes cannot be registered, among them incomes from natural economy or from small retail sales; the availability of livestock, which is an important tangible asset of the rural population, as well as other tangible and intangible assets, is not taken into account either.



- according to a review done in 2003⁵², a comparison of UMB beneficiaries and non-beneficiaries showed that there were no significant differences in their living standards; about 1/4th of people in these categories had a per capita income less than the official poverty line (Guaranteed Monthly Consumption Level –GMCL). The main difference between them may have been the inability of non-recipients to find money and time necessary to draw up documents to apply for the benefits.

Some measures to alleviate poverty can be introduced quickly in the context of the Kyrgyz Republic given that the existing safety net functions relatively well. As analysed by the World Bank, existing benefits can be easily extended at relatively low administrative costs by:

- increasing the transfers under UMB and Monthly Social Benefit (MSB), although poor households without children will remain uncovered (for UMB); top up of the UMB current benefit per individual (by US\$1/month) can be sustained because of the low level of the current transfer (US\$3.5/month);
- annual indexation of the GMCL, as a safeguard for real benefit value;
- extension of eligibility for UMB to all family members; large families would benefit more (70% of additional benefits would go to the poorest 40%);
- expansion of eligibility criteria of UMB to reduce bias to rural poor and/or include working age urban poor; options could be to include pensioner households with income below GMCL or all households with income below GMCL;
- improvement of outreach of existing UMB through proactive social workers and public information campaigns;
- These measures can be supplemented by targeted nutrition interventions to increase the impact on certain vulnerable groups (young children, pregnant and lactating women).

The World Bank and the European Commission have already announced their intention to support the Government's social system through grants in 2008/09.

8.3.2 Support to crop and animal production

A mission conducted by WFP in August 2008 raised some concerns about the availability of wheat seeds due to the poor wheat harvest in some areas, and the lack of hay and fodder due to the lack of rains in the spring that has affected crops and pastures. A survey would be required to further identify the locations concerned and the actual needs and feasibility of interventions. Agricultural inputs and animal feed support would make sense given the important role played by crop and animal productions in households' diet and income (about 1/3rd of the income in rural areas come from agricultural sales).

Access to, and need for, veterinary services should also be ascertained and possible animal health interventions considered at the same time (vaccines, mineral-vitamin supplements).

The assistance could take the form of in-kind distributions or vouchers, depending on market availability, logistics (physical access, transportation) and cost-benefit analyses. Mobile veterinary clinics could be an option in the medium-term, possibly combined with agricultural extension support.

USAID has already committed funds to deliver wheat seeds. FAO, the World Bank and the Asian Development Bank may be interested in funding additional agricultural support interventions.

8.3.3 Support to education

Reviews of the education sector have pointed out a number of concerns. In particular, children from poor households were more likely not to attend school than those from the richest wealth quintile. Difficulties to pay for school expenses and fees and need for families to diversify their income earning strategies by putting their children in the tobacco and cotton industry also limit these children's access to education. Migrant and street children are also restricted in their ability to access good education.

The data available from the KIHS do not enable an analysis of the relationship between food insecurity and education. However, an association between specialized secondary education (vocational training) and food security was noted. Interventions to support access to that type of education would be useful.

⁵² Beneficiary Assessment of the Unified Monthly Benefit, Socially Protected Prices, and the System of Housing Donation Payment – CASE-Kyrgyzstan and the 'Information Assistance' PF, Bishkek, 2003 – Quoted in "Public Expenditure Review on Social Sector in the Kyrgyz Republic" – UNICEF, 2006



A specific assessment of the potential benefits of school feeding on enrolment and attendance at school would be needed to ascertain whether:

it would make a difference to food insecure households in terms of sending, and keeping their children at school; in some cases, other factors such as lack of heating, lack of teacher, dissatisfaction with teaching quality may play a stronger role than the economic incentive of the provision of a school meal or snack;

- it would not have negative effects on teaching, given the high demands already put on teachers' time;
- it can be targeted to schools located in poor areas, without creating a pull factors from other children of schools not benefiting from the programme;
- it is more cost-effective than exemption of school fees or distribution of school materials.

Support to school gardens could also be explored. Schools are allowed some income-generating activities. In particular, in rural areas local self-government bodies are obliged (by law) to allocate plots of land to village schools from the Re-distribution of Agricultural Land Fund. However a survey of appropriateness and feasibility would be required given that:

- not all schools have received land;
- schools are offered poor quality (non-irrigated, saline or sandy soils) or remote plots of land;
- Principals rent the allocated land to teachers;
- income gained from land is low and not in correlation with incomes of other households in the same village;
- land tax is collected from land rented to schools.

Potential donors interested to support the education sector include the Asian Development Bank (ADB) which has been supporting a major project since 1997 to increase the effectiveness of the sector; the World Bank which has implemented projects to support rural schools. Some other donors also provided small grants to pre-school and school education and could be approached. FAO could also be involved in school garden activities.

8.3.4 Support to nutrition

While supplementary food rations are expected to prevent further deterioration and protect nutritional status of the most vulnerable individuals, its effects will be limited if other factors of malnutrition are not addressed also. Stunted children are more likely to be found in food insecure households, particularly the severely food insecure, who, in turn, are more likely to live in poor dwellings, with limited water supply, toilet facilities and access to the central sewage system. Improvement of the water and sanitation facilities in areas with the highest proportion of stunting would make sense. Whether cash-for-work, food-for-work or a combination of both could be appropriate should be explored.

The data available did not enable to analyse relationship between household food insecurity and child feeding practices. This should be an area of further enquiry in order to inform on the most relevant interventions: in-kind food transfers, public communication campaigns, transfers conditional to attendance to health centres and communication sessions etc.

Better use should also be made of the rich anthropometric data collected on a quarterly basis through the KIHS so that it becomes a proper nutritional surveillance system connected to decision-making at local and central levels.

The following table summarizes some livelihood support interventions that may be appropriate in rural and urban areas and target beneficiaries.



Table 35 – Livelihood response options

Type of livelihood intervention	Modalities	Target beneficiaries	Duration
Social assistance			
Enrolment in government social assistance programme (UMB, MSB, other type of benefits)	<ul style="list-style-type: none"> Social workers to help with registration and with gathering the necessary documentation 	Extremely poor and poor unable to access the government social assistance benefits	Continuous
Expansion of the government social assistance programme	<ul style="list-style-type: none"> Top-up of benefits Revision of eligibility criteria 	Extremely poor and poor not enrolled in the government social assistance programme	One-off and continuous
Agricultural assistance			
Agricultural inputs, after assessment of needs: seeds, fertilizer, diesel, spare parts for farm machinery	<ul style="list-style-type: none"> In-kind or vouchers Subsidies (e.g. for diesel) 	Extremely poor and poor with access to land	One-off, before the start of the agricultural season
Livestock support, after assessment of needs: animal feed, vitamin-mineral complement, veterinary services	<ul style="list-style-type: none"> In-kind or vouchers Mobile veterinary clinics could be envisaged if feasible 	Extremely poor and poor with access to animals	One-off and/or monthly during the winter period
Education assistance			
Support for specialized secondary education	<ul style="list-style-type: none"> Grant Fees exemption 	Secondary school-age children in extremely poor and poor households or living in institutions	Yearly for the duration of the course
School feeding	<ul style="list-style-type: none"> Food for daily meal during school days Kitchen equipment Repairs of kitchen and water supply facilities 	Primary school-age children Schools in the poorest areas	10 months (school year)
School gardens	<ul style="list-style-type: none"> Agricultural inputs (seeds, tools) Technical assistance 	Schools in the poorest areas	3-6 months
Nutrition assistance			
Improvement of water, toilet and sewage facilities	<ul style="list-style-type: none"> Technical assistance Materials Cash/Food-for-work to be explored 	Areas with highest proportions of stunted /wasted children	6-9 months
Communication, sensitization to child feeding practices	<ul style="list-style-type: none"> Capacity building of health staff Communication materials 	Areas with highest proportions of stunted/wasted children	One-off and continuous
Set up and use of nutritional surveillance data	<ul style="list-style-type: none"> Technical assistance to review of anthropometric data collection, analysis and sharing of KIHS 	National Statistics Committee Ministry of Health	1 month and continuous

Considering that the relief assistance will not reach all the severely food insecure households and individuals, some of the above interventions could be directed to the areas where no relief assistance is being provided, e.g. in areas of Naryn, Yssyk-Kul, Osh and Jalal-Abad not covered as well as in Talas, Batken and Chui oblasts.



8.4 Monitoring and further assessments

8.4.1 Monitoring of the food security situation

The following table indicates key food security indicators to monitor regularly to alert on possible deterioration of the food security situation. A number of data will already be collected through the quarterly KIHS, however they may not be available on time for decision-making. Consultations with the National Statistics Committee would be useful to identify a number of key variables that the NCS could process and disseminate in priority to selected decision-makers. The rest of the data may be collected through community-based organizations or NGOs.

Table 36 – Food security monitoring system

Main data/indicator	Complementary information	Sources	Frequency
Acreage planted under winter wheat and potatoes per household	<ul style="list-style-type: none"> Compare to last season 	<ul style="list-style-type: none"> Village leaders Agricultural agents 	<ul style="list-style-type: none"> Once, after planting season
Temperatures	<ul style="list-style-type: none"> Effects on seed stocks, trees, livestock Effects on human diseases (e.g. flu, other respiratory infections) 	<ul style="list-style-type: none"> Village leaders Agricultural/veterinary agents Households Health agents 	<ul style="list-style-type: none"> Monthly at village, agricultural service or health centre level Each 2 months at household level
Rainfall	<ul style="list-style-type: none"> Effects on crops Effects on pasture and livestock 	<ul style="list-style-type: none"> Village leaders Agricultural/veterinary agents 	<ul style="list-style-type: none"> Monthly
Water supply: frequency of shortages, duration	<ul style="list-style-type: none"> Effects on domestic usage (sources of drinking water) Effects on human diseases (e.g. water-borne diseases such as diarrhoea, typhus) Effects on crop production (irrigation) 	<ul style="list-style-type: none"> Households Health agents Agricultural agents 	<ul style="list-style-type: none"> Monthly at health centre or agricultural service level Each 2 months at household level
Electricity supply: frequency of cuts, duration	<ul style="list-style-type: none"> Effects on attendance to school (e.g. lack heating) Effects on human diseases (water, heating) Effects on crop production (water pumps) 	<ul style="list-style-type: none"> Village leaders School teachers Health agents Agricultural agents 	<ul style="list-style-type: none"> Monthly at school or agricultural service level Each 2 months at household level
Local market prices of wheat, potato, vegetables, beef meat, milk, fuel, fertilizer	<ul style="list-style-type: none"> Effects on traders' sales (volumes) Effects on households' purchases and consumption Effects on households' indebtedness Effects on child malnutrition rates 	<ul style="list-style-type: none"> Local traders Households Health agents 	<ul style="list-style-type: none"> Preferably twice a month at market level, or monthly Monthly at health centre level Each 2 months at household level
Sales of livestock (cattle, sheep/goats): numbers, prices	<ul style="list-style-type: none"> Compare to last year Effects on households' consumption of animal products (dairy in particular) 	<ul style="list-style-type: none"> Village leaders Households Agricultural/veterinary agents 	<ul style="list-style-type: none"> Monthly at village or agricultural service level Each 2 months at household level
Out-migration: numbers	<ul style="list-style-type: none"> Compare to last year Effects on households' indebtedness Effects on households' income (remittances received) Effects on households' assets (sales of livestock) 	<ul style="list-style-type: none"> Village leaders Households 	<ul style="list-style-type: none"> Each 2 months



8.4.2 Further assessments of the food security situation

There are several gaps in the food security analysis of the KIHS surveys that was done, despite the search for complementary information from secondary sources. In particular, the KIHS data did not enable to analyze:

- the food security situation in the peripheries of towns (Bishkek, Osh, Jalal-Abad), which hosts a large number of poor and likely food insecure migrants; a survey is ongoing in the periphery of Bishkek and will shed light on the food security situation in the poorest neighborhoods, however rapid assessments in other towns would be useful;
- coping strategies (including possible drops from school, distress sales of assets and migration), thus limiting the understanding of households' response capacity to shocks;
- the relationships between food security and receipt of social benefits; this limits the conclusions that can be made on the adequacy of current social assistance and recommendations on possible adjustments;
- the relationship between remoteness and food insecurity, while it could be a useful geographic targeting criteria;
- the possible relationship between food insecurity and conflict linked to competition over natural and economic resources;
- the possible relationship between child malnutrition and infant and child feeding practices.

In addition, no food security assessment took place in the areas recently affected by earthquakes in October 2008 in the south of the country (about 1,200 households – 7,500 persons – lost their homes in Papan and Nura villages of Osh oblast).

To fill the above gaps, it is recommended to conduct a rapid food security assessment (RFSA) in the following areas:

- periphery of Osh city, and possibly Jalal-Abad city;
- remote areas of the oblasts with the highest proportions of food insecure households (Yssyk-Kul, Jalal-Abad, Naryn, Osh);
- areas prone to conflict due to competition over resources (villages to identify purposively);
- 2 villages affected by the October 2008 earthquake in Osh oblast (Pupan, Nura)

The RFSA would include, as was done for the ongoing survey in the periphery of the Bishkek, a limited number of household interviews complemented with Key Informant interviews and Focus Group discussions. In remote areas, a local traders survey would also be useful to check food availability and prices. The opportunity of also collecting anthropometric data on children should be discussed, as it will increase the sample size and also have logistics and funding implications. Information on child feeding practices would in any case be included.

The table below shows the type of sampling that could be followed. The size can be adjusted according to funds and time available.

Table 36 - Example of sampling and sources of information for a Rapid Food Security Assessment

Numbers of:	Periphery of Osh and Jalal-Abad	Remote villages	Villages in areas prone to conflict	Villages affected by earthquake	Total
Sites	15 neighborhoods/ town x 2 towns = 30	10 remote villages/oblast x 4 oblasts = 40	10 villages	2 villages	82 sites
Households	7/neighbourhood x 30 = 210	7/village x 40 villages = 280	7/village x 10 = 70	20/village x 2 villages = 40	600 households
Key Informants	1/neighbourhood x 30 = 30	1/village x 40 = 40	2/village x 10 = 20	1/village = 2	92 Key Informants
Focus Group discussions	In half neighborhoods x 30 = 15	In half of villages x 40 = 20	2/village x 10 = 20	1/village = 2	57 FGDs

If remote villages are not already inaccessible, the RFSA could start as soon as possible there. If some villages in areas prone to conflict are also likely to be cut-off in the winter, they should also be surveyed in priority now.

The private company contracted for the survey in the Bishkek periphery could be approached for the RFSA if its work proved satisfactory.