



# Tajikistan

Food Security Monitoring

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### APPENDIX I:Tajikistan Food Insecurity Prevalence Map by Livelihood Zones

# Tajikistan

## Food Security Monitoring

### Highlights

- Food Security situation in Tajikistan has steadily exacerbated in the past four years with the highest prevalence of food insecurity observed in May 2017. Households in this monitoring period are also marked with the highest percentage of food expenditure.
- While the food insecurity gap between male and female headed households has narrowed, the food insecurity level for both groups is the highest since 2014.
- Increased use of food consumption-based coping strategy may indicate a deterioration of food security in Tajikistan.
- Malnutrition rates among surveyed households remain stable, and at a level of concern. Among surveyed children under 5 years old, 5 percent of them were wasted, 11 percent underweight and 31 percent stunted.

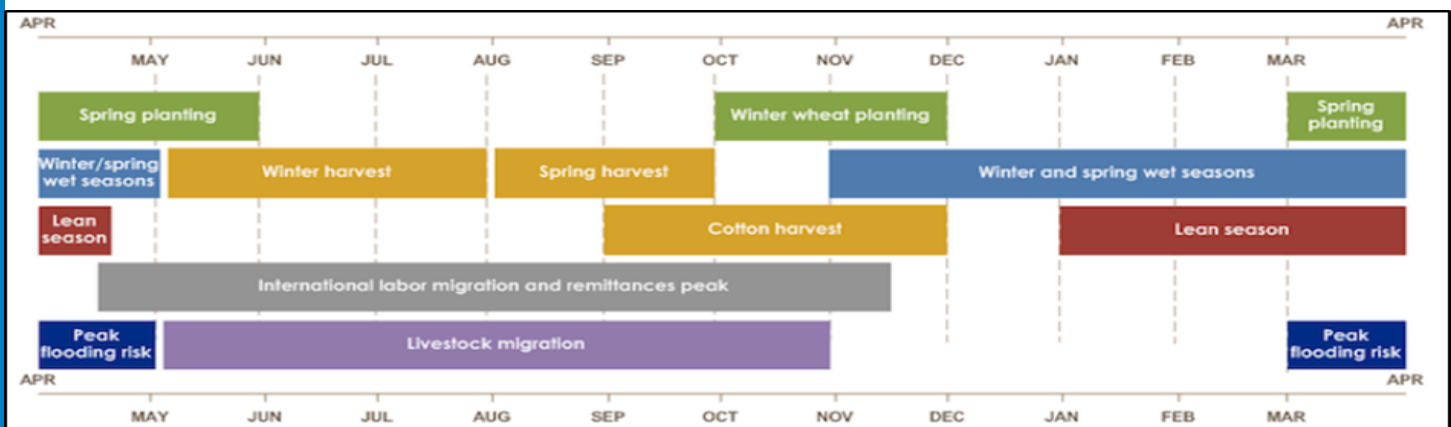
### Methodology and Key Indicators

**Methodology:** Under the Food Security Monitoring System, 1,300 households in the rural areas of 13 livelihood zones<sup>1</sup> are interviewed twice a year, in Apr/May and Nov/Dec. As households are generally revisited, the sample size is sufficient to be representative for trend analysis, but data are not representative for the entire population of the zone or other administrative unit. Similarly, the child nutrition data are not representative at geographical level, but the results are primarily indicative of the situation for the children residing in the households covered through the study.

**Key Indicators:** The food security index is based on the household's current food security status (the food consumption score) and their coping capacity, based on the indicators of economic vulnerability (share of expenditure used on food and asset depletion).

[Figure 1] Seasonal Calendar

(Source: Integrated Context Analysis: Tajikistan, 2015)



1. <http://www.fews.net/sites/default/files/TJ%20Livelihood%20Zone%20Descriptions%20English.pdf>

## Context and Recent Developments

Tajikistan is a landlocked, lower-middle income, food deficit country with a population of approximately eight million, three quarters of whom live in rural areas. The mountainous landscape confines the arable area to just seven percent of the country's surface and poses enormous challenges to food security during the winter period.

Tajikistan has made significant achievements toward economic growth since its independence. Nevertheless, the country remains the poorest in the region of Central Asia, and its economy is vulnerable to commodity price shocks and the economies of neighbouring countries, particularly that of the Russian Federation. Moreover, it has experienced frequent natural disasters and climate change (ADB 2017)<sup>2</sup>.

Tajikistan has been identified as remittance reliant country mostly coming from migrants working in Russia. The contraction of the Russian economy since 2015 and the devaluation of the Rouble caused a shock to the Tajikistan economy, with remittances estimated to account for 43 percent of GDP in 2013 down to 29 percent in 2015.

According to Statistical Agency under President of the Republic of Tajikistan, the value of gross agricultural output in 2016 in all categories of farms increased by 5.2 percent as compared to the similar period of 2015 and amounted to 22,234 mln. Somoni (Tajstat 2017<sup>3</sup>).

Despite the increased food production, the consumer price index for food has presented an increasing trend over the past few years, with a similar trend for non-food products (Tajstat 2017).

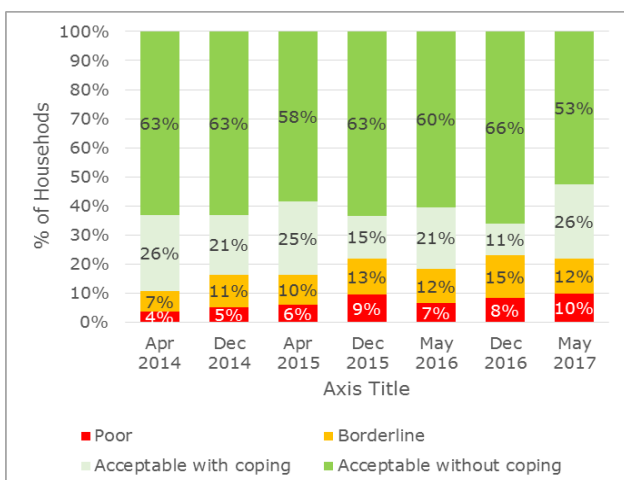
## Overall Food Security

### Food Security Index

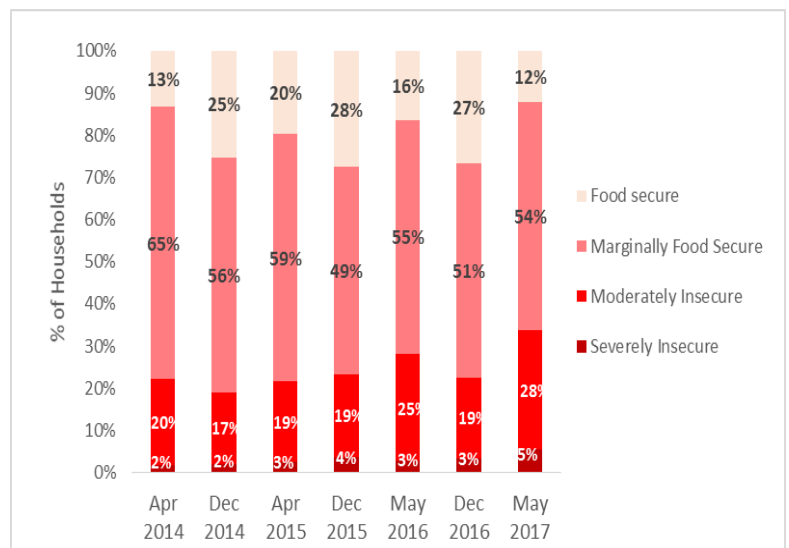
**Overall food security situation in Tajikistan has steadily deteriorated for the most vulnerable.** The prevalence of food insecure group (moderately and severely insecure households) has increased in the past few years. In May 2017, 5 percent of the interviewed households were classified as severely food insecure and 28 percent as moderately insecure – in total, 33 percent. This is an increase of 5 percent from May 2016 and of 9 percent from April 2015. Additionally, a seasonal fluctuation is discernably observed for the food secure group (see the figure 2).

### Food Consumption Score

[Figure 3] Food Consumption Score (FCS)



[Figure 2] Food Security Index<sup>4</sup>



**Similarly, the total percentage of households with borderline and poor food consumption has increased in the past few years, particularly looking at the year-on-year comparison of the spring season.**

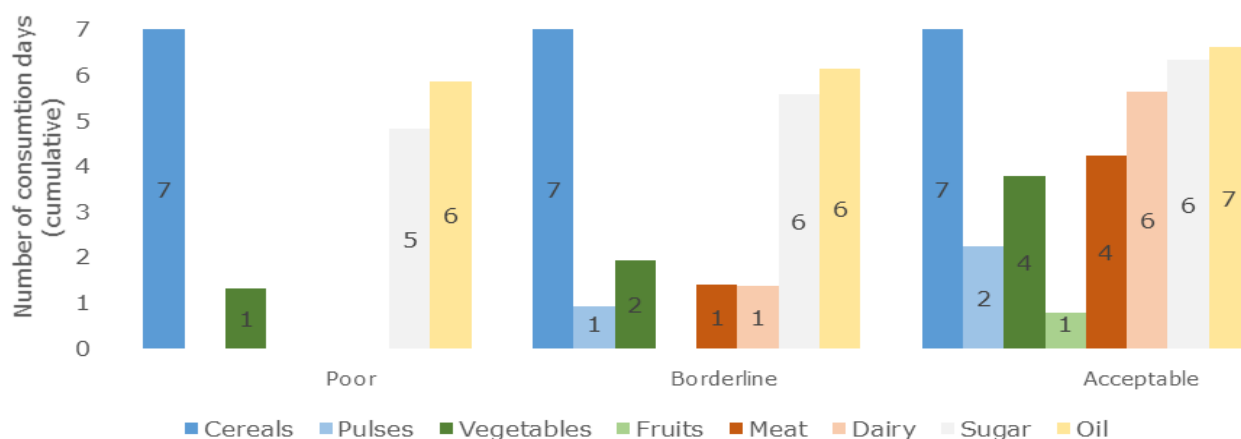
2. <https://www.adb.org/sites/default/files/publication/316606/adbi-wp738.pdf>

3. [http://www.stat.tj/en/img/2353fe21515f61accdce15b4f5cf90d2\\_1492852375.pdf](http://www.stat.tj/en/img/2353fe21515f61accdce15b4f5cf90d2_1492852375.pdf)

4. Food Security Index takes into account (1) food consumption score, (2) livelihood coping strategy categories, and (3) food expenditure share ( <https://resources.vam.wfp.org/CARI> )

## Frequencies of Food Group Intake

[Figure 4] Frequencies of Food Group Intake

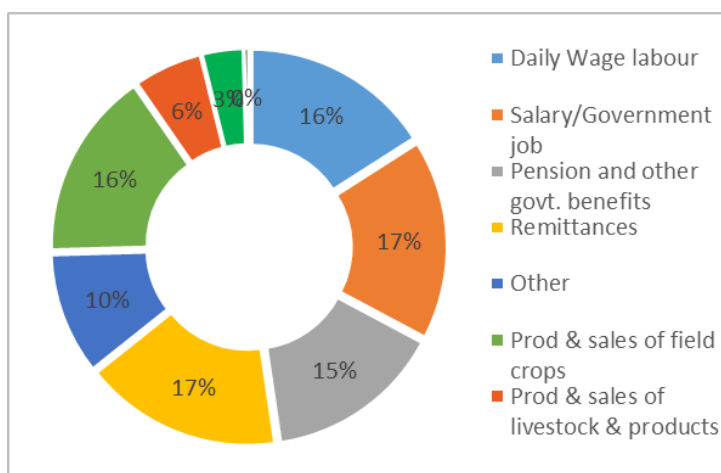


The consumption frequency patterns of the different food groups are consistent with what was observed in previous rounds of the FSMS. Households classified as having 'poor food consumption' presented a diet based on food groups that might provide high amount of calories (cereals, oil and sugar) but are likely to be low on proteins and micronutrients. Poor food consumption households eat vegetables only once a week, and they did not consume meat, pulses or dairy products in the week before the survey. Households with borderline food consumption consumed all food groups but fruits; and consumption of pulses, vegetables, meat and dairy products was limited to one or two days per week.

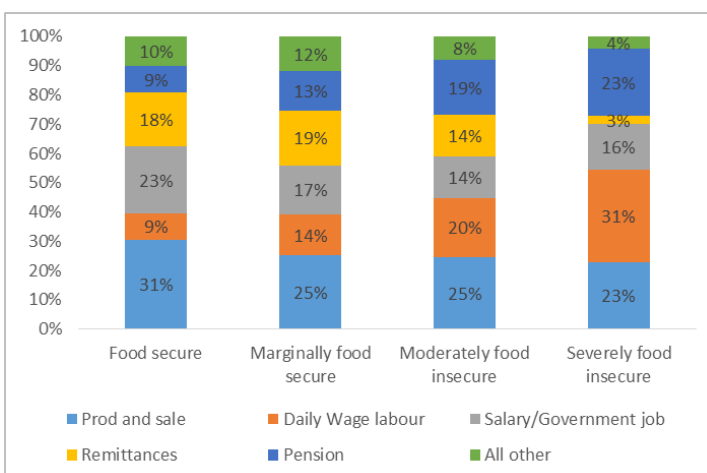
## Income and Remittances

### Household Income and Food Security

[Figure 5] Household Income Source Strategies



[Figure 6] Household Primary Income Source and Food Security



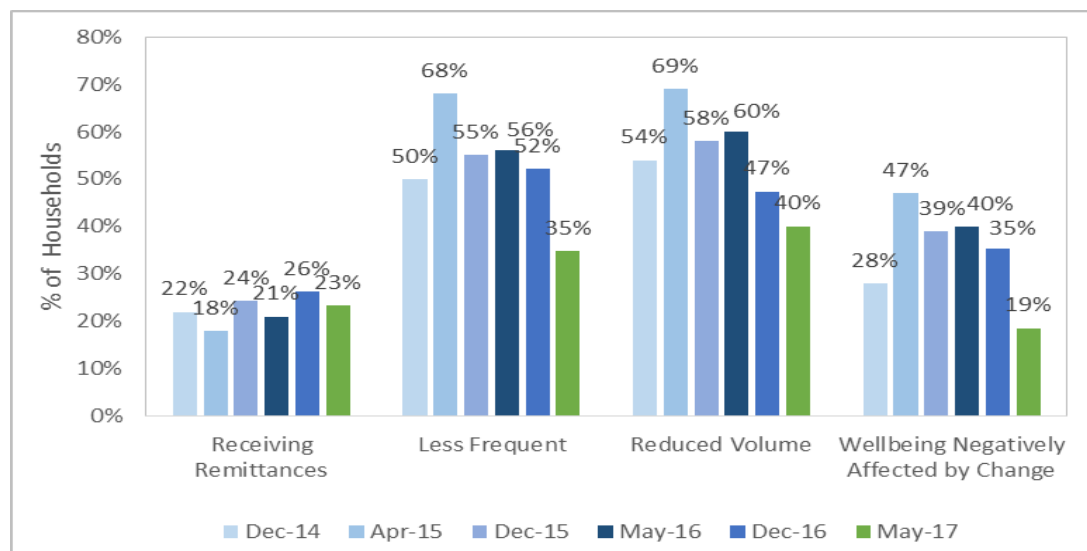
Among the interviewed households, the primary income source was reported being salary/government jobs (17 percent) and remittances (17 percent), followed by daily wage labour (16 percent) and production & sales of field crops. As the FSMS is a panel survey, with on average 95% of interviewed households revisited across different rounds, it is interesting to note that in this round the percentages of households who declared production & sales of field crops and of livestock and products as their primary income source rose by 3 percent each, reflecting an expected seasonality related to spring agriculture activities.

Figure 6 shows the relationship between primary income source and food security. **Households included in food insecure groups are more likely to depend on daily wage labour or pension as their primary income.** This might be related to the limited amount of income/purchasing power associated with those sources. On the other hand, food secure groups tend to rely more on remittances, salary/government job or production and sale of agriculture and livestock products.

## Remittances and Wellbeing

While the percentage of interviewed households with remittances as primary income remained relatively stable, the percentage of those who experienced reduced frequency or volume in their remittances in the 3 months prior to the survey date has drastically declined. In the same line, the percentage of households reporting their wellbeing had been negatively affected by the remittance change has dropped as well.

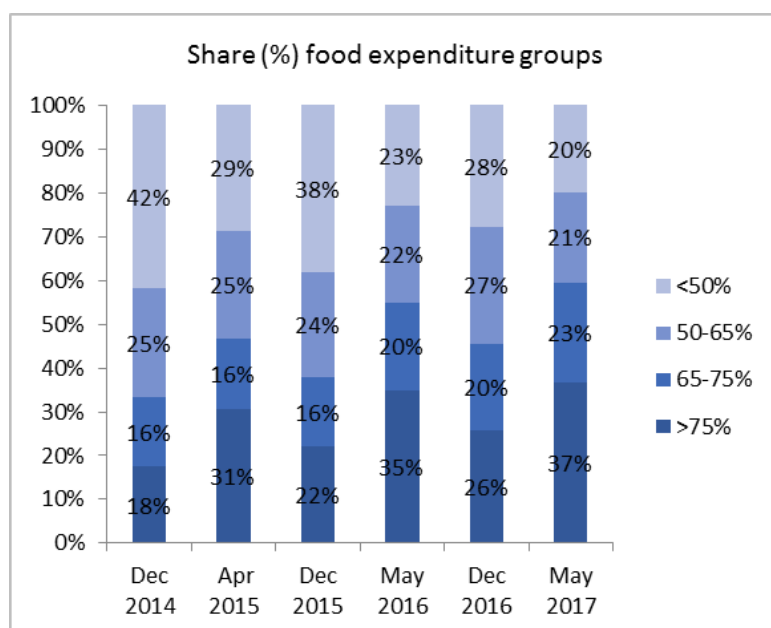
[Figure 7] Changes in Remittances received and Household Wellbeing



## Expenditure and Stocks

A household's share of food expenditure over total expenditure is used as an indicator of economic vulnerability, as households with a higher share of expenditure on food are more vulnerable to economic shocks like price increases or reduction in income. **The average food expenditure share among interviewed households in rural Tajikistan was 66 percent as of May 2017.** Spending more than 75% of expenditure is considered very high, while 65~75 percent is considered high.

[Figure 8] Share of food expenditure groups (%)

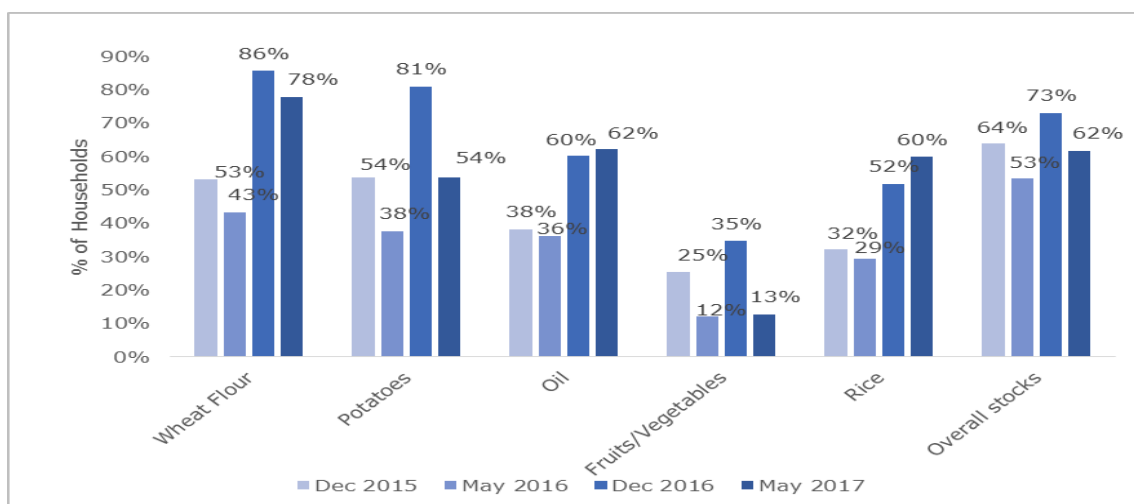


**The trend analysis shows that, taking into the consideration seasonality, the proportion of households spending more than 65 percent of their total expenditure on food has constantly increased year on year.** Also to note, more than one third of the interviewed households spent more than 75 percent of their expenditure on food.

## Food Stocks

More household reported to have stored food at home in May 2017 compared to the same period of 2016. In this round of survey, those households had wheat flour, rice, potatoes, and fruits/vegetables stocks that were considered sufficient to cover their consumption for about 3 weeks; and oil for 2 weeks.

[Figure 9] Household Food Stocks

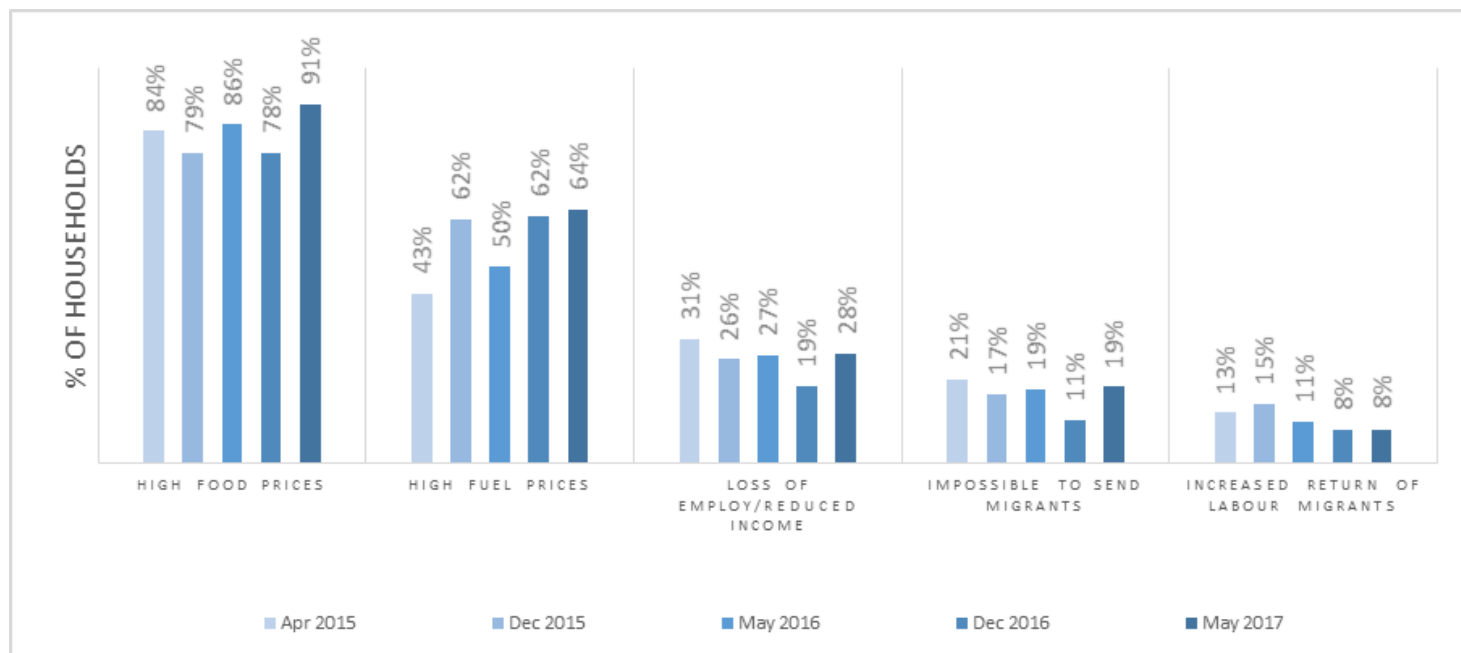


## Shocks and Coping Strategies

### Natural and Economic Shocks

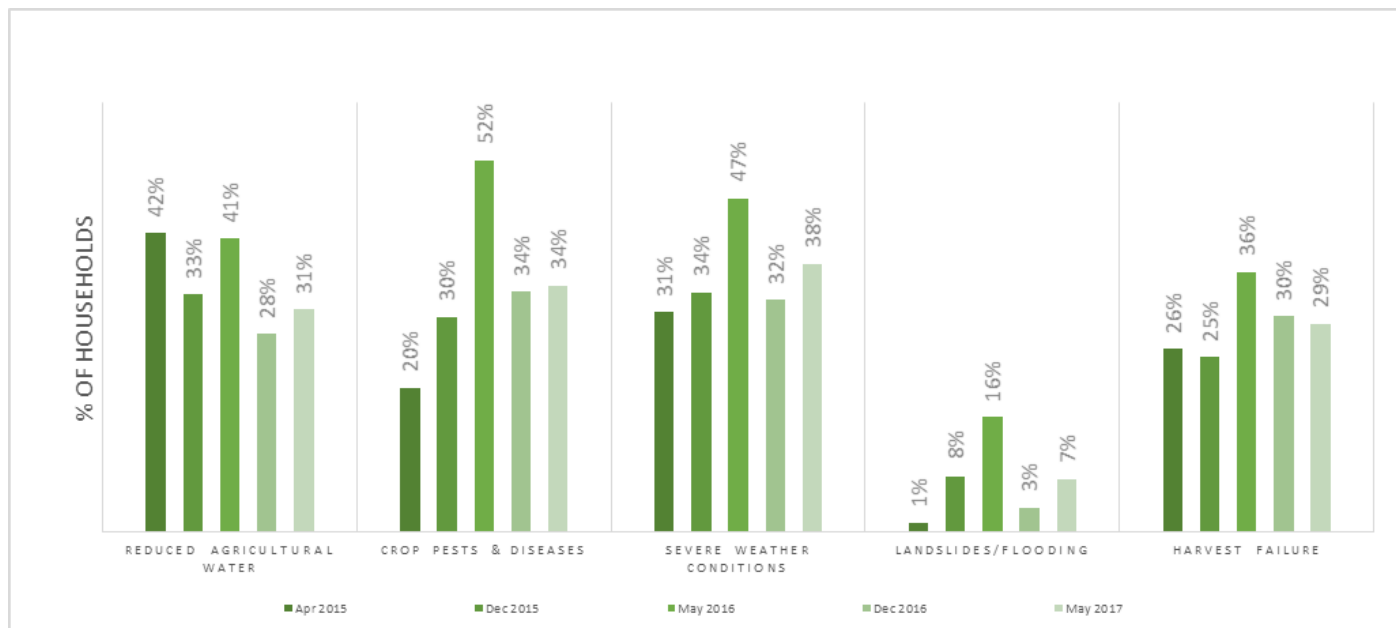
Households were asked which type of shock they have experienced in the last three months. Among the surveyed households, high prices of food and fuel have been identified in May 2017 as the shocks that hit most.

[Figure 10] List of Economic Shocks



## Natural Shock Experienced

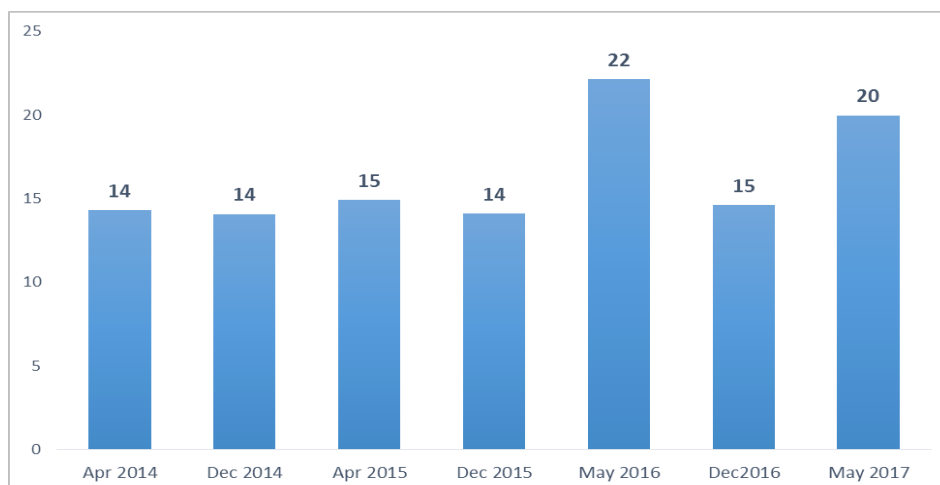
[Figure 11] Natural Shocks



In spring 2017, the percentage of the households that reported to have experienced natural shocks was relatively lower than that of spring 2016. Severe weather conditions and crop pests & diseases were the top shocks that households experienced in this round of survey.

## Coping Strategies

[Figure 12] Household Reduced Coping Strategy Index<sup>5</sup>



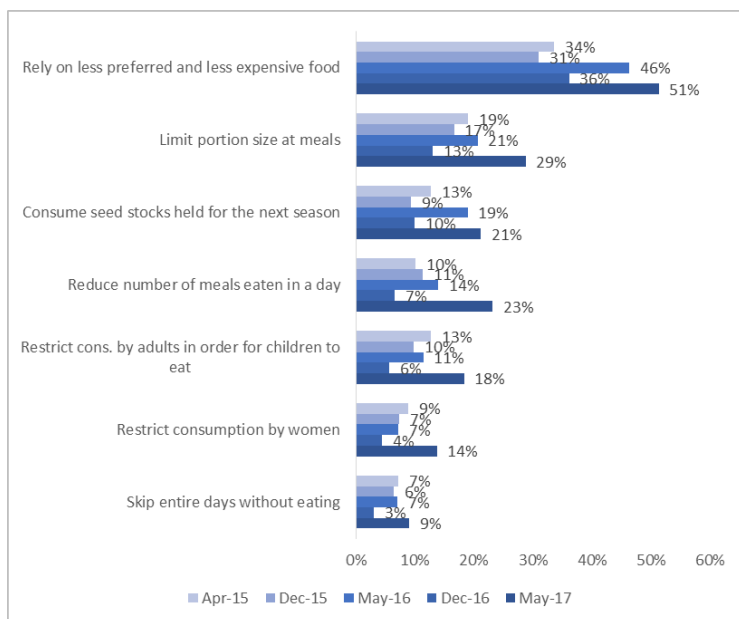
Likely to be related to the households' responses to recent natural and economic shocks, the reduced Coping Strategy Index score has reverted back to the level of the similar period of the previous year – 20 in May 2017 and 22 in May 2016. The repetitive rise in the coping strategy index indicates higher need for households to cope with difficulties in accessing enough food, and may indicate a worsening food security situation in the country.

In the case that the economic contraction prolongs, there is a risk of harming the well-being of the households as they adopt higher stress-level coping strategies. The more frequent adoption of strategies to cope with challenges in household access to food could also indicate an overall worsening of the food security situation in rural areas. They are well-depicted in the following three figures [Figure 14, 15, and 16].

<sup>5</sup>Reduced coping strategy index is based on the most common set of coping behaviours across countries, such as reduced number of meals, limit portion size, and reflects the stress level of the household (the higher the score, the higher the stress level).



**[Figure 13] Food Consumption Coping Strategies**



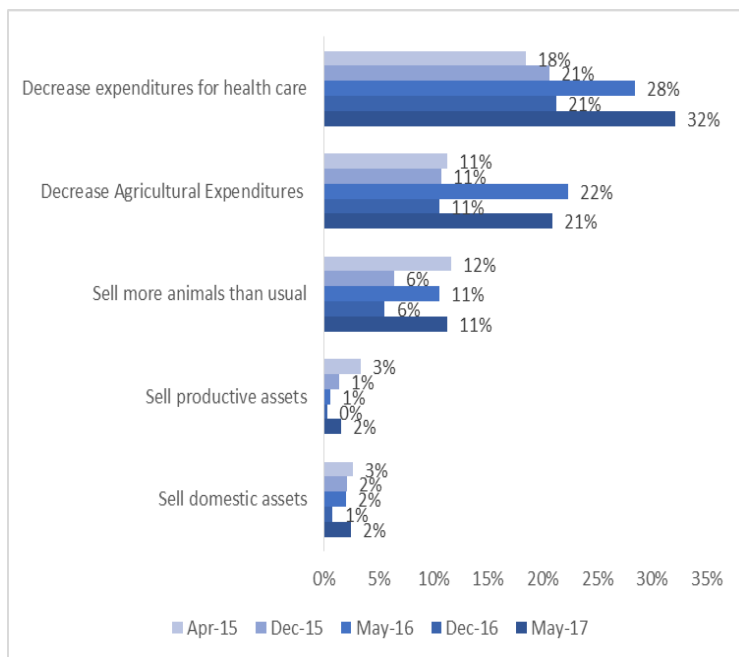
In this round of survey, more households reported to have adopted food consumption coping strategies, peaking in May 2017 compare to data collected in the past two years. Notably, over half of the interviewed households relied on less preferred and less expensive food, one third of the interviewed households experienced limiting portion size at meals and one fourth of the interviewed households reported to reducing their number of meals in a day.

These results are coherent with the increased food prices along with the subsequent deterioration in food consumption and overall food security status.

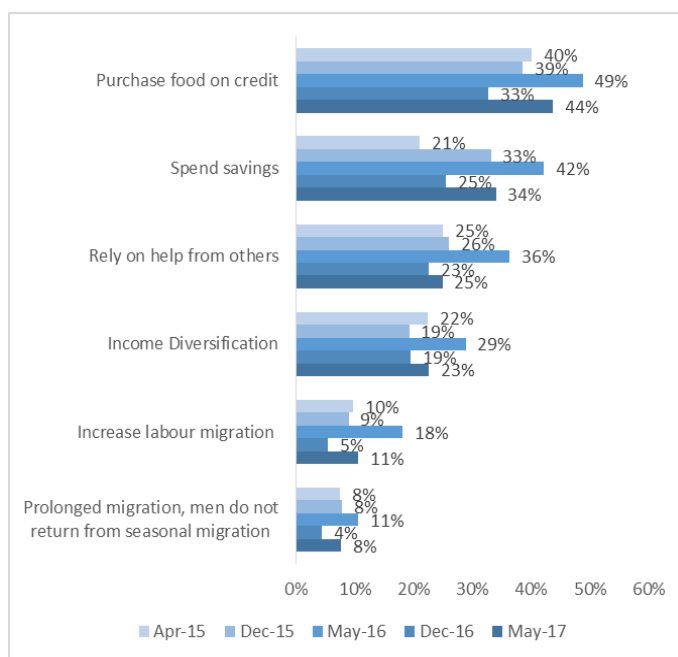
Similar pattern is observed in the households' asset depletion strategies. Additionally a higher proportion of households have decreased their expenditure on healthcare during May 2017 compared to same period in the last 2 years. The percentage of the households that reduced its expenditure for agriculture in May 2017 is 21 percent, similar to that of May 2016.

On the other hand, the percentages of households applying livelihood diversification strategies in May 2017 are somehow lower than that of May 2016. 44% of the interviewed households reported that they purchased food on credit and one third answered that they had to spend their savings.

**[Figure 14] Households' Asset Depletion Strategies**



**[Figure 15] Households' Livelihood Diversification Strategies**



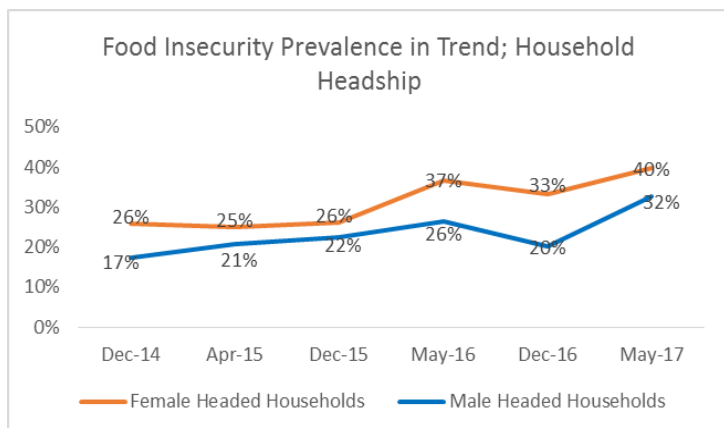
# A Gender-based Analysis of Food Security

Among interviewed households, 18 percent were female-headed while 82 percent were male-headed. Key indicators have been analysed disaggregating findings according to the gender of the head of the households in order to explore possible associations and constraints.

## Food Insecurity Prevalence in Trend

Women headed households were found to be more likely to be food insecure and less resilient to shock compared to male headed households, and this finding has been consistent across the different rounds of the FSMS.

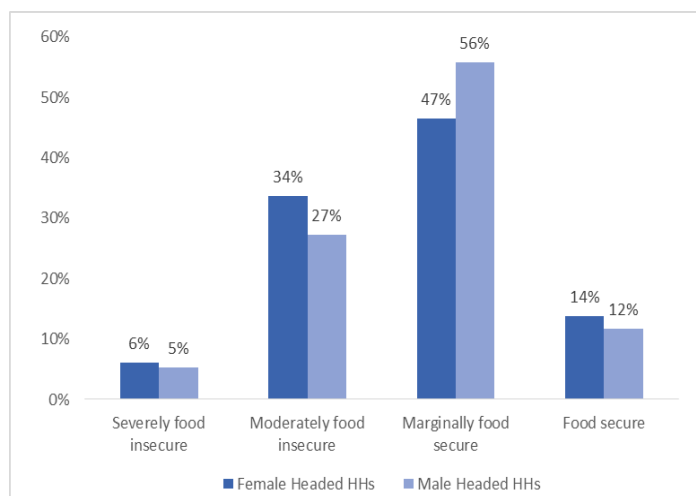
**[Figure 16] Food Insecurity Prevalence in Trend; Household Headship**



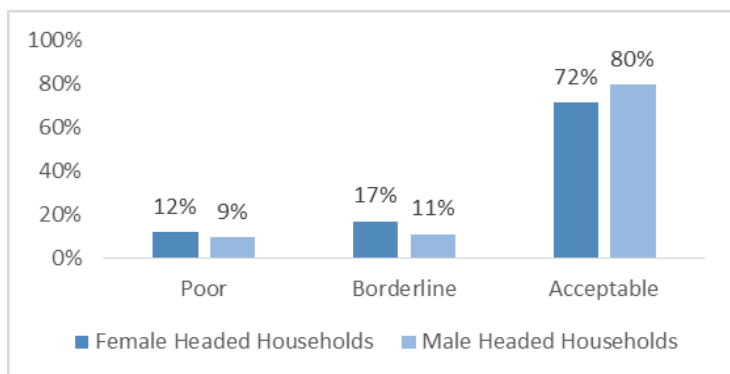
The difference in the food insecurity percentage by the household head sex was the highest in December 2016. As the economic contraction in the Russian Federation prolongs, the difference appears to have narrowed down, although it has to be noted that the percentage of both female and male headed households classified as food insecure reached its peak in May 2017.

Figure 17 presents the four food security categories by household head sex. While there was little difference in the severely food insecure group and food secure group, bigger differences were observed in the moderately food insecure group and marginally food secure group, with female headed households more likely to fall in the worse category.

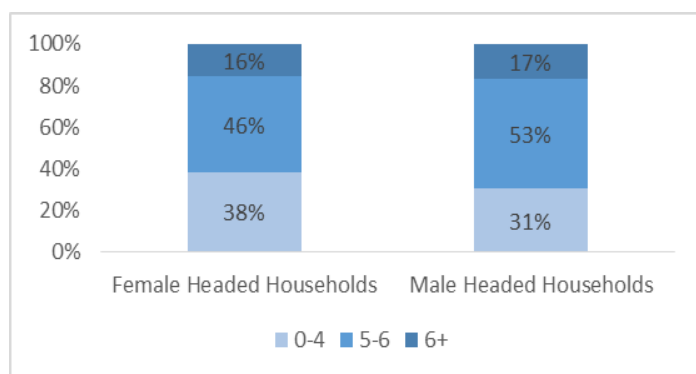
**[Figure 17] Food Security Index by the Sex of Household Head**



**[Figure 18] Food Consumption Score by the Sex of Household Head**

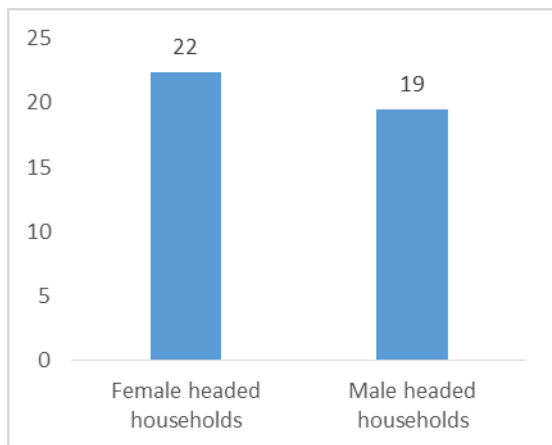


**[Figure 19] Dietary Diversity Score by the Sex of Household Head**



Similar pattern is observed both in food consumption score and dietary diversity score analysis. Female headed households were found more likely to have a less diversified diet classified as poor or borderline compared to male headed households.

**[Figure 20] Reduced Coping Strategy Index by the Sex of Household Head**



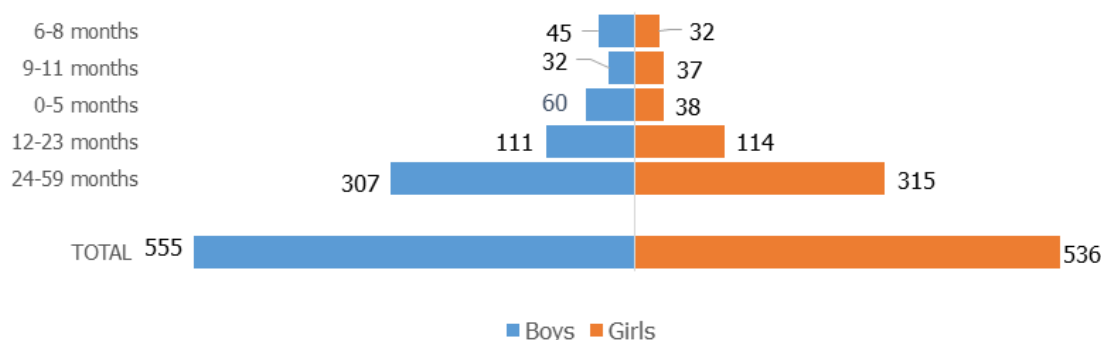
Female headed households not only had lower percentage of acceptable food consumption, but presented on average a higher score for the reduced coping strategy index than male headed households, as depicted in figure 20. Moreover, when asked whether the household’s economic situation was able to sustain or had recovered from the 3 most important shocks, 39% of female headed households answered they had not been able to recover at all, while the figure for male headed households was recorded at 31%.

## Child Nutrition

### Demography

This round of surveillance covered 1,091 children under the age of five living in the interviewed households. Disaggregation by sex showed that the numbers of boys and girls were almost identical. The sample pyramid below indicates the breakdown.

**[Figure 21] Number of the surveyed children under the age of 5 by sex.**

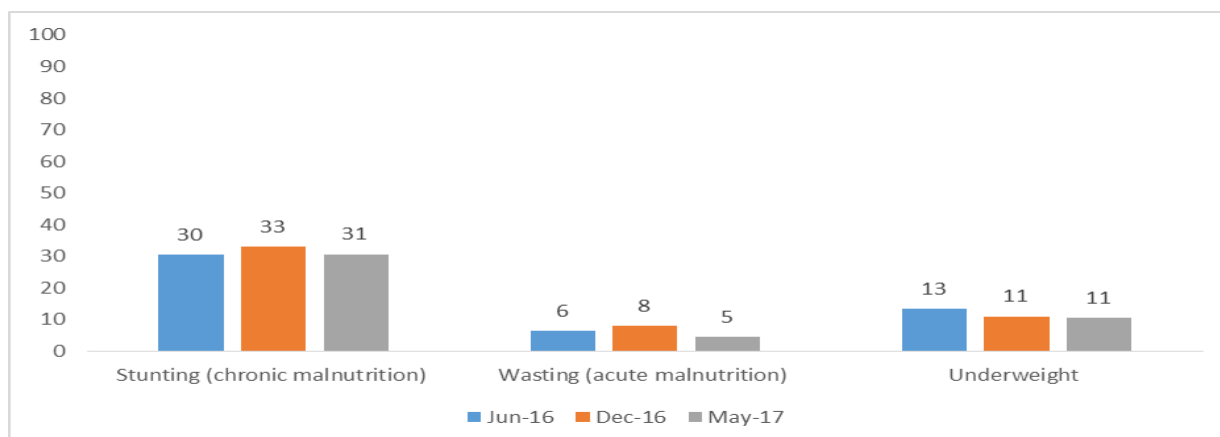


### Stunting, Wasting and Underweight

The anthropometric measurement was performed for the children 6-59 months age group.

The study measures<sup>6</sup> the three key indicators – chronic malnutrition (stunting), acute malnutrition (wasting) and underweight. Aggregated results, as per the WHO standards, showed that chronic malnutrition among surveyed children continues to be considerably high – above 30 percent children 6-59 months are stunted. This is a negative trend observed across the three rounds of the surveillance; Wasting and underweight were recorded as 5 percent and 11 percent, both of which are interpreted as at medium severity. The trend since 2016 is presented in the graph below.

**[Figure 22] Prevalence of Acute and Chronic Malnutrition among Children aged 6-59 Months**

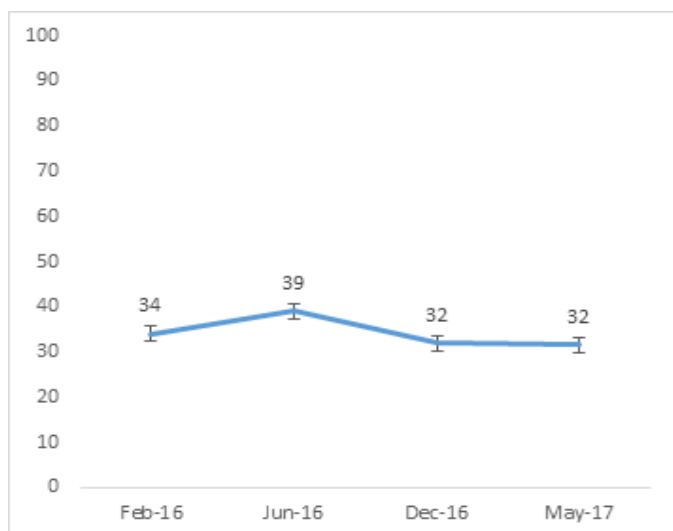


<sup>6</sup>Data collection and measurement of the anthropometric data started from June 2016

## Infant and Young Child Feeding Practices

### Breastfeeding practices

[Figure 23] Percent of Exclusively Breastfed Children 0-5 Months



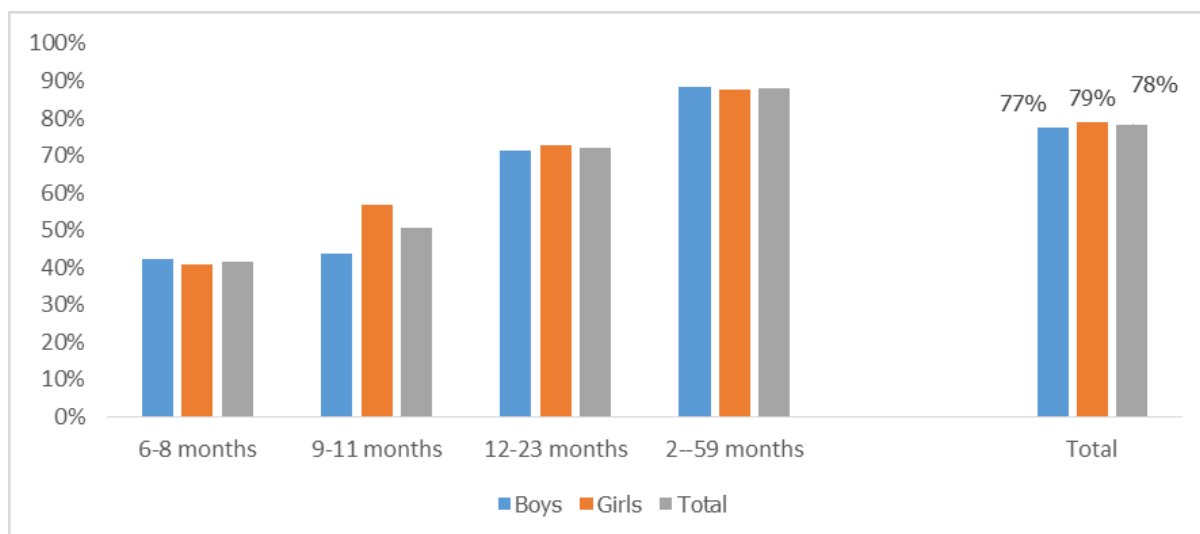
Respondents were asked if their child received breastmilk the day before the survey. Results were affirmative for a total of 37 percent of children across the age group and 99% of the children 0-5 months. Sex-wise comparison shows that as in case of previous rounds, with the only exception of age group 9-11 months, more boys received breastmilk compared to girls in respective age cohorts.

Analysis of exclusive breastfeeding indicated that 32 percent children 0-5 months were exclusively breastfed the day before the survey - a slight decrease compared to spring 2016 (39%), but similar to the previous round.

### Complementary feeding practices

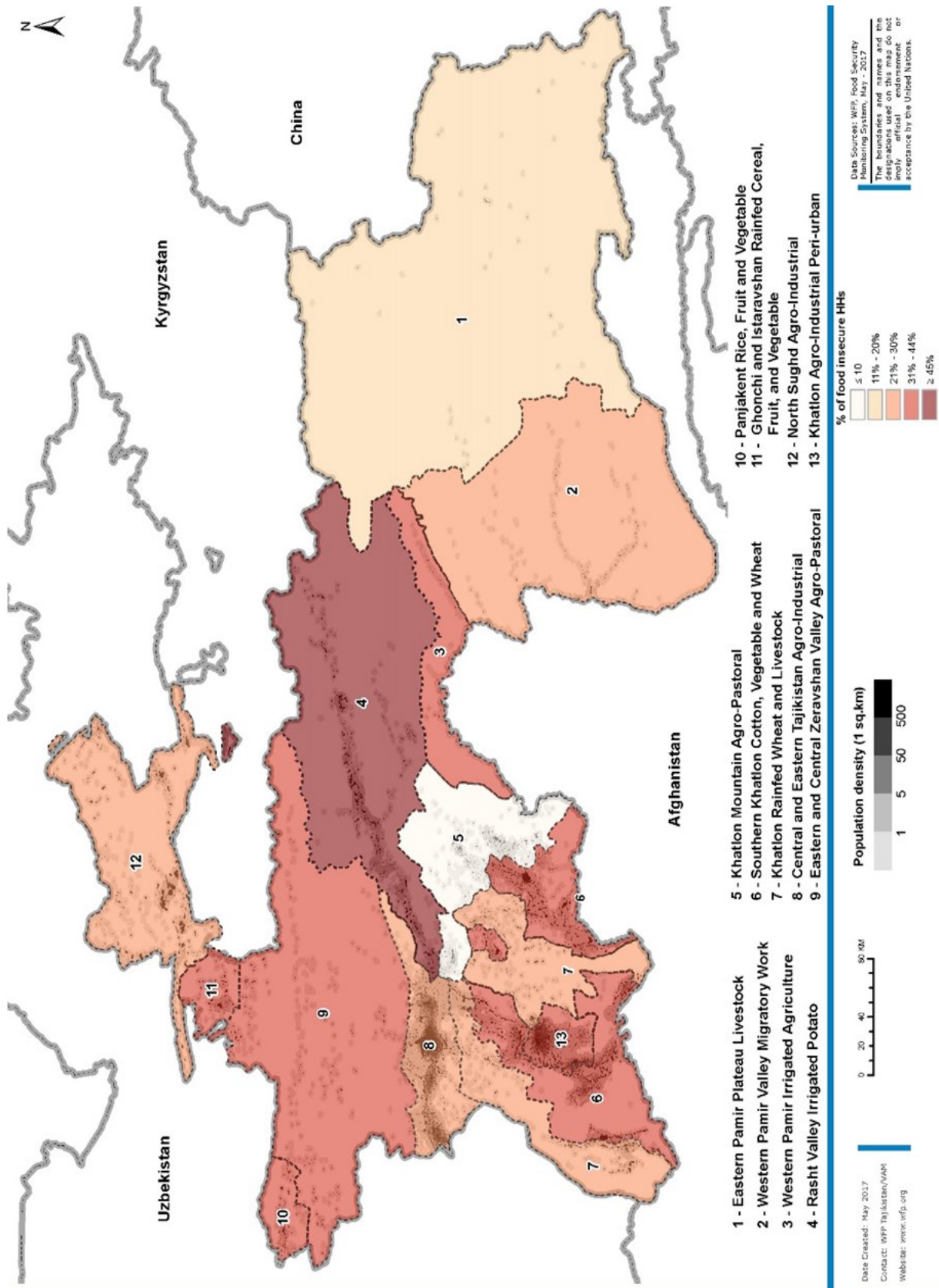
It is recommended that introduction of complementary feeding (giving solid or semi-solids to infants in addition to breast milk) starts at the age of six months as the breastmilk feeding alone is no longer sufficient to maintain the child's growth further. The results indicated that only 78 percent of children 6-8 months reported to have received solid, semi-solid or soft foods the day preceding the survey Figure 23. This confirms the persistent gap in timely introduction of complementary feeding.

[Figure 24] Percent of children receiving Solid, Semi-solid or Soft Foods Yesterday



40 percent of the non-breastfed children 6-23 months are consuming food more than the required four times a day while 33 percent of the surveyed children 6-23 months received at least the minimum dietary diversity (four or more food groups), and 53 percent of the breastfed children 6-8 months and 47 percent of the breastfed children 9- 23 months received solid, semi-solid or soft food.

Overall, the review of nutrition status of children - both exclusive breastfeeding and complementary feeding are showing negative situation. Specifically, a large proportion of children 0-5 months (68%) under 0-5 months are not exclusively breastfed. This may imply that specific programmatic interventions are required in respective areas.



## APPENDIX I: Tajikistan Food Insecurity Prevalence Map by Livelihood Zones



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