



IMPACT OF RISING FOOD PRICES ON HOUSEHOLD FOOD SECURITY IN YEMEN

World Food Programme

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ABBREVIATIONS

CFSVA	Comprehensive Food Security and Vulnerability Analysis
CSI	Coping Strategy Index
Du	Dunum
EU	European Union
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
FGD	Focus Group Discussion
FIVIMS	Food Insecurity Vulnerability Information Mapping Systems
GDP	Gross Domestic Product
Ha	Hectare
HFP	High Food Prices
HH	Household
IFPRI	International Food Policy Research Institute
OEDC	Organization for Economic Co-operation and Development
PCA	Principal Component Analysis
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
US	United States
USDA	United States Department of Agriculture
VAM	Vulnerability Analysis and Mapping
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization
Y.R	Yemeni Riyals



EXECUTIVE SUMMARY

Yemen is an impoverished country with large scale food insecurity, malnourishment and poverty. It relies heavily on imports to provide the staple food its population consumes. Over 91% of wheat and 100% of rice is imported. The phenomenal rise in global prices of cereals has therefore severely impacted consumers in Yemen. According to the WFP global analysis¹, Yemen is one of the 18 countries most affected by higher food prices.

Over the last few years, WFP and its sister UN agencies have conducted a series of studies to estimate prevalence of food insecurity, malnourishment and poverty in the country. These include the 2006 Food Security study by WFP, the Nutrition study by WFP and UNICEF of the same year, the 2003 FIVIMS study by FAO and lately the 2007 Poverty Assessment by UNDP. These reports are complemented by the government's own Family Health Survey conducted in 2003. Whereas oil-led growth resulted in reducing urban poverty by 11 percent between 1998 and 2006, these gains have been reversed by price rises over 2007 and 2008.

In June 2008, to better understand the impact of higher food prices, WFP conducted a rapid assessment consisting of a literature review, focus group discussions, a household survey covering 15 governorates and a trader survey. 70% of respondents were from rural areas and 30% were from urban areas. **Survey results concluded there were 18% severely food insecure and 25% moderately food insecure people in Yemen².** The FAO 2003 Food Insecurity and Vulnerability Information Mapping System (FIVIMS) survey states that approximately 21.8³ percent of households nationally are food insecure. There has been an escalation of basic food prices since Jan 2007. As a result "the proportion of the population suffering from food poverty, meaning unable to even meet its basic food needs, more than doubling."⁴ This is a significant deterioration in food security. Food insecurity was prevalent in both urban and rural areas. Food insecurity was prevalent in both urban and rural areas. The highest percentage of food insecure people was in the rural areas of Zone 4 consisting of Shabwah and Hadramout valleys. Due to cultural norms, adults prioritize food for children yet 40% of families had to reduce expenditures on health and 18% withdrew children from schools. On average, a household spent 65% of its expenditure on food.

A high level of deterioration of the quality of life is estimated. There has been an increase in the population suffering from extreme poverty and in the number of people

¹ WFP is developing a phased response strategy to the global food crisis, which consists of the following steps (WFP, 2008a): 1- Immediate – Crisis Response and Safety Nets, Medium term - Boost agricultural production and Longer term – Policy Reform: The WFP document can be accessed at: <http://www.un.org/issues/food/taskforce/WFP%20Response%20to%20Global%20Food%20Crisis%2010%20May%2008.pdf>

² The number of food insecure people is estimated from a household survey of the poor. The overall food insecurity is extrapolated using poverty figures.

³ Its worth noting that the HFP survey data cannot be completely compared to the FIVIMIS -2003 and WFP/UNICEF 2006 estimates owing to the different methodologies used: the sampling methods, the type of questionnaire, the reference and the recall periods all are factors that affect the final results.

⁴ "Some Reflections on Rising Food Prices in Yemen" Dr Mohammed Pournik UNDP Yemen 2008.



unable to afford 2,100 Kcal a day. The poor are estimated to spend between 50 and 70% of their incomes on food. Wheat prices have doubled in a year while most incomes remain the same. Poverty studies place the majority of poor in rural areas. However, increase in prices of imported cereals, and the heavy reliance of the majority of people on these foods, clearly raised the food poverty in both urban and rural areas. The WFP 2008 Survey concluded that higher food prices were the major difficulty affecting 53% of households. In rural areas, families with little or no own production were the most affected. Food insecurity and poverty profiles placed larger families and families that do not own land as most vulnerable.

The government plans to increase use of mixed cereals for bread through awareness and training programmes. Government salaries are to be raised and there are plans to increase agricultural and fisheries production. Success in these efforts should contribute to food security. International agencies should support the government in ensuring that assistance is provided according to food security needs and not based on status. Distribution of the 500 thousand tones of wheat gifted by UAE should be according to food security needs of the people.

At the household level, WFP should increase the number of beneficiaries through a free food distribution programme to target vulnerable people who are at the highest risk of hunger and malnutrition, within the selected districts identified by this assessments. The poorest households would receive 50 kg cereals each month for 6 months to help meet their food gap.

Nutrition interventions for children, pregnant women and nursing mothers through targeted supplementary feeding, should be scaled up aiming to prevent and treat moderate malnutrition, complementing UNICEF's intervention for severe malnutrition. WFP's food basket will use special products fortified in micronutrients and minerals.

In the longer-term, the other measures to address food insecurity, such as cash transfers from the safety net, are expected improve household food security of the poorest household and a programme for urban food insecure could be initiated. Food security monitoring system with early warning indicators should be established across the country.



PART I - INTRODUCTION

The International Context

International food prices rose by 75 percent since 2000, while wheat prices specifically increased by 200 percent (WB, 2008). Despite a record world harvest in 2007, international wheat prices in January 2008 were 83 percent higher than a year earlier (FAO, 2008). As with wheat, the price of rice is expected to continue to increase. By December 2007, thirty-seven countries faced a food crisis and 20 nations had imposed some form of food-price controls. In April and May of 2008 wheat prices dipped slightly, however, FAO expects food prices to stay high for the next five to ten years (Figure 1⁵).

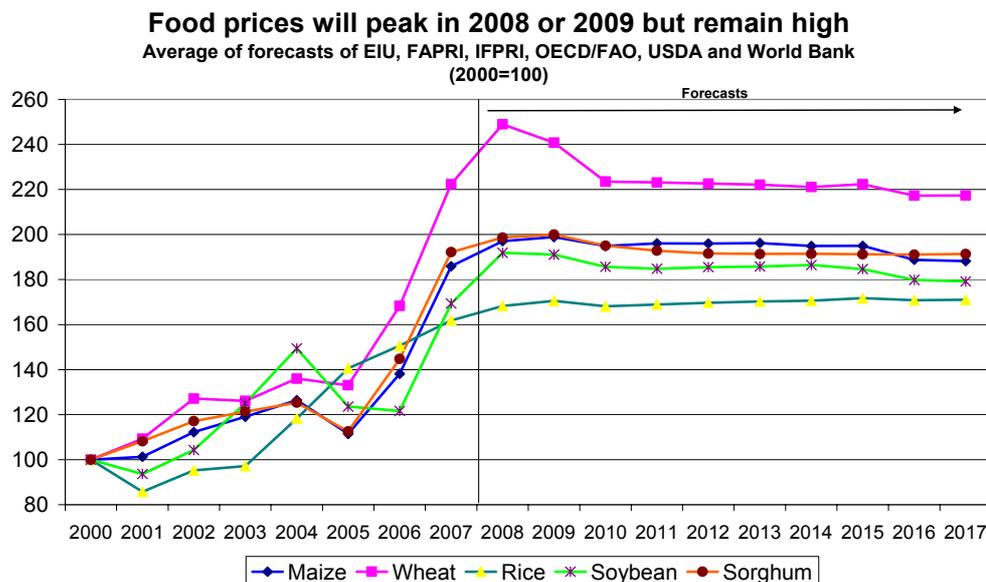


Figure 1: International Food Prices Projection

Some of the reasons for this price rise were:

- The increased globalization of agriculture further encouraged monocultures and a decrease in the variety of agricultural crops used. Consequently, food crops had an even greater risk of disease.
- According to the International Food Policy Research Institute, soil degradation had significantly impacted the productivity of about 16 percent of the globe's agricultural land: 75 percent of cropland in Central America, 20 percent in Africa (mostly pasture), and 11 percent in Asia were seriously degraded (IFPRI, 2000).
- The Free Trade agreement obliged countries to lower their tariff barriers and thus stop protecting farmers as their markets were flooded with imports from countries such as the US and the EU, that heavily subsidize their farmers. Countries that were most affected were those that most enthusiastically were forced to embrace free trade (Patel, 2007).
- The cost of rice is expected to increase significantly in the coming months as it is impacted by the export ban on non-basmati rice from India.

⁵ Source of this information is WFP/OEDP-2008



Yemen Context

Before the current global price rises, Yemen was already in a serious food insecure situation. 2005 data show that more than 50% of children less than 5 years old suffered from moderate to severe stunting, including 55% of children in rural areas and 44% in urban areas⁶. According to WFP's global analysis of countries' vulnerabilities to price rises, Yemen is among the first quintile that receives highest priority. Yemen is a low income, food deficit and least developed country. More than 35 percent of its population is undernourished and food access has been a major concern for many years. Almost four-fifths of the country's food grain requirements are imported, which makes the country extremely vulnerable to international food price increases and freight costs.

Using data on consumption patterns in Yemen, produced through the Household Budget Survey, 2005-2006, UNDP has estimated the current level of poverty by plugging in the current level of prices into the consumption basket obtained by the survey: "The results show a consistent increase in poverty rates since January 2007, by when already the proportion of the population unable to meet their basic food needs had risen to 20% and the proportion below the national poverty line to 46%, more than reversing all the gains in poverty made between 1998 and 2005-6. The annual inflation rates for food averaged 23.2 percent for 2007, and around 5.3 percent in the first two months in 2008. The average inflation rate was 12.6 during 2007 and around 3.85 percent in the first two months in 2008. Escalation of basic food price increases since Jan 2007, which continues to date have since worsened the poverty situation and paint a bleak picture. They show the proportion of the population suffering from food poverty, meaning unable to even meet its basic food needs, more than doubling."⁷

Yemen is a net importer of the two main staples consumed: wheat and rice. Yemen imports 91% of its wheat and 100% of its rice. Internationally the price of wheat and rice has risen dramatically. The cost of this price increase has been passed on to the consumer in Yemen. This cost has been further exaggerated by the general food price rises in the same year due to a lack of supply. Figure 2 illustrates the cost of wheat in Yemen between March 2005 and March 2008 (costs are in Yemeni Riyals by 50kg bags).

⁶ "Yemen Family Health Survey" Ministry of Health and Population and Central Statistical Organisation, 2005

⁷ "Some Reflections on Rising Food Prices in Yemen" Dr Mohammed Pournik UNDP Yemen 2008.

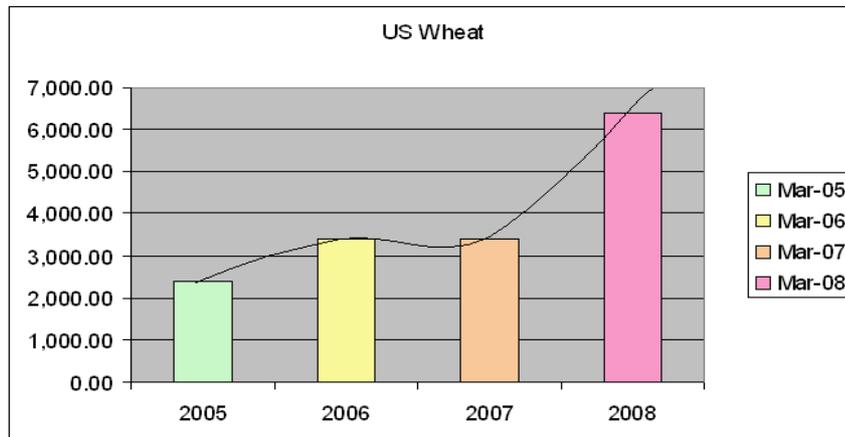


Figure 2: Price of Wheat in Yemen 2005-2008⁸

Agro-ecological Zones of Yemen

ZONE 1: The central and northern highlands

These jagged mountainous highlands reach more than 3,000 meters above sea level, whilst the sandy *wadies* between the mountains are only a few hundred meters above sea level. This is the most densely populated area of Yemen with over 60% of the population living in the central and northern highlands. Terrace cultivation of the steep mountain sides is the typical form of farming. Most agriculture is rain fed however the more wealthy landowners are able to combine this with irrigation. Irrigation is generally applied to high value crops such as *Qat*. The people of the highlands describe themselves as “*Qabilies*” or tribes people. Villages are typically made of stone houses built in defensive formations. A village is usually small made up of 10-30 households. The economy of the area relies on agriculture and livestock (goats and cows), as well as remittances from workers who have either migrated to towns in Yemen or abroad. The mountainous region has a temperate climate all year round (Map 1).

ZONE 2: The Tihama Plain

The Tihama plain has terrain similar to the African savannah. Extreme heat in the summer kills the grasses. Agriculture is irrigated from flash floods originating in distant mountains. A few wealthy farmers are able to irrigate their land with water pumps, but for most this is too expensive. There are some very large farms in the Tihama plain however these are owned by a handful of absentee landowners. The Tihama is known for its livestock rearing because of the availability of fodder. Goats and cows are raised here. Also fishing is a form of livelihood practiced here. Houses in the Tihama are traditionally round, mud and thatch constructions. The people are darker skinned than those in the mountains and many of their traditions can be traced back to originating on the African continent. Historically much trade and socio-cultural exchange has taken place between those living on the Tihama plain and the horn of Africa. Around 13 % of the Yemen population live in this zone



ZONE 3: The Southern coast from Aden to the border with Oman

The south in general is much more sparsely populated than the North. Spate irrigation is used near Aden, where cotton is grown. The large communal farms of the socialist past are now privatised and owned by a small number of people living in Sana'a. There is limited livestock rearing because of the scarcity of fodder however camels are herded. Fishing is a traditional source of livelihood here. Traditionally houses are constructed from mud although now red brick is being used by the more affluent. Most of Yemen's three million malaria infected people live here or in the Tihama plain. Studies show that there is a strong correlation between malaria and the incidence of poverty. Malaria affects development, fertility, population growth, savings/investment, worker productivity, absenteeism, premature mortality and medical costs. Malaria also affects the purchasing power of the people. Around 8 % of the Yemen population live in this zone

ZONE 4: The Middle Plateau of Shabwah and Hadramout

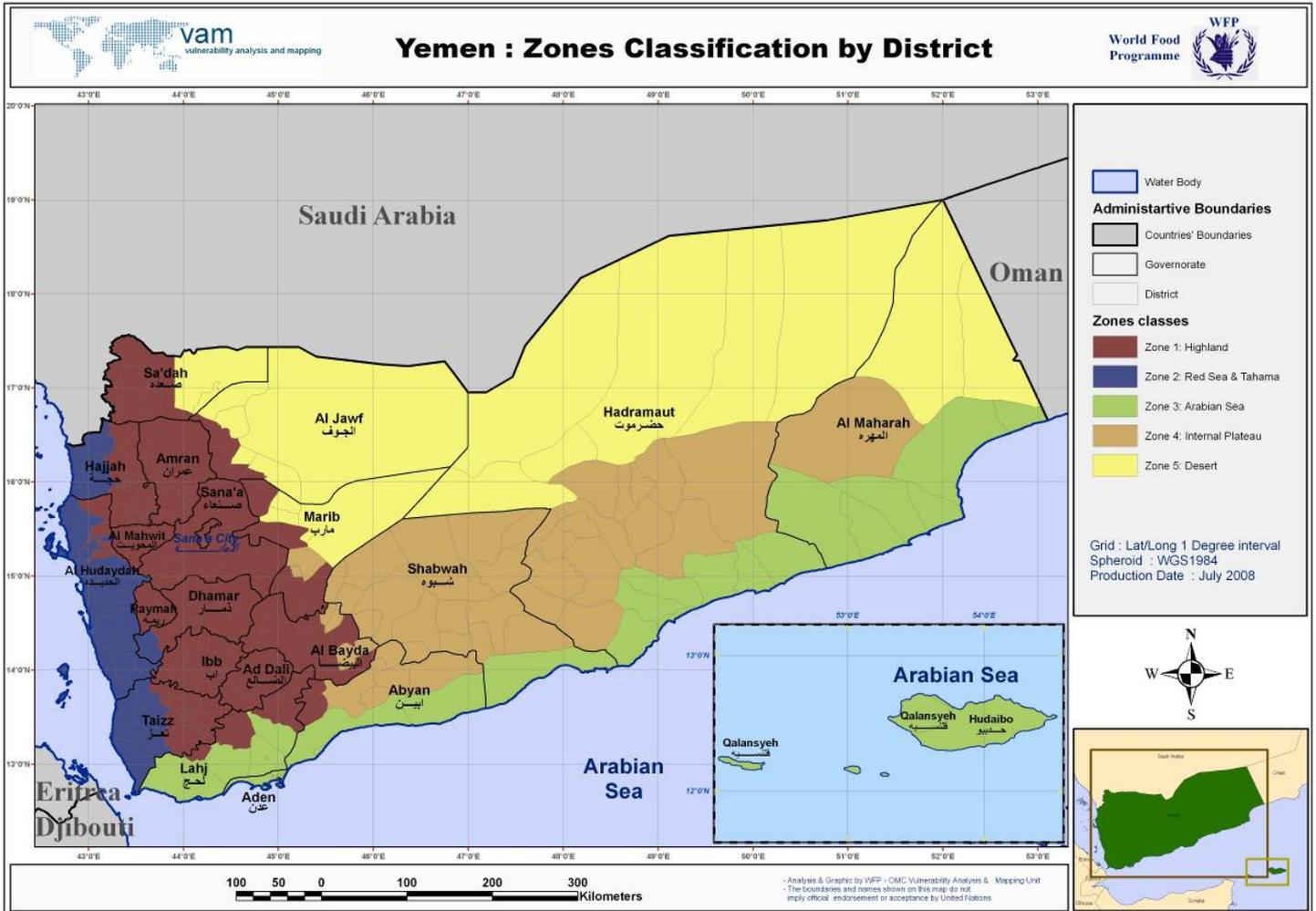
The Middle Plateau is characterised as predominantly desert with a few lush wadies carving paths through it. Because of the desert environment, this is a sparsely populated area with people being concentrated in the wadies. Houses are elaborately constructed from mud. Agriculture is generally rain and flash flood fed however the wealthy land owners irrigate with water pumps from ground wells. In addition to agriculture there are pastoralists who live here. This was a formally very wealthy area of Yemen with strong trading ties which linked southeast Asia with Zanzibar. The trade is no longer a source of wealth, and the population relies heavily on remittances. Around 7 % of the Yemen population live in this zone

ZONE 5: The Empty Quarter (Desert)

The Empty Quarter is the rolling sand sea which stretches into Saudi Arabia. It is inhabited by a few nomadic Bedouin who rely on trade of goats and camels. Because of the scarcity of the population, their constant mobility and the inaccessibility of the area, this zone was not surveyed. Around 1 % of the Yemen population live in this zone



Map 1 : Agro-ecological Zones of Yemen





PART II - STUDY OBJECTIVES AND METHODOLOGY

Study Objectives

The following questions are addressed by this report:

- Who are most affected by higher food prices and where are they?
- What is the status of government programmes to address the price shock?
- Are specific appropriate responses required?

In June 2008, a rapid survey of 600 households was conducted over 15 of the 23 governorates (Annex A) and 38 districts (of 333). The study looked at food consumption in 40 villages of 15 governorates with 15 families in each town/village were surveyed. 70% of respondents were from rural areas and 30% were from Urban areas. About 90% of respondents in the household survey were female.

The survey was conducted in four of the five agro-ecological zones of Yemen. The fifth zone is the Empty Quarter which has so few inhabitants that for sake of expediency it was not included in the survey.

1. The central and northern highlands
2. Coast along the Red Sea and the Tihama Plain
3. The Southern coast along the Arabian sea.
4. The Middle Plateau of Shabwah and Hadramout

Twenty enumerators (13 women) were contracted to gather the data. Enumerators were trained and the questionnaire was pre-tested in an urban area in Sana'a town and a rural area in Sana'a governorate. The questionnaire was adjusted according to the pre-test and feedback from the enumerators.

Sampling and Selection of Respondents

A purposeful random selection was utilized to identify the districts to be surveyed. A list of districts with a higher than 40% poverty rate was compiled for each of the four zones. From the shortlist, ten districts were then randomly selected in each zone. If the random selection identified a district which was either inaccessible due to time constraints or insecurity, then the next district in the random selection was chosen. Seven villages and three urban areas (one per district) in each zone were identified by the enumerators using the following criteria:

- No commercial *Qat* cultivation
- No functioning services such as schools, health centres, electricity and safe drinking water
- At some distance from a paved road
- Local knowledge on poverty in the area

Once the village was identified the enumerations then chose 15 households in the village according to the following criteria:



- The house looked like one of the poorest in the village
- The types of cloths the children were wearing
- Households with large numbers of children
- Local knowledge on poverty in the area

The same criteria were used for selecting households in urban areas. Data collection took fifteen days due to the extreme distances and poor road conditions. Security concerns meant that the enumerators were unable to travel to conflict areas such as Jawf and Sa'ada governorates. The questionnaires were brought back to the WFP Sana'a office where data entry was carried out. Data analysis, coding and cleaning was carried out at the WFP Regional office in Cairo.

Vulnerability and Food Security Conceptual Framework presented in Figure 3 informs not only the selection of indicators for analysis and use in geographic targeting, but also the design of field assessment instruments and the organization of standardized reporting formats.

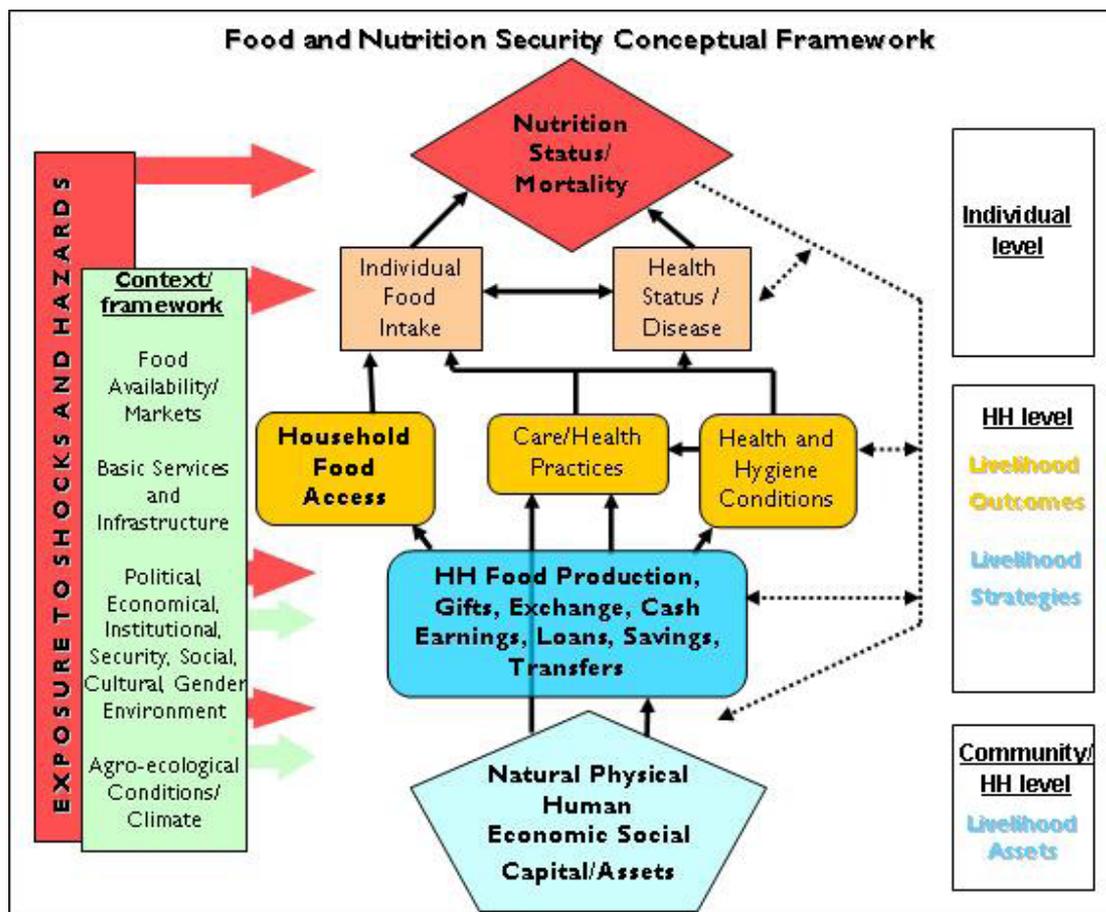


Figure 3: WFP/VAM Food and Nutrition Security Framework



Data Sources

Three approaches/tools were used to generate information on the impact of higher food prices (HFP) on food security situation of poor communities in Yemen: 600 households were visited, 28 traders were interviewed and 10 focus group discussions were conducted. Secondary data were consulted for analysis, particularly; the UNDP 2007 poverty report, FIVIMIS 2003, WFP/UNICEF 2006 food security assessment, and the WFP Pre-Crisis market profile were reviewed.

Limitations of the study

The HFP survey covered the four populated zones of Yemen and excluded Zone 5 which covers the Northern deserts of Hadramaut adjacent to Saudi Arabia's Rub-ul-Khali (empty quarter). Since WFP/UNICEF had conducted a nutrition survey in 2006, this rapid assessment did not include anthropometric measurements. Instead, secondary data analysis was conducted to cover nutrition.

- The sample size was 600 households with 150 households per zone. Whereas this sample size allows national and zone level analysis, it does not permit analysis at the district level
- Only covers 4 zones i.e. 15 governorates out of 21 (Table 1)
- It gives a snapshot of higher food price impacts during June 2008. The survey should be followed-up with a periodic food security monitoring programme.
- The survey was conducted in poor districts. In order to derive national figures, the district level poverty figures of UNDP were applied. If 10% of the population of a poor district are found to be food insecure, the overall food insecure would be 10% of the poor amongst that district's total population. Therefore the food insecurity figures exclude food insecure people amongst the non-poor. The underlying assumption being that the percentage of food insecure amongst non-poor is considerably lower compared to the food insecure amongst the poor and that inclusion of the non-poor food insecure in the sample would have required a much larger survey.

Table 1 : Sample by Governorate

Governorate name	Sample size	Percentage
Ibb	30	5
Abyan	76	13
Sanaa	15	3
Albida	30	5
Taiz	15	3
Hajja	60	10
Alhodieda	104	17
Hadramaut	105	18
Shabwa	75	13
Aden	15	3
Lahja	15	3
Al-mahweet	15	3
Al Mahra	15	3
Amran	15	3
Addaleh	15	3
Total	600	100



PART III - FOOD SECURITY AND VULNERABILITY ANALYSIS

Household Demographics

Average household size was eight⁹ (Table 2) with over a third of households having more than 8 members. Over 93% of households had member(s) less than 18 years old and 66% had child(ren) under 5 years old. About 78% of surveyed household were headed by men.

Table 2: Age distribution of the head of the household

Gender	Percent	Average Age	HH size
Male	78	44	8.4
Female	22	43	7.0
Yemen	100	44	8.0

School Absenteeism

The main reason for absenteeism in schools is the current economic situation (Table 3). About 35 percent of the households reported that they could not afford the school fees. Such high rates of absenteeism would dampen long term prospects of economic improvement. Compared to urban communities, absenteeism is higher in rural areas. Whereas the main reason for absenteeism is the economic situation (poverty), rural areas also suffer from the lack of educational infrastructure (Figure 4). The main reason for absenteeism in Zone 4 is the lack of schools and early marriage of girls.

Table 3: Reasons of absenteeism from School

Reasons	Percentage
Child too young	24
Sickness/handicap	3
Can't pay school fees	35
Can't offer transportation /far away	7
Absent teacher/ poor quality teaching	4
Household chores/ Child work (paid/unpaid)	4
Pregnant/Married	2
Not interested	6
Other reasons ¹⁰	16
Total	100

⁹Represents average size of the sample households.

¹⁰ Death of father, early marriage of girls, no female school , no school.

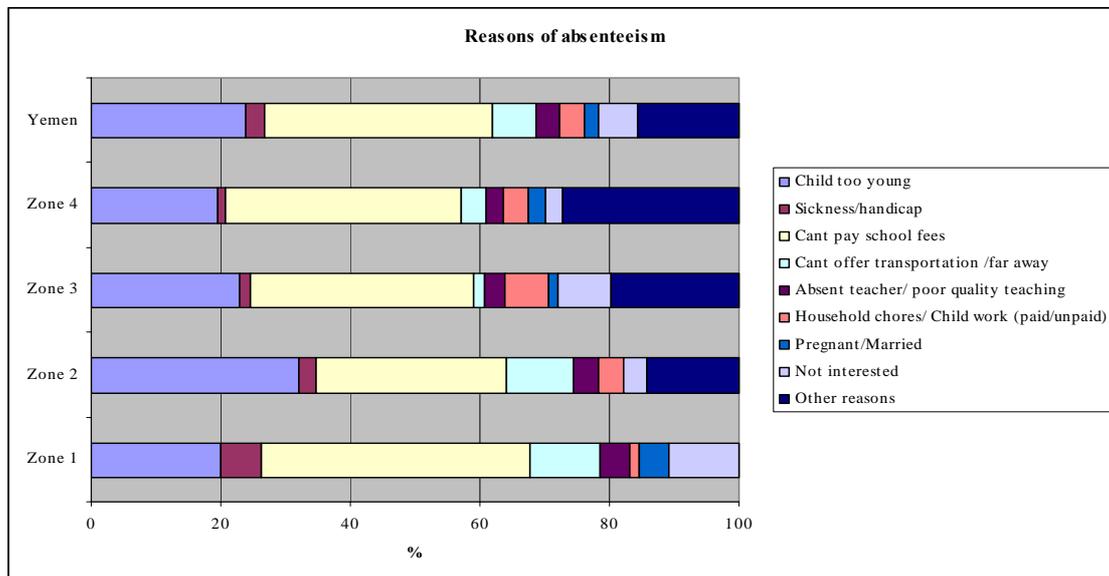


Figure 4: Reasons of absenteeism

Agriculture and livestock

Only 10% of households own private agricultural land, the average land size being 10 Du¹¹ (1.1 Ha). The majority of people (87%) have no access to land. (Table 4)

Table 4: Access to Land

Land ownership type	Percent of Households
Private ownership	10
Leased	1
Leased Government land (<i>Wakaf</i>)	0.2
Shared	3
Do not have land	87

Table 5: The average land ownership size breakdown by agro ecological zones

Agro ecological zone	Average Land Cultivated by Households	
	Dunum	Hectares
ZONE 1: The central and northern highlands	7	0.7
ZONE 2: The Tihama Plain	15	1.5
ZONE 3: Southern coast from Aden to the border with Oman	9	0.9
ZONE 4: The Middle Plateau of Shabwah and Hadramout	17	1.7
Yemen	11	1.1

The majority of cereal and *Qat* production is used for home consumption while a small portion (around 20%) of the cash crop, vegetables and fruits are sold (Table 6). Only 20

¹¹ 10 Du = 1 Hectare
HFP Survey 2008



to 30 percent of households with livestock sell animal products (milk). The bulk is consumed by the family.

Table 6: Percentage of Households Selling Agricultural Production

Crop	Do not Sell	Sell half or less	Sell more than half
Cereal	86	4	1
Cash crop	80	3	2
<i>Qat</i>	86	2	0
Vegetables/Fruits	79	6	2

People owning sheep/goats are less vulnerable to food insecurity. However they are beginning to adopt negative coping strategies of selling productive animals to buy food. About 26 % of the people who own sheep and goats sold their female animals in the past six months. (Table 7)

Table 7: Percentage of HH that sold their animals in the past six months

Percentage Sold	Cows and Camels	Goats and sheep
Animals	8	39
Female Animals	4	26

The main reason cited by 39% of respondents who sold livestock was to buy food. Only 1% sold their livestock as a result of fodder shortages (Table 8 and Table 7).

Table 8: Reasons for selling live female animals

Reasons	Cows and Camels (% of HH)	Goats/sheep (% of HH)
Need for money	4	29
Old age/sickness	0	2
Infertility	1	1
Lack of fodder/animal feed/pasture	1	1

Income sources

The main source of income for the surveyed population was non agricultural wage labour though a quarter of the population reports having more than one source of income (Figure 5). Similarly, the category of others (relying on assistance from family members, friends and neighbours; relying on begging; and selling of animal dumps, dyes, old assets, wood, water containers) show high food insecurity (Figure 6). Households who are able to sell agricultural produce (cash and food crops) or generate income through petty trade, are less vulnerable than those relying on fixed incomes such as pensions and remittances. Over 50% of households relying on the people who depend on remittances and/or pensions as their primary source of income are food insecure. Households with higher fixed incomes, such as government employees or other urbanites engaged in self employment (taxi drivers, carpenters etc) record higher food security.

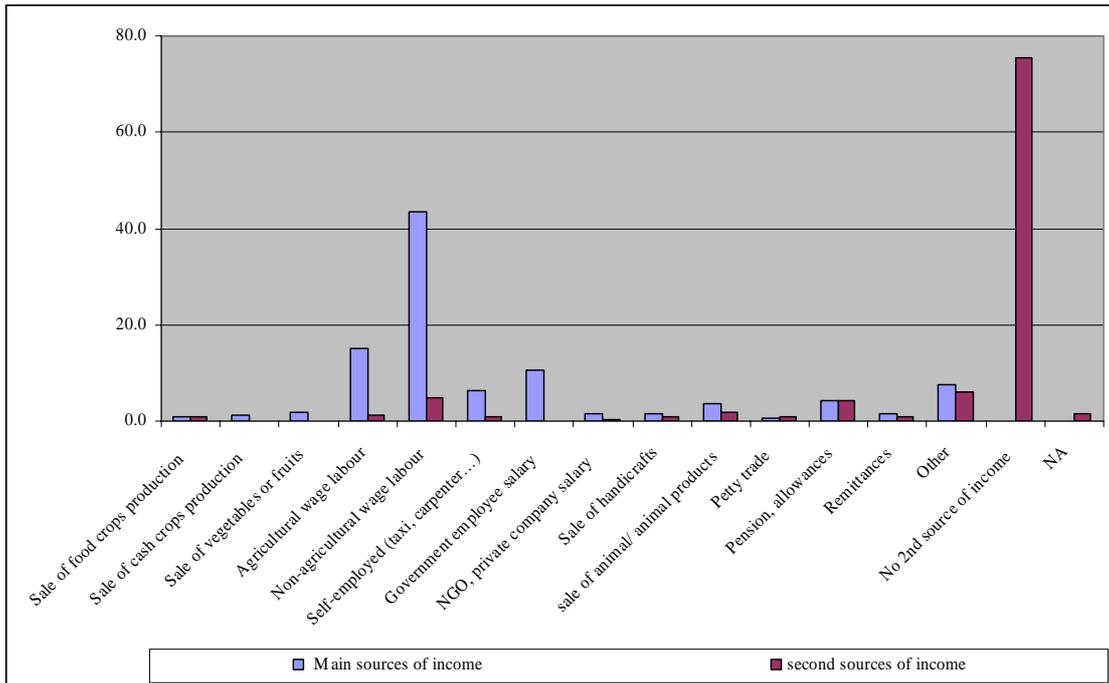


Figure 5: Major Source of Income

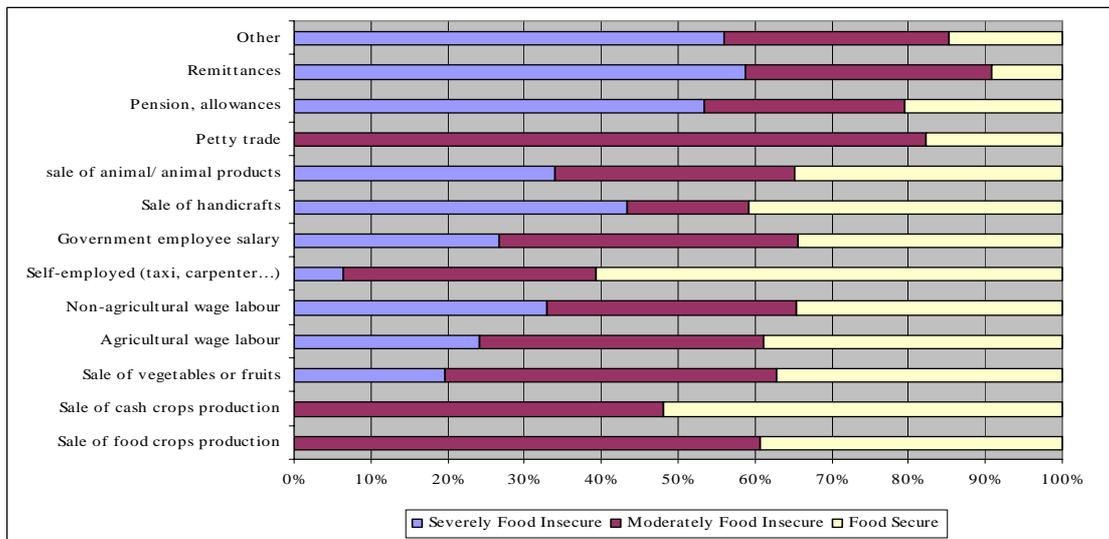


Figure 6: Income Sources



Wealth Index

Wealth is the value of all natural, physical and financial assets owned by a household, minus its liabilities. Measuring wealth may be complex and requires making assumptions about the value of assets. Therefore, as a proxy indicator, a wealth index was constructed using a series of different socio-economic measures. The first step in the construction of the wealth index for Yemen was to identify assets or socioeconomic variables that would be a comparable measure of wealth across regions. A number of variables were determined to meet this criterion. Using these variables, a principal component analysis (PCA) was conducted. The first component was selected and five wealth quintiles (poorest, second, third, fourth and richest) were developed¹². Results indicate that the three poor quintiles do not own the following items: fridge, television, oven, and satellite dish (Figure 7). Absence of such assets could be used in targeting the poorer households. Also, these quintiles use wood as their main source of cooking fuel.

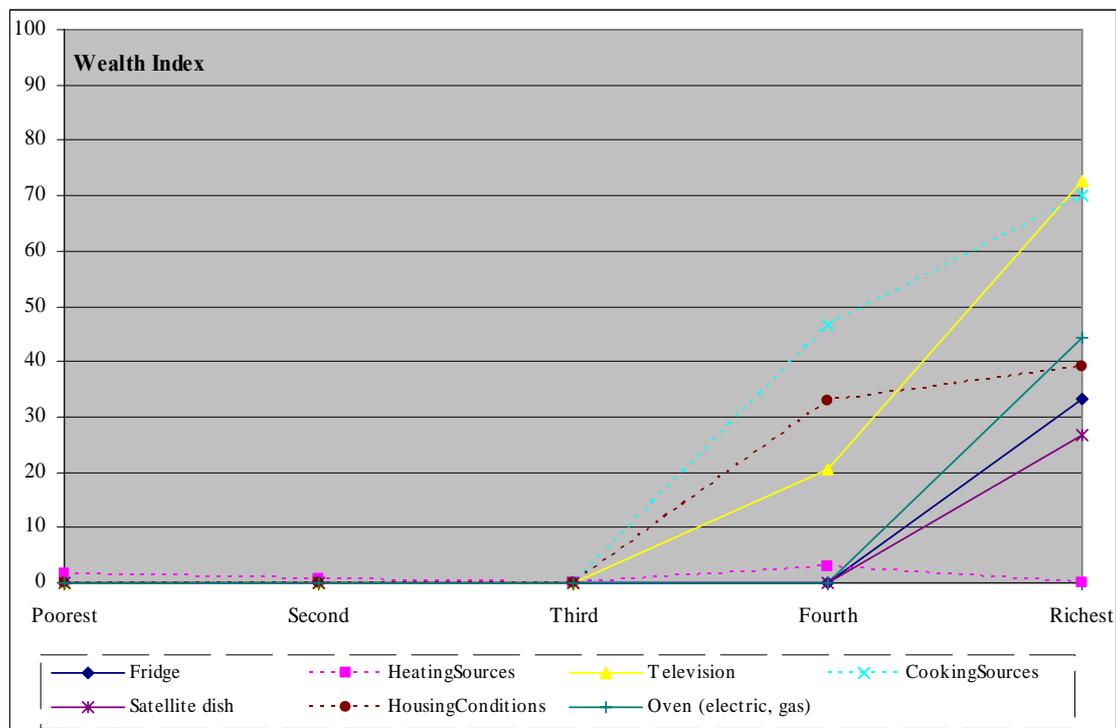


Figure 7: Assets by Wealth Group

To assess how well the composite wealth variable measures wealth, associations between this index and certain variables and geographic areas were examined. Examination of the variation in wealth across different zones shows that while approximately 73% of Zone 2 and 4 falls within the poorest wealth group, over 70% of the rural people fall in the second poorest quintile. There is a clear correlation between wealth index and food problems, with more than 33% of the people from the poorest wealth index being severely food insecure, and approximately 50% of the second poorest wealth group being moderately food insecure.

¹² Since the entire study group was poor, the term 'rich' is relative and indicates comparatively more wealth.
HFP Survey 2008



Household Expenditure

The average household expenditure consisted of 65% on food, 18% on health, 6% on *Qat*, 3% on transport and only 2% on education (Table 9). Mean daily household expenditure per capita was YR 129 (US\$0.65)¹³. Among rural households, the highest expense on food was recorded in Zone 4 and the least in Zone 2.

Table 9: Percentage Expenses of Average Household

Expense Category	Total	Urban	Rural	Rural by Zone			
				Zone 1	Zone 2	Zone 3	Zone 4
Food	65	67	65	64	59	66	77
<i>Qat</i>	7	4	7	8	9	7	1
Health	18	17	19	17	24	13	16
Transport	3	5	5	5	5	7	4
Education	2	3	2	2	2	4	2
Rent	5	3	2	4	0	4	0

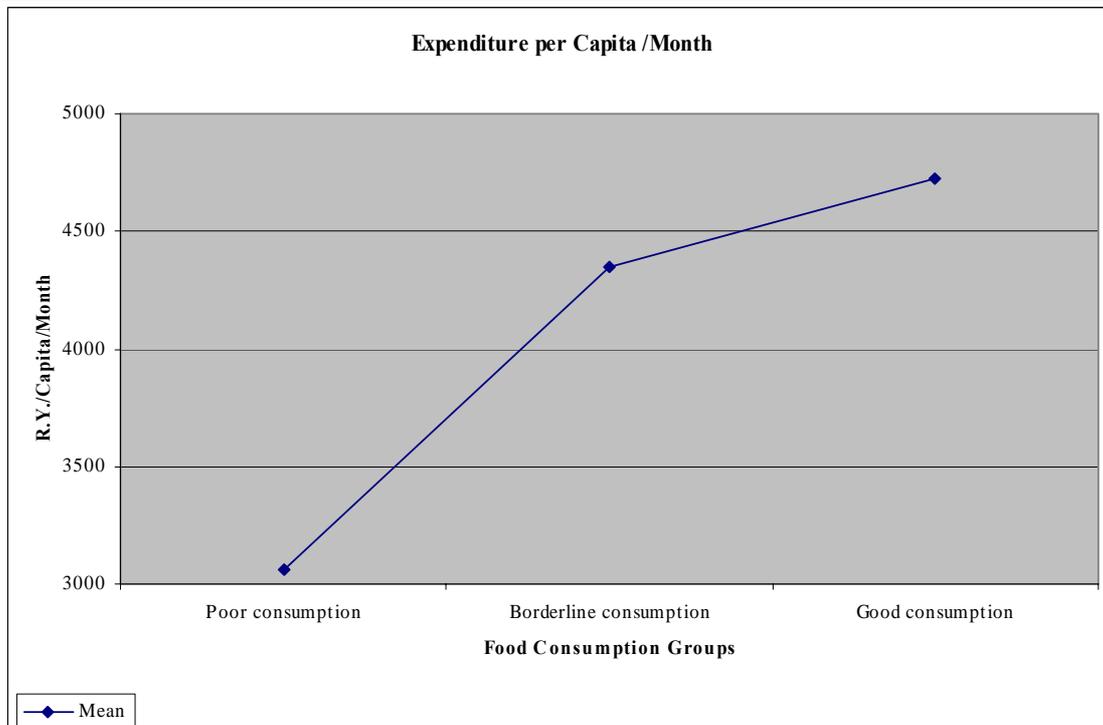


Figure 8: Expenditure (Per capita /month) and food consumption groups

The survey showed a significant variation in daily expenditure between the food consumption groups. The average daily expenditure for the poor food consumption group for the poor food consumption group was around 3000 RY/Capita/Day while for the good consumption group was 4700 RY/Capita /Day (Figure 8).

¹³ Expenses on food, health, education, transport, rent and *Qat*.

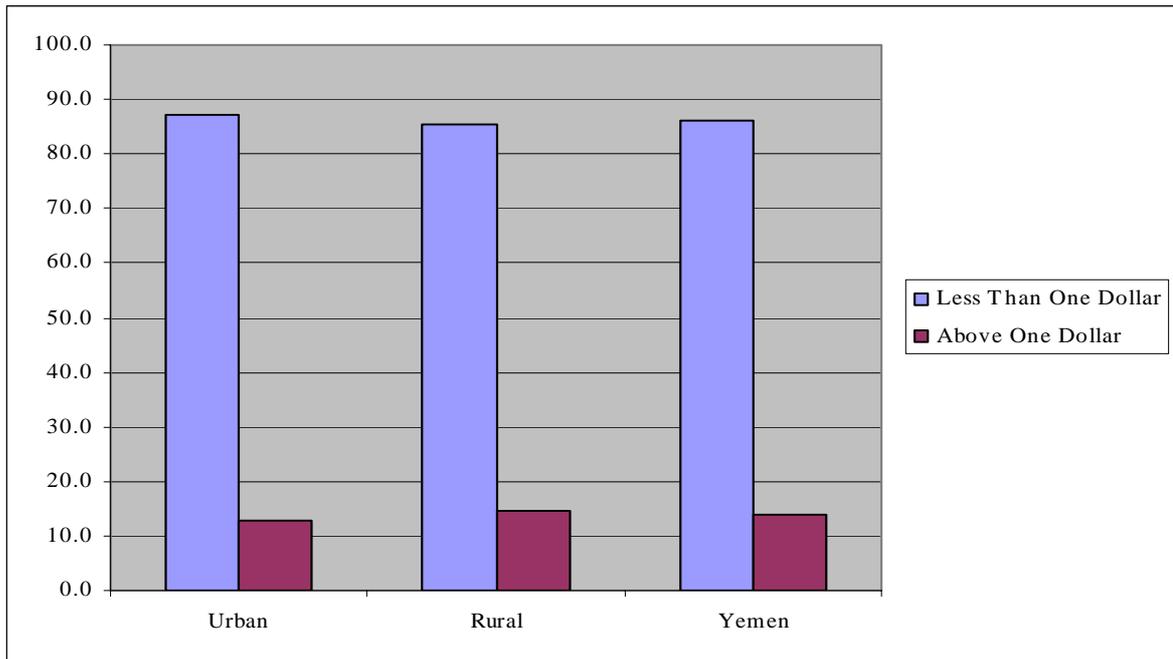


Figure 9: Daily per Capita Expenditure

Over 80% of the population spends less than a dollar per day. However, there is no significant difference in expenditure between rural and urban populations (Figure 9). The share of food in daily expenses is highest for those relying on pensions, allowances and remittances. Those engaged in self employment or petty trade allocate a smaller portion of their expenses to food. (Figure 10).

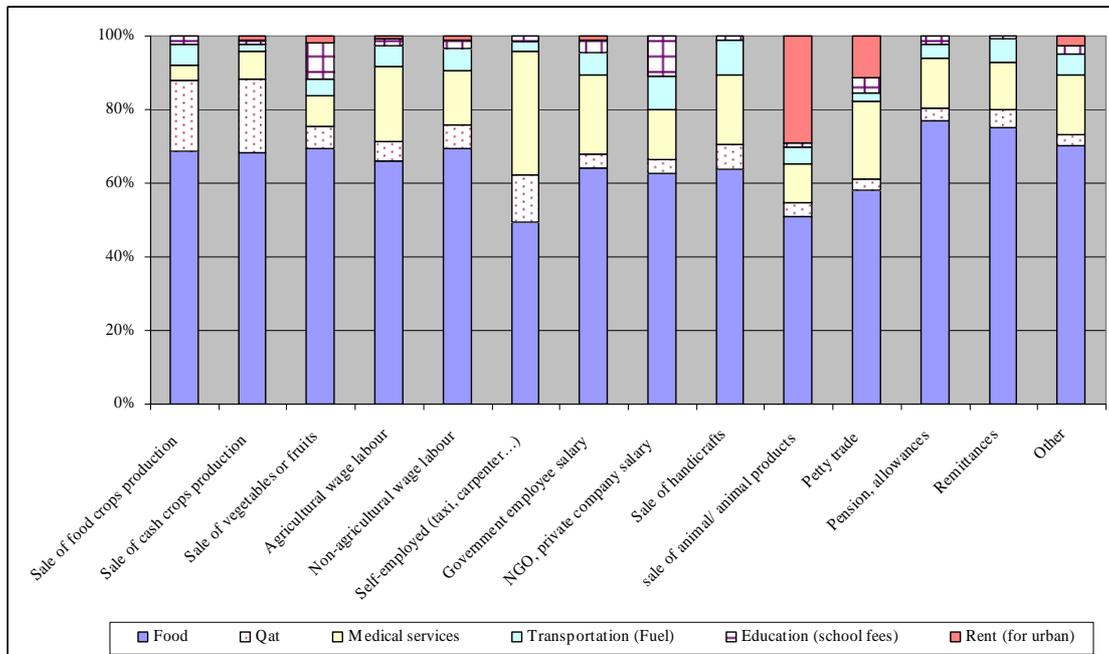


Figure 10: Expenditure by source of income



Household food security profiling

The purpose of this section is to characterize typical food insecure households, to identify particular groups with higher food insecurity rates, to answer the question “who are the food insecure” and to enhance the targeting process. This section shows the relationship between the food security profile with the household size, number of children, gender of the head of household, expenditure, land and livestock ownership and the main livelihood activities (Table 10). Table 11 shows the main indicators for the food security profile.

Table 10: Population by food security profiles

Food Security Profile	Percentage of the population	Population estimate
Severely Food Insecure	18%	1,355,000
Moderately Food Insecure	25%	1,857,000
Food Secure	57%	4,317,000

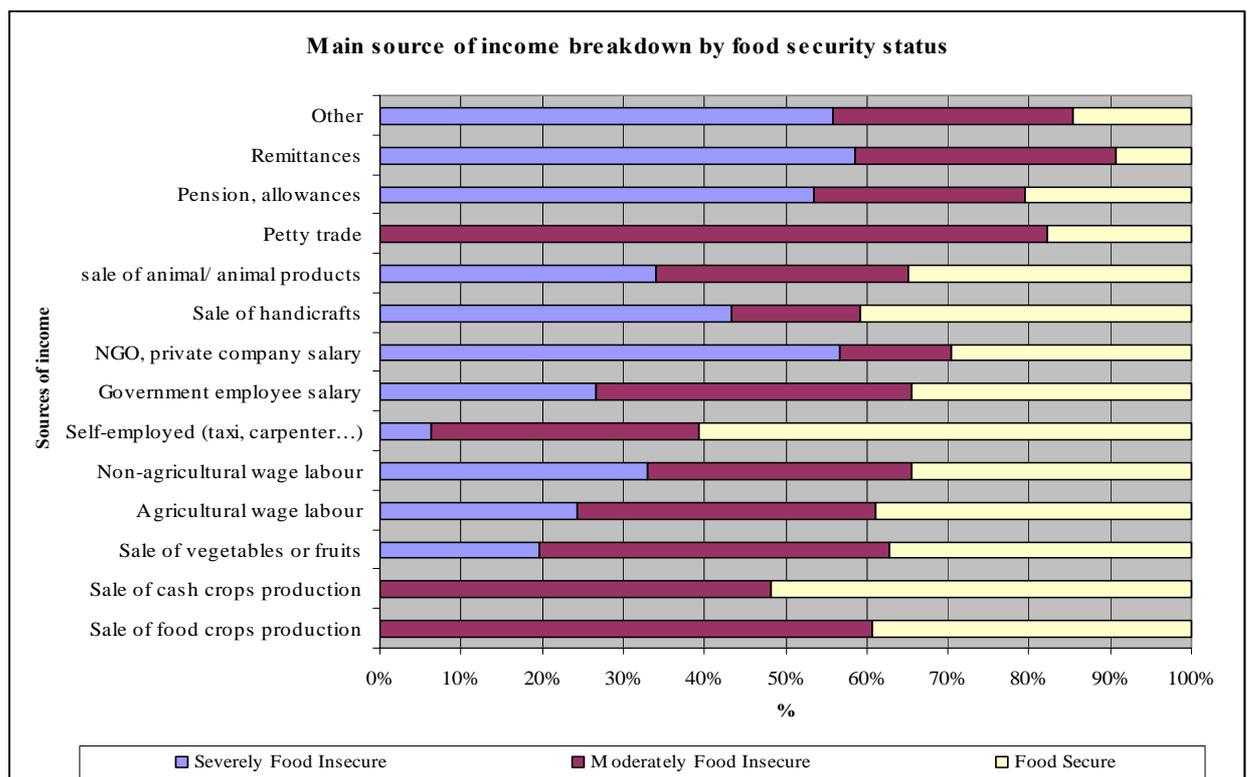


Figure 11: Main source of income breakdown by food security profile

As Figure 11 illustrates, food insecurity varies by livelihood activity. Households most vulnerable to food insecurity are those dependent on remittance, pension and other



activities¹⁴. Amongst households relying on any of these activities, almost five in each 10 households were severely food insecure. The least affected households mainly relied on sale of cash and food crops and petty trade.

Number of children: As Figure 12 illustrates, the household size with small number of children and the household size with more than 8 children have most likely to be food insecure than the middle household size.

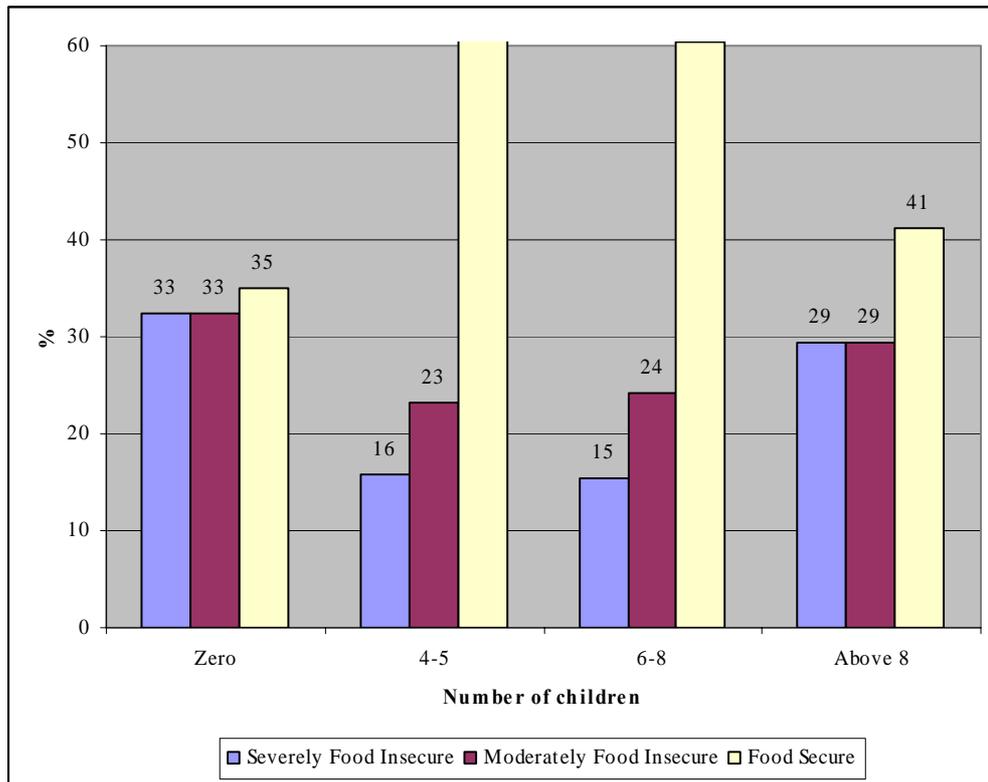


Figure 12 Number of children and food security profiles

Gender of the head of the household: In Yemen, female headed households are more vulnerable to food insecurity, poverty and a variety of other adverse outcomes. According to the survey, female-headed households seemed most likely to be food insecure. Difference was particularly acute in rural area compared to those live in urban areas. (Figure 13)

¹⁴ Other activities: Assistance from family member and friends, people and neighbors, relatives , begging, charities, gifts from neighbors, mediation for solving problems among people, selling animal dumps, dyes, old assets, wood, water and containers.

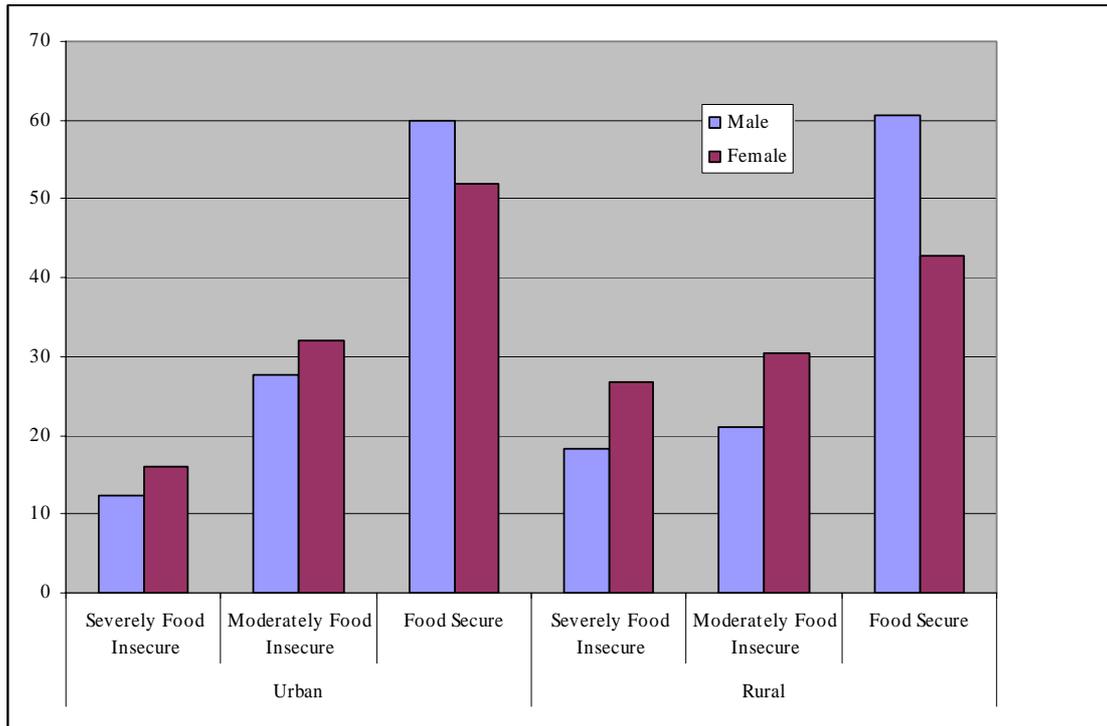


Figure 13: Gender of household head and food security profile

Expenditure quintiles and food security status: Correlation between food security status and expenditure is high. In this survey, more than 50 percent of the severely food insecure households belong to the lower two expenditure quintiles and more than 40 percent of the moderately food insecure households come from these quintiles. (Figure 14)

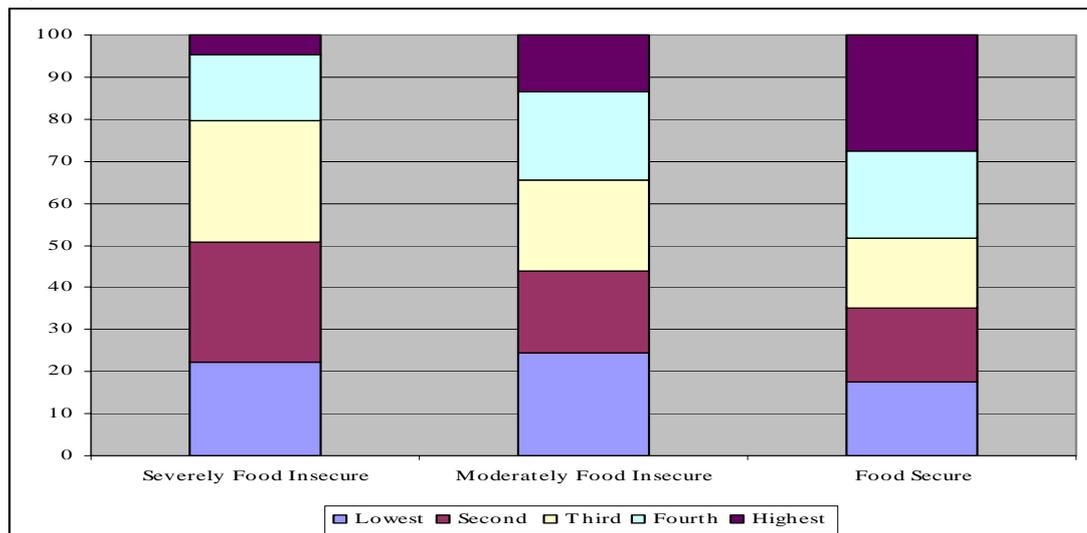


Figure 14: Expenditure quintiles and food security profiles

Land Ownership: Among agricultural households, ownership of private land is associated with lower prevalence rates of food insecurity. Households who have access to any type of land are less likely to be food insecure than households with no access. Households with privately held land are less likely to be food insecure compared with all



other households, including those with leased and *Wakaf* land. This is not the case with other types of land use. Households that use small areas of leased and *Wakaf* land are in fact less likely to be food insecure than households who do not use leased and *Wakaf* lands. (Figures 15, 16).

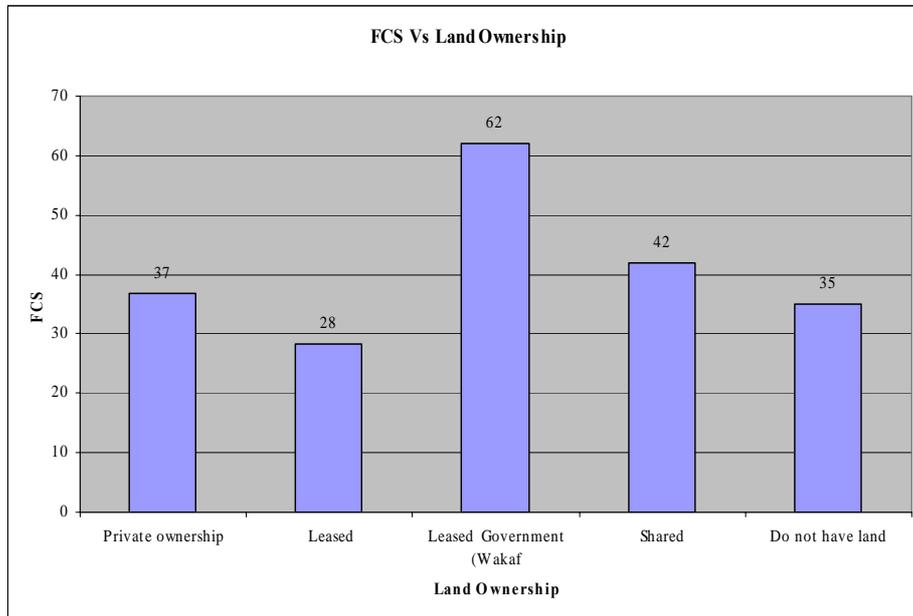


Figure 15: Land ownership and FCS

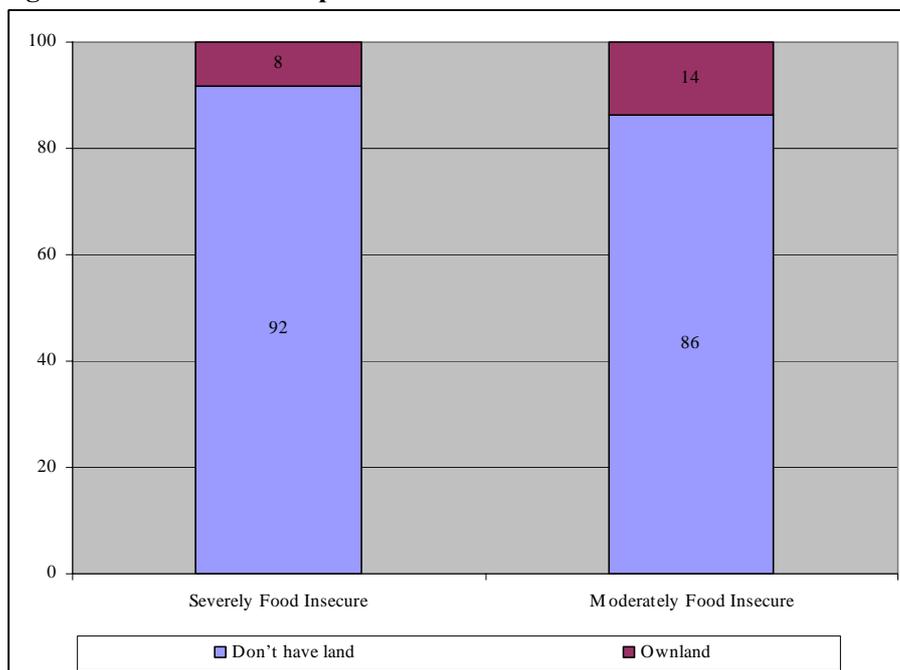


Figure 16: Land ownership and food security profiles



Livestock Ownership: Households with larger herds of livestock are more food secure, and households that own small numbers of livestock are more food insecure. (Figures 17, 18, 19).

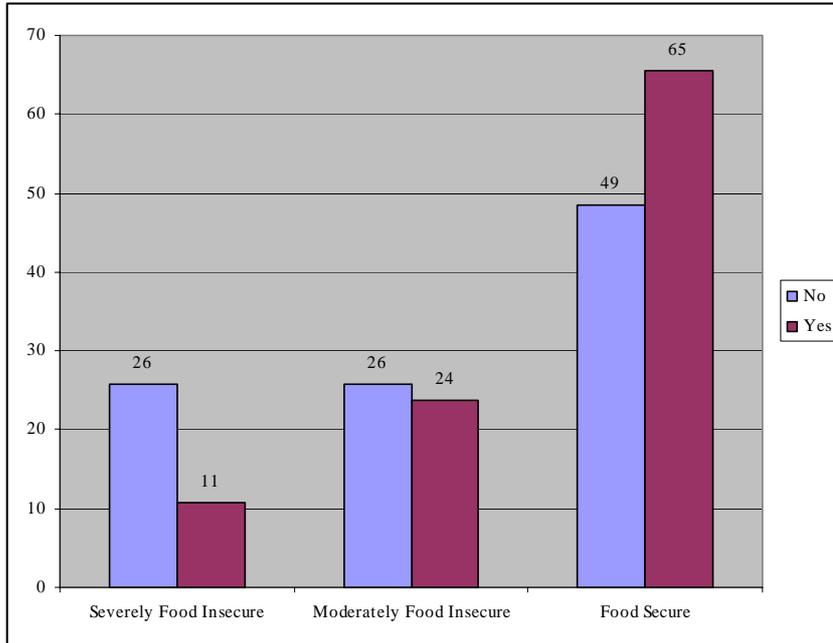


Figure 17: Livestock ownership and food security profiles

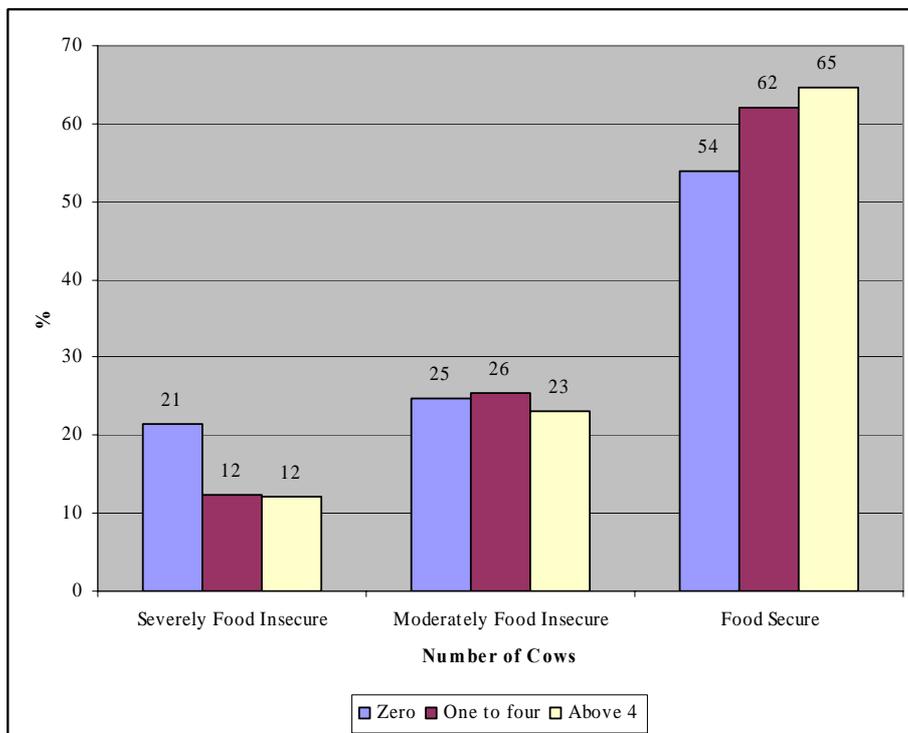


Figure 18: Number of cows and food security profiles

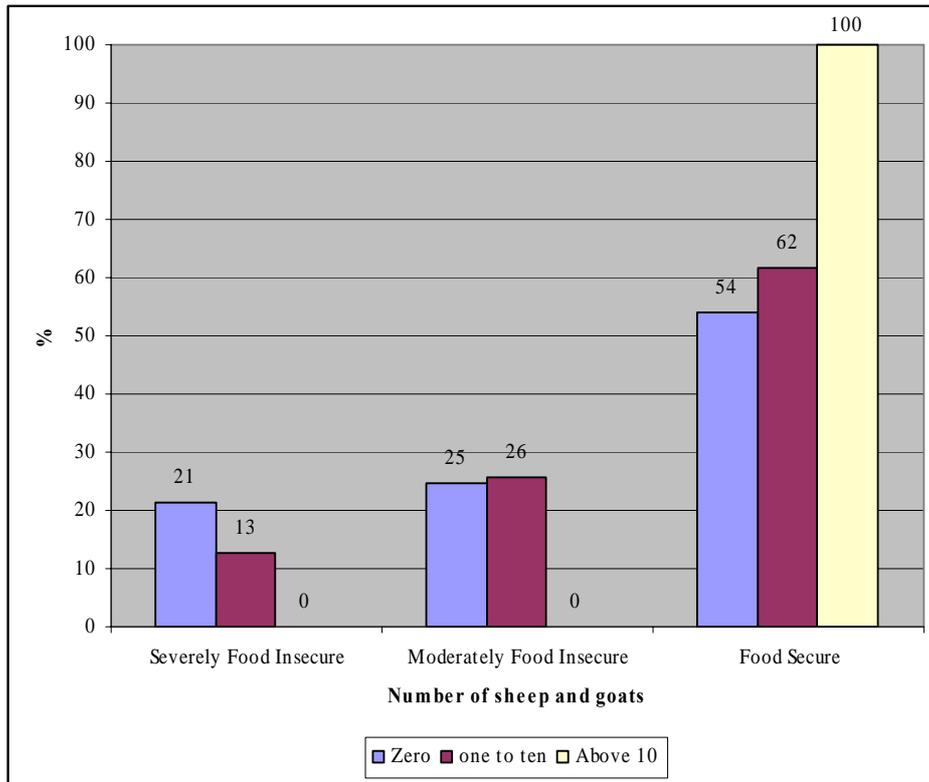


Figure 19: number of sheep and goats and food security profile

Table 11 provides a breakdown of household indicators in each food security profile.



Table 11 : Food security profiles

Theme	Indicators	Severely Food Insecure	Moderately Food Insecure	Food Secure
Demographic (Gender and HH size)	Average House hold size	8.2	8.2	7.8
	Male (%)	17	23	60
	Female (%)	23	31	46
Food Consumption	Average Food Consumption Score	18	25	45
	Average Food Consumption score (Male Headed HH)	18	26	46
	Average Food Consumption score (Female Headed HH)	18	23	44
	Number of eaten days (Meat)	0.19	0.77	2.33
	Number of eaten days (Fruits)	0	0.1	0.57
	Ratio of food to non food expenditure (Ratio)	0.79	0.71	0.67
	Average Number of meals per day	2	2	3
HH expenditure	Average monthly HH expenditure (Y.R)	19,071	23,949	31,040
Shocks and Coping strategies	Loss employment/reduced salary (%)	17	24	14
	Sickness/health expenditures (%)	22	29	21
	Death household member/funerals (%)	6	3	1
	High food prices (%)	48	42	59
	Limit portion size at meals	96	95	88
	Restrict consumption by adults in order for small children to eat (%)	89	80	66
	Reduce number of meals eaten in a day (%)	96	84	65
	Skip entire days without eating (%)	70	38	20
	Sell domestic assets (radio, furniture, fridge, TV, carpet...) (%)	11	9	9
	Take children out of school (%)	22	22	14
	Seek alternative or additional jobs (%)	37	33	31
Housing and asset	Increase the number of members out-migrating for work and/or food (%)	11	7	3
Housing and asset	Private house/hut mostly in non-durable material (wood, mud) (%)	84	84	77
	Cell phone (%)	0	2	6.7
	Car, taxi (%)	1	1	3
	Bank account (%)	0	0.7	3.8
Livestock	Do you raise animals (cattle, sheep, goats, and poultry)? (%)	28	46	55
	How many animals do you currently own_ Cows and Camels (Number)	0	0	1



Table 11 Continued

Theme	Indicators	Severely Food Insecure	Moderately Food Insecure	Food Secure
Livelihood and sources of income	One source of income (%)	79	86	78
	Two source of income (%)	11	11	17
	Has your income changed in the past 6 months_ Decrease (%)	66	68	49
Debt	Do you have any debt or credit to reimburse at the moment? (%)	79	77	81
FIVIMIS	During the past 12 months, did it happen that you or any other adult in your family did not have a meal in the day because there was not enough food_ HH Food Insecurity (%)	92	85	67
	During the past 12 months, did it happen that you or any other adult in your family did not eat for a whole day because there was not enough food_ HH	16	58	74
	During the last 12 months, did it happen that any of your children did not eat for the whole day because there was not enough food_ Child (%)	23	14	8

Sources of Food

The contribution of local production to overall food requirements is limited. The main source of food is through cash purchase (Figure 20). This can be attributed to the fact that people have limited productive assets such as land and/or livestock rendering them more vulnerable to food insecurity.

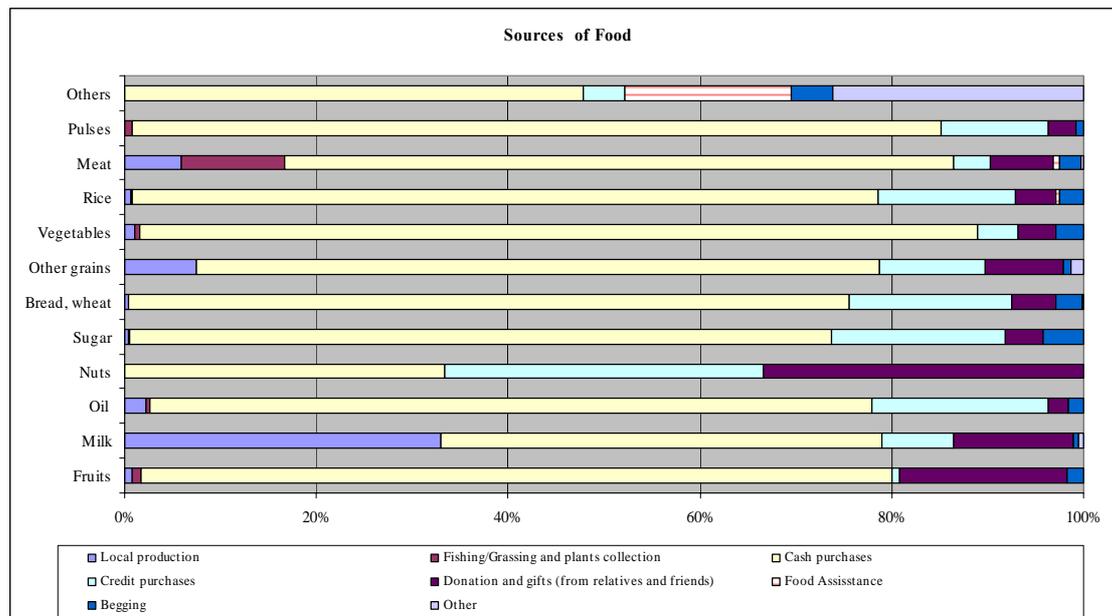


Figure 20: Sources of food



Shocks

More than half of the households (53%) report being affected by the increase in food prices over the past six months. However, about 23 percent of the households suggested illness (health) as the most significant drain on their expenditures. About 17% of the households reported either loss of job or a reduction in their salaries over the last six months (Figure 21). The significant increase in food and fuel prices coupled with the loss of income levels has influenced a higher proportion of the poorest households in Zone 2, 3 and 4 than in Zone 1 households. The loss of employment/reduction of salaries has affected a higher percentage of the population in Zone 2 and Zone 4 than in Zone 1 and Zone 3 (Table 12). Amongst urban households, half reported being affected by the HFP and 21% report loss of jobs over the last six months. This may be increase the vulnerability of urban households to be food insecure as rural people or even more. There is sufficient evidence from the survey results to suggest that the financial ability of households to cope with the prevailing conditions has been severely undermined in recent months.

Table 12: Major Shocks by Zone

Shocks / Agro-ecological zone	Zone 1	Zone 2	Zone 3	Zone 4
Loss employment/reduced salary	16	17	11	24
Sickness/health expenditures	39	30	5	19
Death household member/funerals	1	1	1	7
High food prices	39	49	79	45
High fuel/transportation prices	1	1	0	2
Payment house rental	1	0	0	0
Debt to reimburse	0	1	3	0
Irregular/unsafe drinking water	1	0	0	1
Bad climate (poor garden/harvest)	1	0	0	0
Other shock	2	1	1	1

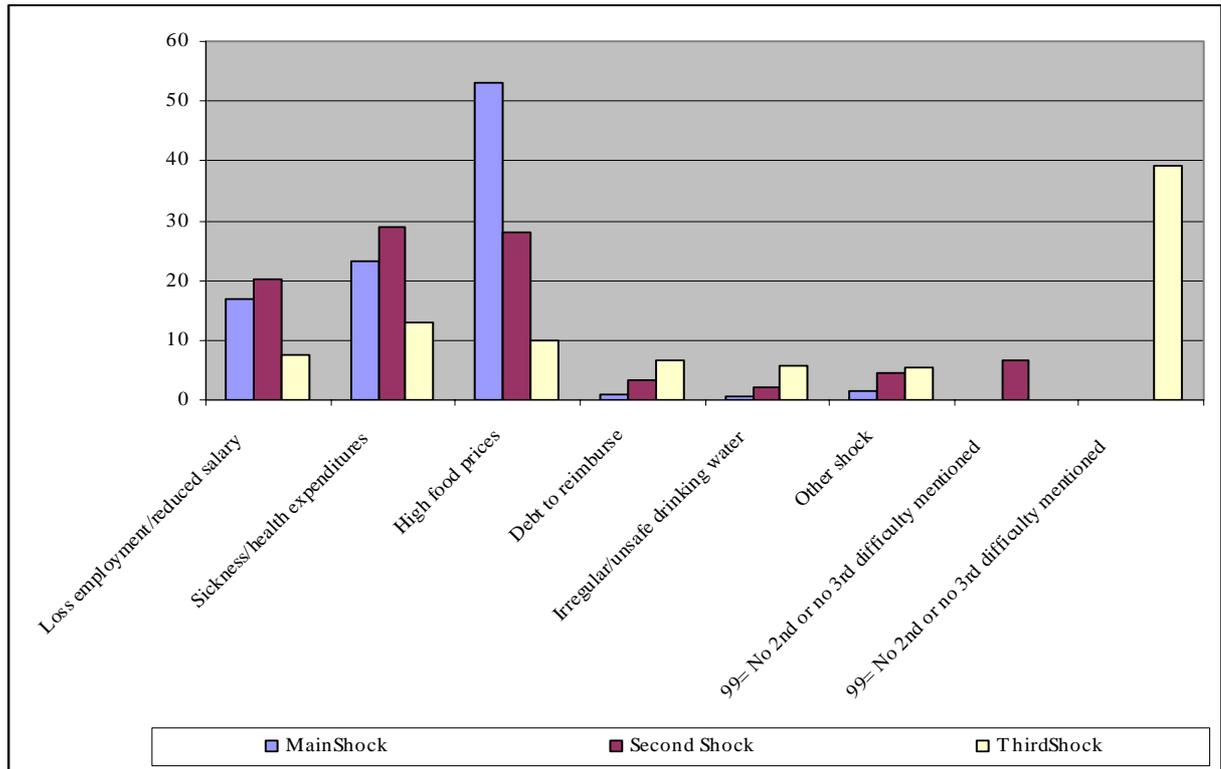


Figure 21: Percentage of households affected by shocks

Coping Strategies

Around 97% of households indicated they did not have enough money for food and other basic essentials. Over 90% had to rely on less preferred/less expensive food and had limited their size of meals (Figure 22). Households were asked if over the last 30 days any family member had to skip meals for an entire day. A third of households reported yes. Adults in 74% of households restricted their own consumption to meet food needs of their children. Two-thirds had to borrow or rely on assistance from friends or relatives though only 9% incurred debt. Domestic non-productive assets (radio, carpet etc.) were sold by 9%. Among farmers, around 10% consumed seed stocks held for next year and decreased their expenditures on farm inputs (fertilizer, fodder etc.). Among livestock herders, over 11% had to sell more animals than usual to meet expenses. The major impact has been on health and education where 39% of all households reported decreased expenditures on health and 18% took children out of school. About a third sought alternative or additional jobs though only 5% of households reported increase in out-migration for work (Figure 23).

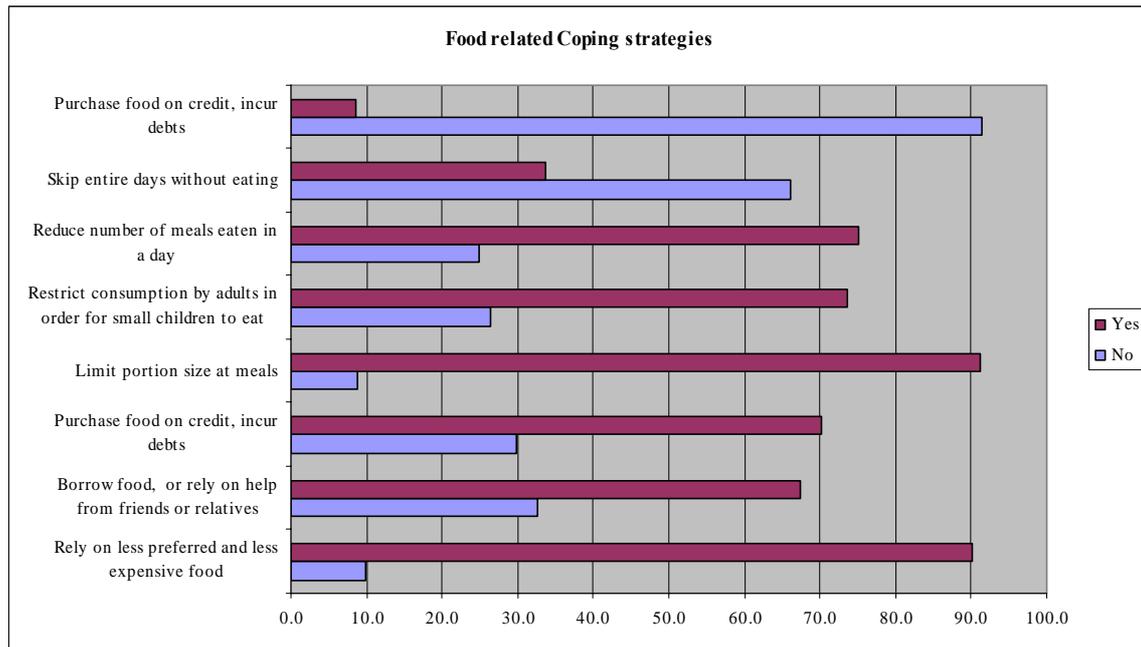


Figure 22: Food strategies adopted in the month preceding the survey (% HH)

Respondents were asked to list the main difficulties or shocks affecting them over the last 6 months. Over 53% of households considered higher food prices (HFP) as their main shock, 23% listed health problems followed by employment (17%). Fuel/transportation costs and natural hazards (drought etc.) were not considered major issues.

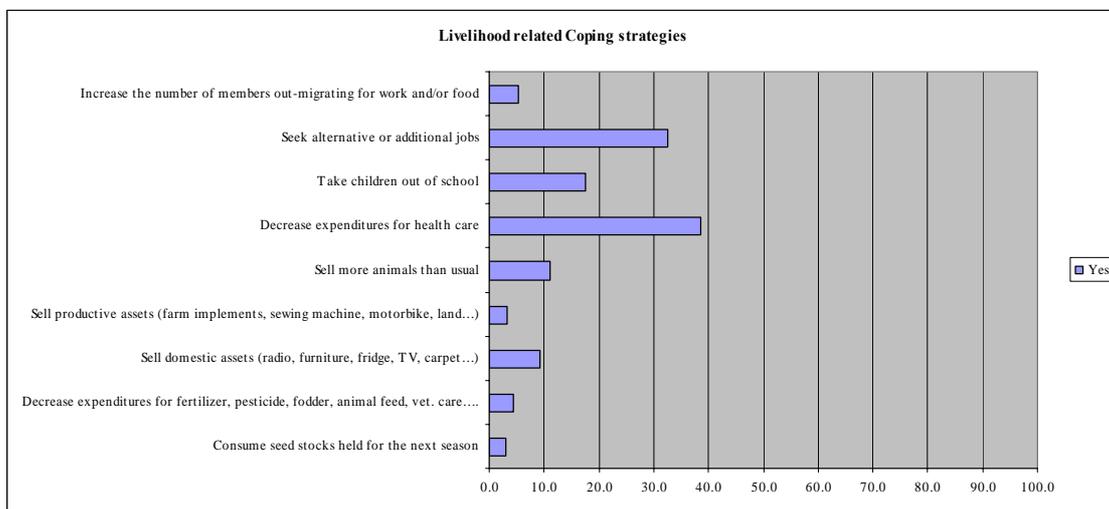


Figure 23: Livelihood coping strategies adopted in the month preceding the survey (% HH)

When people experience food shortages, they employ a number of different strategies in order to cope, for example, reducing the number of meals consumed, turning to lower quality food stuff, and borrowing from relatives or friends. The Coping Strategy Index (CSI) is defined in this survey as the degree of adopting coping mechanisms to meet food needs during a period of 30 days prior to June 2008 (survey date). Based on the number and frequency of coping strategies engaged, a numeric coping strategy index (CSI) is calculated. The higher CSI indicates a higher level of vulnerability. There are geographic



variations in CSI as well as differences between urban and rural communities (Table 13). The communities in Zone 4 employed the most coping strategies when dealing with food shortages.

Table 13: CSI by Zone

Agro ecological zone	Mean of CSI
ZONE 1: The central and northern highlands	73
ZONE 2: The Tihama Plain	73
ZONE 3: The Southern coast from Aden to the border with Oman	77
ZONE 4: The Middle Plateau of Shabwah and Hadramaut	83

Food Consumption

The food consumption score (FCS) is a method developed by WFP to capture consumption patterns and dietary diversity. The system requires recording of food groups consumed over a seven day recall period. Weights are assigned to each food group and the score is a combination of number of days a food was consumed and the food group weight. It allows periodic comparisons for use in food security monitoring systems. Drops in food consumption scores over time alert monitors to the possibility of malnutrition in the near future thus serving as an early warning indicator (for details on methodology see www.wfp.org).

A FCS of above 35 is considered acceptable, 35-21 as borderline and a score of less than 21 suggests poor food consumption. About 24% of households tallied a FCS of less than 21 suggesting poor consumption, 35% were borderline and a larger number (40%) scored above 35 suggesting adequate consumption (Table 14 and Figure 24). Comparing these with results from the WFP Household Survey of Selected Poor governorates in 2005, the situation has deteriorated immensely¹⁵. Households with poor and borderline food consumptions have increased. According to results from the 2008 survey, a majority of the population attributes Higher Food Price as their main cause. It must be noted that the thresholds of 21 and 35 are being tested and higher thresholds may result in increased percentages falling in the poor consumption category.

Table 14: FCS 2005 and 2008

WFP household Surveys	Percentage of Households		
	Poor	Borderline	acceptable
2006 (five governorates) ¹⁶	9	15	76
2008 (five governorates) ¹⁷	12	31	56
2008 (15 governorates)	24	35	40

¹⁵ Food Consumption Score methodology was applied in both surveys.

¹⁶ Hodieda, Ibb, Taiz, Al-Dhaleh, Lahag. The 2008 survey could not interview the same households of 2005 though the areas were the same.

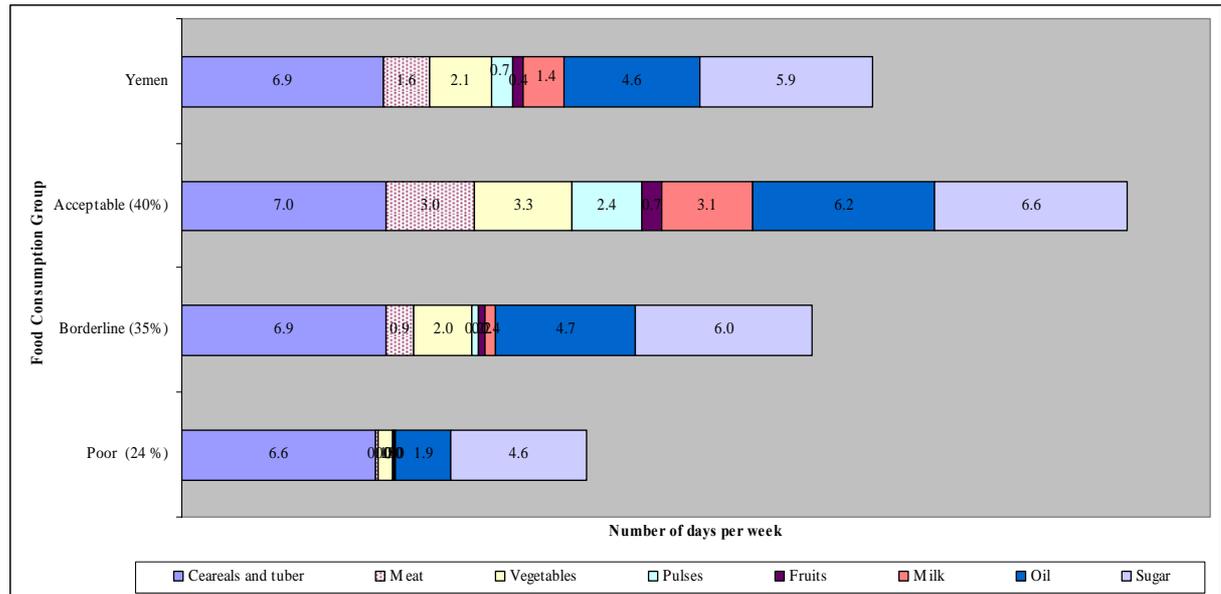


Figure 24: Food consumptions groups

Whereas thresholds may be adjusted in light of further research, the FCS is comparable over time and dramatic drops should be read as indications of poor diet leading to malnutrition. Poor food consumption is more prevalent in rural than urban areas. About a fifth of urban households record poor consumption compared to a quarter of rural households. However, the main difference in food consumption is across rural areas (Table 15). At 71%, Zone 4 recorded a much higher prevalence of poor food consumption compared to 24, 6 and 10% in Zones 1, 2 and 3 respectively. At only 2%, Zone 4 also had the least prevalence of households with adequate food consumption compared to 35, 62 and 65% in Zones 1, 2 and 3 respectively. Comparing FCS with main source of income suggests people producing cash crops had the highest average FCS (45), followed by self-employed (43), government employees (39), livestock (38), and wage labour (36).

Table 15: Food Consumption by Location (% of household)

Food Consumption	Urban	Rural	Rural			
			Zone 1	Zone 2	Zone 3	Zone 4
Poor	18	28	24	6	10	71
Borderline	44	31	41	32	26	27
Adequate	38	41	35	62	65	2

Respondents were asked to report the number of meals consumed over the previous day. About 5% of households ate a single meal, 39% ate two meals and 55% had three meals. There was no significant difference between urban and rural. Among children (under 5 years old) only 2% had a single meal, 19% had two meals and 77% had three or more meals in one day. Respondents were asked to indicate if the number of meals taken was the norm or had changed due to stress. About 54% reported they were eating less number of meals than normal, 40% reported no change and only 5% recorded an improvement. Among children, 37% were eating less number of meals, 56% had the same and 8% were



having more meals per day than normal. There was no significant difference between urban and rural.

Diets chiefly consist of cereals cooked in oil, and tea with sugar. Over 96% of households consume fruits less than 3 days a week. The urban and rural divide is prominent in consumption of dairy products and pulses. In urban areas, 84% consume dairy less than 3 days a week compared to 76% in rural areas. Consumption of pulses is also less in urban areas compared to rural (Table 16). Vegetable consumption is better in urban than rural.

Nutrition data was not collected during this survey. High rates of malnutrition were recorded by the 2006 nutrition survey. The current survey confirms low FCS and inadequate number of meals. These factors suggest changes in intake and, if persistent, consequent changes in nutrition levels. A subsequent FCS exercise through a monitoring system would allow periodic comparison.

Table 16: Weekly Consumption Frequency

Food Type	% of HHs with less than 3 days/week of consumption	
	Urban	Rural
Cereal	Less than 1	Less than 1
Fruits	98	97
Dairy	84	76
Oil	8	9
Sugar	10	9
Pulses	89	78
Vegetables	58	72
Meat	81	76

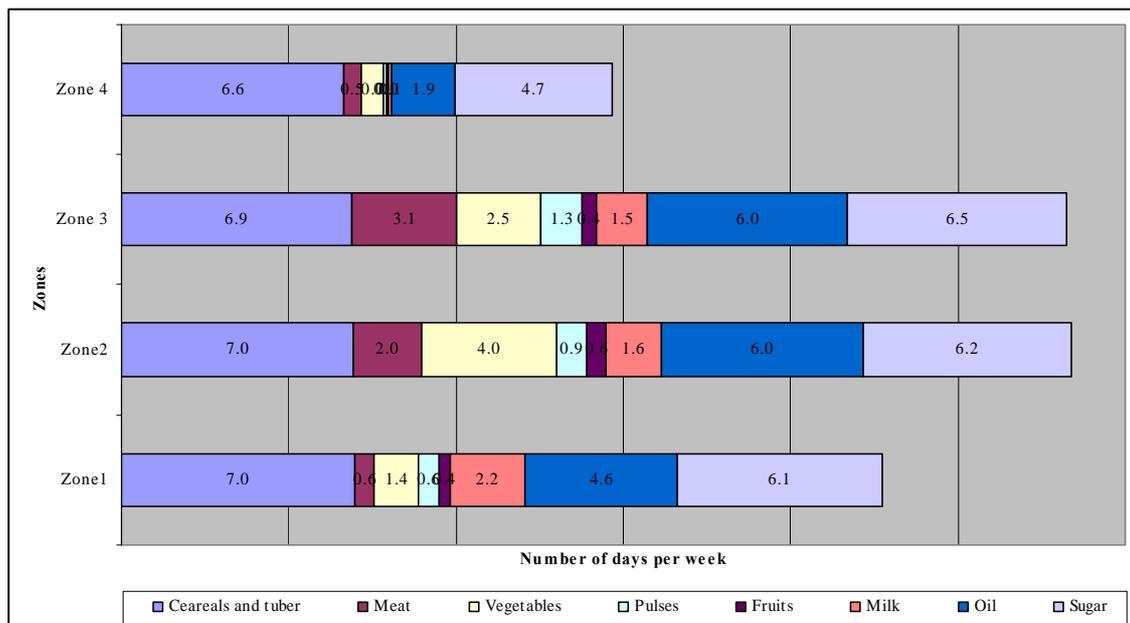


Figure 25: Food consumption by number of days



Survey data confirms that Zone 1 and Zone 4 are most vulnerable to food insecurity. Consumption behaviour indicates a shift. Diet of the poor is restricted to wheat, oil and tea with sugar. Meat, vegetables and fruits are too expensive. Across zones, it is clear that Zone 1 and 4 have the least diversity in their food (Figure 25).

There is a strong correlation between food consumption scores and type of fuel used for cooking and heating. Households with poor consumption resort to wood as an inexpensive cooking fuel whereas households with good consumption exclusively use electricity for heating. (Table 17)

Table 17: Relationship between food consumption and fuel

FCSG/main source of fuel	Cooking fuel		Heating fuel		
	Wood	Gas	wood	gas	electricity
Poor consumption	29	11	49	0	0
Borderline consumption	35	35	38	25	0
Good consumption	35	54	13	75	100

Households using wood as a main source of fuel for cooking and heating are more vulnerable than those using gas or electricity. Focus group discussions revealed that some people have had to use their cloths, blankets and kerosene as fuel. The food consumption in female headed households is much worst than that of male headed households (Table 18). As expected, there is a strong correlation between food consumption and the presence of electronic items such as telephones. Households with poor consumption do not own cell phones whereas about three quarters of households with good consumption own mobile phones. Such criteria may be applied in programme targeting.

Table 18: Relationship between food consumption and gender

FCS/gender and cell phones	Gender			Own Cell Phones	
	Male	Female	Yemen	No	Yes
Poor consumption	22	35	25	26	0
Borderline consumption	35	37	35	35	27
Good consumption	43	28	40	38	73

Household Food Security

The methodology used to produce the following food security estimates are based on food consumption score and number of meals eaten per day, as opposed to the food acquisition methodology (more precise but more cumbersome as to data collection for a rapid assessment). Table 19 provides a description of the three Food Security Groups.



Table 19: Food Security Groups: Descriptors

Food Secure	Moderately Food Insecure	Severely Food Insecure
-Households with high food score (Above 35) and eaten two or more meals per day -Households showing borderline food consumption score and eat three or more meals per day.	-Households showing poor food consumption score and eat three or more meals per day -Households showing borderline food consumption score and eat two meals per day. -Households showing good food consumption score and eat one meal or less per day.	-Households with the lowest food consumption score and eat one to two meals per day -Households with borderline food consumption score and eat one meal per day.

About 18% of the population were severely food insecure and 25% were moderately food insecure (Table 20). Food insecurity was more prevalent in rural than urban areas though there was a great difference within rural areas with food insecurity of Zone 4 being most severe.

Table 20: Percentage of Food Security¹⁷

Food Security Level	Total	Urban	Rural	Rural			
				Zone 1	Zone 2	Zone 3	Zone 4
Severely Food Insecure	18	13	20	4	4	9	64
Moderately Food Insecure	25	29	23	32	11	18	31
Food Secure	57	58	57	64	73	73	6

Nutrition¹⁸

The most recent HDI shows that between 1990/92-2002/04, the undernourished population in LDCs decreased from 38 to 35 percent but in Yemen it increased from 34 to 38 percent. Between the mid-1990s and 2005, children (under-5) underweight-for-age were 46 percent and under height-for-age were 60 percent, while 30 percent of infants had low birth-weight; for these three indicators, few LDCs have worse rates.

According to the latest national nutritional data available (Family Health Survey 2003) the rates for stunting and underweight were similar to the rates reported for 1996-2005 in the HDI. Furthermore, 12 percent of children under-5 were wasted and among adults a quarter of women of reproductive age were malnourished with body mass index (BMI) below 18.5.¹⁹ A significant proportion of children and women also suffered from very low intake of essential micronutrients including vitamin A, iron/folate and iodine. UNICEF data shows that a large majority (up to 80 percent) of children under-6 suffer iron deficiency anaemia.²⁰ Vitamin-A supplementation coverage is only 15 percent among children under-5, and the use of iodized salt is only 30 percent, both of which are grave concerns for young children.

¹⁷ The food security analysis was calculated based on combining Food consumption groups with the number of meals per day.

¹⁸ Secondary Data Analysis

¹⁹ FAO (1994)

²⁰ Nutrition Baseline Survey WFP UNICEF December 2006.



The Government Survey of 2005 shows that more than 50% of children (less than 5) suffered from moderate to severe stunting. More than half (55.5%) of children in rural areas were stunted as opposed to 44.2% in urban areas (Table 21).

Table 21: Malnutrition in Yemen 2005²¹

Indicator	Prevalence in Yemen (%)		WHO Malnutrition status according to the prevalence range (%)			
		Rural	Low	Moderate	High	Very High
Stunting	44.2	55.5	<20	20-29	30-39	>=40
Wasting	10	13.1	<5	5-9	10-14	>=15
Underweight	36.7	47.9	<10	10-19	20-29	>=30

WFP Yemen conducted a nutrition survey in partnership with UNICEF in December 2006. The survey was conducted in five districts over five governorates.²² The survey of food insecure and poor communities showed: “The baseline prevalence of underweight children aged 6-59 months was 59.6% and acute malnutrition prevalence was 20.2%. The baseline prevalence of Anemia was 81.5% among children, 83% among lactating women, and 73.1% in pregnant women. These rates reflect that iron deficiency was a serious problem in the areas surveyed.” Further the survey looked at dietary and ill health response habits and concluded: “A dietary recall of the items fed to young children by their mothers revealed heavy reliance on rice and only limited consumption of animal food sources such as milk, meat, and eggs. Of particular concern from a child survival perspective, was that 90.7% of mothers reported reducing the amount of food offered to their children during an episode of diarrhoea and 31% reported either reducing or maintaining the amount of liquids offered to their children.

The nutritional status of children is estimated to have worsened with significant reduction of access to food especially among households who were food-insecure prior to the recent high food prices. WFP’s rapid assessment indicates that good sources of nutrients, such as animal foods, are being replaced by cheaper and non-nutrient dense food. This is expected to have significant impact on the already poor micronutrient status of young children and women of childbearing age.

²¹ “Yemen Family Health Survey” Ministry of Health and Population and Central Statistical Organization, 2005

²² The five districts were: Fare’e Al-Udyin, Wazia, Mighllaf, Tor Al-Baha and AL-Azariq in the governorates of Ibb, Taiz, Hodeidah, Lahej and Adhale.



Markets Survey

About 70% of the population lives in rural areas with access to small markets supporting basic food items. Road network is poor and access to larger markets is limited. However, availability of basic food items was confirmed, even in remote markets. The survey conducted 28 interviews of traders across the four Zones. Rural areas recorded more change in buying behaviour (Table 22). Changes included buying less quantity (90%) and selecting less expensive food items (75%). Anecdotal reports indicate commodities such as oil are now being bought in spoonfuls since the consumer can not afford purchase of a whole bottle (Table 23).

Table 22: Reasons for change in demand

Reasons	Percentage
Increased commodity prices	79
Low income	18
Other reason	4

Table 23: Buying Behaviour

Buying behaviour	People buy very cheaper quality	People buy very small quantities
Yes	75	93
No	25	7
Total	100	100

Rice demand in Zone 1 has shifted to wheat demand.(Table 24). This is also confirmed by the focus group discussions. In Zone 4, demand of both wheat and rice has reduced. This is reflected by the low food consumption scores of Zone 4. Across the country, there has been a decrease in demand for meat and milk products.

Table 24: Demand by Agro-ecological Zone

Rice				
Zone	1	2	3	4
Increased	-	33	14	-
Decreased	100	67	71	100
No change	-	-	-	-
Wheat				
Increased	89	33	71	0
Decreased	-	50	14	83
No change	11	17	-	-
Milk				
Increased	-	20	-	-
Decreased	67	40	71	67
No change	11	-	-	-

When comparing food prices over a 12 month period, the recent WFP Household Food Security Assessment in Yemen reveals, that there has been a more than double increase in bread and potato prices (Figure 26). Price increases of between 60 and 80 percent have been recorded for wheat, rice, oil and milk powde (Table 25)r.



Table 25: Nominal prices of the basic food commodities (June 2007-June 2008)

Food Commodity	Unit	Price (Riyals)		Percentage Increase
		June 2008	June 2007	
Local wheat grain	Kg	225	135	67
Local wheat flour	Kg	168	105	60
Imported wheat grain	Kg	142	91	56
Imported wheat flour	Kg	139	86	62
Bread	Loaf	86	43	100
Rice	Kg	219	128	71
Potatoes	Kg	163	71	128
Beans, lentils, peas	Kg	199	154	29
Liquid Milk	Litre	393	301	30
Powder Milk	Litre	2,288	1,274	80
Oil	Litre	549	320	72
Sugar	Kg	125	82	54

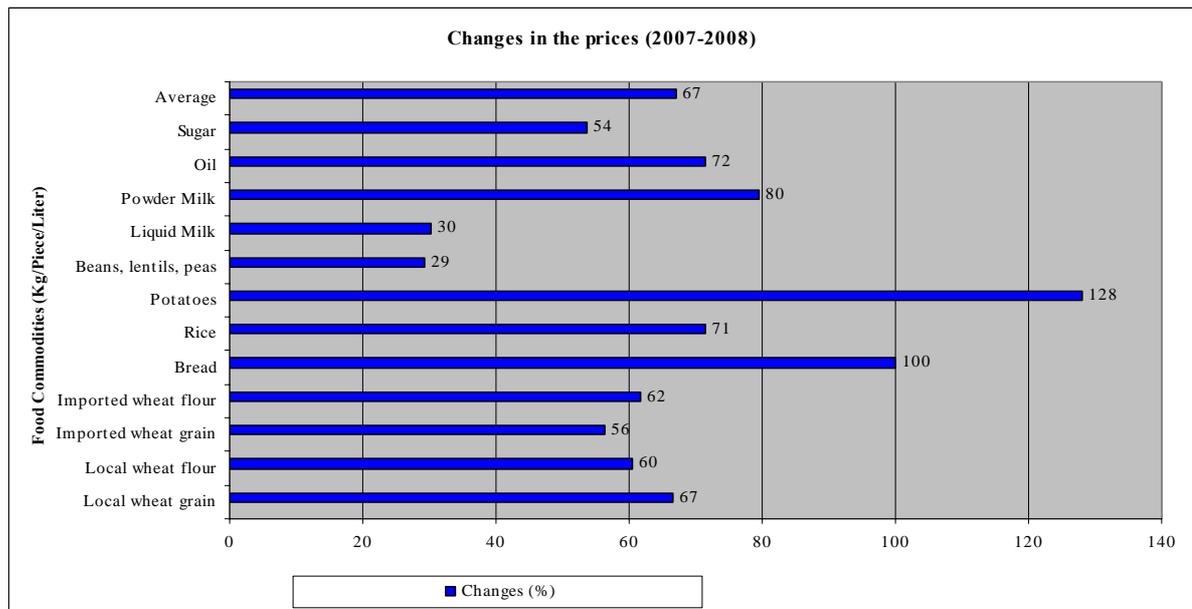


Figure 26: Price changes from June 2007 to June 2008

Assistance response and targeting

About 32 percent of the surveyed households have received some type of in-cash/in-kind assistance during the last six months (Figure 27)

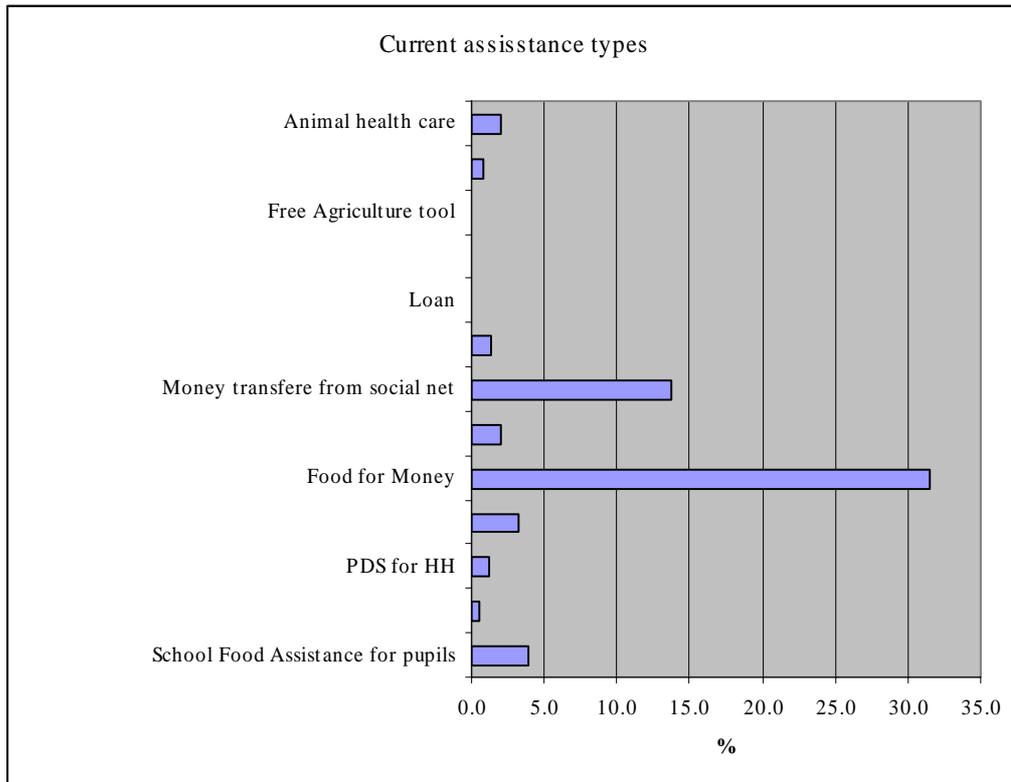


Figure 27: Assistance received over the past 3 months

About 68 and 41 percent of the households in Zones 1 and 3 reported receipt of food for Cash assistance in the past six months, compared to 3 and 15 percent in Zones 2 and 4 respectively (Table 26). Zone 4 households received more assistance under the social safety nets than those in other Zones. Comparing this assistance with food consumption, which is least in Zone 4, it is assumed that the amount of assistance is nominal (Figure 28, 29).

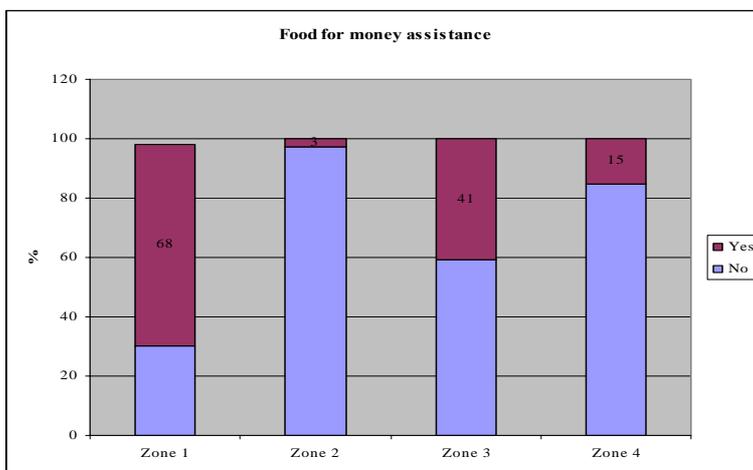


Figure 28: Recipients of Food for cash assistance

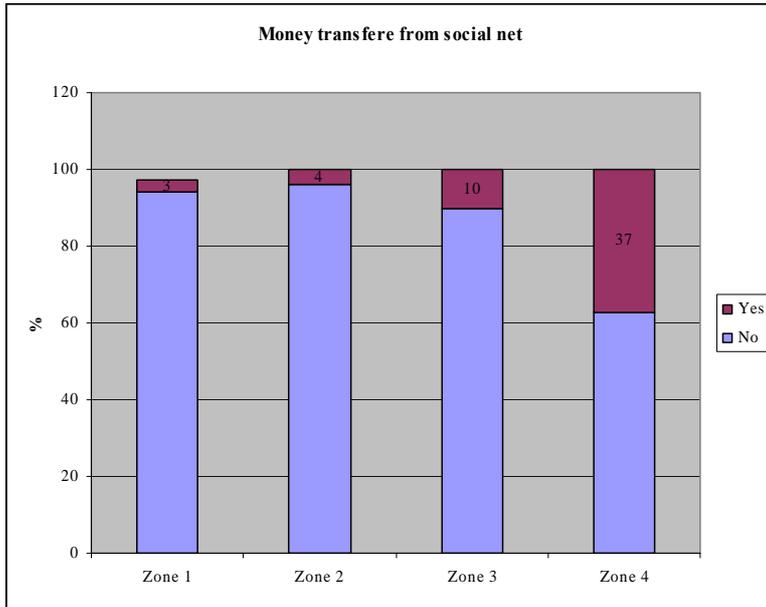


Figure 29: Safety Nets by Zone



Table26: Percentage of Households Receiving Assistance

Assistance type	Food for Money		Money transfer by Social Net	
	No assistance received	Received assistance	No assistance received	Received assistance
Poor consumption	72	28	79	21
Borderline consumption	70	30	84	16
Good consumption	65	35	93	7

Targeting of the poor through assistance schemes in Yemen compares favourably with other countries (World Bank 2004). Data from this survey suggests inclusion and exclusion errors, i.e. some of the poorer households do not receive assistance while some of the richer households do. As illustrated below, 35 and 7 percent of households with good food consumption received food for cash assistance and cash from the existing social safety nets respectively. However, distribution among the food consumption groups reflects a good direction of aid. Under-coverage might be due to the non-inclusion of the “newly needy”, yet to be addressed by the targeting systems. The inclusion error is higher in the food for cash than in the socials safety net mechanisms.

Government Response

The government is aiming to increase local production of cereals from 150,000 metric tons to 250,000 metric tons in 2008. Government salaries are to be raised and there are plans to increase fisheries production. The following is a summary of government policies and actions taken to mitigate the impacts of price rises (Table 27).



Table 27: Government Response to Price Rises

Relevant Ministry	Short term	Medium term	Long term
Ministry of Planning and International Cooperation.	Coordinating between different ministries to enhance impact of efforts	Planning to conduct a nutrition survey. Publishing the data on exports and imports, as well as, other related data.	Monitoring the progress on reducing prices and the impact on people through different studies and surveys.
Ministry of Industries and Trade	Encouraging local NGOs to raise awareness in the use of mixed cereals for bread Train the bakeries to produce bread from mixed cereals Standardize the weight and the size of bread Producing whole grain breads	Conducting studies on reducing prices and seeking other country's experiences such as Egypt which cancelled import taxes on staples. Studying the viability of establishing cereal silos. Producing whole grain bread	Reducing the importation of wheat and wheat flour. Building government cereals silos to encourage more imports by the private sector. Coordinating with the Ministry of Agriculture to encourage the purchase of local wheat. Encouraging alternatives for some expensive imported food items and coordinating with the Ministry of Agriculture to encourage the change in consumption habits towards cheaper products.
Ministry of Social Affairs and Labour	Planning to increase number of beneficiaries of Social Welfare Fund to reach over 1 million beneficiaries.	Increasing the amount of assistance to the beneficiaries.	Skills training for beneficiaries
Ministry of Agriculture and Irrigation	Planning to train the bakeries on using mixed cereals in bread. Activating local market regulation. Setting Up the Supreme Committee of Food Security Increasing seeds production.	Purchasing local cereals from the farmers Encouraging the farmers to plant cereals, namely wheat. More focus on water harvesting and capturing rainwater through the construction of dams and reservoirs. Reactivation of the Agriculture sector and the agriculture researches centres. Establish crop mapping for Yemen Reactivate agriculture	Reformulating the strategies of the Ministry of Agriculture. Import eco-friendly pesticides. Conversion from <i>Qat</i> to other useful crops. Conduct soil tests to determine soil suitability for wheat. Encourage the local production of wheat by supporting local farmers



Relevant Ministry	Short term	Medium term	Long term
		extension activities. Establishing the strategy of a National Food Reserve.	with seeds and machinery.
Ministry of Civil Service	Increase government and staff salaries by 3,000 YR. (15 USD)	Implement the second stage of increased payment strategy.	Monitor the impact of a second stage of payment strategy through different studies and surveys.
Ministry of Fishery			Focus on Fisheries exports (Yemen currently exports Fish worth 300 million dollars to Europe, Annually)



PART IV - CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

- Economic access (poverty) is a major contributor to food insecurity in Yemen.
- High rates of malnutrition are recorded in all Regions (2006 data).
- Natural disasters such as drought and locust infestation are frequent and exacerbate food insecurity, especially of the poor and small farmers.
- Escalation in prices of food commodities, transport and fuel affect food security. Monitoring of these prices should be part of a food security monitoring system.
- Larger households are more vulnerable to food insecurity and poverty more than the small household size)
- 21 percent of households reported pulling children out of school because they couldn't pay the school fees.
- 80% of houses are constructed of non –durable material (wood, mud)
- One third of the households drink unsafe water
- Three quarters of households use wood as fuel for cooking.
- Limiting portion size of meals is the most common coping strategy employed by 90% of the surveyed households
-
- About 24% tallied a FCS of less than 21 suggesting poor consumption and 35% were borderline.
- More than three quarters of households (78 percent) have a single source of income. Non-agricultural wage labour is the main source of income for 44% of the surveyed households, followed by agricultural wage labour.
- Unskilled people are more vulnerable to food insecurity than skilled people
- Household incomes have been on a downward trend with 57% reporting a decrease in their income over the past six months.
- 78% reported incurring new debts over the past six months
- In the last six months 53% of households have had to purchase food on credit.



RECOMMENDATIONS

Economic access (poverty) is a major contributor to food insecurity in Yemen. High rates of malnutrition are recorded throughout the country in 2006. Natural disasters such as drought and locust infestations are frequent and exacerbate food insecurity, especially of the poor. Social safety nets for urban and rural communities need financial and intitutional support.

Poverty alleviation, safety nets and food assistance programmes are required to meet the immediate needs of the poor (especially in agro-ecological Zone 4) alongwith vulnerable groups, namely, pregnant/lactating women and malnourished children, and the urban poor who have been pushed deeper into food insecurity and who make up the ‘new face of hunger.’

There is a clear imperative for emergency food assistance to cover newly affected population groups and meet their needs. WFP in Yemen is well placed to immediately scale up its assistance to the food insecure populations while its current development programme primarily targets girls’ enrolment in schools. It uses both schools and health centres to deliver food. Additionally, the Country office is responding to an IDP emergency in the North and a Refugee operation in the South and thus has a well developed delivery and operational capacity,

The food assistance programming should consist of:

1. General food distribution programme to meet the basic food needs of the food insecure through general food distribution in order to prevent hunger and limit stress on coping mechanisms
2. Nutrition interventions for children, pregnant women and nursing mothers through targeted supplementary feeding. This aims to prevent and treat moderate malnutrition, complementing UNICEF’s intervention for severe malnutritionSchool Feeding This should build upon and complement UNICEF’s emergency plan of action for tackling acute malnutrition among children under-5 and malnourished pregnant and lactating women. UNICEF aims to identify the severely malnourished through a Community Therapeutic Care Strategy. UNICEF will supply Ready-to-use Therapeutic Food (RUTF), F100 and F75 and medicine to children with SAM to Ministry of Public Health and Population (MoPHP)
3. Enhance ongoing efforts for improved targeting between WFP and Food security working group members, in consultation with the relevant ministries and cooperating partners (CPs)
 - Improve targeting of the social safety net programmes to ensure that they include the growing number of food insecure cases (especially in urban areas)



- Institutionalize a food security monitoring system to timely update key indicators and facilitate flexible response programming
- Support Government efforts in targeting the 500 thousand tones of food aid from UAE

4. Conduct a feasibility study on cash programming for urban intervention.

5. Implement medium-term and long-term strategies to improve food production (rural) and income generation opportunities (urban).

6. Food Security Monitoring System

Food security and nutritional surveillance must be scaled up to identify and address needs early-on. Future surveys and studies of Yemen's food security should consider all the agro ecological zones and governorates and include a nutrition component. WFP should establish a food security monitoring system. This system should monitor the FCS, expenditure, income, coping strategies and change in prices of food, fuel and transport. Food security monitoring should utilize the representative agro ecological zones (Food security issues, livelihoods and response options). This should be done jointly with the Food security working group members and the department of Statistics. The Food Coordination working group should periodically update the food security status in light of monitoring data every six month.

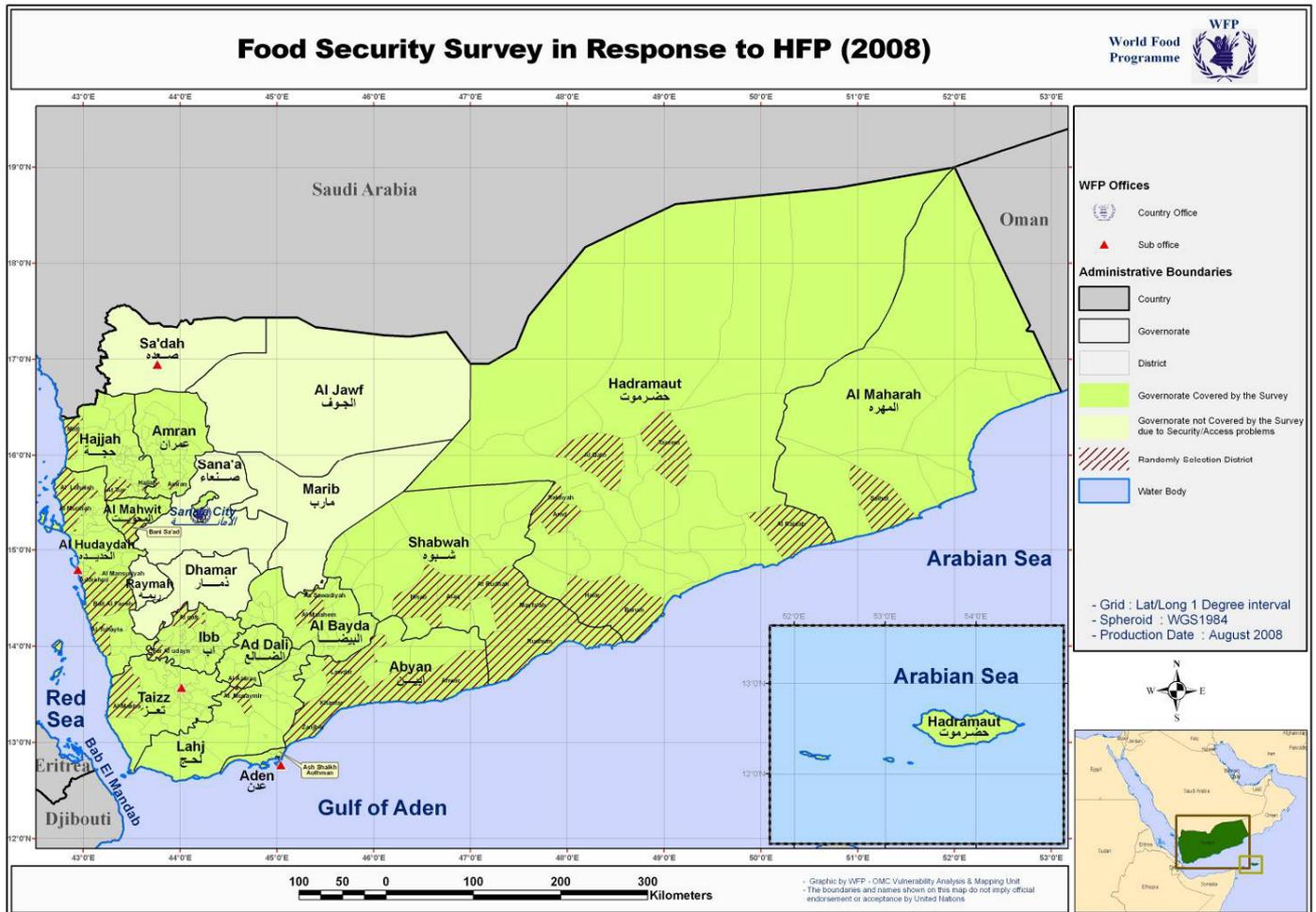
Programme targeting should consider monitoring results for updating target areas and vulnerable populations.

FCS is a useful proxy indicator of food security status in Yemen. No single indicator could capture food security. However, used in conjunction with other indicators, it would improve targeting and monitoring.



ANNEXES

Annex A: Map of Surveyed Districts





Annex B: Household Questionnaire

Household questionnaire

Governorate: _____	Gov code: _ _ _ _	District name & code: _ _ _ _
Village name : _____	Village code: _ _ _ _	
Date : _ _ _ _ / _ _ _ _ / _ _ _ _ _ _ _ _	Team Number: _ _ _	
Day: _____		
Enumerator names : _____ / _____		

I – HOUSEHOLD COMPOSITION AND ENROLMENT AT SCHOOL

0.0	Who is the informant	Spouse of household .1 Other adult male2 Other adult female.....3	_
1.1	Who is the head of household ?	1= Male / 2 = Female	_
1.2	How old is the head of household		_ years
1.3	How many persons at total are currently living in the household?		_ persons
How many children and adults are currently living in the household?			
1.4	Children less 5 years		_
1.5	Children 5-11 years <i>[adjust upper age to fit with last normal year of primary school in the country]</i>		_
1.6	Adolescents 12 – 17 years <i>[adjust lower age limit as indicated above]</i>		_
1.7	Adults 18-59 years <i>[adjust upper age to fit with last “pre-pension age” in the country]</i>		_
1.8	Elderly (+60 years) <i>[adjust lower age limit as indicated above]</i>		_
1.9	Are there primary school-aged children enrolled in the school?	0= No/ 1= Yes	_ → <i>If No, go to 1.11</i>
1.10	Were they attending school at the beginning of the school year?	0= No/ 1= Yes	_
1.11	Why are they not attending school now?	1= Child too young (below 7 years of age) 2= Sickness/handicap 3= Cannot pay school fees, uniforms, textbooks etc. 4= Cannot offer transportation/ far away 5= Absent teacher/ poor quality teaching 6= Poor school facilities (building, toilets, etc.) 7= Household chores/ Child work (paid/unpaid) 8= Pregnant/Married 9= Not interested 10= Other reasons _____	_

VI– FOOD CONSUMPTION

		Adults	Children below 5 years
Yesterday, how many meals were eaten by:		6.1 _	6.2 _
Is this number different from usual?	1= Less / 2= Same / 3= More	6.3 _	6.4 _
During the last week, for how many days has any of your family members taken the following food items and what was its source?			
Food type	Number of days (0-7)	Source (Code)	Food source code
6.5 Bread, wheat			1- Local production 2- Fishing/Grassing and plants collection 3- Cash purchases 4- Credit purchases
6.6 Other grains			
6.7 Rice			
6.8 Meat/Fish/ Poultry			



6.9	Vegetables			5- Donation and gifts (from relatives and friends) 6- Food assistance 7- Begging 8- Other _____
6.10	Beans, lentils, peas,			
6.11	Fruits			
6.12	Milk, cheese, yogurt			
6.13	Oil, fats			
6.14	nuts			
6.15	Sugar, honey, jam			
6.16	Others			

VII – COPING STRATEGIES AND ASSISTANCE

7.1	DURING THE PAST MONTH, HAVE THERE BEEN TIMES WHEN YOU DID NOT HAVE ENOUGH MONEY TO BUY FOOD OR COVER OTHER ESSENTIAL EXPENDITURES (HEALTH, COOKING FUEL, SCHOOL ETC.)?	0= NO 1= YES	_
HAS ANYONE IN YOUR HOUSEHOLD DONE ANY OF THESE THINGS: <i>Ask column by column</i>		During the PAST 30 DAYS 0= No / 1= Yes	
RELY ON LESS PREFERRED AND LESS EXPENSIVE FOOD		7.2	_
BORROW FOOD, OR RELY ON HELP FROM FRIENDS OR RELATIVES		7.3	_
PURCHASE FOOD ON CREDIT, INCUR DEBTS		7.4	_
LIMIT PORTION SIZE AT MEALS		7.5	_
RESTRICT CONSUMPTION BY ADULTS IN ORDER FOR SMALL CHILDREN TO EAT		7.6	_
REDUCE NUMBER OF MEALS EATEN IN A DAY		7.7	_
SKIP ENTIRE DAYS WITHOUT EATING		7.8	_
PURCHASE FOOD ON CREDIT, INCUR DEBTS		7.9	_
CONSUME SEED STOCKS HELD FOR THE NEXT SEASON		7.10	_
DECREASE EXPENDITURES FOR FERTILIZER, PESTICIDE, FODDER, ANIMAL FEED, VET. CARE....		7.11	_
SELL DOMESTIC ASSETS (RADIO, FURNITURE, FRIDGE, TV, CARPET...)		7.12	_
SELL PRODUCTIVE ASSETS (FARM IMPLEMENTS, SEWING MACHINE, MOTORBIKE, LAND...)		7.13	_
SELL MORE ANIMALS THAN USUAL		7.14	_
DECREASE EXPENDITURES FOR HEALTH CARE		7.15	_
TAKE CHILDREN OUT OF SCHOOL		7.16	_
SEEK ALTERNATIVE OR ADDITIONAL JOBS		7.17	_
INCREASE THE NUMBER OF MEMBERS OUT-MIGRATING FOR WORK AND/OR FOOD		7.18	_

WHAT HAVE BEEN YOUR MAIN DIFFICULTIES OR SHOCKS IN THE PAST 6 MONTHS? <i>DO NOT LIST, LEAVE THE HOUSEHOLD ANSWER SPONTANEOUSLY.</i> <i>ONCE DONE, ASK THE HOUSEHOLD TO RANK THE 3 MOST IMPORTANT ONES</i>	[Adjust according to local context] 1= Loss employment/reduced salary 2= Sickness/health expenditures 3= Death household member/funerals 4= High food prices 5= High fuel/transportation prices 6= Payment house rental 7= Debt to reimburse 8= Irregular/unsafe drinking water 9= Electricity/gas cuts 10= Insecurity/thefts 11= Bad climate (poor garden/harvest) 12= Other shock 99= No 2 nd or no 3 rd difficulty mentioned	1 ST DIFFICULTY		2 nd difficulty		3 rd difficulty	
		7.34	_	7.35	_	7.36	_

II – HOUSING, WATER AND ELECTRICITY/FUEL ACCESS



2.1	Observe and note the type of dwelling	1= private house mostly in durable material (brick, cement, stones) 2= private house/hut mostly in non-durable material (wood, mud) 3= flat in multi-storey building 4= room(s) in a shared house or shared flat 5= room(s) in a collective centre 6= plastic sheeting 7= other (specify)	__
2.2	Are you the owner?	0= No/ 1= Yes	__ → If Yes, go to 2.7
2.3	Do you have to pay a rent for your house?	0= No/ 1= Yes	__ → If No, go to 2.7
2.4	How much do you pay per month for the rent?	[local currency]	__
2.5	Are you currently in debt for your rent payment?	0= No/ 1= Yes	__ → If No, go to 2.5
2.6	Has your debt for rent increased over the past 6 months?	0= No/ 1= Yes	__
2.7	Where do you obtain your water for drinking at the moment?	1= <u>Safe source</u> (piped water, public tap, tube well/borehole, protected well, protected spring water, rain water, bottle water) 2= <u>Unsafe source</u> (river, unprotected well, unprotected spring water, canal)	__
2.8	What are you using as main source of fuel for cooking?	1= Wood 2= Animal dung 3= Electricity 4= Gas 5= Other (specify)	__
2.9	What are you using as main source of fuel for heating? [ask only in countries where heating is an issue]	1= Wood 2= Animal dung 3= Electricity 4= Gas 5= Other (specify)	__

III – AGRICULTURE, LIVESTOCK

Ask column by column		Home garden	
Do you own a Land for agriculture(if no go to 3.7)	Private ownership1 Leased2 Leased Government (Wakaf)3 Shared4 Do not have land.....5 Other.....6	3.1	__
How much did you cultivate this season?	(Hectare or recognised measuring unit)	3.2	__ __ . __ __
How much do you intend to cultivate next season?		3.3	__ __ . __ __
Did you cultivate this season, worked in cultivation or your house garden?	0= No/ 1= Yes	3.4	__
Do you usually cultivate?	0= No/ 1= Yes	3.5	__

		Cereals		Cash Crop		Qat		Vegetables, fruits	
How much of your production do you sell?	0= None 1= Less than half 2= About half 3= More than half 4= All	3.6	__	3.7	__	3.8	__	3.9	__
How much of your production do you sell this season? [Refer to the next harvest expected before end 2008, or if there is none expected, refer to the last harvest done in 2008]	99= Do not cultivate [Codes can be replaced by direct figures (%) if households can easily express themselves using proportions]	3.10	__	3.11	__	3.12	__	3.13	__
How long does your production last for your family consumption usually?	Write 0 if it lasts for less than 1 month	3.14	months	3.15	months	3.16		3.17	Months
How long will your production last for your family consumption this season? [Refer to the next harvest expected before end 2008, or if there is none	99= Do not cultivate	3.18	__ months	3.19	__ months	3.20	__ months	3.21	__ months



expected, refer to the last harvest done in 2008]									
---	--	--	--	--	--	--	--	--	--

Do you raise animals (cattle, sheep, goats, poultry)?		3.22	0= No / 1= Yes		__ → <i>If No, go to 4.1</i>						
<i>Ask questions column by column</i>		Cows & Camels		Sheep or/and goats		Poultry		Donkeys		Bee farm	
How many animals do you currently own?		3.23	__	3.24	__	3.25	__	3.26	__	3.27	__
Have you sold any animals during the past 6 months ?	0= No, 1= Yes	3.28	__	3.29	__	3.30	__	3.31	__	3.32	__
			<i>If 0, go to 3.45</i>		<i>If 0, go to 3.46</i>						
Have you sold female animals ?	0= No, 1= Yes	3.33	__	3.34	__	3.35	__	3.36	__	3.47	__
What was the main reason for selling live animals ?	1= Need for money	3.48	__	3.44	__	3.45	__	3.45	__	3.47	__
	2= Old age/sickness										
	3= Infertility										
	4= Lack of water										
	5= Lack of fodder/animal feed/pasture										
	6= Other reason <i>specify</i>										
Do you usually sell your animal production (milk, cheese, yogurt, meat, eggs)?	0= No 1= Part of it 2= All of it 99= Do not raise these animals	3.48	__	3.49	__	3.50	__	3.51	__	3.52	__

IV – INCOME SOURCES, KINSHIP SUPPORT AND ASSETS

		Currently		6 months ago <i>[adjust to 12 months if more relevant]</i>			
How many household members earn an income?		4.1	__	4.2	__		
How many sources of income do you have to sustain your family?		4.3	__	4.4	__		
<i>[Categories and codes to adjust as appropriate to the country/context]</i>				First source		Second source	
What are your two main sources of income currently ?	1= Sale of food crops production	2= Sale of cash crops production		4.5	__	4.6	__
	3= Sale of vegetables or fruits						
	4= Agricultural wage labour						
	5= Non-agricultural wage labour						
	6= Self-employed (taxi, carpenter...)						
	7= Government employee salary						
	8= NGO, private company salary						
	9= Sale of handicrafts						
	10= sale of animal/ animal products						
	11= Petty trade						
	12= Pension, allowances						
	13 = Remittances						
	14 = Other: _____						
	99 = No 2 nd source of income						
What share of your total income do the two main sources of income provide? (<i>Use proportional piling if needed</i>) - Total may not =100% if more than 2 sources of income				4.7	__ %	4.8	__ %
4.7	Has your income changed in the past 6 months ?	1= No change / 2= Decreased / 3= Increased			__		
4.8	When you need food or cash, can you ask support from relatives living:	within the country		0= No 1= Yes	__		
4.9		outside the country			__		



4.10	Have you received such support in the past 6 months? [adjust to 12 months if better]		
4.11	Yourselves, are you supporting relatives with food or cash at the moment?		

[Adjust the list as appropriate to the country]- Ask row by row		Do you have currently? 0= No / 1= Yes		
4.12	Fridge	__	4.13 Sewing machine	__
4.14	Oven (electric, gas)	__	4.15 Farm machinery (tractor, other such equipment and water pump)	__
4.16	Television	__	4.17 Bicycle	__
4.18	Satellite dish	__	4.19 Motorbike	__
4.20	Radio	__	4.21 Car, taxi	__
4.22	Cell phone	__	4.23 Cash, other savings (e.g. jewellery)	__
4.24	Boats		4.25 Bank account	
			4.26 Fishing equipments	__
			4.27 Other _____	

V – EXPENDITURES AND DEBTS

In the last month, how much have you spent on each of the following items? (if no expenditure, record 0)		In Y.R.	
5.1	Food	_ _	_ _
5.2	Qat	_ _	_ _
5.3	Payment for medical services and drugs	_ _	_ _
5.4	Transportation, fuel (vehicle)	_ _	_ _
5.5	Education/school fees	_ _	_ _
5.6	Rent (for Urban area)	_ _	_ _
Do you produce or purchase your food and qat?		% Purchase	% From own production
5.7	Food		
5.8	Qat		

MARKET				
How frequently do you go to the markets and how far are these markets? (fill in the table below)				
Type of Food Market		Number of days frequented per month	Walking Distance (Hr)	Distance by car (Hr)
5.9	Daily		:	:
5.10	Weekly		:	:

5.30	Energy (cooking, lighting, etc) compared to 1 year ago?	__	5.31	Education	Decreased	_ _
5.32	Housing	__	5.33	Transportation	change / 2= Decreased / 3= Increased	_ _
5.28	Food	__	5.29	Health		__



5.34	Do you have any debt or credit to reimburse at the moment?	0= No 1= Yes	__ → If No, go to 6.1
5.35	Have you have contracted new debts or credit in the past 6 months? <i>[adjust to 12 months if better]</i>		__ → If No, go to 5.25
5.36	What was the main reason for new debts or credit?	1= To buy food 3= To pay school, education costs 5= To buy animal feed, fodder, veterinary 7= To buy or rent land 9= To pay for ceremonies	2= To cover health expenses 4= To buy agricultural inputs (seed, tools...) 6= To buy animals 8= To buy clothes, shoes 10= Other reason (specify)
5.37	In which amount of time do you think you will be able to reimburse your debts or credit?	months	__

VIII- Food Security

Survey Questions		Household Food Insecurity	Child Food Insecurity
8.1	In the last 12 months, did it happen that your family could not afford to eat what you normally eat?	No= 0 Yes=1	No= 0 Yes=1
8.2	In the last 12 months, was there a time when you feared that you would not have enough food for your family for the next month?	No= 0 Yes=1	No= 0 Yes=1
8.3	Did you get all the food you needed or only part of it?	No= 0 Yes=1	No= 0 Yes=1
8.4	During the past 12 months, did it happen that you or any other adult in your family did not have a meal in the day because there was not enough food?	No= 0 Yes=1	
8.5	During the last 12 months, did it happen that any of your children did not have a meal during a particular day because there was not enough food?		No= 0 Yes=1
8.6	During the past 12 months, did it happen that you or any other adult in your family did not eat for a whole day because there was not enough food?	No= 0 Yes=1	
8.7	During the last 12 months, did it happen that any of your children did not eat for the whole day because there was not enough food?	No= 0 Yes=1	No= 0 Yes=1

Annex C: Traders check list

Check-list for traders & shop keepers



Governorate: _____ Gov code: |_|_|_|_ District name & code: |_|_|_|_|_|

Village name : _____ Village code: |_|_|_|_|_|

Date : |_|_|_|_| / |_|_|_|_| / |_|_|_|_|_|_|_|_|
day month year

Team Number: |_|_|_|_|

Day: _____

Enumerator names : _____ / _____

I. General Background Information

1. Is the trader in town or village? Town Village
2. Coverage (tick the highest level): Local District governorate

3.1	Has been there a change in buying behaviour?	1= Yes / 2= No	_
3.2	What are the reasons for changing the food commodity level of demand?	1- Increased commodity prices 2- Increased fuel price. 3- Lack of these commodities 4- Low income 5- I do not know 6- Other reason (specify) _____	_
What type of changes in buying behaviour do you see?	3.3	People buy cheaper foods	_
	3.4	People buy very small quantities	_
	3.5	Other reason (specify) _____	_

	Unit	What is the current price of the commodities you are selling?			Have there been changes in the price of these commodities compared to last year at the same period?		
		(in local currency) 99999= does not sell			99999= does not sell		
Local wheat grain	1 kg	4.1			4.2		
Local wheat flour	1 kg	4.3			4.4		
Imported wheat grain	1 kg	4.5			4.6		
Imported wheat flour	1 kg	4.7			4.8		
Bread	1 piece	4.9			4.10		
Rice	1 kg	4.11			4.12		
Potatoes	1 kg	4.13			4.14		
Beans, lentils, peas	1 kg	4.21			4.22		
Liquid Milk	1 litre	4.23			4.24		
Powder Milk	1 kg	4.25			4.26		
Oil	1 litre	4.27			4.28		
Sugar	1 litre	4.29			4.30		



	Unit	What does the big bag weigh?	What is the current price you sell the big bag for? (Local currency) 9999= dose not sell.		
Local wheat grain	1 kg		5.1	—	
Local wheat flour	1 kg		5.3	—	
Imported wheat grain	1 kg		5.5	—	
Imported wheat flour	1 kg		5.7	—	
Rice	1 kg		5.9	—	
Sugar	1 litre		5.11	—	

61	Has demand for the following commodities increased or decreased over the last year?	1= Increased / 2= Decreased/ 3=No change/ 99=does not sell	Rice		—	
			Wheat/bread		—	
			Vegetables		—	
			Meat/Milk		—	

7.1	Do you hold stocks?	1= Yes / 2= No	—	If No, go to 12
7.2	How many weeks do your stocks last?		—	

Annex D: Focus group Discussion



Results from Focus Group Discussions

1. *Livelihood status prior to price rise*

- Although difficulties existed, particularly high rates of unemployment, there was a balance between incomes and meeting food needs. People were able to afford rice and wheat. They could stock large bags of cereals and could afford low cost medicines and health treatment.
- Three meals a day was the norm.

2. *Coping mechanisms adopted in response to higher food prices*

- Price rise was sudden and did not allow much time to prepare for it.
- The most prevalent response was reduction in quantity and quality of meals. Extreme reduction in meat and milk consumption. Most meals restricted to wheat and tea with sugar.
- Incur debt and borrowing from shopkeepers
- Purchasing smaller quantities and unable to stock food.
- Reduced number and size of meals
- Hiding food until meal time. No food between meals
- Infants were given tea and sugar instead of milk.
- Increased reliance on food gifts from relatives and neighbors.
- Conserve spending on health and education to meet food needs. Resorting to traditional (herbal) medicines and avoiding visits to doctors/health centers.
- Pulling children out of school
- Family members turned to begging and garbage collection.
- Leaving irrigation channels in disrepair
- Selling productive assets such as milk producing cows
- Use wood instead of gas for cooking

3. *Impacts on social behavior*

- Psychological stress on mothers
- Increase tension between family members
- High divorce ratio
- Wives returning to parents' house since husbands can no longer afford to feed them
- Thoughts of immigration. Young people migrating to towns even though they have no real prospects of employment
- Desire to learn new skills such as embroidery
- Withdrawal symptoms for *Qat* chewers
- Individual cases of suicide out of despair

4. *Impact of price rise on Qat consumption*

- Some areas reported no impact on *Qat* consumption.
- Reduced use from daily to weekly basis, or total abandoning of *Qat*
- Begging to meet *Qat* costs



Annex E: Food insecurity table

Population figures per zone

Agro-ecological zone	Population	Poverty	Food Security Profile		
	Population	Poor people	Severely Food Insecure %	Moderately Food Insecure %	Food Secure %
Zone 1	13,972,916	5,091,373	3.3	27.3	69.3
Zone 2	2,538,628	1,125,416	5.3	17.3	77.3
Zone 3	1,562,505	517,040	8.0	17.3	74.7
Zone 4	1,285,614	700,096	55.3	36.7	8.0
Zone 5	256,838	96,059	NA	NA	NA
Total	19,616,501	7,529,984			

% within Agro ecological zone

Food Security Profile	Agro ecological zone				
	Zone 1	Zone 2	Zone 3	Zone 4	Yemen
Severely Food Insecure People	3.3	5.3	8.0	55.3	18.0
Moderately Food Insecure People	27.3	17.3	17.3	36.7	24.7
Food Secure People	69.3	77.3	74.7	8.0	57.3

Number of food insecure people per zone

Food Security Profile	Zone 1	Zone 2	Zone 3	Zone 4	Yemen
Severely Food Insecure People	169,712	60,022	41,363	387,386	658,484
Moderately Food Insecure People	1,391,642	195,072	89,620	256,702	1,933,036
Food Secure People	3,530,019	870,322	386,056	56,008	4,842,405
Total	5,091,373	1,125,416	517,040	700,096	7,433,925

Food Security Profile	Zone 1	Zone 2	Zone 3	Zone 4	Yemen
Severely Food Insecure People	169,712	60,022	41,363	387,386	658,484



Moderately Food Insecure People	1,391,642	195,072	89,620	256,702	1,933,036
Food Insecure People	1,561,355	255,094	130,983	644,088	2,591,520
Food Secure People	3,530,019	870,322	386,056	56,008	4,842,405
Total	5,091,373	1,125,416	517,040	700,096	7,433,925
Food insecure people	Severely Food Insecure People + Moderately Food Insecure People	2,591,520			



Annex F: Analysis of FIVIMIS Module

Questions	Yes (%)
In the last 12 months, did it happen that your family could not afford to eat what you normally eat? HH	89.5
In the last 12 months, did it happen that your family could not afford to eat what you normally eat? Child	76.0
In the last 12 months, was there a time when you feared that you would not have enough food for your family for the next month? HH	93.5
In the last 12 months, was there a time when you feared that you would not have enough food for your family for the next month? Child	81.4
Did you get all the food you needed or only part of it? HH	12.7
Did you get all the food you needed or only part of it? Child	13.5
During the past 12 months, did it happen that you or any other adult in your family did not have a meal in the day because there was not enough food? HH	76.1
During the last 12 months, did it happen that any of your children did not have a meal during a particular day because there was not enough food? Child	49.4
During the past 12 months, did it happen that you or any other adult in your family did not eat for a whole day because there was not enough food? HH	39.7
During the last 12 months, did it happen that any of your children did not eat for the whole day because there was not enough food? Child	12.0



Annex G: Selected References

Yemen Family Health Survey, Ministry of Health and Population and Central Statistical Organisation, 2005

Yemen Poverty Assessment, the Government of Yemen, The World Bank and UNDP, June 2007

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Pre-crisis Market Profile, WFP, February 2006