FOOD INSECURITY
IN PAKISTAN

2009

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ACRONYMS

CPI	Consumer Price Index
FAO	Food and Agriculture Orginization
FATA	Federally Administrated Tribal Area
FCS	FoodConsumption Score
FR	Frontier regions
FSA 2003	Food Security Analysis in Rural Pakistan 2003
FSI	Food Security Index
FSRI	Food Security Risk Index
GB	Gilgit- Baltistan
GDP	Gross Domestic Product
HIES	Household Integrated Economic Survey
IDPs	Internally Dispalced Persons
IMF	International Monetory Fund
Kcal	Kilo Calories
KPK	Khyber Pakhtunkhwa
LIFDC	Low Income Food Deficit Countries
MDER	Minimum dietary energy requirment
MDGs	Millennium Development Goals
MINFA	Ministry of Food and Agriculture
MT	Metric Tonnes
NFSS	National Food Security Strategy
PAK	Pakistan Administered Kashmir
PARC	Pakistan Agriculture Research Council
PCA	Principal Component Analysis
SAET	Small Area Estimation Technique
SDC	Swiss Agency for Developmnet and Cooperation
SDPI	Sustainable Development Policy Insitute
WATSAN	Water and Sanitation
WFP	World Food Programme

PREFACE

The "Food Insecurity in Pakistan 2009" report is a follow up of the "Food Security Analysis of Rural Pakistan 2003 (FSA 2003)" that the Sustainable Development Policy Institute (SDPI) produced in collaboration with the World Food Programme (WFP). The FSA 2003 report, the first of its kind in Pakistan, compared 120 districts of Pakistan on the basis of their food insecurity. The report concluded that 37.6 percent of rural population was food insecure.

There have been many social, economic and political changes during the last six years in Pakistan as well as a natural disaster in the form of a major earthquake in 2005 that claimed the lives of more than 70,000 people. Some of the significant changes in Pakistan during last years include: a strong movement to restore sovereignty of the judiciary, assassination of twice elected Prime Minister and leader of then major opposition party Benazir Bhutto; restoration of democracy in 2007-08 and taking over of the new Governments at the federal and provincial levels after February 2008 elections; macro-economic instability together with global high food and fuel prices, resulting in Pakistan's reliance on the standby facility from IMF; militants seeking control over Malakand and Buner, suicide attacks in major cities of Pakistan; and increase in Pakistan's strategic operations against militants' hideouts in FATA and Khyber Pakhtunkhwa (formerly known as NWFP). During the actions against militants, people were forced to leave the conflict hit districts of Malakand division and neighboring areas of FATA resulting in up to three million internally displaced people. Barring restoration of judiciary and democracy most of the above mentioned events have negatively affected (and are still affecting) the lives of the masses, who, due to the erosion of livelihood assets and livelihood activities are finding it increasingly difficult to access food (militancy-food insecurity nexus).

To understand the impact of the above-mentioned socio-economic and politico-economic changes on food security in Pakistan, a detailed assessment of the food security situation at the district level was carried out. SDPI was supported by the Swiss Agency for Development and Cooperation (SDC) and WFP in this initiative. Recommendations of the Planning Commission's Task Force on Food Security (2009) about constructing a "Food Security Index" (FSI) for Pakistan were kept in mind while compiling this report. It is believed that this report can contribute to constructing a FSI for Pakistan.

This report provides a ranking of districts of Pakistan on the basis of food security and gives a comparison of the current food security situation with the year 2003. It should also serve as a useful planning tool for designing meaningful social safety nets and evolving a national food security strategy; and it will help the federal and provincial governments in targeting the most food insecure population while implementing the next five-year plan and social safety net programs. The report also aims to help bilateral donors and friends of democratic Pakistan in targeting their assistance to the most marginalized and poverty stricken areas of Pakistan. Last but not least, it will help to understand the "potential militancy food-insecurity nexus", a crucial element to eliminate the root cause of militancy in Pakistan.

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EXECUTIVE SUMMARY

It is often said, "Food insecurity anywhere, threatens peace everywhere". Food insecurity may cause unrest or even political instability. Persistent food insecurity may cause conflicts, civil wars and can threaten the overall peace of community, society, nation or world depending on the extent and spectrum of hunger and poverty.

The term food security reflects the desire to eliminate hunger and malnutrition. The World Food Summit in 1996 defined food security as, "when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet the dietary needs and food preferences for an active and healthy life". This definition implies that food security has three pillars i.e., physical availability of food, socio-economic access to food and food absorption.

Based on a composite index of the above mentioned pillars of food security, it is observed that state of food security in Pakistan has deteriorated since 2003. The conditions for food security are inadequate in 61 percent districts (80 out of 131districts1) of Pakistan. This is a sharp increase from 2003, when conditions for food security were inadequate in 45 percent districts (54 out of 120 districts[2]) of Pakistan. Almost half of the population of Pakistan (48.6 percent) doesn't have access to sufficient food for active and healthy life at all times.

The report comes up with substantial evidence that inter and intra provincial disparities exist in terms of food security. FATA has the highest percentage of food insecure population (67.7 percent) followed by Balochistan (61.2 percent), and Khyber Pakhtunkhwa (KPK) (56.2 percent). The lowest percentage of food insecure population (23.6 percent) is in Islamabad. Among the districts, Dera Bugti in Balochistan has the highest percentage of food insecure people (82.4 percent).

Balochistan has the highest number of districts with worst conditions for food security. The 20 districts of Pakistan with worst conditions for food security include 10 districts from Balochistan, 5 from FATA; 3 from KPK; and 1 from Gilgit Baltistan (GB) and Sindh each. The number of districts from Balochistan in this category has doubled since 2003.

Dera Bugti, Musa Khel, Upper Dir, North Waziristan, Kohistan, Muhmmand, Dalbidin, South Waziristan, Orakzai, and Panjgur are the 10 districts with worst conditions for food security in Pakistan.

Islamabad Capital Territory is the most food secure district of Pakistan. Among the top twenty districts with best conditions for food security, besides Islamabad, are 14 districts in Punjab and 5 districts in Sindh.

There are two major sources of food; one is crop based while the other one is animal based. Physical availability of food is determined on the basis of "consumption versus production". Although Pakistan witnessed a six percent increase in surplus wheat producing districts (from 24 percent in 2003 to 30 percent in 2009) from 2003 to 2009, the percentage of surplus food (aggregate of both animal and crop based food) producing districts declined from 28.3 percent in 2003 to 17.5 percent in 2009. This means that majority of districts in Pakistan are either relying on external food supply either from domestic or international sources. This reliance occasionally creates marked disparity of prices in food surplus and food deficient regions. At times, this also results in hoarding of food leading to food price hikes, thus taking food beyond the economic access of many. This phenomenon is also supported by the observation that consumption of wheat in Pakistan declined by 10 percent in 2009-10 due to lack of purchasing power. It can be safely claimed that ensuring food security is much beyond increased wheat production.

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[1] The number of districts were 120 in 2003, whereas FSA 2009 examines 131 districts including the agencies of FATA.
[2] In FSA 2003, 38 districts were categorised as extremely food insecure, and 16 as very food insecure. Total of both the categories comes to 54.

Access to food was determined based on Food Consumption Scores[3] (FCS), household income, child dependency ratio[4], living conditions, food expenditures, market prices of food commodities, and coping strategies. The percentage of districts with adequate conditions for reasonable access to food was not very promising in 2003. Only 13.3 percent i.e., 16 out of 120 districts had adequate conditions for reasonable access to food. However, this situation seems to be further aggravated in 2009 when only 7.6 percent districts (10 out of 131) fell in the category of having reasonable conditions for access to food.

Conditions of access to food in Balochistan have particularly deteriorated. In 2003, the 20 districts in Pakistan with the worst conditions for access to food included 8 districts from KPK, 4 from FATA, 3 from GB, 1 from Sindh and 1 from Punjab. In 2009, this category includes 16 districts from Balochistan, 3 from KPK and 1 from Sindh.

Provision of adequate conditions for reasonable access to food merits immediate attention of policy makers and international community as 25 out of 29 districts in Balochistan, 5 out of 7 agencies of FATA, 12 out of 24 districts in KPK, 8 out of 23 districts in Sindh, and 5 out of 34 districts in Punjab have extremely poor conditions for access to food. It is pertinent to note that 4 out of 5 districts with extremely low conditions for access to food in Punjab are in Southern Punjab.

With the increase in poverty, people spend more on food as compared to non-food items. Within the poorest group, the average household's expenditure share on food has gone up to 61.6 percent in 2009 against 55.6 percent in 2005-06. The most common coping strategy both in urban as well as rural areas is to rely on less preferred and less expensive food. The second most adopted strategy is limiting the size of meals. Negative coping strategies, including reducing expenditure on health and education, lead to chronic food insecurity.

The third pillar of food security, i.e. food absorption, was measured based on the state of sanitation, access to drinking water, and female literacy rate. Only 9 percent districts (11 out of 120) displayed conditions for reasonable food absorption in 2003. In 2009 the situation had further deteriorated with only 7.6 percent (10 out of 131) districts in Pakistan meeting these prerequisites. One quarter of the total districts in Pakistan has extremely poor sanitation facilities where more than 50 percent of houses are without toilet. Similarly one quarter of the total districts has extremely poor state of drinking water where more than 50 percent households have no access to clean potable water. Almost a quarter (23 percent) of the districts have an extremely low female literacy rate (10 percent or below). FATA with 6.2 percent female literacy rate is the worst.

Most of the above mentioned figures reveal that individual food security in Pakistan has deteriorated from 2003 to 2009. One can try to understand the insurgency and militancy in Balochistan, FATA, KPK and four remote districts of Southern Punjab from a food security angle. Although it is difficult to develop conclusive empirical proof, the strong overlap of food insecurity and militancy provides considerable evidence of a potential nexus.

Coping with growing food insecurity is a daunting challenge for the Government of Pakistan that has to prioritize its limited resources amongst defense related expenditures (to curb militancy); debt retirement; day to day administration; and public sector development However, the potential militancy-food insecurity nexus cannot be ignored in Pakistan and requires a change in paradigm where food insecurity should not be treated merely as a humanitarian issue, but a national security issue. This report endorses the recommendations of the Planning Commission's Task Force on Food Security that a National Food Security Strategy must be evolved. We suggest that the primary focus of such a strategy should be ensuring food security in extremely food insecure districts. Resources channelized to improve the food security situation at the local level are critical to improve

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[3] Household food diversity and frequency of food consumption over a week period is calculated as a score. The lowest score, representing "poor food consumption", indicates that household's food intake is critically inadequate, both in terms of calories and nutritional quality
[4] Ratio between children and household members in economically active age group

development and security at province, national and regional level. It looks like that the country is already paying its price for having neglected food security.

INTRODUCTION

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. This applies to a country, province, region, households and especially to individuals within households as the focus of concern.[5] In other words there are three broader parameters of food security i.e.:

- food availability (physical availability through production, import, aid etc);
- food access (socio, economic, cultural access to food)
- food absorption (food utilization and assimilation)

Undernourishment exists when caloric intake is below the minimum dietary energy requirement (MDER). The MDER is the amount of energy needed for light activity and a minimum acceptable weight for attained height, and it varies by country and from year to year depending on the gender and age structure of the population.[6]

The **World Food Summit's** goal is to reduce, between 1992 and 2015, the number of undernourished people by half. Likewise, the **Millennium Development Goal 1**, target 1C, is to halve, between 1990 and 2015, the proportion of people who suffer from hunger.[7] These targets became even more of a challenge after the food, financial and fuel crisis of 2007-08.

The underlying reasons for the food crisis 2007 varied for different countries, however, it is a fact that global food prices were on the increase since 2000. Their impact became most visible during early 2008 when the following items of food rose in price: 31 percent for corn, 74% for rice, 87% for Soya, and 130% for wheat in a single year (March 2007-March 2008)[8]. In the case of wheat the price of a ton climbed from $105 in January 2000, to $167 in January 2006, to $481 in March 2008.

The food price hike had the largest impact on the developing and least developed countries. According to the Food and Agriculture Organization (FAO), in Cote d' Ivoire the price of rice in March 2008 more than doubled to what it was a year earlier. In Senegal, wheat prices by February 2008 were twice the level of February 2007. In the Philippines, rice prices increased by 50% during 2008. In Sri Lanka, prices of rice in March 2008 were twice those of a year ago, while in Bangladesh they increased by 66 percent in the same period.[9]

During 2007-08, soaring international food prices meant that access to food became even more difficult for the poor. As a result the governments of developing countries saw their popularity amongst the masses declining. Many of those governments were already facing a fuel and fiscal crisis and found themselves in a difficult situation where they had to prioritize whether to put their scarce fiscal resources into overcoming the fuel crisis or the food crisis.

The severity of the food crisis in "apparently" food self sufficient[10] countries such as Pakistan, Indonesia, India, Egypt etc., led many to believe that issues of food security were not only food production issues but food availability issues (socio-economic access to food) as well.[11] The food security situation in Pakistan needs to be understood in its peculiar circumstances. While rest of the world faced the three "F" (food, fiscal, fuel) crisis, Pakistan faced (and still continue to face) the six "F" crises—food, fuel, fiscal, functional democracy, frontier (meaning the war on terrorism, which spills across the frontier dividing Pakistan and Afghanistan and into the Khyber Pakhtunkhwa[12] and

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[5] ftp://ftp.fao.org/docrep/fao/011/ai424e/ai424e00.pdf
[6] http://www.africanews.com/site/Botswana_500000_citizens_undernourished/list_messages/27549
[7] FAO-State of food security in the World 2009
[8] http://www.undp.org.bd/library/newsletter/10.pdf
[9] FAO, Crop Prospects and Food Situation, No.2 April 2008, http://www.fao.org/docrep/010/ai465e/ai465e07.htm
[10] (one is not referring to food secure countries here, self sufficiency in terms of production of major crops)
[11] Suleri, A.Q.; (2009), http://www.bu.edu/pardee/files/documents/Pardee-BU-IIB-007.pdf visited on 12 April 2010
[12] Under the adoption of 18th amendment in Pakistan's constitution on 19th April 2010, North West Frontier has been renamed as Khyber Pakhtoonkhwa.

Balochistan), and fragility of climate. The six "Fs" have a multiplier effect on each other, and it seems extremely difficult to find a solution to any single crisis without addressing the rest of them. The cumulative effect of the six "F" crises is threatening the livelihoods and food security of poor segments of the society. Here it is pertinent to mention that agriculture is still the major asset of livelihoods and absorbs 44.7 percent of the country's total labor force. The agriculture sector is the mainstay of the rural economy and contributes 21.8 percent to the GDP.

Despite all odds, the agriculture sector in Pakistan witnessed a revival during 2008-09. The agricultural growth rate (4.7%) exceeded the projected growth rate (3.5%) and was also much better than the growth of 2007-09 (1.1%). Growth in 2008-09 mainly stemmed from the major crops sub-sector. Major crops exhibited a growth rate of 7.7 percent, as against negative 6.4 percent during 2007-08. Major crops are the second largest contributor to agriculture value added (33.4%) after livestock (almost 48%). However, growth in the agriculture sector did not improve socio-economic access to food and prices of essential food commodities (which are mainly consumed by poor households) such as wheat flour, rice and edible oils coninued increasing.

Since 2003, a number of crises have affected the country. As mentioned above some of the major crises and/or disasters were the earthquake of 2005, law and order issues exaggerated by the death of Benazir Bhutto, militancy in the north-western part of the country (Khyeber Pakhtonnkhwa, FATA, Balochistan), displacement of more than three million people due to the military operation in Swat, Bunner, Dir, Shangla, Bajur, Mohmand, South Waziristan and Orakzai agency, security issues in the major urban areas of the country, energy crisis, and the removal of general subsidies under the IMF standby facility. All of these factors have contributed to households' food security levels becoming worse and the number of those in this category increasing.

In the context of the above-mentioned changes, one of the first changes that the PPP government brought about in May 2008 was to establish a Task Force on food security. The Task Force has recommended[13] constructing a Food Security Index (FSI) for Pakistan using production and consumption indicators including,

    i)   average daily per capita calorie supply
    ii)   food production index per capita
    iii)   self-sufficiency ratio
    iv)   real price of food

This report is an indexing of districts of Pakistan on the basis of production, access, and absorption and can be used as an entry point to construct FSI as recommended by the Task Force on Food Security.

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[13] Task Force on Food Security, Final Report February 2009; Planning Commission, Government of Pakistan.

FOOD AVAILABILITY

Food availability is the first and most important among the three pillars of food security. Food availability is the function of local production, stocks, imports and donations (minus exports) and reflects the physical availability of food in the country. Any shortage in food availability leads to panic buying by consumers and very often hoarding by suppliers, both negatively affecting access to food by the population.

Pakistan is a major producer of wheat, rice, dairy milk, and many horticultural products. However, agricultural growth, being dependent on many natural and manmade factors is not always sustainable. In Pakistan, the advent of the Green Revolution augmented productivity and increased production dramatically, mitigating the nation's dependency on imported food. However, improvements in productivity could not exceed a certain threshold, and productivity growth rates were frequently outpaced by population growth. Today, in spite of a restrained population growth rate against enhanced agricultural growth rate, the country remains a net importer of several essential food items.

> The total geographical area of Pakistan is 79.6 million hectares. About 27 percent of the area is currently under cultivation. Of this area, 86 percent is irrigated. In this regard, Pakistan has one of the highest proportions of irrigated cropped areas in the world. The cultivable waste lands offering good possibilities of crop production amount to 8.3 million hectares. Growth in cropped area is slow but still significant as it increased from 11.6 million hectares in 1947 to 23.4 million hectares in 2006-07.

Fluctuation in the production of food commodities, in some years, has turned the nation food deficient even for basic commodities such as wheat.

There are two major sources of food; crop-based food and animal based (including sea) food. Crop based food comprises of cereals, vegetables, fruits, and tubers etc. Cereals especially wheat, rice, and maize are the three major staple food items in Pakistan. In the following sections, availability of both the crop based as well as animal based food is discussed. The availability of all food groups is also discussed.

Wheat

Wheat is a staple food and contributes almost 50% to a daily caloric intake. In most parts of Pakistan wheat bread is consumed three times a day. It also contributes 13.1 percent to agriculture value added and 2.8 percent to national GDP. Pakistan has a mixed history of wheat production. For many years it largely remained wheat deficient and had to import the commodity to bridge the gap between demand and supply.

In spring 2008, Pakistan had a fairly average wheat crop of approx. 21.8 million tons, just under the country's normal requirements. However, given the unprecedented global food price hike, including in the directly neighouring countries, Pakistan experienced massive (informal) exports and in turn had to import over 2 million tons of wheat at peak prices.

FSA 2009   **Table-2.1**

Wheat Balance Sheet

Wheat Supply/Demand Balance, May 2009/April 2010		
	May 2008-April 2009 (ex-post)	**May 2009-April 2010 (ex-ante)**
Domestic Availability	**21,900**	**24,000**
Production	21,800	24,000
Stocks draw-down / (increase)	100	(?)
Utilization	**24,650**	**23,949**
Food use	20,070	20,450
Feed use	400	400
Seed use	765	819
Losses	1,415	1,558
Exports (formal and informal)	2,000	500
Surplus/ (Deficit)	**(2,750)**	**270**

In autumn 2008 the government responded by massively increasing the farm support price[14] for wheat (from Rs.425 per 40 kg two years earlier to Rs.950) which in spring 2009 resulted in the desired effect of a bumper harvest of approximately 24 million tons of wheat.[15] Pakistan was back in a comfortable position where it could feed its population and supply its traditional market Afghanistan with the normally planned level of 500,000 tons per annum. However, because international wheat prices had eased in the meantime to levels well below farm support price in Pakistan, exports to neighbouring countries dropped to unprecedented low levels. Moreover, and importantly, the high consumer price for wheat in Pakistan (twice the level two years earlier) resulted in a decline in domestic consumption of wheat by around 10 percent (see box). As a result, by the end of the crop year the government was left with unprecedented closing stocks of up to four million tons of wheat – a surplus in the midst of declining food consumption -. Initial estimates for the 2010 crop were around 23 million tons, a drop in production due to drought conditions in parts of the rain fed areas. However, given the high carry forward stocks and the depressed domestic consumption of wheat the excessive surplus stocks in Pakistan are likely to continue.

With nearly stagnant per-capita incomes and double digit annual inflation in consumer prices (in particular for food) an increasing number of households and communities have become more vulnerable.

Without increasing the productivity of wheat cultivation, wheat consumer prices will stay high and the expanded area under wheat is likely to compete with the production of other important food crops, like sugarcane, fruits, vegetables and tubers. Agriculture policy needs to be reviewed to focus more on improving productivity through efficient use and timely availability of farm inputs and water.

Elasticity of Demand for Wheat in Pakistan

Model assumptions based on HIES data 2005-06:

Price Elasticity for Wheat:	-0.31
Income Elasticity for Wheat:	0.26
Cross Price Elasticity	
Rice Price–Wheat Consumption:	0.05

Wheat Price 2007-09 - Nominal: approx. 105%
                 - Real: approx. 55%

Unskilled Wages 2007-09 - Nominal: approx. 40%
                    - Real: approx. 3%

Per capita wheat consumption per annum:
           2006 (Base Year) = 124 kg
                            = 112 kg
           Change   = - 9.3%

Particularly the western parts of the country experienced shortages of wheat in 2008 and the early months of 2009. The crisis was not only due to insufficient availability of wheat in the country. It was aggravated by the ban on movement of wheat from the surplus producing areas to deficit areas. The ban on movement of wheat within the country caused severe regional disparity and significant price differentials. Constraint availability of wheat flour in Khyber Pakhtunkhwa, FATA, Sindh and parts of Balochistan dramatically impacted the food security situation of poorer households because of the rapid decline in their purchasing power. For example, while in Punjab one daily wage of an unskilled worker bought more than 12 kg of wheat, in FATA a daily wage only bought 6 kg.

An analysis of primary and secondary data collected for this study revealed that only 30 percent of districts (42) in Pakistan are producing surplus wheat, while more than 50 percent of districts in the country are extremely deficit in terms of wheat production, whereas another 13 percent of districts fall in the "deficit" category.

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[14] Assured price that Government pays to buy wheat from farmers.
[15] Economic Survey of Pakistan 2008-09

Wheat self sufficiency in districts of Pakistan - 2009

Map 2.1

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral | Ghizer | Gilgit

Upper Dir Swat | Kohistan | Diamer | Skardu | Ghanche

Lower Dir | Shangla Batagram | Astor
Bajour | Buner | Neelam
Mohmand Malakand | Mansehra
Charsada Mardan | KPK | Muzaffarabad
Peshawar Swabi | Abbottabad | PAK
Khyber | Nowshera | Haripur
Kurram | ISLAMABAD | Bagh
Orakzai TAA Kohat | Rawalakot | ISLAMABAD
Hangu | Attock | Sudhnoti
Kohat | Rawalpindi | Kotli
N Waziristan TAA Bannu Karak | Mirpur
Bannu | Chakwal | Jhelum | Bhimber
Lakki Marwat | Mianwali | Gujrat
TAA Tank | Khushab | Mandi-Bhauddin | Sialkot
S Waziristan Tank | Sargoda | Narowal
Di Khan | Hafizabad | Gujranwala
TAA Di Khan | Bhakhar | Sheikhpura
Sherani | Jhang | Faisalabad Nankana Sahib | Lahore
Zhob | Leiah | TT Singh | Kasur
Killa Saifullah | Musa Khel | PUNJAB | Okara
Killa Abdullah Pishin | DG Khan | Sahiwal
Ziarat | Lora Lai | Khanewal | Pakpatan
Quetta | Harnai | Muzaffargarh | Vehari
Mastung Sibi | Barkhan | Multan | Bhawalnagar
Mach | Kohlu | Lodhran
Nushki | Rajanpur
Chagai | Kalat | Bolan | Dera Bugti | RY Khan
Kharan | Nasirabad | Bahawalpur
Jhal Magsi | Jaffarabad | Kashmore
BALOCHISTAN | Jacobabad | Ghotki
Washuk | Khuzdar | Shikarpur
Kamber | Sukhar
Panjgur | Dadu | Larkana | Khairpur
Awaran | Nausheroferoz
Turbat/Ketch | Nawabshah
Lasbella | Jamshoro Matiari | Sanghar
Gawadar | SINDH | Umar Kot
Karachi | Tando Allahyar | Mirpur Khas
Hyderabad
Tando M. Khan | Tharparkar
Badin
Thatta

IRAN

INDIA

Arabian Ocean

FATA

FSA-2009

District wheat self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surplus

--- District Boundary
--- Province Boundary

N

0 37.5 75   150   225
Kilometers

Disclaimer:
The designations employed and the presentation of material in this publication donot imply the expression of any opinion whatsoever on the part of the World Food Programme (WFP) concerning the legal status of any country, territory, city or area or of its frontiers or boundaries

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food security analysis

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WFP-FS-09-02-PK

| FSA 2009 | Wheat self-sufficiency in districts | Chart 2.1 |
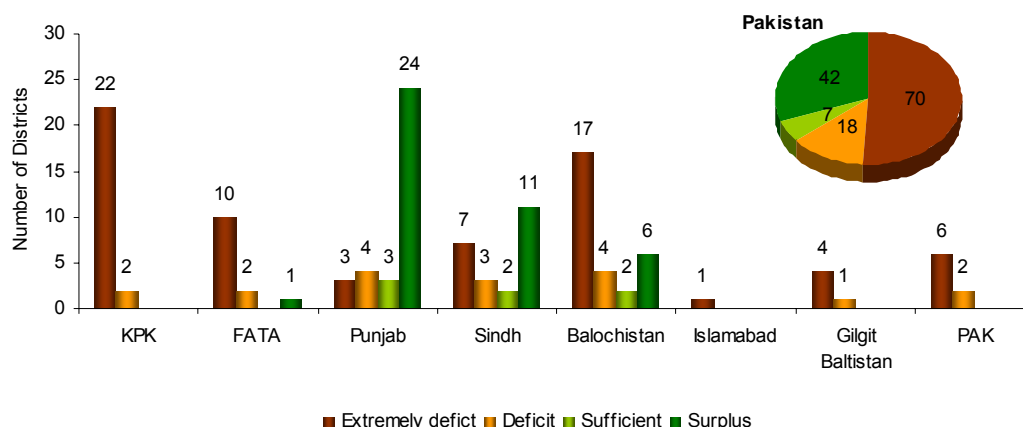
The districts with food availability of all types (both agricultural and animal) below 1750 kcal per person per days are classified as "extremely food insecure"; The districts with food availability more than 1750Kcal but below 2350 Kcal are classified as "deficit"; with food availability from 2350-2799 Kcal are classified as "sufficient"; and with more than 2800 Kcal as "surplus". (See chapter 7, Methodology for details)

The majority of the surplus wheat producing districts are in Punjab (57%), followed by Sindh (26%). Punjab, the bread basket of Pakistan, produces 55% of surplus wheat over its consumption requirements.

2.1.1   Punjab

Punjab is the breadbasket of Pakistan, producing surplus cereals that feed the entire country. Availability of cultivated land and the vast irrigation network has made the province a surplus producer of agriculture products. Since Punjab has been the main source of agricultural production in the country, it has remained the focus of major agricultural planning and development efforts. Nevertheless, even in Punjab, comprehensive planning for the development of the agriculture sector is lacking.

Wheat self sufficiency in Punjab Map 2.1.1

In Punjab, 71% (24 out of 34) of districts are producing surplus wheat, but variations exist in quantities available for export (both in domestic and international market). Districts in the Northeast, excluding Lahore, are producing surplus wheat. Among these districts are Narowal, Sialkot, Kasur, Okara, Sheikhopura, Khanewal, Lodhran, Mandi-Bahaudinn, Hafizabad, Gujranwala, T.T. Singh, Jhang, Rajanpur, D.G. Khan, Layyah, Rahimyar Khan, Bahawalnagar, Bahawalpur and Muzaffargarh (Map 2.16).

Seven districts out of 34 are deficit in wheat production. Among these are heavily populated districts with limited cultivable land (Lahore, Rawalpindi, Faisalabad, and Multan) and "rain-fed" Potohar region. However, the impact on market prices in these districts is minimal because of easy inflow of wheat from surplus districts.

According to official statistics, around 75 percent of all agricultural loans, water and fine seeds have been utilized in the province of Punjab. Currently 15 million acres of land is used for

WHEAT IN PAKISTAN
Pakistan has been divided into ten production zones because of the vastness of agro-ecological areas where wheat is grown. The zoning is mainly based on cropping patterns, disease prevalence and climatological factors. However, production zones need to be revisited.

In Pakistan, wheat is grown in different cropping systems, such as; cotton - wheat, rice - wheat, sugarcane - wheat, maize - wheat, fallow - wheat. Of these, cotton - wheat and rice - wheat systems together account for about 60% of the total wheat area, whereas rain-fed wheat covers an area of more than 1.50 m ha. Rotations with maize - sugarcane, pulses and fallow are also important.

Improved semi-dwarf wheat cultivars available in Pakistan have genetic yield potential of 6-8 t/ ha whereas the national average yields are about 2.5 t/ha. A large number of experiment stations and on-farm demonstrations have repeatedly shown high yield potential of the varieties. There are progressive farmers of irrigated areas who are harvesting 6 to 7 ton yields per hectare. However, farmers' yield ranges between 0.5 to 1.3 tons per hectare depending on the amount of rainfall. The yield in irrigated areas ranges from 2.5 to 2.8 tones per hectare depending upon the amount of water available and other factors.

FACTORS CONTRIBUTING TOWARDS YIELD GAP
The above discussion concludes that there is around a 60% yield gap in wheat, which needs to be narrowed. Wheat production in the country, however, has been well below potential as well as being variable. The major reasons for low productivity and instability includes: delayed harvesting of kharif (the sowing season of which begins in April-June and harvesting during October-December) crops like cotton, sugarcane and rice, and consequent late planting of wheat, non availability of improved inputs like seed, inefficient fertilizer use, weed infestation, shortage of irrigation water, drought in rain-fed areas and terminal heat stress and soil degradation. Moreover, farmers are not aware of modern technologies because of weak extension services systems.

Non-Availability of Seed
Scientists working in different research institutes of the country have developed a stream of new varieties, which have improved the crop yield over the years. The rapid diffusion of modern varieties of rice and wheat in irrigated areas is well documented. New varieties maintain disease resistance to evolving pathogens and enhanced genetic yield potential. However, the non-availability of seed of improved varieties to farmers is not only resulting in lower yields but is also placing farmers at risk of crop failure due to disease.

Late Planting
In Pakistan, farmers generally plant wheat late due to late harvesting of kharif crops (cotton, rice, sugarcane and summer crops) which results in low yields because the crop is exposed to heat stress during the grain filling period leading to the formation of shriveled grain. Currently, only 20% of wheat is being planted at optimum planting time (15th October to 15th November). Any delay in planting would reduce yield drastically. Non-availability of soil moisture in rain fed areas also delays wheat sowing in these areas. A comparison of wheat planted fortnightly from November 10 shows that the loss due to late planting could be as high as 42 Kg / ha / day (1% loss per day). There were 8, 16, 32, and 50 percent reductions in wheat grain yield for each fortnight after 10 November.

Inefficient Fertilizer Use
With increases in area sown with modern high yielding varieties, fertilizer use has continued to expand rapidly. Fertilizer use increased from 125 Kg/ha in 2000 to 144 Kg/ha in 2004. In terms of nutrient availability, nitrogen increased from 98 to 114 and phosphate from 26 to 30 Kg/ha in the corresponding period. However, the use of phosphate remains low, which has made the N: P ratio unbalanced i.e. 3.72 : 1.0 to 3.82 : 1.0 in 2004. The current nitrogen use is higher than the potential requirements of crops, while phosphate use is below the requirements of crops.

Water Shortage
In Pakistan, from 1982 to 2002, irrigated areas have increased from 15.48 to 18.22 million hectares. The irrigated area under wheat has also increased from 5.962 in 1985-86 to 7 million hectares in 2002-03. The major part of irrigation water is not utilized by the crops and the combined effect of leakage, wastage and seepage amounts to a 40% loss. Wheat crops need water for the whole growth period, but there are some stages which are more vulnerable to water shortage and any water shortage during this period may result in serious yield loses. The shortage of irrigation water at crown root initiation, booting and early grain fill periods result in significant yield losses.

Weed Infestation
In Pakistan, wheat grain yield losses due to weeds are estimated at between 12 to 35 percent (Ahmad et al. 1998). The losses in yield depend upon weed species, degree and duration of weed infestation in the field. Because of their adoption to wheat crop and heavy seed bearing capacity, some weeds such as: wild oat (Jungli Jai), Bird's seed grass (Dumbi sitti), goose foot (Bathu) and field bind weed (Lehli) are known as highly damaging weeds.
Source: Pakistan Agricultural Research Council

wheat production in Punjab, and according to rough estimates 40 MAF of underground water is consumed through tube wells in the province. Punjab produces 16 million tons of wheat annually which is almost 65% of Pakistan's current wheat requirement. By the year 2015, Pakistan's projected wheat requirement would be around 30 million tons, while A-Class cultivable land in Punjab is no longer available. The only way is to increase the per acre productivity through better seed, proper irrigation and improved means of cultivation. Moreover, rain fed areas will need special attention for crop production.

2.1.2   Sindh

The average wheat production per acre in Sindh is higher than Punjab, which is close to 1.04 tons against around 0.92 tons in Punjab. The coastal areas of Sindh are among extremely food insecure districts of Sindh.

Wheat self sufficiency in Sindh   Map 2.1.2

Sindh has a large area of cultivable waste land. At present in Sindh only 14 million acres of land is being cultivated out of which 1.2 million acres is cropped twice a year. A major chunk of land, 12 million acres, is only cultivated once in a year. The main reasons for single cultivation are lack of agriculture inputs, lower water availability and lower investment.[16]

Roughly 3.2 million acres additional land in Sindh can be brought under cultivation through some improvements and planning. The agriculture sector lacks proper policy and attention at the provincial level to utilize this immense potential that may reduce Pakistans' wheat availability problem.

In Sindh 43 percent of districts are wheat deficient whereas 48 percent have a surplus of wheat production. Another 9 percent are producing enough for local consumption. Among the districts with surplus production are Mirpur Khas, Sanghar, Umerkot, Ghotki, Kairpur, Naushero Feroz, Nawabsha, Sukker and Kashmore-Kandhkot.

2.1.3   Khyber Pakhtunkhwa

All 24 districts in Khyber Pakhtunkhwa (KPK) are deficient in wheat production, with 92 percent of them falling under the "extremely deficient" category. In addition KPK also has to provide wheat to the Federally Administrated Tribal Area (FATA) and Afghanistan, which makes it even more vulnerable to frequent food crisis. KPK meets around 30 percent of its annual consumption requirements from its own production thus relying on import of 70 percent of wheat flour to meet its requirement.

Wheat self sufficiency in KPK

KPK specializes in fruits production and other cash crops like tobacco, sugarcane and vegetables (including off-season). Self-sufficiency in wheat by increasing the area under wheat cultivation would directly affect the production of cash crops in KPK. However, productivity enhancement will reduce the burden of deficiency and can play a vital role. The provincial government has limited resources to invest in the agricultural sector and this sector is low on its priority list. However, it is expected that through bilateral aid to secure livelihoods in this conflict hit province, and with the implementation of

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[16] http://www.pakissan.com/english/issues/understanding.wheat.shortage.in.pakistan.shtml

the National Finance Commission Award,[17] the province would get more financial resources to boost its agricultural sector.

Wheat self sufficiency in FATA Map 2.1.4
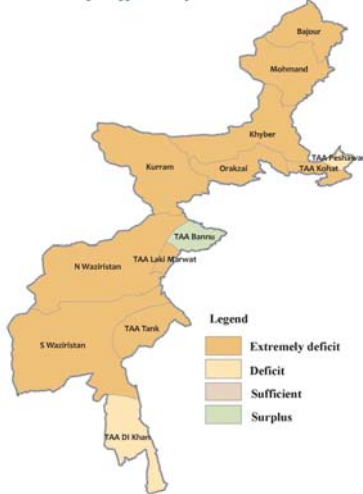
2.1.4 FATA

FATA consists of seven agencies and five frontier regions (FR) (administrative unit in FATA). The entire region of FATA is highly deficient in wheat production due to the hard mountainous terrain of the area. Wheat production is slightly better in FRs. FRs are adjacent to the settled districts and have comparatively better land for crop production. Among these, only FR Bannu is producing some surplus wheat.

2.1.5 Balochistan

The province has a number of unique characteristics in terms of agricultural production, especially of wheat. Most parts of the province are hilly, barren and arid. However, districts adjoining the border with Punjab benefit from the irrigation system and produce surplus wheat. Six districts (21 %) among the 29 are producing surplus wheat. Nasirabad, Jhal Magsi and Jafferabad are among the surplus districts. On the other hand, 72 percent of the districts are deficient in wheat production.

Wheat self sufficiency in Balochistan Map 2.1.5
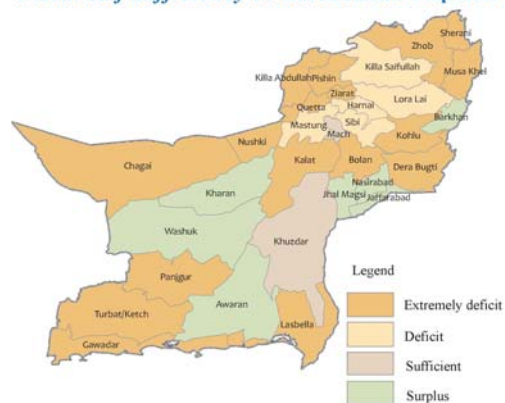
2.1.6 Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

Both PAK and GB regions are highly deficient in wheat production. Due to the topographic conditions, limited area is available for cultivation. The area specializes in fruit production, such as walnuts, apples, apricots and grapes. The Government has been providing wheat to both the regions at subsidized rates on a regular basis.

Wheat self sufficiency in Gilgit Baltistan Map 2.1.6

Wheat self sufficiency in PAK Map 2.1.7

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[17] NFC Award in Pakistan is a mechanism to determine the share of financial resources between federal and provinces and within provinces.

2.2 Rice

Rice is one of the major crops of Pakistan, which is sown on around 2.5 to 2.6 million hectares of land, thus it occupies about 11 percent of total cultivated area in Pakistan. Rice is the second staple food of the country and its share in national consumption is 2 million tons. Rice is not only an important food item but a major cash crop too. In fact Rice, after cotton, is the second most important cash crop of Pakistan. Pakistan is the 12th largest rice producer in the world. It was the third largest exporter of rice in the world during 2009 and earned nearly US$ 2 billion from rice exports.[18] However, this export earning had a flip side too. In 2008-2009 total production of milled rice in Pakistan was almost 5.5 million tons thus there was enough surplus in the country. Unchecked excessive exports of rice kept the domestic market prices at a higher level. The hoarding of rice by traders, due to speculated shortage in the market, also contributed to the rice price hike despite its abundant availability.

Pakistani Basmati rice holds huge commercial value and it is distinguished by its long grain and aroma. Rice in Pakistan is being cultivated in diverse and different climatic zones in Pakistan. Some varieties are specific to certain areas or climatic zones. For example, basmati is cultivated in northern planes of Punjab. Temperate Japonica rice is cultivated in Swat and high mountainous valleys. IRRI long grain, which is heat tolerant, is grown in Sindh and Balochistan.[19]

FSA 2009	Rice Self-sufficiency in Districts	Chart 2.2
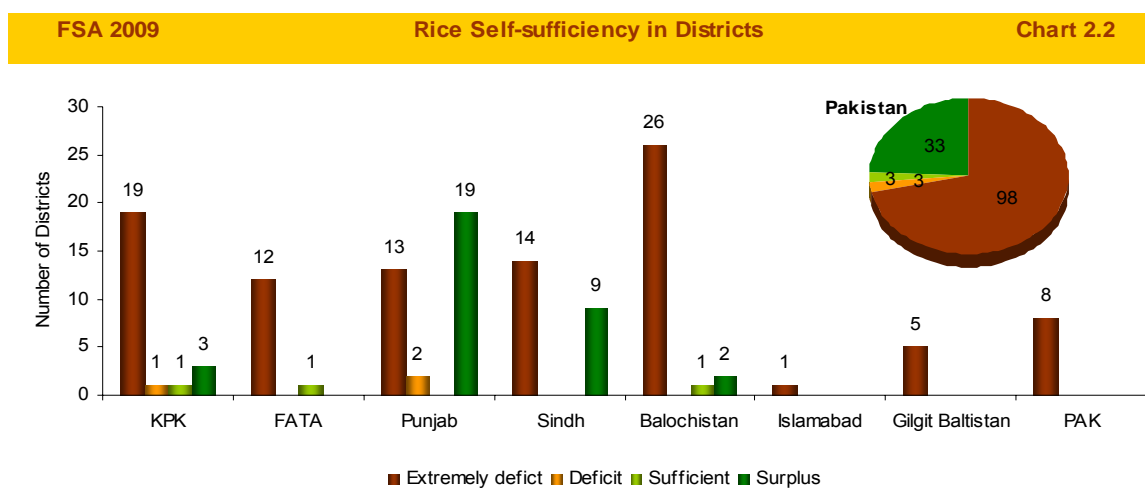
In Pakistan 24 percent of districts are producing surplus rice. The majority of the surplus rice producing districts are in the province of Punjab. More than 50 percent of the districts in Punjab are producing surplus rice. Sialkot, Narowal, Gujranwala, Sheikhupura, and Hafiz Abad districts of Punjab are known as the basmati bed in Pakistan. Sindh is the second major surplus rice-producing province, where 39 percent of districts are included in this category. Here it is pertinent to mention that rice is a water intensive crop and districts with limited water resources are not able to grow the rice crop.

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[18] http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/Business/10-Jul-2009/Pakistan-becomes-third-largest-rice-exporting-country-TDAP (visited on 23rd April 2010)
[19] http://www.pakissan.com/english/allabout/crop/rice.shtml

Rice self sufficiency in districts of Pakistan - 2009

Map 2.2

CHINA

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit

Diamer
Skardu
Ghanche

Upper Dir Swat
Kohistan
Astor

Lower Dir
Shangla Batagram
Neelam

Bajour
KPK
Mansehra

Mohmand
Malakand Buner
Muzaffarabad
PAK

Charsada Mardan
Abbottabad
Bagh

Peshawar
Swabi Haripur
Kotli

Khyber
Nowshera
ISLAMABAD Rawalakot
ISLAMABAD

Kurram
Mirpur

Orakzai TAA Kohat
Attock
Bhimber

FATA
Hangu
Sidhnoti

Kohat
Rawalpindi
Jhelum

TAA Laki Marwat
Karak
Gujrat

TAA Bannu
Chakwal
Sialkot

N Waziristan
Bannu
Mandi-Bhauddin
Narowal

Lakki Marwat
Mianwali
Gujranwala

TAA Tank
Khushab
Sargoda
Hafizabad

S Waziristan
Tank
Sheikhpura

DI Khan
Jhang
Lahore

Sheran TAA DI Khan
Bhakhar
Faisalabad Nankana Sahib

Zhob
Leiah
Kasur

Musa Khel
TT Singh
Okara

Killa Saifullah
PUNJAB
Sahiwal

Killa Abdullah Pishin
DG Khan
Khanewal
Pakpatan

Ziarat
Lora Lai
Vehari

Quetta
Harnai
Muzaffargarh
Bhawalnagar

Mastung
Sibi
Barkhan
Multan

Mach
Lodhran

Nushki
Kohlu
Rajanpur
Bahawalpur

Chagai
Kalat
Bolan
Dera Bugti

Kharan
Nasirabad
RY Khan

Jhal Magsi Jaffarabad
Kashmore

Washuk
Jacobabad
Ghotki

BALOCHISTAN
Shikarpur

Khuzdar
Kamber
Sukhar

Larkana

IRAN
Panjgur
Dadu Nausheroferoz
Khairpur

Nawabshah

Turbat/Ketch
Awaran
Sanghar

Lasbella
SINDH

Gawadar
Jamshoro Matiari
Umar Kot

Tando Allahyar
Hyderabad Mirpur Khas
Tharparkar

Karachi
Tando M. Khan

Badin

Thatta

INDIA

AFGHANISTAN

Arabian Ocean

FSA-2009

District Rice Self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surplus

— District Boundary
— Province Boundary

N

0 37.5 75 150 225
Kilometers

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Maize self sufficiency in districts of Pakistan - 2009

Map 2.3

CHINA

AFGHANISTAN

IRAN

INDIA

Arabian Ocean

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Upper Dir Swat
Kohistan
Diamer
Skardu
Ghanche
Lower Dir
Shangla Batagram
Neelam
Astor
Bajour
Buner
Mansehra
Malakand
Muzaffarabad
Mohmand Mardan
Abbottabad
KPK
PAK
Charsada Peshawar
Swabi Haripur
Khyber
Nowshera
Bagh
Kurram
Orakzai TAA Kohat
ISLAMABAD Rawalakot **ISLAMABAD**
Hangu
Kohat
Attock
Siahbnoti
N Waziristan
TAA Bannu Karak
Kotli
FATA
Bannu
Rawalpindi
Mirpur
Lakki Marwat
Mianwali
Chakwal
Jhelum
Bhimber
TAA Tank
Gujrat
S Waziristan
Tank
Khushab
Mandi-Bhauddin
Sialkot
Di Khan
Sargoda
Gujranwala
Narowal
Sheran TAA Di Khan
Bhakhar
Hafizabad
Zhob
Sheikhpura
Jhang
Lahore
Musa Khel
Faisalabad Nankana Sahib
Killa Saifullah
Leiah
Kasur
Killa Abdullah Pishin
DG Khan
TT Singh
PUNJAB
Okara
Ziarat
Lora Lai
Khanewal
Sahiwal
Quetta Harnai
Pakpatan
Mastung Mach Sibi
Barkhan
Muzaffargarh
Vehari
Nushki
Kohlu
Multan
Kalat Bolan
Lodhran
Bhawalnagar
Chagai
Dera Bugti
Rajanpur
Kharan
Nasirabad
Bahawalpur
BALOCHISTAN
Jhal Magsi Jaffarabad
Washuk
Jacobabad
Kashmore
RY Khan
Khuzdar
Shikarpur
Kamber
Ghotki
Panjgur
Larkana
Dadu Nausheroferoz
Sukhar
Khairpur
Awaran
Turbat/Ketch
Lasbella
Nawabshah
SINDH
Gawadar
Jamshoro Matiari
Sanghar
Tando Allahyar
Umar Kot
Hyderabad Mirpur Khas
Karachi
Tando M. Khan
Tharparkar
Thatta
Badin

District maize self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surplus
- ——— District Boundary
- ——— Province Boundary

N

0 37.5 75   150   225
Kilometers

FSA-2009

vam
food security analysis

WFP
World Food Programme

WFP-FS-10-04-PK

2.3 Maize

Maize is the third most important cereal crop of Pakistan, after wheat and rice. Among the cereal crops, maize is the highest yielding crop. As such, it has significant importance for food insecure countries like Pakistan. Maize occupies about 4.8 percent of the cropped area of Pakistan. Its share to national agricultural value added is 3.5 percent. In 2008-09, maize was cultivated on 1 million hectares and output was 3 million tons. About 65 percent of maize is cultivated in irrigated areas and the remaining 35 percent is cultivated in arid areas that are entirely dependent on rain. KPK and Punjab are major cultivators (51 percent and 48 percent respectively) and producers of maize and these two provinces account for about 97 percent maize of the country. Sindh and Balochistan only contribute 1-2 percent in national output. Maize cultivation is mainly concentrated in two geographical areas, 11 districts of KPK and 12 districts of Punjab. In PAK maize was cultivated on 0.122 million hectares but this was not included in official statistics of Pakistan.[20]

Traditionally maize is consumed as part of the diet in KPK and Northern mountainous regions of the country. In mountainous and sub-mountainous areas maize is used as a staple food. Approximately 50 percent of the total production of maize is used for direct human consumption in these areas. Apart from this, maize is also used in the wet milling industry and in livestock feed. However, commercial production of hybrid maize is on the increase in Punjab for edible oil extraction and other products.

FSA 2009	Maize Self-sufficiency in Districts	Chart 2.3
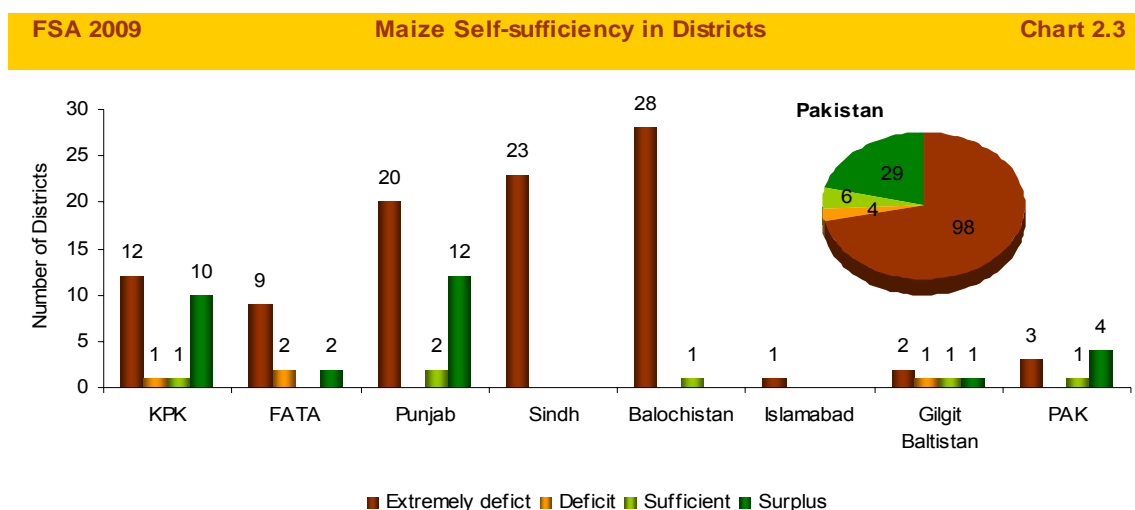
In total, 21 percent of the districts are producing surplus maize. Half of the districts in PAK, 42 percent in KPK, 35 percent in Punjab, 20 percent in GB and 15 percent in FATA are producing surplus (Chart 2.3).

It is estimated that almost 40-50% of Pakistan maize is consumed on a farm, 15-20% is marketed locally and 40% is sold in the organized wholesale market. The current consumption break-up of maize is given below.[21]

Direct human consumption	40.3	percent
Poultry feed industry	29.9	"
Wet milling industry (for starch production)	19.9	"
Seed	5.0	"
Miscellaneous	5.0	"

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[20] http://www.pakissan.com/english/allabout/crop/maize.shtml
[21] Pakistan Agriculture Research Council

Maize has never been a preferred food in terms of mass consumption and has limited demand in Pakistan. Limited demand discourages farmers from investing in modern technology and varieties for maize. Government policies, including agriculture development, procurement etc also give less preference to maize. The Government tends to invest and enhance production of wheat and rice to secure food security. Given these factors, farmers usually produce maize for domestic consumption.

The Importance of Maize to reduce the wheat crisis:

The high population growth rate in Pakistan and wheat availability and access problems have evidently pronounced the food security problem.[22] Any increase in maize production will allow the people of this country to maintain diets without spending hard currency or credits for food grain, especially wheat imports.

The blending of maize with wheat flour can produce some very good products. Studies at CIMMYT (International Maize and Wheat improvement Centre) Cereal Quality labs have suggested that the blending of up to 25% of maize flour with wheat flour can produce a range of consumer favorite products e.g. leavened bread. Further, it enhances the ash and oil content of bread. National Agricultural Research Centre of Pakistan has recently conducted a study showing similar results. Analysis showed that there is no obvious difference in taste, texture & color of wheat flour if 5 percent maize flour is blended. Results of nutritive analysis are given below:

	Protein	Ash	Fat	Crude Fiber
Wheat flour	13.14	1.77	1.0	2.88
Blended with 5% Maize flour	13.0	1.80	1.2	2.68

---

[22] http://www.sindhagri.gov.pk/maize-about.html

Maize self sufficiency in Punjab Map 2.3.1

Maize self sufficiency in Punjab Map 2.3.2

Maize self sufficiency in Balochistan Map 2.3.5

Maize self sufficiency in KPK Map 2.3.3
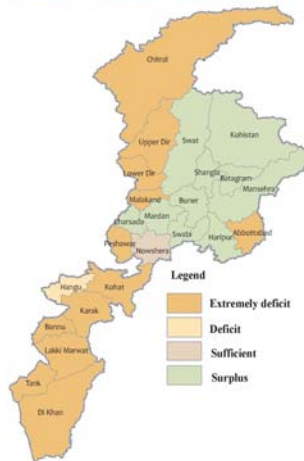
Maize self sufficiency in FATA Map 2.3.4

Maize self sufficiency in PAK Map 2.3.6
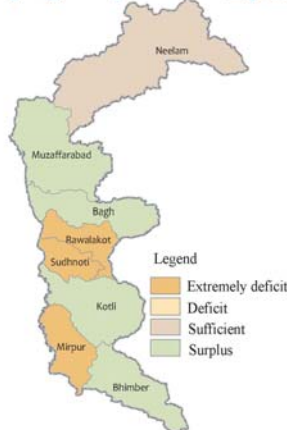
Maize self sufficiency in Gilgit Baltistan Map 2.3.7

Cereal self sufficiency in districts of Pakistan - 2009

Map 2.4

CHINA

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Diamer
Skardu
Ghanche
Astor

Upper Dir Swat
Kohistan
Neelam
Lower Dir
Shangla Batagram
Bajour
Buner
Mansehra
Mohmand Malakand
Muzaffarabad
KPK
PAK
Chaisada Mardan
Abbottabad
Khyber
Peshawar
Swabi Haripur
Bagh
Nowshera
Rawalakot
Kurram
Orakzai TAA Kohat
ISLAMABAD
Sudhnoti ISLAMABAD
Hangu
Kohat
Attock
Kotli
N Waziristan
TAA Bannu Karak
Rawalpindi
Mirpur
Bhimber
FATA
Bannu
Chakwal
Jhelum
Gujrat
Lakki Marwat
Mianwali
Mandi-Bhauddin
Sialkot
TAA Tapk
Narowal
S Waziristan
Tank
Khushab
Gujranwala
DI Khan
Sargoda
Hafizabad
Sheikhpura
Sheran TAA DI Khan
Bhakhar
Lahore
Zhob
Jhang
Faisalabad Nankana Sahib
Kasur
Killa Saifullah
Musa Khel
Leiah
TT Singh
Killa Abdullah Pishin
PUNJAB
Okara
Ziarat
Lora Lai
DG Khan
Sahiwal
Quetta
Harnai
Khanewal
Pakpatan
Mastung Mach Sibi
Barkhan
Muzaffargarh
Vehari
Nushki
Kohlu
Multan
Bhawalnagar
Kalat
Bolan
Lodhran
Chagai
Dera Bugti
Rajanpur
Bahawalpur
Kharan
Nasirabad
Jhal Magsi Jaffarabad
RY Khan
Jacobabad
INDIA
Shikarpur
Kamber
Ghotki
Washuk
Khuzdar
Larkana
Sukhar
IRAN
Dadu Nausheroferoz
Khairpur
BALOCHISTAN
Panjgur
Nawabshah
Awaran
Sanghar
SINDH
Turbat/Ketch
Jamshoro Matiari
Lasbella
Umar Kot
Tando Allahyar
Gawadar
Hyderabad Mirpur Khas
Karachi
Tando M. Khan
Tharparkar
Badin
Thatta

Arabian Ocean

AFGHANISTAN

District cereal crop self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surplus

—— District Boundary
—— Province Boundary

N

0 37.5 75   150   225
Kilometers
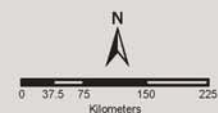
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2.4 Cereal production

Pakistan has produced 33.8 million tons of cereals (wheat, rice, maize and other food grains) during 2008-09, much higher than the previous years' production. The forecast for 2009-10 is expected to be around 30 million tons. Cereal consumption in Pakistan is around 29.4 million tons. According to the country's consumption patterns, 31 percent of the districts are producing surplus, while 62 percent districts are deficient in cereal production.

FSA 2009		Table-2.2
Major Cereals in Pakistan		
	Year	M. tonnes
Production	2008/09 estim.	32
	2009/10 fcast	33.8
Imports	2008/09	2.5
	2009/10 fcast	1
Exports	2008/09 estim.	5.1
	2009/10 fcast	4.7
Total utilization	2008/09 estim.	29.4
	2009/10 fcast	30
Stocks ending in	2009 estim.	2.8
	2010 fcast	3

Source: The state of Food Insecurity in the World 2009

FSA 2009 Cereal Self-sufficiency in Districts **Chart 2.4**
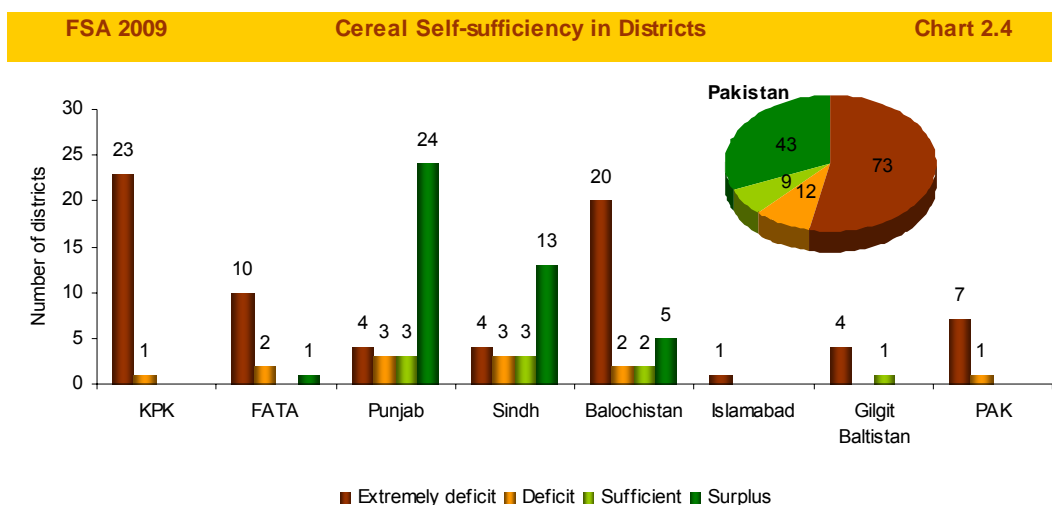
2.4.1 Punjab

The majority of districts in Punjab (71%) are producing surplus cereal. Seven districts (21%) are deficient in cereal production. Chakwal, Jhelum, Rawalpindi and Lahore are among the insufficient cereal producing districts of the province. Pakpattan, Okara, Hafizabad, Jhang, Bahawalnagar and Layyah are among the maximum surplus producing districts

Cereal Crops self sufficiency in Punjab Map 2.4.1

Cereal Crops self sufficiency in Sindh Map 2.4.2

2.4.2 Sindh

Sindh is the second major province in terms of cereal production. Approximately 57 percent of the districts are producing surplus cereal. The highest surplus producing districts in the province are Shikarpur, Kashmore-Kandhkot, Kamber, Naushero Feroz and Larkana. Most of the surplus producing districts are situated along the Indus River and have access to the irrigation system.

The worst cereal deficit districts are Tharparker, Karachi,

Hyderabad and Tando M. Khan. The highly populated areas with limited cultivated land as well as drought/saline affected districts are among the cereal deficit districts.

Cereal Crops self sufficiency in KPK Map 2.4.3

2.4.3   Khyber Pakhtunkhwa

Because of the scarcity of cultivated land, higher (238 persons per sq. km) population density and small landholding the province as a whole is cereal deficient. The worst cereal deficient districts (in terms of production) are Lakki Marwat, Tank, Bannu, Karak, Abbottabad, Kohat, Lower Dir, Upper Dir, Nowshera, Hangu and Peshawar.

Cereal Crops self sufficiency in FATA Map 2.4.4

2.4.4   FATA

Due to the nature and topography of the area, FATA is a highly deficient region. More than 70 percent of cereals are imported from Punjab and adjacent districts of KPK. FATA also joins the border with Afghanistan and price fluctuations on the other side of the border directly impact the markets in the region. There is no sustainable food policy for the stabilization of prices and market integration with settled districts of Pakistan. The area is subject to frequent market shocks resulting in depleting food security at the household level.

Cereal Crops self sufficiency in Balochistan Map 2.4.5

2.4.5   Balochistan

Balochistan falls in an arid region with low rainfall. Crop production is subject to the timely availability of rains. Part of the province close to the Indus River system has access to canal water for irrigation. Five districts (17%) are producing surplus cereals in the province; however 22 out of 29 (76%) districts are cereal deficient

2.4.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

PAK as a whole is a cereal deficient region and imports major cereal grains, like wheat and rice from Punjab and federal reserves. The GB region, barring Diamer district, which meets its own demand in normal seasons, is also cereal deficient.

Cereal Crops self sufficiency in Gilgit Baltistan Map 2.4.6

Cereal Crops self sufficiency Map 2.4.7
in PAK

2.5 Crop-based food

There are two major sources of food; one is crop-based while other one is animal-based. Crop-based food includes all types of foods from land cultivation and plants (major groups are cereals, tubers, fruits, vegetable and pulses). Both crop-based and animal-based foods are an essential part of the daily food consumption of the inhabitants. However, the inhabitants in plain areas of the country meet their daily dietary requirements from crop-based food, while people in mountainous regions rely more on animal-based food. Hence, food availability varies by region.

FSA 2009	Crop based Self-sufficiency in Districts	Chart 2.5
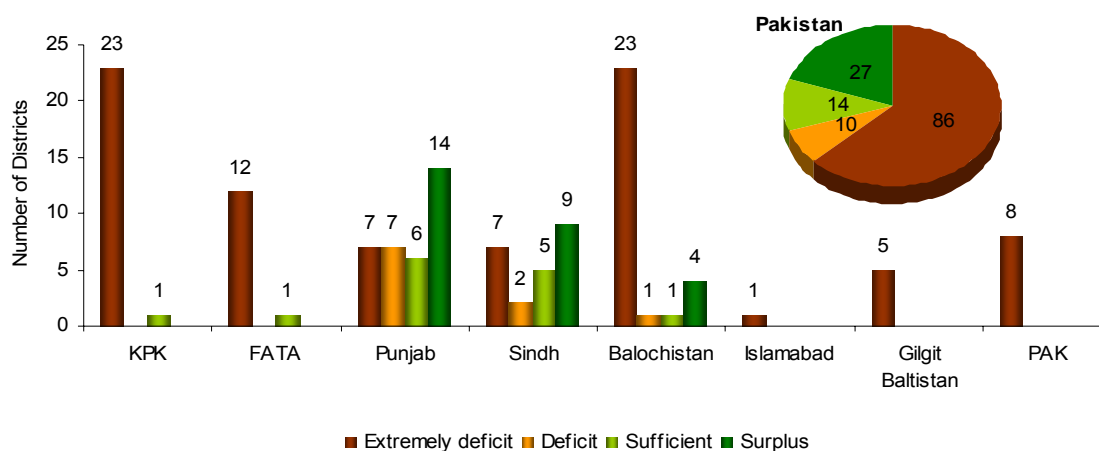
In order to ascertain the food availability for crop-based food, the production was converted into Kilo calories (Kcal) and summed up. The production per capita was compared with the standard caloric requirement of the population based on the results of the Household Integrated Economic Survey (HIES).

According to the result of FSA-2009, 20 percent of districts are producing surplus crop-based food, while another 10% meet their own demand. Around 70 percent of districts are deficient in crop-based food and import from other parts of the country or rely on imports from abroad. Comparing crop based food availability with cereal production trends (in section 2.4) reveal that while 31 percent districts of Pakistan were surplus in cereal production, only 20 percent are producing surplus crop based food.

Crops based self sufficiency in districts of Pakistan - 2009

Map 2.5

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral

Ghizer
Gilgit

Diamer
Kohistan
Skardu
Astor
Ghanche

Upper Dir Swat
Neelam

Lower Dir
Shangla Batagram
Bajour
Buner Mansehra
Mohmand Malakand
Chasrada Mardan
Muzaffarabad
KPK
Peshawar
Abbottabad
PAK
Khyber
Swabi Haripur
Bagh
Nowshera
Kurram
Rawalakot
Orakzai TAA Kohat
ISLAMABAD
Suchnoti
ISLAMABAD
Hangu
Kotli
Kohat
Attock
Mirpur
TAA Bannu Karak
Rawalpindi
Bhimber
N Waziristan
Jhelum
FATA
Bannu
Chakwal
Gujrat
Lakki Marwat
Mianwali
Mandi-Bhauddin
Sialkot
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
S Waziristan
Tank
Hafizabad
DI Khan
Sheikhpura
Sherani TAA DI Khan
Bhakhar
Lahore
Zhob
Jhang
Faisalabad Nankana Sahib
Killa Saifullah
Lelah
TT Singh
Kasur
Killa Abdullah Pishin
Musa Khel
PUNJAB
Okara
Ziarat
Lora Lai
DG Khan
Khanewal
Sahiwal
Quetta
Harnai
Muzaffargarh
Pakpatan
Mastung
Sibi
Barkhan
Multan
Vehari
Mach
Kohlu
Lodhran
Bhawalnagar
Nushki
Kalat
Bolan
Rajanpur
Chagai
Dera Bugti
Bahawalpur
Kharan
Nasirabad
BALOCHISTAN
Jhal Magsi Jaffarabad
RY Khan
Jacobabad Kashmore
Washuk
Shikarpur
Ghotki
Kamber
IRAN
Khuzdar
Larkana
Sukhar
Panjgur
Dadu Nausheroferoz
Khairpur
Awaran
Nawabshah
Turbat/Ketch
SINDH
Lasbella
Jamshoro Matiari
Sanghar
Tando Allahyar
Umar Kot
Gawadar
Hyderabad Mirpur Khas
Karachi
Tando M. Khan
Tharparkar
Badin
Thatta

INDIA

Arabian Ocean

FSA-2009

District crops based food production self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surpuls
- District Boundary
- Province Boundary

N

0 37.5 75   150   225
Kilometers

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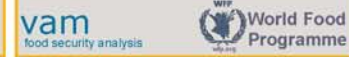
2.5.1 Punjab

As evident from the history of the land, Punjab is leading in producing crop-based food. More than 41 percent of the districts fall in the surplus crop-based food group. Hafizabad, Okara, Mandi-Bahaudin, Jhang and Pakpattan are among the major surplus producing districts.

Attock, Chakwal, Jhelum, Rawalpindi, Gujrat and Lahore are among the deficient crop-based food producing districts. The majority of the deficient districts of Punjab are from Potohar region.

Crops based self sufficiency in Punjab Map.2.5.1

Crops based self sufficiency in Sindh Map.2.5.2

2.5.2 Sindh

Sindh is the second major province that has surplus crop-based food production. Approximately, 39 percent of the districts are categorized as surplus producing areas. Major surplus producing districts are Badin, Shikarpur, Naushero Feroz, Larkana, Tando Allahyar, Tando M. Khan and Thatta.

2.5.3 Khyber Pakhtunkhwa

Consistent with crop patterns prevalent with regard to cereals, 23 out of 24 districts are deficient in crop-based food. One district, D I Khan, meets its own requirement. The major crop-based food deficient districts are Hangu, Bannu, Karak, Lakki Marwat, Abbottabad, Kohistan, Lower Dir, Upper Dir, Shangla, Chitral, Battagram, Nowshera and Peshawar.

Crops based self sufficiency in KPK Map.2.5.3

Crops based self sufficiency in FATA Map.2.5.4
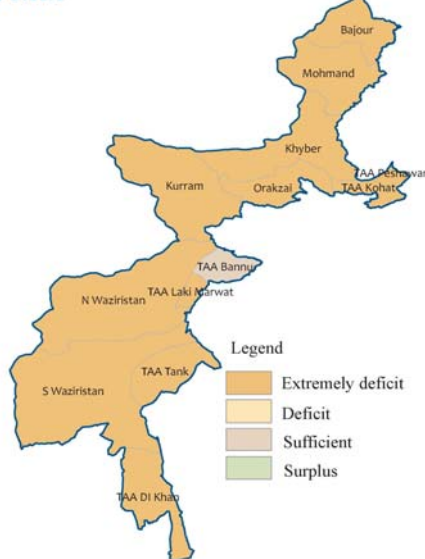
2.5.4 FATA

All agencies of FATA are deficient in crop-based food. Only one frontier region area is able to meet the demand in the normal production season.

Crops based self sufficiency in Balochistan   Map 2.5.5

2.5.5   Balochistan

Unlike Khyber Pakhtunkhwa and FATA, four districts (14 percent) in Balochistan are producing surplus crop-based food, whereas a great number (79%) of districts remain food deficient with regard to crop-based food availability.

2.5.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

All districts in both PAK and GB are deficient in crop-based food production. Poonch, Sudhnooti, Neelum, Muzaffarabad, Bagh, Mirpur and Ghizer are among the most highly crop-based food deficient districts.

Crops based self sufficiency in KPK   Map.2.5.7

Crops based self sufficiency in Gilgit Baltistan   Map.2.5.6
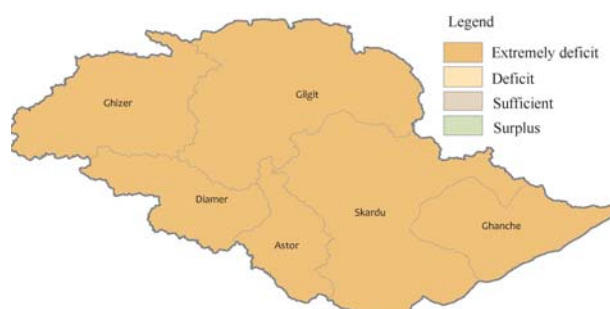
2.6 Animal-based food

Milk, milk products, meat, eggs and fish are animal-based foods. Animal-based food is a major source of proteins and fats for human beings. Animal proteins are essential and indispensible for the healthy growth of human beings. Recommended quantities of protein for a healthy human being is calculated at 36 grams per day per capita. However, in Pakistan only 18 grams are consumed on average, which is alarmingly lower than the recommended level. The Government must take serious steps to address this issue, which will help to improve the health of the populaion at the national level and improve people's socio-economic status at the rural level.[23]

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[23] http://www.pakissan.com/english/allabout/livestock/poultry/rinderpest.disease.free.pakistan.shtml

Animal based food self sufficiency in districts of Pakistan - 2009

Map 2.6

CHINA

Chitral

GILGIT BALTISTAN
Ghizer   Gilgit
Diamer   Skardu   Ghanche
Upper Dir Swat Kohistan   Astor
Lower Dir Shangla Batagram Neelam
Bajour   Buner Mansehra
Mohmand Malakand   Muzaffarabad
Charsada Mardan   PAK
Peshawar Swabi Abbottabad
Khyber   Nowshera Haripur   Bagh
Kurram   Rawalakot ISLAMABAD
Orakzai TAA Kohat   Siudhnoti
Hangu   Kohat   Attock   Kotli
TAA Bannu Karak   Rawalpindi   Mirpur
N Waziristan Bannu   Chakwal   Jhelum   Bhimber
FATA   Lakki Marwat Mianwali   Gujrat
TAA Tank   Khushab Mandi-Bhauddin Sialkot
S Waziristan Tank   Sargoda   Gujranwala Narowal
             Di Khan   Hafizabad
TAA DI Khan Bhakhar   Jhang   Sheikhpura   Lahore
Sherani   Faisalabad Nankana Sahib
Zhob   Leiah   TT Singh   Kasur
                            PUNJAB   Okara
Killa Saifullah Musa Khel DG Khan   Sahiwal Pakpatan
Pishin   Khanewal   Vehari
Killa Abdullah   Muzaffargarh Multan
Ziarat   Barkhan   Lodhran   Bhawalnagar
Quetta Harnai Lora Lai
Mastung Sibi   Rajanpur   Bahawalpur
Mach   Kohlu
Nushki   Bolan   RY Khan
Chagai   Kalat   Dera Bugti
Kharan   Jhal Magsi Nasirabad
BALOCHISTAN   Jaffarabad Jacobabad Kashmore
Washuk   Shikarpur   Ghotki
                 Kamber   Larkana Sukhar
Khuzdar   Dadu Nausheroferoz Khairpur
Panjgur
Awaran   Nawabshah
                    SINDH
Turbat/Ketch Lasbella Jamshoro Matiari Sanghar
                      Tando Allahyar Umar Kot
Gawadar   Hyderabad Mirpur Khas
                 Karachi Tando M. Khan Tharparkar
                      Badin
Arabian Ocean   Thatta

AFGHANISTAN

IRAN

INDIA

District animal based food production self sufficiency Status

- Extremely deficit
- Deficit
- Sufficient
- Surplus

District Boundary
Province Boundary

N
0 37.5 75   150   225
Kilometers

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FSA 2009								Table-2.3
Estimated Livestock Population								
(Thousand heads)								
Year	**Cattle**	**Buffaloes**	**Sheep**	**Goat**	**Camels**	**Asses**	**Horses**	**Mules**
1998	21,192	21,422	23,800	44,183	794	3,693	327	151
1999	21,592	22,032	23,938	45,775	784	3,761	324	163
2000	22,004	22,669	24,084	47,426	775	3,832	323	175
2001	22,424	23,335	24,236	49,140	767	3,904	321	190
2002	22,858	24,030	24,398	50,917	758	3,977	318	202
2003	23,303	24,754	24,566	52,763	751	4,052	317	218
2004	23,758	25,512	24,744	54,678	743	4,130	315	234
2005	24,218	26,295	24,923	56,665	736	4,199	313	251
2006	29,558	27,345	26,488	53,789	921	4,269	344	156
2007	30,673	28,165	26,794	55,245	933	4,347	346	159
Source: Ministry of Food, Agriculture & Livestock.								

The livestock sector is an important source of food for rural communities and especially for small farmers and marginalized inhabitants. The population of livestock is on the increase in the country. The population of cattle has increase by 45 percent since 1998. During this period, the population of buffaloes and goats in Pakistan increased by 31 percent and 25 percent respectively. However, the increase in the population of other animals was not very promising.

Annually, the livestock sector produces 41 million tons of milk, more than 3 million tons of meat and more than 10 billion eggs.[24]

Pakistan is earning a reasonable amount of foreign exchange with the export of livestock and livestock by-products, such as beef, mutton, skins, hides, finished leather, leather goods, raw wool, carpets, and footwear.

FSA 2009	Animal based food Self-sufficiency in Districts	Chart 2.6
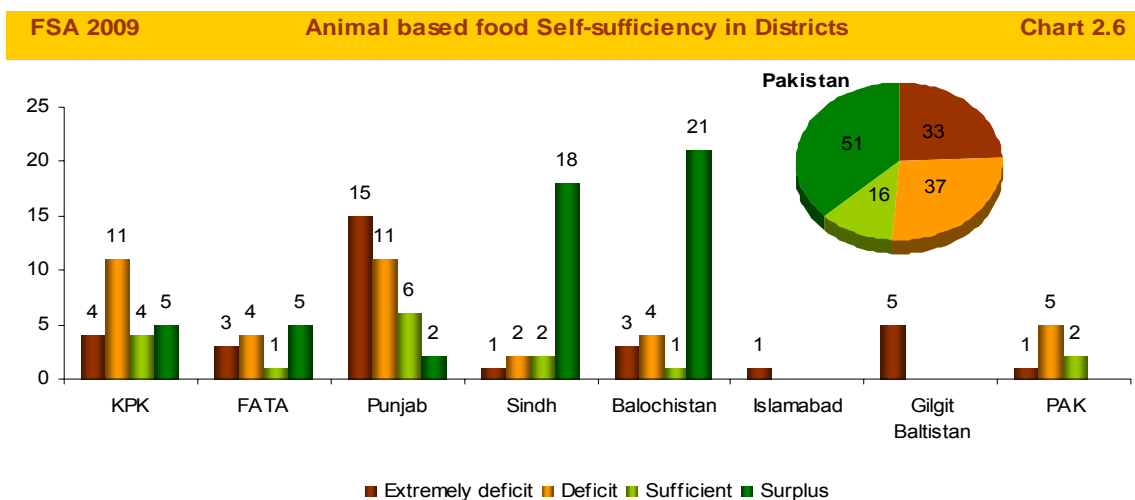
Both the crop and animal based food groups are complementing each other in the farming economy of the country. More districts in Pakistan are producing surplus animal based food compared to crop based food. To be precise, thirty-seven percent of the districts are producing surplus animal-based food compared to twenty percent districts that are producing surplus crop based food. Likewise 51 percent of the districts are deficient in animal-based food production compared to 71 percent, which are deficient in crop based food.

[24] Food, Agriculture & Livestock Division, 2009.

Most of the mountainous (Khyber Pakhtunkhwa and FATA) and marginalized agriculture producing districts (Sindh and Balochistan) rely on livestock and produce surplus production. However, the traditional method of livestock rearing has kept these populations poor. Poor management and a lack of proper feed have made the livestock sector uneconomical for the majority of these households.

2.6.1 Punjab

Unlike crop-based food, the province of Punjab is mostly deficit in terms of animal-based food. Around 77 percent of the districts in the province are animal-based food deficient. Layyah and Mandi Bahaudin are surplus producing districts, while Chakwal, Bhakkar and Pakpattan are producing enough to meet their own demand.

Animal based food self sufficiency in Punjab — Map 2.6.1

Animal based food self sufficiency in Sindh — Map 2.6.2

2.6.2 Sindh

The majority of districts in Sindh produce surplus animal-based food. More than 78 percent of the districts have a surplus of animal-based food which feed their highly populated cities such as Karachi and Hyderabad.

Animal based food self sufficiency in KPK — Map 2.6.3

2.6.3 Khyber Pakhtunkhwa

KPK also has a high animal-based food production. As a province of small landholding farmers, livestock is the main source of household food. Approximately 21 percent of the districts fall into the group of surplus animal-based food production. Around 62 percent of the districts are deficient in animal-based food production.

Animal based food self sufficiency in FATA — Map 2.6.4

2.6.4 FATA

Because of access to grazing areas, FATA performs much better in animal-based food production than in crop-based food production. Above 38 percent of the agencies/Frontier Regions produce surplus animal-based foods.

Animal based food self sufficiency in Balochistan — Map 2.6.5

2.6.5 Balochistan

Livestock is the major source of food as well as livelihoods in Balochistan. The vast barren area available in the province is used for animal grazing. The majority of districts produce surplus animal-based food. More than 72 percent of districts fall within the surplus producing group. Livestock products are supplied to the urban areas within Balochistan and also to Punjab and Sindh.
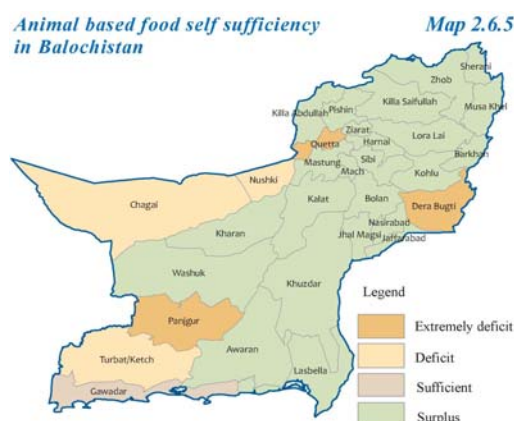
2.6.6 Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

Although the rearing of animals is common in PAK and GB regions, due to scarcity of fodder and a tough terrain these regions cannot meet the local demand. The urban areas in these regions consume pasteurized milk imported from Punjab.

Animal based food self sufficiency in PAK — Map 2.6.7

Animal based food self sufficiency in Gilgit Baltistan — Map 2.6.6

2.7 Overall Animal and Crop based Food Availability

Rural livelihoods and rural economy in Pakistan are heavily based on food production (both crop- as well as animal-based). Despite uneconomical landholding and non scientific livestock rearing, the agriculture sector keeps the extended family system intact through social protection and sharing of tasks among family members.

Around 61 percent (84 out of 137) of the districts are extremely deficient in terms of both agriculture and animal-based food availability. KPK is the worst affected province, with 23 out of 24 districts extremely food deficient. The extreme food deficient districts in PK, Balochistan, Sindh and Punjab provinces as well as FATA, GB and PAK are 96 percent, 76 percent, 26 percent, 21 percent, 92 percent, 100 percent and 100 percent respectively.

The number of surplus food producing districts has declined from 34 in the year 2003-04 to 24 in 2009-10. Proportionally, the food deficit districts have increased from 62 percent in 2003 to 76 percent in 2009. Many factors are responsible for this decline in food availability. Some of them include population growth, rapid urbanization turning cultivable land into housing societies, climate change especially reduced water availability and brief rainy seasons, increase in prices of inputs, lack of coherent agricultural development policy, and shrinking investment both from the public as well as the private sector in agricultural research and development.

All food self sufficiency in districts of Pakistan - 2009

Map 2.7

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Diamer
Skardu
Ghanche
Upper Dir Swat
Kohistan
Astor
Neelam
Lower Dir
Shangla Batagram
Bajour
Buner
Mansehra
Mohmand Malakand
Muzaffarabad
KPK
Charsada Mardan
Abbottabad
PAK
Peshawar
Swabi
Haripur
Bagh
Khyber
Nowshera
Rawalakot
Kurram
ISLAMABAD Sudhnoti
ISLAMABAD
Orakzai TAA Kohat
Attock
Kotli
Hangu
Kohat
Rawalpindi
Mirpur
N Waziristan
TAA Bannu Karak
Chakwal
Jhelum
Bhimber
FATA
Bannu
Mianwali
Gujrat
Lakki Marwat
Mandi-Bhauddin
Sialkot
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
S Waziristan
Tank
Hafizabad
DI Khan
Sheikhpura
TAA DI Khan
Bhakhar
Jhang
Lahore
Zhob
Sherani
FaisalabadNankana Sahib
Leiah
TT Singh
Kasur
Killa Saifullah
Musa Khel
PUNJAB
Okara
Killa Abdullah Pishin
DG Khan
Sahiwal
Pakpatan
Ziarat
Lora Lai
Khanewal
Quetta
Harnai
Muzaffargarh
Vehari
Mastung
Sibi
Barkhan
Multan
Bhawalnagar
Mach
Kohlu
Lodhran
Nushki
Rajanpur
Kalat
Bolan
Bahawalpur
Chagai
Dera Bugti
RY Khan
Kharan
Nasirabad
BALOCHISTAN
Jhal Magsi Jaffarabad
Kashmore
Jacobabad
Shikarpur
Washuk
Kamber
Ghotki
Khuzdar
Larkana
Sukhar
IRAN
Dadu Nausheroferoz
Khairpur
Panjgur
Awaran
Nawabshah
Turbat/Ketch
Jamshoro Matiari
Sanghar
Lasbella
Tando Allahyar
Umar Kot
Gawadar
Hyderabad Mirpur Khas
SINDH
Karachi
Tando M. Khan
Tharparkar
Badin
Thatta

INDIA

Arabian Ocean

FSA-2009

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District all food production self sufficiency Status

■	Extremely deficit
■	Deficit
■	Sufficient
■	Surplus
—	District Boundary
—	Province Boundary

N

0 37.5 75   150   225
Kilometers

WFP-FS-III-09-09-PK
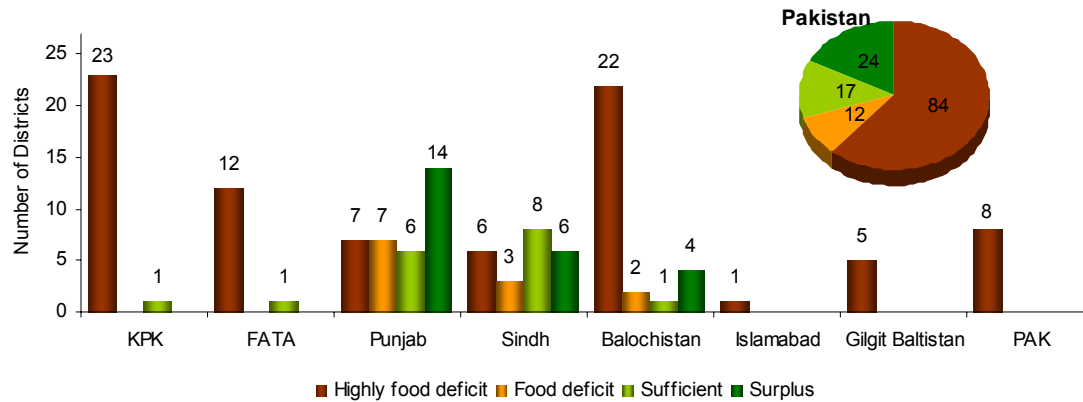
2.7.1   Punjab

Almost 41 percent (14 out of 34) of the districts in the province of Punjab are producing surplus food. The number of surplus food producing districts decreased from 21 to 14, while the food deficit districts increased from 7 to 14 over the last 5 years (2003-04 to 2008-09). Some districts (such as Mianwali, Bahawalpur, Muzaffargarh, Rajanpur, Sheikhopura and Lodhran), which were at the borderline of surplus production in 2003-04, have moved down in production now. Thus food availability in Pakistan has decreased.

All food self sufficiency in Punjab   Map 2.7.1

All food self sufficiency in Sindh   Map 2.7.2

2.7.2   Sindh

Around 26 percent of the districts in the province of Sindh produce surplus food. In Punjab the number of surplus producing districts decreased from 11 in 2003 to 6 in 2009. The percentage of food deficient districts has also increased from 24 percent to 39 percent in 2009 as compared to 2003. Some of the districts that moved down to the deficient group are Mirpur Khas and Ghotki.

All food self sufficiency in KPK   Map 2.7.3

2.7.3   Khyber Pakhtunkhwa

Out of 24 districts of KPK, only one district is at the borderline (sufficient), while the remaining 23 districts are deficient in food production. The amount of food available remains the same in 2009 as it was in 2003.

2.7.4 FATA

There is no change in the level of food availability in FATA as reflected in the food security analysis in 2003; all seven agencies in FATA are food deficient.

All food self sufficiency in FATA Map 2.7.4

All food self sufficiency in Balochistan Map 2.7.5
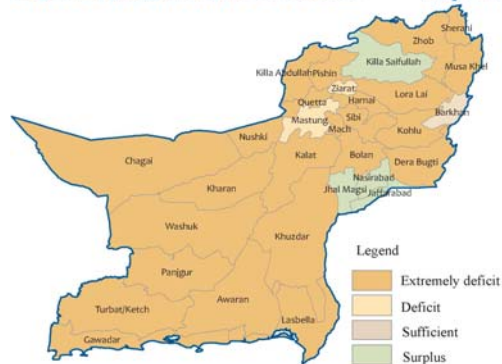
2.7.5 Balochistan

The number of surplus food producing districts in Balochistan increased from 2 to 4. However, the total number of districts with sufficient and surplus production is the same as it was in 2003. Jhalmagsi and Killa Saifullah have been added to the surplus food producing districts.

2.7.6 Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

All districts in PAK as well as GB are extremely food deficient in terms of food availability. Both areas specialize in fruit and off-season vegetable production. There is a need for a comprehensive development plan of the agriculture sector in the area.

All food self sufficiency in PAK Map 2.7.6
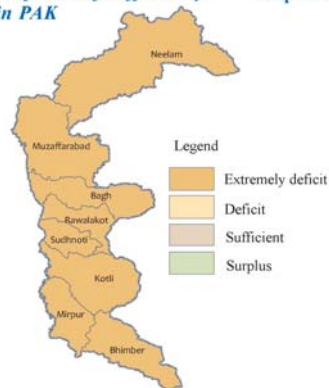
All food self sufficiency in Gilgit Baltistan Map 2.7.7

| FSA 2009 | | | | | | | Table 2.4 |

Food Availability in Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
1	Pasni	B	4	50	Jhelum	P	39
2	Quetta	B	6	51	Ganche	GB	40
3	Karachi	S	6	52	Gilgit	GB	41
4	ISLAMABAD	Capital	9	53	Haripur	KPK	41
5	Lahore	P	12	54	Swabi	KPK	41
6	TA Adj. Kohat	FATA	13	55	Chitral	KPK	42
7	Karak	KPK	14	56	Bolan	B	43
8	Gawadar	B	14	57	Sibi	B	43
9	Poonch	PAK	15	58	Bhimber	PAK	43
10	Dera Bugti	B	16	59	Noshki (Chagai)	B	44
11	Killa Abdullah	B	16	60	Malakand P.A.	KPK	45
12	Tank	KPK	17	61	TA Adj. DI Khan	FATA	46
13	Tharparkar	S	17	62	Shangla	KPK	46
14	Hangu	KPK	18	63	Skardu (Baltistan)	GB	47
15	Abbottabad	KPK	19	64	Chakwal	P	47
16	Lakki Marwat	KPK	19	65	TA Adj. Peshawar	FATA	47
17	Lasbella	B	19	66	Jamshoro	S	48
18	Kohat	KPK	19	67	Swat	KPK	49
19	TA Adj. Lakki	FATA	19	68	Mach	B	50
20	Neelam	PAK	20	69	Multan	P	50
21	Khyber	FATA	20	70	Kalat	B	52
22	Rawalpindi	P	20	71	Gujrat	P	52
23	Orakzai	FATA	20	72	Loralai	B	55
24	Hyderabad	S	22	73	Attock	P	55
25	Bannu	KPK	23	74	Zhob	B	55
26	Lower Dir	KPK	24	75	Kohlu	B	57
27	Musakhel	B	24	76	Diamer	GB	59
28	Sudhnooti	PAK	24	77	Buner	KPK	59
29	Peshawar	KPK	24	78	Mardan	KPK	60
30	Mirpur	PAK	26	79	Sukhar	S	64
31	Bajour	FATA	26	80	Khuzdar	B	66
32	Bagh	PAK	26	81	Umar Kot	S	68
33	N. Waziristan	FATA	27	82	Kharan	B	69
34	Kurram	FATA	27	83	Awaran	B	70
35	Ghizer	GB	29	84	Charsada	KPK	71
36	Dalbadin	B	29	85	Mastung	B	76
37	Turbat (Kech)	B	30	86	Dadu	S	77
38	S. Waziristan	FATA	30	87	Faisalabad	P	82
39	Muhmand	FATA	30	88	Mirpur Khas	S	84
40	Muzaffarabad	PAK	30	89	Khushab	P	84
41	TA Adj. Tank	FATA	32	90	D.G. Khan	P	90
42	Upper Dir	KPK	33	91	Mianwali	P	95
43	Panjgur	B	35	92	Ziarat	B	96
44	Kotli	PAK	35	93	Bahawalpur	P	96
45	Kohistan	KPK	36	94	Sialkot	P	97
46	Pishin	B	36	95	Ghotki	S	98
47	Nowshera	KPK	37	96	Gujranwala	P	100
48	Battagram	KPK	37	97	Sanghar	S	104
49	Mansehra	KPK	38	98	D.I. Khan	KPK	104

Food Availability in Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
99	Khairpur	S	105	119	Bhakhar	P	130
100	Sheikhpura	P	107	120	Tando Allahyar	S	131
101	Muzaffargarh	P	108	121	Sahiwal	P	132
102	TA Adj. Bannu	FATA	110	122	Vehari	P	134
103	Lodhran	P	110	123	Naushero Feroz	S	135
104	Barkhan	B	111	124	Sargodha	P	139
105	Rajanpur	P	112	125	Layyah	P	142
106	Kamber	S	112	126	Killa Saifullah	B	147
107	Khanewal	P	113	127	Bahawalnagar	P	153
108	Narowal	P	114	128	Toba T. Singh	P	156
109	Thatta	S	115	129	Shikarpur	S	165
110	Nawabshah	S	117	130	Mandi-Bahaudin	P	195
111	Kashmore	S	119	131	Jhang	P	202
112	Jacobabad	S	119	132	Okara	P	210
113	Mitiari	S	119	133	Pakpattan	P	237
114	Larkana	S	125	134	Hafizabad	P	240
115	Rahimyar Khan	P	125	135	Jaffarabad	B	247
116	Badin	S	127	136	Jhal Magsi	B	254
117	Tando M. Khan	S	127	137	Nasirabad	B	366
118	Kasur	P	129				

Table 2.5

Crop based self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
1	Pasni	B	-100.0	50	Jhelum	P	-65.7
2	Karachi	S	-99.9	51	Bolan	B	-65.2
3	Tharparkar	S	-96.3	52	Haripur	KPK	-64.8
4	Quetta	B	-96.0	53	Swabi	KPK	-63.7
5	ISLAMABAD	Capital	-93.8	54	Kohlu	B	-62.9
6	Karak	KPK	-92.6	55	Ganche	GB	-61.9
7	Gawadar	B	-91.6	56	Sibi	B	-61.5
8	Lahore	P	-90.3	57	Chakwal	P	-61.3
9	Killa Abdullah	B	-90.3	58	Gilgit	GB	-60.7
10	Tank	KPK	-90.0	59	TA Adj. Tank	FATA	-60.3
11	TA Adj. Kohat	FATA	-89.4	60	Shangla	KPK	-60.1
12	Poonch	PAK	-89.1	61	Jamshoro	S	-59.7
13	Khyber	FATA	-88.7	62	Bhimber	PAK	-59.3
14	Abbottabad	KPK	-88.4	63	Noshki (Chagai)	B	-58.4
15	Orakzai	FATA	-87.2	64	Malakand P.A.	KPK	-56.7
16	Musakhel	B	-87.1	65	Zhob	B	-56.6
17	Hangu	KPK	-86.8	66	Skardu (Baltistan)	GB	-55.1
18	Lasbella	B	-86.8	67	Swat	KPK	-54.5
19	Dera Bugti	B	-86.5	68	Mach	B	-53.3
20	Lakki Marwat	KPK	-86.3	69	Kalat	B	-53.1
21	Kohat	KPK	-86.2	70	Multan	P	-52.8
22	Bannu	KPK	-85.4	71	Gujrat	P	-51.8
23	Neelam	PAK	-84.8	72	Loralai	B	-50.5
24	TA Adj. Lakki	FATA	-84.7	73	Attock	P	-50.4
25	N. Waziristan	FATA	-84.2	74	TA Adj. Peshawar	FATA	-49.5
26	Rawalpindi	P	-83.7	75	TA Adj. DI Khan	FATA	-48.1
27	Lower Dir	KPK	-82.6	76	Buner	KPK	-44.2
28	Hyderabad	S	-82.5	77	Diamer	GB	-42.3
29	Sudhnooti	PAK	-80.9	78	Mardan	KPK	-42.0
30	Muhmand	FATA	-79.9	79	Sukhar	S	-41.3
31	Peshawar	KPK	-79.7	80	Khuzdar	B	-37.9
32	Bajour	FATA	-78.1	81	Kharan	B	-36.5
33	S. Waziristan	FATA	-77.3	82	Umar Kot	S	-34.7
34	Bagh	PAK	-76.9	83	Awaran	B	-33.0
35	Kurram	FATA	-76.9	84	Charsada	KPK	-31.9
36	Mirpur	PAK	-76.0	85	Dadu	S	-29.6
37	Pishin	B	-75.5	86	Mastung	B	-26.7
38	Dalbadin	B	-74.4	87	Faisalabad	P	-19.2
39	Muzaffarabad	PAK	-74.0	88	Khushab	P	-18.0
40	Ghizer	GB	-73.8	89	Mirpur Khas	S	-17.7
41	Turbat (Kech)	B	-73.7	90	D.G. Khan	P	-11.1
42	Battagram	KPK	-73.5	91	Mianwali	P	-5.8
43	Upper Dir	KPK	-73.5	92	Ziarat	B	-4.9
44	Kohistan	KPK	-70.8	93	Bahawalpur	P	-4.3
45	Nowshera	KPK	-68.5	94	Ghotki	S	-2.4
46	Kotli	PAK	-67.9	95	Sialkot	P	3.2
47	Chitral	KPK	-67.8	96	Gujranwala	P	3.5
48	Mansehra	KPK	-67.6	97	Sanghar	S	3.9
49	Panjgur	B	-66.8	98	D.I. Khan	KPK	5.0

Crop based self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
99	Khairpur	S	6.3	119	Bhakhar	P	34.5
100	Sheikhpura	P	7.8	120	Tando Allahyar	S	36.1
101	Muzaffargarh	P	9.6	121	Sahiwal	P	36.5
102	TA Adj. Bannu	FATA	10.5	122	Vehari	P	37.1
103	Lodhran	P	11.0	123	Sargodha	P	43.5
104	Kamber	S	12.3	124	Naushero Feroz	S	43.7
105	Barkhan	B	13.0	125	Layyah	P	51.6
106	Rajanpur	P	13.2	126	Killa Saifullah	B	59.0
107	Khanewal	P	14.1	127	Bahawalnagar	P	61.1
108	Narowal	P	14.6	128	Toba T. Singh	P	61.9
109	Thatta	S	18.9	129	Shikarpur	S	104.8
110	Nawabshah	S	20.3	130	Jhang	P	118.6
111	Kashmore	S	21.8	131	Mandi-Bahaudin	P	122.7
112	Mitiari	S	24.4	132	Okara	P	123.2
113	Jacobabad	S	25.0	133	Pakpattan	P	161.7
114	Rahimyar Khan	P	27.3	134	Hafizabad	P	165.6
115	Tando M. Khan	S	29.5	135	Jhal Magsi	B	172.3
116	Badin	S	30.8	136	Jaffarabad	B	184.3
117	Larkana	S	31.0	137	Nasirabad	B	318.5
118	Kasur	P	32.9				

KPK=Khyber Pakhtunkhwa,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

Wheat self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	Surplus /deficit %age
1	Karachi	S	-100.0	50	Dera Bugti	B	-65.5
2	Gawadar	B	-100.0	51	Rawalpindi	P	-65.4
3	Neelam	PAK	-99.9	52	Muhmand	FATA	-65.3
4	Pasni	B	-99.9	53	Sudhnooti	PAK	-65.3
5	Ziarat	B	-97.4	54	Charsada	KPK	-63.6
6	Kohistan	KPK	-96.4	55	Mardan	KPK	-62.5
7	Quetta	B	-95.6	56	Malakand P.A.	KPK	-58.9
8	TA Adj. Tank	FATA	-95.3	57	Swat	KPK	-58.4
9	Tharparkar	S	-94.7	58	Swabi	KPK	-58.0
10	Turbat (Kech)	B	-94.7	59	Skardu (Baltistan)	GB	-56.2
11	Killa Abdullah	B	-93.8	60	Tando M. Khan	S	-55.0
12	Zhob	B	-92.1	61	Haripur	KPK	-53.1
13	Tank	KPK	-90.4	62	Jacobabad	S	-52.0
14	Pishin	B	-87.7	63	Badin	S	-41.8
15	Panjgur	B	-87.3	64	Kohlu	B	-37.5
16	Lasbella	B	-86.2	65	Bolan	B	-37.1
17	Lahore	P	-85.9	66	Noshki (Chagai)	B	-36.8
18	S. Waziristan	FATA	-85.7	67	Jhelum	P	-36.1
19	Abbottabad	KPK	-85.4	68	Mirpur	PAK	-36.0
20	N. Waziristan	FATA	-84.8	69	Dalbadin	B	-35.0
21	Bannu	KPK	-84.1	70	Kalat	B	-34.6
22	Bagh	PAK	-84.1	71	D.I. Khan	KPK	-32.0
23	TA Adj. Kohat	FATA	-84.0	72	Kotli	PAK	-31.6
24	Muzaffarabad	PAK	-83.9	73	Diamer	GB	-31.3
25	ISLAMABAD	Capital	-83.5	74	Buner	KPK	-30.2
26	Karak	KPK	-82.9	75	Sibi	B	-21.3
27	TA Adj. Lakki	FATA	-82.4	76	Loralai	B	-21.0
28	Upper Dir	KPK	-82.0	77	Gujrat	P	-20.9
29	Lower Dir	KPK	-81.7	78	TA Adj. DI Khan	FATA	-15.8
30	Orakzai	FATA	-81.7	79	TA Adj. Peshawar	FATA	-15.7
31	Battagram	KPK	-81.3	80	Dadu	S	-14.6
32	Hangu	KPK	-80.4	81	Faisalabad	P	-12.9
33	Khyber	FATA	-80.2	82	Mastung	B	-12.2
34	Hyderabad	S	-79.3	83	Kamber	S	-11.4
35	Peshawar	KPK	-79.1	84	Chakwal	P	-10.8
36	Poonch	PAK	-78.7	85	Shikarpur	S	-7.5
37	Musakhel	B	-77.7	86	Bhimber	PAK	-7.3
38	Lakki Marwat	KPK	-77.5	87	Multan	P	-7.2
39	Thatta	S	-76.1	88	Killa Saifullah	B	-3.4
40	Bajour	FATA	-75.9	89	Larkana	S	4.8
41	Ganche	GB	-74.8	90	Khushab	P	5.3
42	Shangla	KPK	-74.1	91	Attock	P	8.9
43	Kohat	KPK	-72.5	92	Mach	B	16.4
44	Mansehra	KPK	-71.3	93	Khuzdar	B	17.1
45	Chitral	KPK	-69.5	94	Jamshoro	S	22.1
46	Gilgit	GB	-67.7	95	Sargodha	P	24.5
47	Nowshera	KPK	-67.5	96	Sialkot	P	27.3
48	Ghizer	GB	-67.3	97	Kashmore	S	29.3
49	Kurram	FATA	-66.6	98	Kharan	B	32.0

Wheat self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	Surplus /deficit %age
99	Gujranwala	P	34.5	119	Toba T. Singh	P	96.6
100	Jaffarabad	B	37.4	120	Mianwali	P	97.7
101	Kasur	P	37.6	121	Vehari	P	108.2
102	Sheikhpura	P	39.5	122	TA Adj. Bannu	FATA	115.0
103	Sahiwal	P	42.0	123	Bhakhar	P	115.9
104	Rahimyar Khan	P	48.4	124	Pakpattan	P	117.6
105	Tando Allahyar	S	51.9	125	Khairpur	S	120.3
106	Sukhar	S	53.2	126	Nawabshah	S	122.0
107	Awaran	B	56.5	127	Barkhan	B	124.5
108	Umar Kot	S	59.6	128	Lodhran	P	131.6
109	Muzaffargarh	P	65.7	129	Jhang	P	137.1
110	D.G. Khan	P	71.0	130	Layyah	P	146.6
111	Mirpur Khas	S	71.9	131	Ghotki	S	175.6
112	Narowal	P	78.6	132	Bahawalnagar	P	176.9
113	Khanewal	P	86.9	133	Sanghar	S	184.2
114	Okara	P	87.6	134	Naushero Feroz	S	205.5
115	Bahawalpur	P	90.4	135	Hafizabad	P	252.8
116	Mandi-Bahaudin	P	93.1	136	Nasirabad	B	363.4
117	Rajanpur	P	93.6	137	Jhal Magsi	B	535.0
118	Mitiari	S	94.1				

KPK=Khyber Pakhtunkhwa,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

Rice self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
1	Abbottabad	KPK	-100.00	50	Chakwal	P	-99.90
2	Mitiari	S	-99.96	51	Rawalpindi	P	-99.90
3	Tando Allahyar	S	-99.96	52	Neelam	PAK	-99.83
4	Karachi	S	-99.96	53	Lakki Marwat	KPK	-99.53
5	Mirpur Khas	S	-99.96	54	Charsada	KPK	-99.37
6	Tharparkar	S	-99.96	55	Bagh	PAK	-99.13
7	Umar Kot	S	-99.96	56	Nowshera	KPK	-98.59
8	Bhimber	PAK	-99.96	57	Swabi	KPK	-98.46
9	Sudhnooti	PAK	-99.96	58	Kohat	KPK	-98.39
10	Awaran	B	-99.92	59	Peshawar	KPK	-98.18
11	Kalat	B	-99.92	60	Nawabshah	S	-98.08
12	Kharan	B	-99.92	61	Lasbella	B	-97.61
13	Mastung	B	-99.92	62	Kotli	PAK	-97.43
14	Gawadar	B	-99.92	63	Poonch	PAK	-97.42
15	Panjgur	B	-99.92	64	Kohistan	KPK	-97.14
16	Pasni	B	-99.92	65	N. Waziristan	FATA	-96.76
17	Bolan	B	-99.92	66	Muzaffarabad	PAK	-96.35
18	Mach	B	-99.92	67	Jamshoro	S	-96.02
19	Noshki (Chagai)	B	-99.92	68	Sanghar	S	-95.62
20	Killa Abdullah	B	-99.92	69	Hyderabad	S	-95.02
21	Pishin	B	-99.92	70	Hangu	KPK	-94.95
22	Quetta	B	-99.92	71	Orakzai	FATA	-94.93
23	Dalbadin	B	-99.92	72	Bhakhar	P	-94.60
24	Dera Bugti	B	-99.92	73	Turbat (Kech)	B	-94.15
25	Kohlu	B	-99.92	74	Buner	KPK	-92.54
26	Sibi	B	-99.92	75	Jhelum	P	-89.59
27	Ziarat	B	-99.92	76	Mirpur	PAK	-89.52
28	Barkhan	B	-99.92	77	Mardan	KPK	-88.45
29	Killa Saifullah	B	-99.92	78	Lodhran	P	-86.55
30	Loralai	B	-99.92	79	Bahawalpur	P	-84.15
31	Musakhel	B	-99.92	80	Khairpur	S	-78.42
32	Zhob	B	-99.92	81	Rahimyar Khan	P	-78.39
33	ISLAMABAD	Capital	-99.92	82	Tank	KPK	-78.33
34	Skardu (Baltistan)	GB	-99.92	83	Naushero Feroz	S	-78.23
35	Diamer	GB	-99.92	84	Lahore	P	-73.88
36	Ganche	GB	-99.92	85	TA Adj. DI Khan	FATA	-73.81
37	Ghizer	GB	-99.92	86	Mansehra	KPK	-69.83
38	Gilgit	GB	-99.92	87	Bannu	KPK	-68.87
39	Haripur	KPK	-99.91	88	Swat	KPK	-65.78
40	Karak	KPK	-99.90	89	Layyah	P	-61.85
41	Khyber	FATA	-99.90	90	Sukhar	S	-59.09
42	Muhmand	FATA	-99.90	91	Jhal Magsi	B	-53.29
43	S. Waziristan	FATA	-99.90	92	Shangla	KPK	-53.00
44	TA Adj. Lakki	FATA	-99.90	93	Mianwali	P	-52.38
45	TA Adj. Bannu	FATA	-99.90	94	Multan	P	-50.79
46	TA Adj. Kohat	FATA	-99.90	95	Faisalabad	P	-45.16
47	TA Adj. Peshawar	FATA	-99.90	96	Ghotki	S	-43.59
48	TA Adj. Tank	FATA	-99.90	97	Bajour	FATA	-35.47
49	Attock	P	-99.90	98	Chitral	KPK	-27.88

Rice self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	District Name	Province Name	surplus/ deficit %age	Rank 1=lowest	District Name	Province Name	surplus/ deficit %age
99	Battagram	KPK	-15.97	119	Thatta	S	216.47
100	Muzaffargarh	P	-4.72	120	Narowal	P	260.29
101	Rajanpur	P	-3.01	121	Bahawalnagar	P	264.00
102	Lower Dir	KPK	12.10	122	Sialkot	P	265.01
103	Khuzdar	B	12.87	123	Gujranwala	P	294.14
104	Kurram	FATA	21.25	124	Jhang	P	299.66
105	Vehari	P	27.70	125	Sheikhpura	P	307.40
106	Khanewal	P	35.63	126	Kasur	P	317.56
107	Tando M. Khan	S	47.92	127	Pakpattan	P	468.51
108	Upper Dir	KPK	75.33	128	Kashmore	S	559.40
109	Malakand P.A.	KPK	81.46	129	Larkana	S	616.61
110	Badin	S	85.40	130	Jacobabad	S	666.98
111	Sahiwal	P	89.28	131	Okara	P	696.58
112	Sargodha	P	99.56	132	Kamber	S	737.18
113	Toba T. Singh	P	102.04	133	Shikarpur	S	861.63
114	D.I. Khan	KPK	128.46	134	Mandi-Bahaudin	P	906.64
115	D.G. Khan	P	151.85	135	Hafizabad	P	1796.90
116	Khushab	P	182.46	136	Nasirabad	B	2951.16
117	Dadu	S	184.96	137	Jaffarabad	B	3052.97
118	Gujrat	P	185.49				

KPK=Khyber Pakhtunkhwa,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

FSA 2009							Table 2.8

Maize self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	Province Name	District Name	surplus/ deficit %age	Rank 1=lowest	Province Name	District Name	surplus /deficit %age
1	TA Adj. Lakki	FATA	-100.00	50	Tank	KPK	-97.60
2	TA Adj. Tank	FATA	-100.00	51	Mirpur Khas	S	-97.34
3	Dadu	S	-100.00	52	Khuzdar	B	-96.45
4	Jacobabad	S	-100.00	53	Chakwal	P	-95.27
5	Larkana	S	-100.00	54	Ganche	GB	-94.81
6	Kashmore	S	-100.00	55	Mianwali	P	-93.71
7	Kamber	S	-100.00	56	Gujranwala	P	-93.27
8	Tharparkar	S	-100.00	57	Bhakhar	P	-93.08
9	Awaran	B	-100.00	58	Kalat	B	-92.93
10	Kharan	B	-100.00	59	D.G. Khan	P	-92.49
11	Mastung	B	-100.00	60	Killa Saifullah	B	-92.34
12	Gawadar	B	-100.00	61	Lakki Marwat	KPK	-91.70
13	Turbat (Kech)	B	-100.00	62	Narowal	P	-91.70
14	Pasni	B	-100.00	63	Bahawalpur	P	-91.60
15	Bolan	B	-100.00	64	Rahimyar Khan	P	-90.83
16	Jhal Magsi	B	-100.00	65	Gujrat	P	-89.34
17	Nasirabad	B	-100.00	66	Zhob	B	-89.08
18	Mach	B	-100.00	67	Layyah	P	-88.81
19	Noshki (Chagai)	B	-100.00	68	Khushab	P	-88.72
20	Killa Abdullah	B	-100.00	69	Lodhran	P	-85.52
21	Pishin	B	-100.00	70	Lasbella	B	-85.36
22	Quetta	B	-100.00	71	Muzaffargarh	P	-84.85
23	Dalbadin	B	-100.00	72	D.I. Khan	KPK	-80.76
24	Ziarat	B	-100.00	73	Kohat	KPK	-80.61
25	ISLAMABAD	Capital	-100.00	74	Poonch	PAK	-78.87
26	Karachi	S	-99.98	75	Lahore	P	-76.91
27	Hyderabad	S	-99.95	76	Skardu (Baltistan)	GB	-75.62
28	Sanghar	S	-99.94	77	Sheikhpura	P	-73.09
29	Jamshoro	S	-99.87	78	Kurram	FATA	-72.80
30	Tando M. Khan	S	-99.87	79	Khyber	FATA	-69.93
31	Thatta	S	-99.84	80	Hafizabad	P	-67.78
32	Panjgur	B	-99.84	81	Lower Dir	KPK	-67.40
33	Mitiari	S	-99.83	82	Multan	P	-65.42
34	Badin	S	-99.81	83	Muhmand	FATA	-60.75
35	Sibi	B	-99.79	84	Malakand P.A.	KPK	-57.03
36	Dera Bugti	B	-99.71	85	Mirpur	PAK	-54.98
37	Shikarpur	S	-99.66	86	Bannu	KPK	-51.03
38	Jaffarabad	B	-99.62	87	Peshawar	KPK	-50.31
39	Naushero Feroz	S	-99.55	88	Orakzai	FATA	-48.11
40	Ghotki	S	-99.41	89	Musakhel	B	-46.47
41	Karak	KPK	-99.34	90	Mandi-Bahaudin	P	-44.83
42	Tando Allahyar	S	-99.31	91	Upper Dir	KPK	-44.52
43	Umar Kot	S	-99.10	92	Sialkot	P	-36.91
44	Rajanpur	P	-98.60	93	S. Waziristan	FATA	-34.65
45	Kohlu	B	-98.59	94	Sudhnooti	PAK	-33.35
46	Nawabshah	S	-98.22	95	Abbottabad	KPK	-32.67
47	Sukhar	S	-98.02	96	N. Waziristan	FATA	-31.19
48	Barkhan	B	-98.01	97	Chitral	KPK	-21.35
49	Khairpur	S	-97.71	98	TA Adj. Kohat	FATA	-21.01

FSA 2009							Table 2.8
Maize self-sufficiency in districts of Pakistan 2009							
Rank 1=lowest	Province Name	District Name	surplus/ deficit %age	Rank 1=lowest	Province Name	District Name	surplus /deficit %age
99	Gilgit	GB	-8.42	119	Haripur	KPK	81.14
100	Hangu	KPK	-5.81	120	Muzaffarabad	PAK	90.98
101	Bajour	FATA	-3.02	121	Faisalabad	P	107.41
102	TA Adj. DI Khan	FATA	-1.10	122	TA Adj. Peshawar	FATA	126.28
103	Nowshera	KPK	3.27	123	Mansehra	KPK	137.36
104	Loralai	B	5.43	124	Buner	KPK	147.17
105	Attock	P	7.95	125	Sargodha	P	151.72
106	Ghizer	GB	14.51	126	Shangla	KPK	153.68
107	Neelam	PAK	17.89	127	Jhelum	P	170.20
108	Rawalpindi	P	19.24	128	Kohistan	KPK	173.57
109	Bahawalnagar	P	29.04	129	Kasur	P	211.74
110	Kotli	PAK	30.03	130	Diamer	GB	265.29
111	Bhimber	PAK	43.01	131	Khanewal	P	274.55
112	Charsada	KPK	44.88	132	Vehari	P	333.42
113	Swat	KPK	45.31	133	Toba T. Singh	P	425.78
114	Mardan	KPK	59.81	134	Jhang	P	767.47
115	Bagh	PAK	64.79	135	Sahiwal	P	1483.12
116	Battagram	KPK	67.87	136	Okara	P	2101.87
117	Swabi	KPK	69.13	137	Pakpattan	P	3713.54
118	TA Adj. Bannu	FATA	75.85				

KPK=Khyber Pakhtunkhwa,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir
FATA= Federally Administrated Tribal Area

FSA 2009							Table 2.9
Animal based food self-sufficiency in districts of Pakistan 2009							
Rank 1=lowest	**Province Name**	**District Name**	**surplus/deficit %age**	**Rank 1=lowest**	**Province Name**	**District Name**	**surplus/deficit %age**
1	Kamber	S	-93.9	50	Bahawalpur	P	-18.4
2	Lahore	P	-81.3	51	Okara	P	-18.1
3	ISLAMABAD	Capital	-76.3	52	Bhimber	PAK	-17.2
4	Rawalpindi	P	-67.7	53	Swat	KPK	-16.1
5	Malakand P.A.	KPK	-62.3	54	Dalbadin	B	-15.2
6	Diamer	GB	-59.8	55	Sahiwal	P	-14.8
7	Quetta	B	-59.3	56	Tank	KPK	-14.6
8	Gilgit	GB	-53.6	57	Pasni	B	-14.0
9	Multan	P	-53.3	58	Rajanpur	P	-13.3
10	Ganche	GB	-53.2	59	Noshki (Chagai)	B	-12.0
11	Dera Bugti	B	-52.3	60	Muzaffargarh	P	-10.4
12	Mirpur	PAK	-52.0	61	Lower Dir	KPK	-9.9
13	Gujranwala	P	-51.6	62	Kasur	P	-9.2
14	Sialkot	P	-51.4	63	Turbat (Kech)	B	-7.3
15	Faisalabad	P	-51.2	64	Neelam	PAK	-6.4
16	TA Adj. Kohat	FATA	-50.8	65	Swabi	KPK	-6.2
17	Narowal	P	-50.5	66	Charsada	KPK	-5.1
18	Jhelum	P	-46.1	67	Buner	KPK	-4.5
19	Skardu (Baltistan)	GB	-45.5	68	Abbottabad	KPK	-3.8
20	Ghizer	GB	-45.4	69	Kurram	FATA	-2.1
21	Rahimyar Khan	P	-44.0	70	Nowshera	KPK	-1.9
22	TA Adj. Peshawar	FATA	-42.4	71	Chakwal	P	0.0
23	Panjgur	B	-40.9	72	Upper Dir	KPK	0.0
24	Gujrat	P	-39.8	73	Muzaffarabad	PAK	0.2
25	Lodhran	P	-39.0	74	Mansehra	KPK	1.2
26	Peshawar	KPK	-38.4	75	Bajour	FATA	1.8
27	Sheikhpura	P	-37.8	76	Bahawalnagar	P	3.6
28	TA Adj. DI Khan	FATA	-37.7	77	Umar Kot	S	4.4
29	Khanewal	P	-37.4	78	Bhakhar	P	5.6
30	Mardan	KPK	-36.1	79	Jhang	P	6.7
31	Toba T. Singh	P	-33.5	80	Gawadar	B	7.3
32	Vehari	P	-31.2	81	Haripur	KPK	10.7
33	Lakki Marwat	KPK	-30.1	82	Pakpattan	P	11.7
34	TA Adj. Tank	FATA	-29.4	83	Sudhnooti	PAK	13.5
35	Hyderabad	S	-29.1	84	Kohistan	KPK	14.2
36	Hangu	KPK	-28.6	85	Mirpur Khas	S	16.9
37	Bagh	PAK	-28.5	86	Hafizabad	P	17.3
38	D.G. Khan	P	-27.0	87	Mach	B	21.4
39	Kohat	KPK	-25.2	88	Tando M. Khan	S	21.9
40	Sargodha	P	-24.5	89	Bannu	KPK	22.5
41	Poonch	PAK	-24.4	90	Shangla	KPK	23.9
42	Attock	P	-23.6	91	Sanghar	S	28.9
43	TA Adj. Lakki	FATA	-23.1	92	Lasbella	B	29.1
44	Karak	KPK	-21.7	93	Killa Abdullah	B	31.1
45	Karachi	S	-21.4	94	Layyah	P	36.7
46	Kotli	PAK	-19.9	95	Sibi	B	39.5
47	TA Adj. Bannu	FATA	-19.9	96	Jamshoro	S	51.3
48	Mianwali	P	-19.9	97	Orakzai	FATA	55.4

Animal based food self-sufficiency in districts of Pakistan 2009

Rank 1=lowest	Province Name	District Name	surplus/deficit %age	Rank 1=lowest	Province Name	District Name	surplus/deficit %age
49	Khushab	P	-18.5	98	Ghotki	S	57.5
99	Sukhar	S	59.5	119	Muhmand	FATA	135.5
100	Mandi-Bahaudin	P	66.0	120	Bolan	B	139.8
101	Chitral	KPK	67.4	121	Naushero Feroz	S	146.0
102	Tando Allahyar	S	70.3	122	N. Waziristan	FATA	147.3
103	Kashmore	S	72.6	123	Dadu	S	155.4
104	Tharparkar	S	74.0	124	Musakhel	B	158.6
105	Badin	S	74.5	125	Mitiari	S	169.3
106	Battagram	KPK	76.3	126	Thatta	S	170.3
107	S. Waziristan	FATA	79.0	127	Barkhan	B	188.8
108	Mastung	B	80.5	128	Kharan	B	196.0
109	Khyber	FATA	83.0	129	Jacobabad	S	209.4
110	Khuzdar	B	89.3	130	Pishin	B	209.9
111	Kalat	B	89.5	131	Nasirabad	B	227.5
112	Awaran	B	97.4	132	D.I. Khan	KPK	228.5
113	Loralai	B	105.1	133	Jaffarabad	B	300.5
114	Jhal Magsi	B	112.1	134	Killa Saifullah	B	314.0
115	Ziarat	B	121.6	135	Zhob	B	319.0
116	Khairpur	S	122.8	136	Shikarpur	S	373.2
117	Nawabshah	S	126.2	137	Kohlu	B	532.7
118	Larkana	S	134.9				

KPK=Khyber Pakhtunkhwa,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir
FATA= Federally Administrated Tribal Area

ACCESS TO FOOD

Per capita availability of food items alone is not a reliable gauge of the food security situation. Available food if not in the socio-economic access of the general masses, cannot make a society food secure. As mentioned in the previous section, physical availability of food is declining in Pakistan. There are a number of factors that restrict the access to food for millions of poor people in Pakistan.

First, production and distribution systems are inequitable: although large farmers are small in number, their share in land and production is much higher as compared to small farmers. The agricultural labor force is dominated by small farmers, but their share in land and production is very small and they are among the most vulnerable groups of society. Government policies designed to reduce the concentration of landownership have had some effect, but they made no serious attempt to break up large estates or to lessen the power or privileges of the landed elite. Large landowners retain their power over small farmers and tenants, especially in the interior of Sindh, which has a feudal agricultural establishment. Tenancy continues on a large-scale: one-third of Pakistan's farmers are tenant farmers, including almost one-half of the farmers in Sindh. Tenant farmers typically give almost 50 percent of what they produce to landlords.

Second, a low income coupled with a higher rate of unemployment (due to factors like weak economic growth, power crisis, and the deteriorating security situation etc.) restricts the access of people to food. Prices of food items are increasing but the income is, either stagnant or decreasing in real terms. Unemployment is also on the rise and the Government of Pakistan despite all its efforts is not able to cope with this challenge.

Third, an important factor affecting access to food is national governance. International communities and donors may help countries like Pakistan to improve the physical availability of food through food exports, food grants, and food loans etc, however, their efforts must be supported by good governance at the domestic level which is missing in Pakistan.

It is in the context of the above mentioned inherent structural problems that factors such as inflation (partly due to the economic and energy crises), panic buying and hoarding of food, ineffective and dysfunctional social safety nets, and increased cost of production has made food inaccessible for many in Pakistan.

Social and economic structures in Pakistan are very complex. Pakistan is situated in one of the poorest regions of world. Although the previous government claimed that poverty declined, a number of reputable independent sources do not agree to those claims. International agencies and now the government too are admitting that the incidence of poverty has increased in Pakistan. The higher incident of poverty, illiteracy, unemployment, lack of access to employment opportunities, depleting sources of livelihoods and depletion of natural resources are hindering access to food.

Pakistan is going through one of the most difficult periods of its history. It is facing a number of problems (six "F" crises) in addition to traditional problems of economy. Economic growth has gone down drastically. .GDP growth came down to 1.2 percent, the fiscal and current account deficit has increased. The Government is trying to overcome this challenge and to stabilize the macro-economic structure of the country by negotiating a stand-by arrangement (SBA) with IMF for a package of $7.6 billion in 2008. The SBA is meant to improve the economic status, macro-economic structure and social status of people. The Government has planned to achieve a number of objectives, (i) to restore and enhance the confidence of investors, (ii) macro-economic stability, and (iii) to stabilize the social structure. The Government is also trying to decrease the fiscal deficit through reducing non-productive spending and eliminating un-productive subsidizes.[25]

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[25] Economic Survey of Pakistan 2008-09

■**The current economic crisis is different from past crises.** While developing countries have been hit by many crises in the past, the current economic turmoil is different in at least three important aspects. First, the crisis is affecting large parts of the world simultaneously and as such, traditional coping mechanisms at national and sub national levels are likely to be less effective than they were in the past. Previous crises that affected the developing countries tended to be confined to individual countries or several countries in a particular region. Under such circumstances, these countries tended to rely on large exchange-rate depreciations to help them adjust to macroeconomic shocks, while remittances (money sent home from family members working in other areas or countries) represented an important coping mechanism, especially for poorer households. During the 2009 crisis, however, many countries have seen a substantial decline in remittance inflows. The scope for real exchange-rate depreciation is also more limited in a global crisis, as it is not possible for the currencies of all developing countries to depreciate against one another; some must appreciate while others depreciate. This situation has left developing countries with less room to adjust to the rapidly changing economic conditions.

The second key difference is that the current economic crisis emerged immediately following the food and fuel crisis of 2006–08. While food commodity prices in world markets declined substantially in the wake of the financial crisis, they remained high by recent historical standards. Also, food prices in domestic markets came down more slowly, partly because the US dollar, in which most imports are priced, continued to appreciate for some time, but also, more importantly, because of lags in price transmission from world markets to domestic markets. At the end of 2008, domestic prices for staple foods remained, on average, 17 percent higher in real terms than two years earlier. This represented a considerable reduction in the effective purchasing power of poor consumers, who spend a substantial share of their income (often 40 percent) on staple foods.

Further, even if domestic food prices eventually return to previous levels, months of unusually high food and fuel prices have stretched the coping mechanisms of many poor families to the brink as they have been forced to draw down their assets (financial, physical or human) in attempts – not always successful – to avoid large declines in consumption. As shown in *The State of Food Insecurity in the World 2008*, higher food prices hurt most the poorest of the poor, especially the landless poor and female-headed households in both urban and rural areas. Higher food and fuel prices forced families to choose which type of asset to sell first, and which family member (mother, child or key laborer) should pay the price in terms of reduced health care, education or food consumption. Such decisions are especially difficult given the large share that food represents in the budgets of the poor and their limited access to credit markets. Whatever choices were made would have diminished already limited assets, thus reducing the ability of the most vulnerable populations to deal with another crisis so soon after the earlier one. Higher food prices and reduced incomes and employment mean that, even though aggregate world food availability was relatively good in 2008 and 2009, access by the poor to that food has been adversely affected. The third factor that differentiates this crisis from those of the past is that developing countries have become more integrated, both financially and commercially, into the world economy than they were 20 years ago. As a consequence, they are more exposed to changes in international markets. Figure 3 illustrates both the increasing significance of remittances – their share in gross domestic product (GDP) during 2000–07 represented a 50 percent increase over that of the 1990s – and marked increases in foreign direct investment (FDI – foreign ownership of productive assets, such as factories, mines and land) and exports.

■**Which groups will be most affected by the economic crisis?**

The economic crisis will negatively affect large segments of the population in developing countries. The position of those who were hurt most by higher food prices (the rural landless, female-headed households and the urban poor) is particularly precarious because they have already approached, or in many cases reached, the limit of their ability to cope during the food crisis. Among these groups, the urban poor may experience the most severe problems because lower export demand and reduced FDI are more likely to cause employment to fall in urban areas, which are more closely connected to world markets than rural areas. But rural areas will not be spared – reductions in employment have caused back-migration from urban to rural areas, forcing the rural poor to share the burden in many cases. In some countries, declining prices for specific crops will add to that burden. Thus, despite the recent fall in food prices, urban and rural areas have experienced a reduction in various sources of income, including remittances, diminishing the overall purchasing power of the poor and food-insecure.

FAO Annual Report 2009

Some of the basic accessibility problems explained by the Government of Pakistan itself in the Economic Survey of Pakistan 2008-09 are:

- The inflation rate, as measured by the changes in Consumer Price Index (CPI), stood at 22.3 percent during July-April 2008-09, as against 10.3 percent in the comparable period of last year.
- Food inflation is estimated at 26.6 percent and non-food inflation at 19.0 percent against 15.0 percent and 6.8 percent in the corresponding period of last year.
- Sensitive Price Indicators[26] has recorded an increase of 26.3 percent during July-April 2008-09 against 14.1 percent of last year.

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[26] Sensitive Price Indicator (SPI) is designed to assess price movement of essential consumer items at short intervals.

Although important choices of food are not only determined by individual knowledge about what constitutes a healthy diet, or by cultural practice, marginal groups and lower income groups make food consumption choices on the basis of availability, cost and household income. For many households, food is the only flexible budget item, and food expenditure is what is reduced to avoid or reduce indebtedness, or to meet other non-food bills.

3.1 Food Consumption

One of the important indicators of access to food is the Food Consumption Score (FCS). The Food Consumption Score is the proxy indicator for Kcal intake. According to the FCS 15.7 percent of the population have poor food consumption while 58 percent are at the borderline in the country.

FSA 2009   Food Consumption group   Chart 3.1
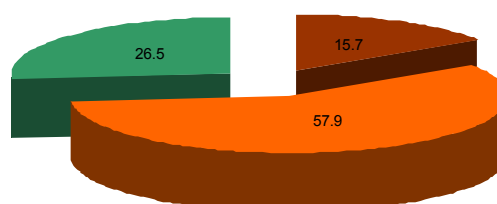
FSA 2009   Food Consumption groups   Chart 3.2
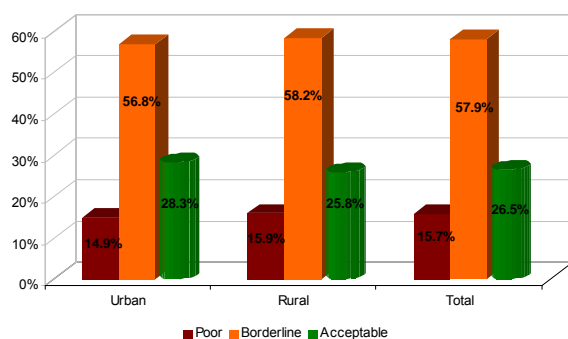
The food price hike since early 2008 had affected urban consumers more than rural consumers. Many of the urban consumers have become food insecure. The gap between urban and rural in terms of food insecurity has narrowed down. The percentage of the population with acceptable food consumption is around 27 percent.

FSA 2009		Table 3.1
Grouping of FCS		
Group		**Food Consumption Score**
Poor		28 & below
Borderline		Above 28 and up to 42
Reasonable		Above 42

According to the FCS, KPK has the highest percentage of people in poor food consumption group followed by Balochistan and FATA. The food consumption of people in Islamabad is comparatively better at 58 percent. Sindh has the highest percentage (71) of population at borderline followed by Punjab (58) and GB (53).

The poor food consumption group has no proper diet and only consumes bread with tea or chili/onion during most of the week with an occasional intake of vegetables and pulses (1-2 days per week). This poor food intake provides less than Kcal 1750 and lacks essential nutrients, which results in acute malnourishment.

FSA 2009   Food Consumption score by Province   Chart 3.3
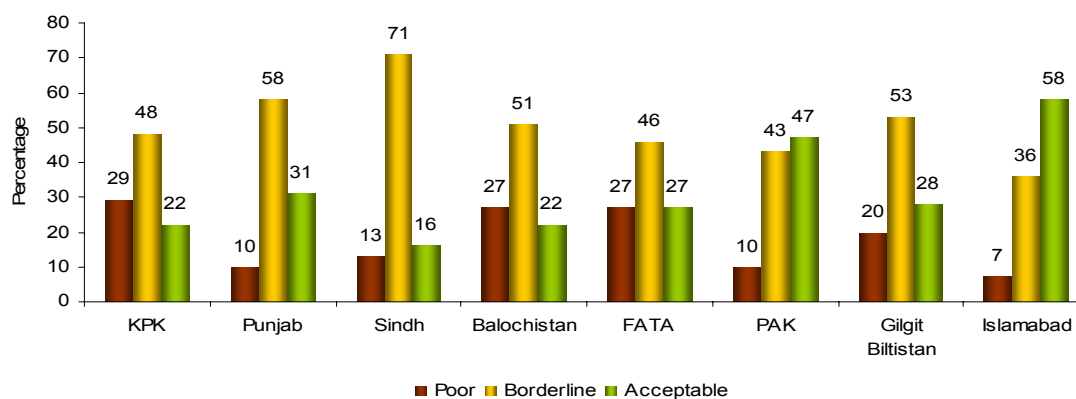
The borderline group also consumes low nutritional food with inadequate protein and vitamins. The essential food items for a balanced diet are missing in their daily food consumption, like meat and fruits. In this group mostly children have access to a limited quantity of milk or milk products for part of the week and men have limited access of meat (only once in a week). Hence, women and children in this group are mostly malnourished and exposed to high food insecurity.

FSA 2009								Table 3.2
Food diversity of Food Consumption group (Mean)								
Food Consumption group	**Percentage Pop.**	**Cereal days eaten**	**Pulses days eaten**	**Vegetable days eaten**	**Fruits days eaten**	**Meat days eaten**	**Milk days eaten**	**Sugar days eaten**	**Oil days eaten**
Poor	15.67	6.91	1.72	3.68	.12	.23	.99	6.81	6.87
Borderline	57.87	6.99	2.60	3.33	.40	.88	5.47	6.91	6.94
Acceptable	26.46	6.99	2.83	3.87	2.14	5.00	5.93	6.74	6.56
Total	100.00	6.98	2.53	3.53	.81	1.87	4.89	6.85	6.83

3.2 Households Income

For FSA 2010, households are classified into four groups on the basis of their monthly income. Households having a monthly income less than Rs. 11,000/- are classified as "extremely low income HH" ; those with a monthly income between Rs. 11,000/- and 15,000/- are classified as "very low income HH"; those with a monthly income between Rs. 15,000/- and 20,000/- as "low income HH"; and those with a monthly income of more than Rs. 20,000 as a "reasonable income HH".

FSA 2009   Household Monthly income   Chart 3.4
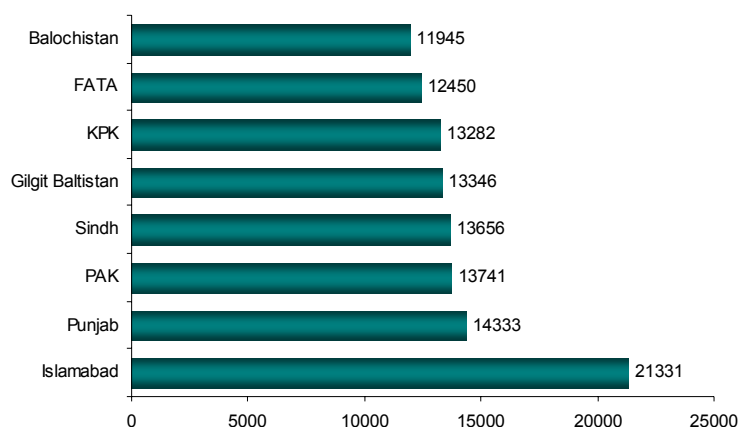
The average household monthly income is estimated as Rs. 14127 in the country. The monthly income levels vary from province to province, district to district and urban to rural. The highest average income is recorded in Islamabad, followed by Punjab, then PAK and Sindh. The lowest average income of households is recorded in Balochistan and FATA.

Because of limited development in areas with subsistence farming and high security risks, the average household income has got further reduced in the areas of Balochistan, FATA and KPK.

FSA 2009   Average Household income per month   Chart 3.5
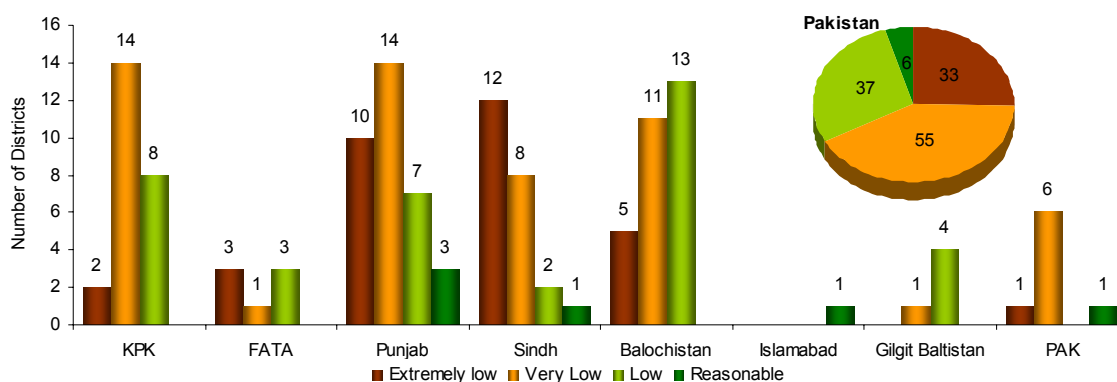
The income level of households reflects access to food, capacity of consumption and even food poverty. Results of this assessment reveal that the majority of districts in the country are in the low-income groups. More than 25 percent of the districts are in the extremely low-income group, while 46 percent are in the very low income groups (based on the average household income of Rs. 14,127 per month).

The reasonable income districts are only six in the country. The districts with major urban areas and vast industrial base have comparatively better prospects of income. However, within the better performing districts, sizable numbers of household have a low income.

3.3 Child Dependency

Child dependency (ratio between children and household members in economically active age group) is one of the limiting factor in meeting daily needs of households and is an important indicator to measure access to food. The increase in dependency rate enhances the spending of the household on child care and food which results in a per capita reduction of socio-economic access to food.
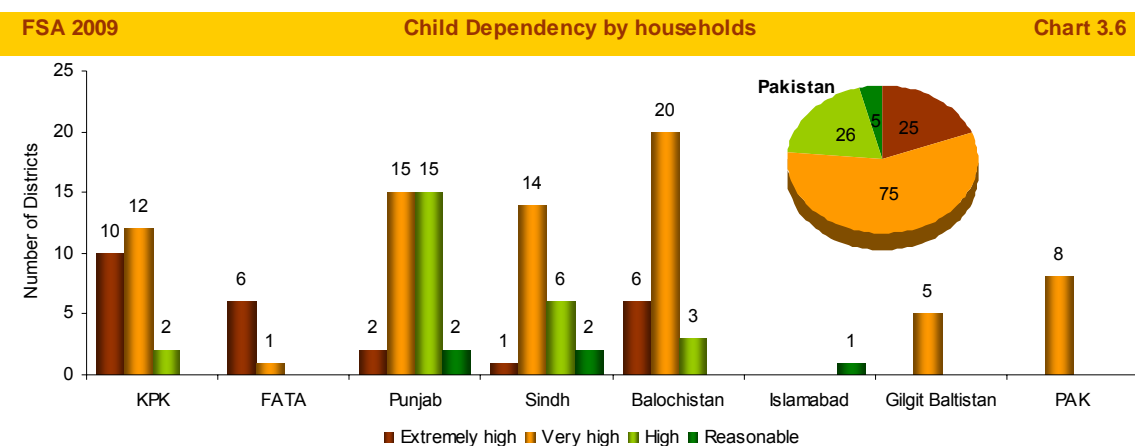
As shown above, 19 percent of districts have an extremely high dependency rates (above 100 percent), while 57 percent are in the very high dependency bracket. Approximately 4 percent of districts have a reasonable child dependency rate (below 70 percent).

The maximum number of districts with extremely high dependency rates was found in FATA (86percent) and KPK (42 percent). Family size in FATA is quite large, while many districts in KPK also have larger family sizes. The larger family size with heavy dependency on agriculture, especially subsistence farming, contributes towards high levels of unemployment or underemployment within the family thus limiting access to food.

Income Distribution in Pakistan

Map 3.1

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit

Upper Dir Swat
Kohistan
Diamer
Astor
Skardu
Ghanche

Lower Dir
Shangla Batagram
Neelam

Bajour
Buner
Mansehra

Mohmand Malakand
Muzaffarabad

Charsadda Mardan
KPK
PAK

Peshawar Swabi
Abbottabad Haripur

Khyber Nowshera
Bagh

FATA
Orakzai TAA Kohat
ISLAMABAD Rawalakot
Sudhnoti
ISLAMABAD

Kurram Hangu Kohat
Attock
Kotli

TAA Laki Marwat TAA Bannu Karak
Rawalpindi
Mirpur

N Waziristan Bannu
Jhelum
Bhimber

Lakki Marwat Miamwali
Chakwal
Gujrat

TAA Tank
Mandi-Bhauddin Sialkot

S Waziristan Tank
Khushab
Sargoda
Gujranwala Narowal

DI Khan
Hafizabad

Sherani TAA DI Khan Bhakhar
Sheikhpura
Lahore

Zhob
Jhang
Faisalabad Nankana Sahib

TT Singh
Kasur

Killa Saifullah Musa Khel
Leiah
PUNJAB
Okara

Killa Abdullah Pishin
DG Khan
Sahiwal

Ziarat Lora Lai
Khanewal
Pakpatan

Quetta Harnai
Muzaffargarh
Vehari

Mastung Sibi Mach
Multan

Barkhan
Lodhran
Bhawalnagar

Nushki Kohlu

Kalat Bolan
Dera Bugti
Rajanpur
Bahawalpur

Chagai
RY Khan

Kharan
Nasirabad

Jhal Magsi Jaffarabad
Kashmore

Washuk
Jacobabad

Khuzdar
Shikarpur
Ghotki

IRAN
Kamber
Sukhar

BALOCHISTAN
Larkana

Panjgur
Dadu Nausheroferoz Khairpur
INDIA

Awaran
Nawabshah

Turbat/Ketch
Lasbella

Gawadar
Jamshoro Matiari
Sanghar
SINDH

Tando Allahyar Umar Kot

Hyderabad Mirpur Khas

Karachi
Tando M. Khan

Badin
Tharparkar

Thatta

Arabian Ocean

FSA-2009

Income Distribution Levels by District
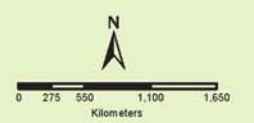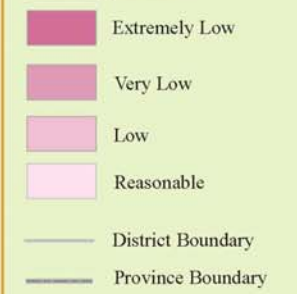
- Extremely Low
- Very Low
- Low
- Reasonable

— District Boundary
— Province Boundary

N

0 275 550 1,100 1,650
Kilometers

vam
food security analysis

World Food Programme

WFP-FS III-09-09-PK

Child Dependency Ratio by Households

Map 3.2

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Diamer
Skardu
Ghanche
Astor
Upper Dir Swat
Kohistan
Lower Dir
Shangla Batagram
Neelam
Bajaur Malakand Buner
Mansehra
Mohmand
Chapsada Mardan
Muzaffarabad
KPK
Abbottabad
PAK
Khyber
Peshawar
Swabi
Haripur
Bagh
Kurram
Nowshera
ISLAMABAD
Sudhnoti
Kotli
Orakzai TAA Kohat
Attock
Mirpur
Hangu
Kohat
Rawalpindi
Bamber
N.Waziristan
TAA Bannu Karak
Chakwal
Jhelum
FATA
Bannu
Miranwali
Gujrat
Lakki Marwat
Mandi-Bhauddin
Sialkot
S.Waziristan
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
Tank
Hafizabad
DI Khan
Sheikhupura
Lahore
Sheran TAA DI Khan
Bhakhar
Jhang
Faisalabad Nankana Sahib
Zhob
Leiah
T.T Singh
Kasur
Killa Saifullah
Musa Khel
PUNJAB
Okara
Killa Abdullah Pishin
Sahiwal
DG Khan
Khanewal
Pakpatan
Ziarat
Lora Lai
Quetta Harnai
Muzaffargarh
Vehari
Mastung Sibi
Barkhan
Multan
Mach
Kohlu
Lodhran
Bhawalnagar
Nushki
Bolan
Dera Bugti
Rajanpur
Chagai
Kalat
Bahawalpur
Kharan
Nasirabad
RY Khan
Ital Magsi Jaffarabad
Kashmore
Washuk
Khuzdar
Kamber
Ghotki
BALOCHISTAN
Shikarpur
Larkana
Sukkur
INDIA
Panjgur
Dadu Naushenferoz
Khairpur
Turbat/Ketch
Awaran
Nawabshah
Gawadar
Lasbella
Jamshoro Matiari
Sanghar
SINDH
Tando Allahyar
Umar Kot
Hyderabad Mirpur Khas
Karachi
Tando M. Khan
Tharparkar
Badin
Thatta

IRAN

Arabian Ocean

FSA-2009

Child Dependency Ratio Levels by District

- **Extremely High**
- **Very High**
- **High**
- **Reasonable**
- District Boundary
- Province Boundary

N

0 40 80 160 240
Kilometers

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wfp.org
World Food Programme

WFP-FSE-09-10-PK

3.4 Living condition-kacha houses

FSA 2009	Population in Kacha houses	Chart 3.7
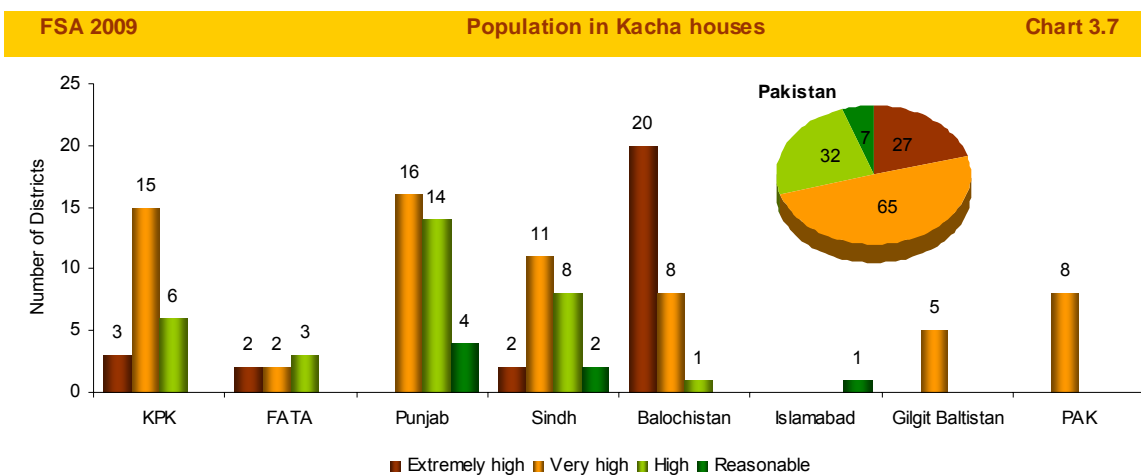
Living in kacha (mud) houses is a poverty indicator as mud houses are not as strong as cemented houses and are more prone to damage in bad weather. Households with a low income obviously cannot afford to construct cemented houses. In rural areas, mud houses are common, especially in poor areas of the country. The limited source of household income, due to which people are forced to live in mud houses, also impact the level of access to food. Such households do not have access to diversified food and consume low caloric food.

More than 70 percent of districts have more than 50 percent mud houses each in the country. A higher standard of living (with 80 percent population living in cemented houses in each district) is available to only 5 percent of the districts. These districts are located in Punjab, Sindh, and Islamabad.

The high percentage of districts with the maximum number of mud houses were reported in Balochistan (28), followed by Khyber Pakhtunkhwa (18) and Punjab (16).

3.5 Food Expenditure (Access)

Our previous food security assessments showed that an increase in poverty or a decline in purchasing power results in an increase in the percentage spending on food. This means that other essential spending, like on health and education, are reduced. With a meager amount of money available, households can only afford basic items like cereals, pulses and vegetables.

FSA 2009	Household Expenditure food	Chart 3.8
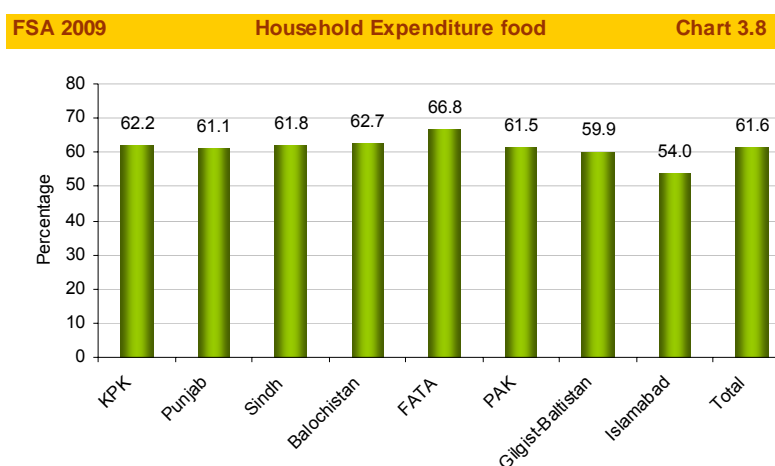
Kacha Houses in Pakistan

Map 3.3

CHINA

AFGHANISTAN

GILGIT BALTISTAN

KPK

FATA

PUNJAB

BALOCHISTAN

SINDH

IRAN

INDIA

ISLAMABAD

Arabian Ocean

FSA-2009
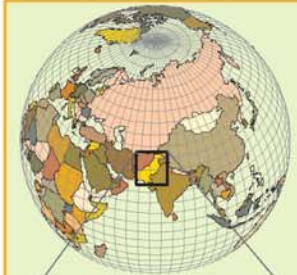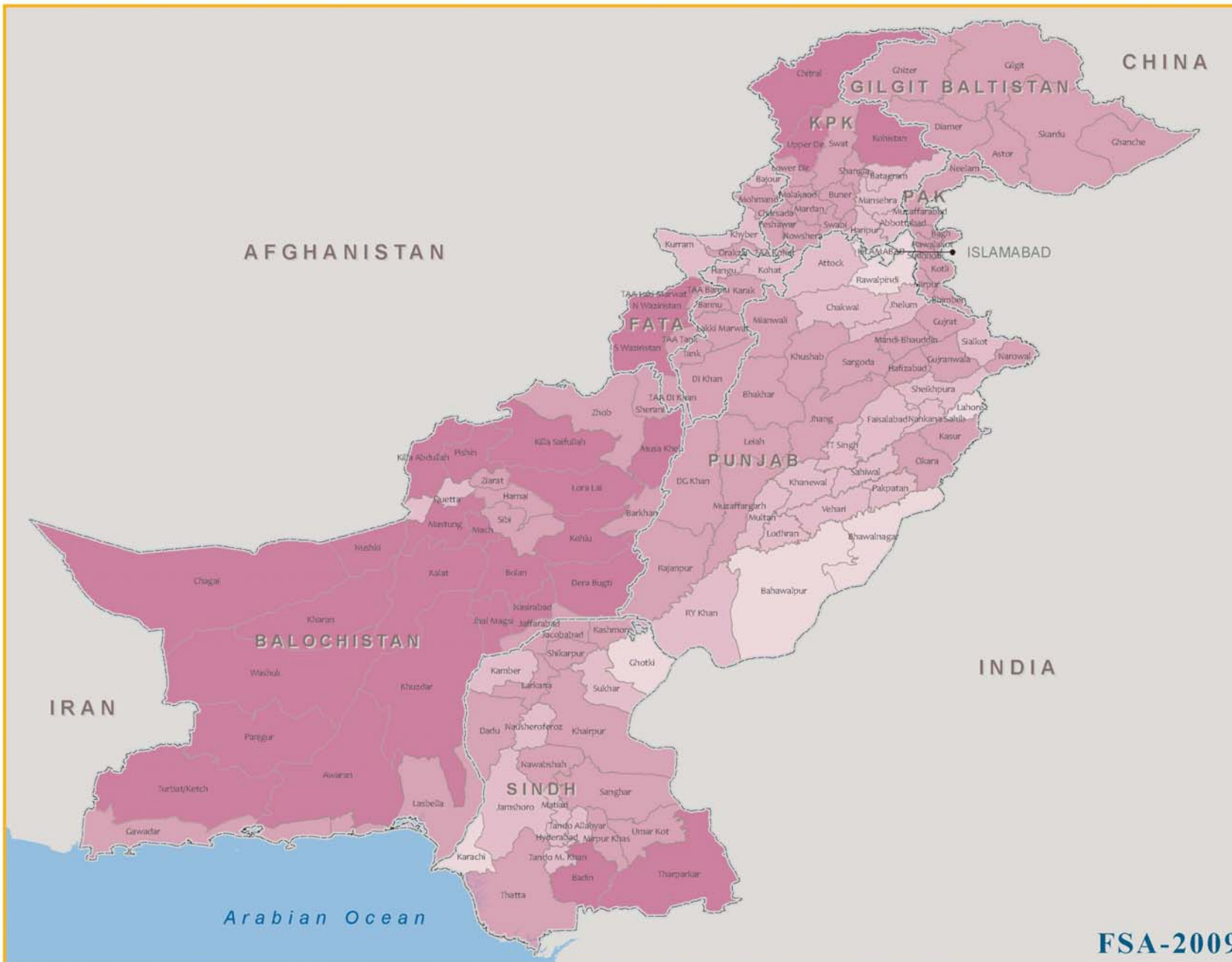
Kacha House Levels by District
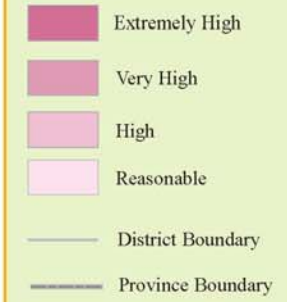
- Extremely High
- Very High
- High
- Reasonable

--- District Boundary

--- Province Boundary

N

| 0 | 40 | 80 | 160 | 240 |
Kilometers

vam
food security analysis

World Food Programme

WFP-FS.III-09-11-PK

The share of household expenditure spent on food in the country has gone up to 61.6 percent from 55.6 percent (HIES-2005-06) in the poorest group. This increase reflects wider trends in household expenditure and vulnerability to market shocks. The highest increase in percentage spending on food was witnessed in FATA, followed by Balochistan and KPK. Except for Islamabad, the rest of the country has shown a high increase in percentage spending on food.

An increase in percentage spending on food is directly related to market prices and income level. Hence, this increase shows a decline in purchasing power of households and consequently high vulnerability to food insecurity.

FSA 2009   **Food Access group**   **Chart 3.9**

In terms of expenditure share on food, 28 percent of the population was "very poor" while 22 percent endure "poor" access to food. This means that 50 percent of the population has inadequate access to food. The overall situation of food access in the country has deteriorated since 2003, with many more people having dropped down to the poor group.

3.6 Market prices of food commodities

Prices of food remain higher in Low Income Food Deficit Countries (LIFDC) even after the revival of supply and the reduction in prices in international markets post 2007 food crisis. Differences in prices can be seen from chart 3.10. Persistent high prices in developing and LIFDC countries are posing serious problems and challenges food security.[27]

FSA 2009   **International and National prices of food commodities**   **Chart 3.10**
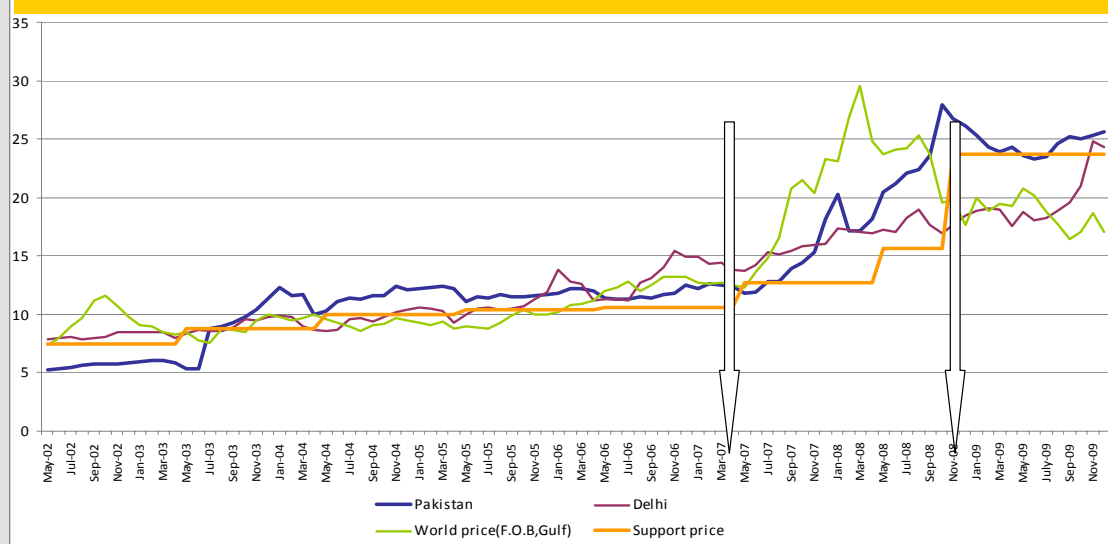
In Asia, prices of food items decreased but remained above pre-crisis price level. In Afghanistan, prices of wheat and wheat flour decreased due to increased production and availability. But it is still 40 percent higher than 2007 prices. The price crisis in Pakistan continued to place upward pressure on prices and prices remain 70 percent higher than the 2007 level. Wheat market prices in Pakistan started moving upward in May 2007 and continue to rise. The price of wheat went up to a record level

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[27]http://74.125.153.132/search?q=cache:Mc9yCWDJWBEJ:www.fao.org/docrep/012/ak340e/ak340e05.htm+In+LIFDCs+food+prices+remain,+in+general,+much+higher+than+in+the+pre-
food+price+crisis+period+of+two+years+earlier+%28see+special+feature%29+despite+declines+in+several+countries.&cd=1&hl=en&ct=clnk&gl=pk

of Rs. 30 per kg in the wholesale market during February-March 2008. Because of the higher support price (minimum price at which government procures wheat from the farmers) of Rs. 950 per 40 kg announced by the government in 2008, the prices never came down in the local markets, except for a temporary fluctuation. Despite Pakistan being a wheat producing country, the market price of wheat is 53 percent higher than in the international market (as at December 09). The private market of wheat is almost non-functional because of government control (where it places restriction on inter-provincial and inter district movement of wheat during procurement season to meet the procurement target) and the subsequent low profitability of margins. The prices might have decreased, but increase in support price immediately resulted in increase in the prices of input reducing the profit margin of the cultivators.

In India and Sri Lanka prices of some commodities, such as rice, stabilized and lowered but are still around 40 to 60 percent higher than the 2007 level. However food prices in Bangladesh, such as cereals, have come down and stabilized at the 2007 level. This can be attributed to good harvests and better policy interventions.[28]

The price crisis has hit every country in the world, but the spectrum and severity of impact is unequal. Countries with low or deficit production, low incomes, higher fiscal deficits and people spending a higher proportion of their income on food, were among the worst hit countries. The majority of these are already included in food insecure groups and have a higher rate of malnourishment and undernourishment. According to the FAO, most malnourished and undernourished states fall into the Low-Income Food Deficit Countries (LIFDCs) group. The LIFDC terminology was first introduced by the FAO in 1970. Furthermore, most of the LIFDC countries (82) will have to spend a major chunk of foreign reserves on importing food commodities to fill the gap between supply and demand. [29]

3.7 Coping Strategies

Economic and food crisis pushed people to adopt an unusual mechanism or practices to cope with this dual challenge. People are facing challenges of unemployment, lower wages and income. This pushed people to migrate, sell their productive and non-productive assets and skip food. This also compelled people to change dietary patterns and even to skip meals. Elderly members of families, women and mothers are usually among the most affected groups. Parents, especially mothers, frequently skip meals to secure food for their children.

FSA 2009	Coping Strategies	Chart 3.11

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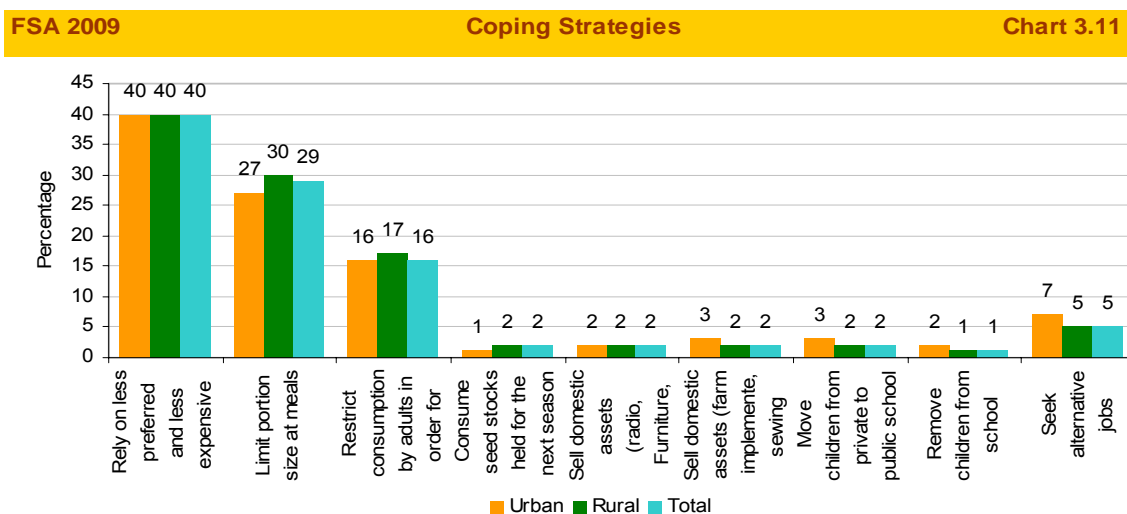
[28] *www.fao.org/docrep/012/ak340e/ak340e05.htm*
[29] ftp://ftp.fao.org/docrep/fao/011/i0291e/i0291e02.pdf

The most common coping strategy both in urban as well as rural areas is to rely on less preferred and less expensive food. The second most adopted strategy is limiting the portion of a meal. All these negative coping strategies lead to chronic food insecurity in the area.

The complex links between exclusion, poverty, food and health inequalities make the issue of food access critical and of great concern. In countries like Pakistan food access is a more serious issue than physical availability of food. Despite this, the policies and approaches at present focus more on the availability of food and not on access.

FSA 2009   **Chart 3.12**   **SA 2009**   **Chart 3.13**
Undernourishment in 2009 by region (millions)   **Number of Undernourished in the world, 1969-71 to 2009**

Total=1.02

Developed countries, 15

Near East and North Africa, 42

Latin America and Caribbean, 53

Sub-Saharan Africa, 265

Asia and Pacific, 642

Source: FAO
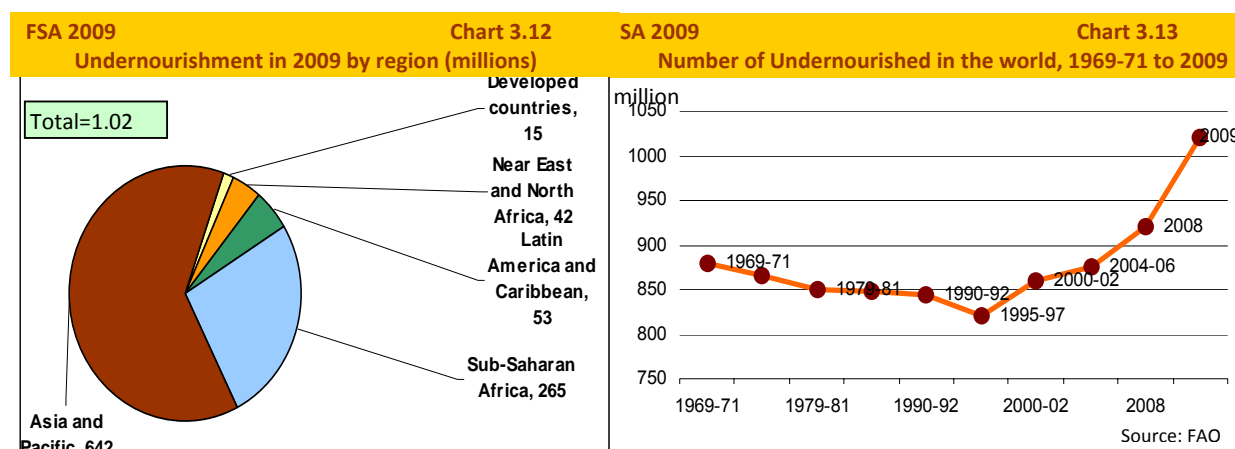
3.8 Access to Food

The composite indicator of access to food shows that 42 percent of the districts in Pakistan are extremely low in access to food. Around 76 percent of districts are in the range of low to extremely low in access. Because of severe inflationary shocks, many districts in the food deficit (physical availability) regions dropped to the low access group.

Due to the deteriorating security situation, increase in market prices, stagnancy in income growth, reduction in job opportunities and power crisis across the country, more people in Pakistan are finding food beyond their access. In the majority of cases, the quantity of food consumed by households was reduced, while reliance on less balanced food increased.

FSA 2009   **Access to Food**   **Chart 3.14**

■ Extremely low   ■ Very Low   ■ Low   ■ Reasonable

Access to Food in Pakistan

Map 3.8

CHINA

GILGIT BALTISTAN

Chitral · Ghizer · Gilgit

Upper Dir · Swat · Kohistan · Diamer · Skardu · Ghanche

Lower Dir · Shangla · Batagram · Astor · Neelam

Bajour · Buner · Mansehra

AFGHANISTAN

Mohmand · Malakand · Muzaffarabad · PAK

Chassada · Mardan · Abbottabad · AJK

Peshawar · Swabi · Haripur

Khyber · Nowshera · Bagh

Kurram · ISLAMABAD · Rawalakot · ISLAMABAD

Orakzai · TAA Kohat · Sudhnoti

Hangu · Kohat · Attock · Kotli

N Waziristan · TAA Bannu · Karak · Rawalpindi · Mirpur

FATA · Bannu · Mianwali · Chakwal · Jhelum · Bhimber

Lakki Marwat · Gujrat

TAA Tank · Mandi-Bhauddin · Sialkot

S Waziristan · Tank · Khushab · Sargoda · Gujranwala · Narowal

DI Khan · Bhakhar · Hafizabad

Sheram · TAA DI Khan · Sheikhpura

Zhob · Jhang · Faisalabad · Nankana Sahib · Lahore

Leiah · TT Singh · Kasur

Killa Saifullah · Musa Khel · PUNJAB

Killa Abdullah · Pishin · Sahiwal · Okara

Ziarat · DG Khan · Khanewal · Pakpatan

Quetta · Harnai · Lora Lai · Muzaffargarh · Vehari

Mastung · Sibi · Barkhan · Multan

Mach · Lodhran · Bhawalnagar

Nushki · Kohlu

Chagal · Kalat · Bolan · Rajanpur · Bahawalpur

Dera Bugti

Kharan · Nasirabad · RY Khan

Jhal Magsi · Jaffarabad · Kashmore

BALOCHISTAN · Jacobabad

Washuk · Kamber · Shikarpur · Ghotki · INDIA

Khuzdar · Larkana · Sukhar

Panjgur · Dadu · Naushaheroferoz · Khairpur

Nawabshah

Turbat/Ketch · Awaran · SINDH

Lasbella · Jamshoro · Matiari · Sanghar

Gawadar · Tando Allahyar · Umar Kot

Karachi · Hyderabad · Nirpur Khas

Tando M. Khan

Badin · Tharparkar

Thatta

Arabian Ocean

FSA-2009

Access to Food Levels by District
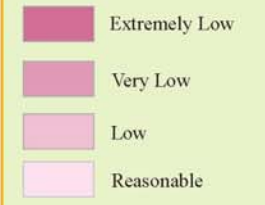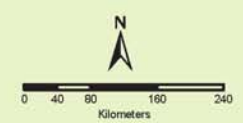
- Extremely Low
- Very Low
- Low
- Reasonable

--- District Boundary
━━━ Province Boundary

N

0 40 80 160 240
Kilometers

vam
food security analysis

World Food Programme

WFP-F8.III-09-12-PK

Compared with 2003, the districts with low to extremely low access to food increased from 65 percent to 76 percent during 2009. Accessibility remained a serious issue in the whole country, especially in Balochistan, Khyber Pakhtunkhwa and FATA.

3.8.1   Punjab

The increase in gap between income and market prices has impacted the population to a great extent. It has severely affected urban communities, being the net buyers, but also impacted small farmers, off-farm earners and non-commercial producers in rural areas. Although Punjab is a surplus food-producing province, yet the districts with low to extremely low access to food have increased from 35 percent in 2003 to 53 percent in 2009.

Access to Food in Punjab   Map 3.8.1
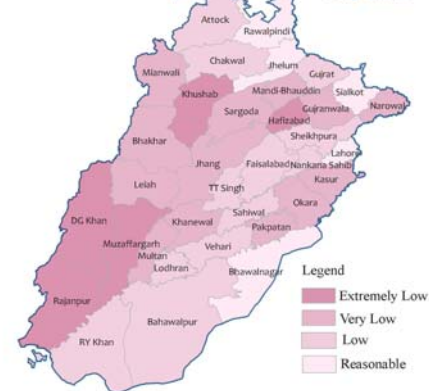
Access to Food in Sindh   Map 3.8.2

3.8.2   Sindh

In Sindh the districts with low to extremely low access to food have increased from 59 percent to 61 percent from 2003 to 2009.

The southern part of Sindh and its coastal belt fall in the "extremely low access to food" group.

Access to Food in KPK   Map 3.8.3

3.8.3   Khyber Pakhtunkhwa

In KPK, three districts moved down to the low food access group from the moderate category during the last 6 years (2003 to 2009). The majority of the districts (83 percent) are in the very to extremely low food access groups. One of the reasons for such low access to food is deteriorating security situation in the province that is severely affecting the livelihood opportunities of the general masses.

Access to Food in FATA   Map 3.8.4
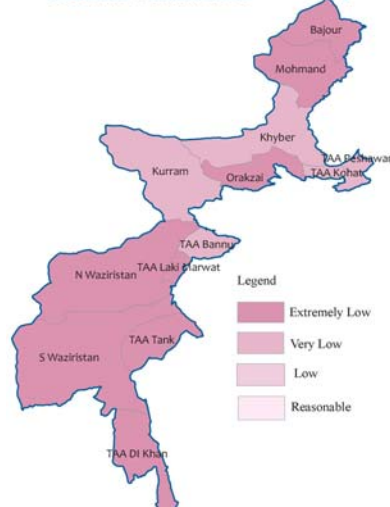
3.8.4   FATA

The whole of the FATA has serious accessibility problems. Militancy and continuous war in Afghanistan have depleted the major livelihood sources, while prices of essential food commodities remain amongst the highest in the country. All of the agencies of FATA are in the "low to extremely" low food access groups.

Access to Food in Balochistan   Map 3.8.5

Legend
- Extremely Low
- Very Low
- Low
- Reasonable
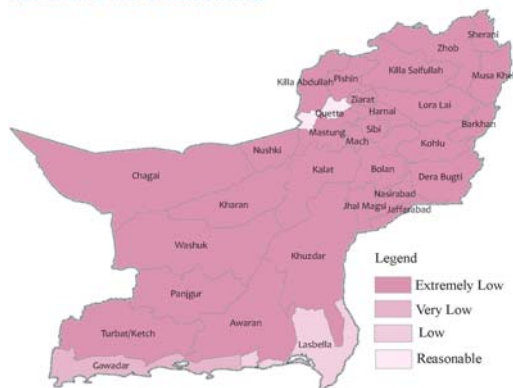
3.8.5   Balochistan

Due to lack of livelihood opportunities, around 93 percent of the districts in Balochistan are in the "low to extremely" low access to food groups. District Quetta is the only district with reasonably better access to food.

3.8.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

All districts in both of these regions are in the "low" access to food group, except Mirpur, which is at the borderline.

Access to Food in Gilgit Baltistan   Map 3.8.7   *Access to Food in PAK*   Map 3.8.6

Legend
- Extremely Low
- Very Low
- Low
- Reasonable

Legend
- Extremely Low
- Very Low
- Low
- Reasonable
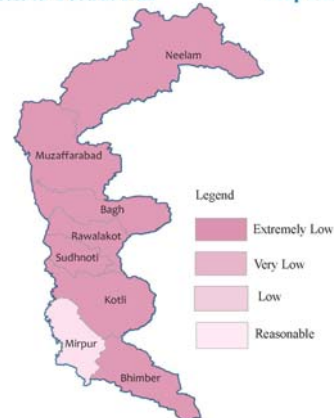
3.9 The Reason for low access to food[30]

Amartya Sen Observes, "there is no such thing as an apolitical famine." While external factors and events may trigger food crisis, it is political action or inaction that determines its severity, and often even whether or not a famine will occur.

The point to remember is that higher food prices have powerful distributional effects; they hurt the poorest the most. This is true both among countries and within countries. Food inflation led to riots not only in Pakistan but in Haiti, Cameroon, Indonesia, Burkina Faso, Philippines and Egypt too. In most of the above-mentioned countries it was mal-governance that gave rise to food crisis, which in turn posed a major governance challenge threatening the stability of nation states.

At the international level, global aid and bilateral agencies tried to play their role to ease the supply situation but were faced with resource constraints. At the national level, the governments did try to meet the demand-supply deficit either through imports, through putting a ban on food exports, through food aid, or providing subsidized food through various public social safety nets. However international responses work only where domestic governance pre-requisites are met. Global governance institutions cannot always make for the challenges offered by national governance institutions, and certainly not when it comes to socio-economic access to food.

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[30] Suleri, 2008: Food Crises in Developing Countries: The Role of National Governance, http://www.bu.edu/pardee/publications/policy-007-food-crises/

One would expect that the food price hike would have turned into opportunities, at least for surplus food producing provinces in the case of Pakistan, as theoretically speaking, if global and national price movements were transmitted to local markets, farmers in the food surplus districts could benefit from the rising price of food. However, partly due to governance problems most farmers could not avail this opportunity as either their cost of production did not get reduced or they could not have timely access to inputs needed to respond. This is evident from the growing number of districts in "low to extremely low" food surplus provinces of Punjab and Sindh.

FSA 2009							Table 3.3
Access to food in Pakistan 2009							
Rank 1=lowest	District Name	Province Name	Index	Rank 1=lowest	District Name	Province Name	Index
1	Panjgur	B	0.18	50	Tank	KPK	0.61
2	Musakhel	B	0.26	51	Sibi	B	0.62
3	Upper Dir	KPK	0.31	52	Khushab	P	0.62
4	Dalbadin	B	0.32	53	Mirpur Khas	S	0.53
5	Awaran	B	0.34	54	Muzaffargarh	P	0.65
6	Tharparkar	S	0.34	55	Hafizabad	P	0.68
7	Kharan	B	0.36	56	Khairpur	S	0.69
8	Killa Saifullah	B	0.36	57	Swat	KPK	0.69
9	Chitral	KPK	0.37	58	Mandi-Bahaudin	P	0.69
10	Kohistan	KPK	0.38	59	Dadu	S	0.49
11	Noshki (Chagai)	B	0.38	60	Sargodha	P	0.70
12	Kalat	B	0.38	61	Neelam	PAK	0.72
13	Dera Bugti	B	0.39	62	Bhakhar	P	0.72
14	Jhal Magsi	B	0.40	63	Kasur	P	0.73
15	Turbat (Kech)	B	0.40	64	Swabi	KPK	0.73
16	Khuzdar	B	0.41	65	Poonch	PAK	0.74
17	Mach	B	0.41	66	Mardan	KPK	0.74
18	Nasirabad	B	0.41	67	Bhimber	PAK	0.74
19	Bolan	B	0.41	68	Kotli	PAK	0.74
20	Zhob	B	0.42	69	Sudhnooti	PAK	0.74
21	Pishin	B	0.43	70	Mianwali	P	0.75
22	Kohlu	B	0.45	71	Sanghar	S	0.75
23	Mastung	B	0.46	72	Nawabshah	S	0.75
24	Lakki Marwat	KPK	0.47	73	Muzaffarabad	PAK	0.76
25	Lower Dir	KPK	0.48	74	Bagh	PAK	0.76
26	Badin	S	0.50	75	Pasni	B	0.77
27	S. Waziristan	FATA	0.50	76	Kohat	KPK	0.77
28	Malakand P.A.	KPK	0.51	77	Ghizer	GB	0.78
29	Killa Abdullah	B	0.51	78	Ganche	GB	0.78
30	Muhmand	FATA	0.51	79	Khyber	FATA	0.78
31	N. Waziristan	FATA	0.52	80	Layyah	P	0.78
32	Jacobabad	S	0.52	81	Okara	P	0.79
33	D.I. Khan	KPK	0.52	82	Diamer	GB	0.79
34	Kashmore	S	0.53	83	Narowal	P	0.80
35	Loralai	B	0.54	84	Nowshera	KPK	0.80
36	Jaffarabad	B	0.55	85	Gilgit	GB	0.80
37	Charsada	KPK	0.55	86	Gawadar	B	0.81
38	Barkhan	B	0.56	87	Kurram	FATA	0.81
39	Rajanpur	P	0.56	88	Bannu	KPK	0.81
40	Shangla	KPK	0.56	89	Skardu (Baltistan)	GB	0.82
41	Buner	KPK	0.57	90	Gujranwala	P	0.82
42	Ziarat	B	0.57	91	Larkana	S	0.83
43	Thatta	S	0.57	92	Hangu	KPK	0.83
44	Shikarpur	S	0.58	93	Peshawar	KPK	0.84
45	Karak	KPK	0.58	94	Naushero Feroz	S	0.85
46	D.G. Khan	P	0.59	95	Jhang	P	0.85
47	Umar Kot	S	0.59	96	Multan	P	0.86
48	Orakzai	FATA	0.59	97	Pakpattan	P	0.88
49	Bajour	FATA	0.60	98	Khanewal	P	0.91

FSA 2009							Table 3.3
Access to food in Pakistan 2009							
Rank 1=lowest	**District Name**	**Province Name**	**Index**	**Rank 1=lowest**	**District Name**	**Province Name**	**Index**
99	Sukhar	S	0.91	116	Hyderabad	S	1.07
100	Sheikhpura	P	0.92	117	Mitiari	S	1.07
101	Gujrat	P	0.93	118	Attock	P	1.07
102	Toba T. Singh	P	0.93	119	Bahawalpur	P	1.07
103	Lodhran	P	0.94	120	Chakwal	P	1.07
104	Sahiwal	P	0.95	121	Quetta	B	1.08
105	Lasbella	B	0.96	122	Jhelum	P	1.09
106	Battagram	KPK	0.97	123	Abbottabad	KPK	1.09
107	Vehari	P	0.99	124	Mirpur	PAK	1.13
108	Rahimyar Khan	P	0.99	125	Faisalabad	P	1.13
109	Mansehra	KPK	1.01	126	Sialkot	P	1.15
110	Haripur	KPK	1.02	127	Bahawalnagar	P	1.15
111	Tando M. Khan	S	1.02	128	Lahore	P	1.30
112	Jamshoro	S	1.02	129	Rawalpindi	P	1.31
113	Tando Allahyar	S	1.02	130	ISLAMABAD	Capital	1.38
114	Kamber	S	1.05	131	Karachi	S	1.47
115	Ghotki	S	1.06				

KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir
FATA= Federally Administrated Tribal Area

FSA 2009							Table 3.4
Child dependency ratio by households in Pakistan 2009							
Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
1	Panjgur	B	124.19	50	Lodhran	P	91.00
2	Bajour	FATA	121.10	51	Rahimyar Khan	P	90.80
3	Upper Dir	KPK	114.68	52	Jhal Magsi	B	90.23
4	Zhob	B	114.45	53	Jacobabad	S	90.19
5	Pishin	B	114.11	54	Kashmore	S	90.00
6	Lower Dir	KPK	113.33	55	Mansehra	KPK	89.84
7	Musakhel	B	112.95	56	Peshawar	KPK	89.66
8	Killa Saifullah	B	110.46	57	Shikarpur	S	89.15
9	Tharparkar	S	109.35	58	Gawadar	B	88.54
10	Karak	KPK	108.86	59	Naushero Feroz	S	88.40
11	Orakzai	FATA	108.80	60	Sanghar	S	87.71
12	Khyber	FATA	107.50	61	Narowal	P	87.30
13	Kurram	FATA	106.20	62	Kasur	P	86.90
14	Kohistan	KPK	105.12	63	Badin	S	86.73
15	Hangu	KPK	104.94	64	Mirpur Khas	S	86.42
16	Malakand P.A.	KPK	104.66	65	Bhakhar	P	86.40
17	Lakki Marwat	KPK	104.37	66	Nawabshah	S	86.38
18	Killa Abdullah	B	103.57	67	Barkhan	B	86.06
19	D.G. Khan	P	103.00	68	Bolan	B	85.71
20	Buner	KPK	102.93	69	Mach	B	85.71
21	Muhmand	FATA	101.30	70	Mastung	B	85.56
22	Swat	KPK	100.78	71	Nowshera	KPK	85.32
23	Shangla	KPK	100.35	72	Skardu (Baltistan)	GB	85.32
24	S. Waziristan	FATA	100.20	73	Diamer	GB	85.32
25	Muzaffargarh	P	100.00	74	Ganche	GB	85.32
26	Tank	KPK	99.82	75	Ghizer	GB	85.32
27	Rajanpur	P	99.70	76	Gilgit	GB	85.32
28	Kalat	B	98.47	77	Bhimber	PAK	85.32
29	Battagram	KPK	98.38	78	Kotli	PAK	85.32
30	Chitral	KPK	97.20	79	Mirpur	PAK	85.32
31	Noshki (Chagai)	B	97.09	80	Bagh	PAK	85.32
32	Dalbadin	B	97.09	81	Muzaffarabad	PAK	85.32
33	Bannu	KPK	97.08	82	Rawalakot (Poonch)	PAK	85.32
34	Kharan	B	96.15	83	Sudhnooti	PAK	85.32
35	Dera Bugti	B	95.59	84	Neelam	PAK	85.32
36	N. Waziristan	FATA	95.30	85	Jaffarabad	B	85.11
37	Ziarat	B	94.45	86	Bahawalpur	P	84.80
38	Mardan	KPK	94.14	87	Nasirabad	B	84.73
39	Charsada	KPK	93.71	88	Pasni	B	84.00
40	Umar Kot	S	93.58	89	Mianwali	P	83.40
41	Turbat (Kech)	B	93.43	90	Sukhar	S	82.51
42	D.I. Khan	KPK	92.64	91	Thatta	S	82.40
43	Ghotki	S	92.34	92	Loralai	B	82.23
44	Swabi	KPK	92.14	93	Vehari	P	82.10
45	Khuzdar	B	92.12	94	Multan	P	82.00
46	Layyah	P	91.80	95	Dadu	S	81.94
47	Kohat	KPK	91.78	96	Sheikhpura	P	81.80
48	Awaran	B	91.65	97	Lasbella	B	81.64
49	Khairpur	S	91.63	98	Khanewal	P	81.30

FSA 2009							Table 3.4
Child dependency ratio by households in Pakistan 2009							
Rank	**District Name**	**Province Name**	**% age**	**Rank**	**District Name**	**Province Name**	**% age**
99	Pakpattan	P	80.50	116	Sargodha	P	76.40
100	Bahawalnagar	P	80.30	117	Mandi-Bahaudin	P	75.80
101	Abbottabad	KPK	79.44	118	Sahiwal	P	75.10
102	Gujranwala	P	79.40	119	Quetta	B	74.97
103	Okara	P	79.00	120	Khushab	P	74.80
104	Jhang	P	77.60	121	Gujrat	P	74.60
105	Sibi	B	77.49	122	Kohlu	B	74.36
106	Sialkot	P	77.30	123	Faisalabad	P	74.20
107	Haripur	KPK	77.02	124	Jhelum	P	71.60
108	Hafizabad	P	76.90	125	Chakwal	P	71.00
109	Toba T. Singh	P	76.70	126	Attock	P	70.50
110	Hyderabad	S	76.70	127	Lahore	P	68.20
111	Jamshoro	S	76.70	128	Rawalpindi	P	66.80
112	Mitiari	S	76.70	129	ISLAMABAD	Capital	63.80
113	Tando Allahyar	S	76.70	130	Larkana	S	62.15
114	Tando M. Khan	S	76.70	131	Karachi Central	S	58.37
115	Kamber	S	76.70				

KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

FSA 2009							Table 3.5
House structure-Kacha houses in Pakistan 2009							
Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
1	Awaran	B	98.5	50	Mandi-Bahaudin	P	67.7
2	Jhal Magsi	B	96.4	51	Mirpur Khas	S	66.9
3	Turbat (Kech)	B	95.8	52	Lasbella	B	66.8
4	Noshki (Chagai)	B	95.2	53	Dadu	S	66.5
5	Dalbadin	B	95.2	54	Rajanpur	P	66.4
6	Kharan	B	94.6	55	Sargodha	P	66.2
7	Killa Saifullah	B	94.1	56	D.G. Khan	P	63.7
8	Kohlu	B	94.0	57	Karak	KPK	62.1
9	Panjgur	B	93.8	58	Muzaffargarh	P	61.2
10	Bolan	B	92.3	59	Mianwali	P	61.0
11	Mach	B	92.3	60	Mardan	KPK	60.5
12	Musakhel	B	91.9	61	Larkana	S	60.4
13	Pishin	B	91.9	62	Bannu	KPK	59.4
14	Chitral	KPK	91.6	63	Khairpur	S	58.1
15	Upper Dir	KPK	91.6	64	Nowshera	KPK	57.7
16	Kalat	B	90.7	65	Skardu (Baltistan)	GB	57.7
17	Loralai	B	90.3	66	Diamer	GB	57.7
18	Khuzdar	B	89.9	67	Ganche	GB	57.7
19	Nasirabad	B	88.9	68	Ghizer	GB	57.7
20	Mastung	B	86.5	69	Gilgit	GB	57.7
21	S. Waziristan	FATA	85.6	70	Bhimber	PAK	57.7
22	Killa Abdullah	B	85.4	71	Kotli	PAK	57.7
23	Dera Bugti	B	84.6	72	Mirpur	PAK	57.7
24	Kohistan	KPK	84.1	73	Bagh	PAK	57.7
25	N. Waziristan	FATA	83.8	74	Muzaffarabad	PAK	57.7
26	Tharparkar	S	82.0	75	Rawalakot (Poonch)	PAK	57.7
27	Badin	S	80.7	76	Sudhnooti	PAK	57.7
28	Sibi	B	79.4	77	Neelam	PAK	57.7
29	Zhob	B	78.8	78	Nawabshah	S	57.0
30	Barkhan	B	78.4	79	Kasur	P	56.5
31	Kashmore	S	77.0	80	Okara	P	56.2
32	Jacobabad	S	76.6	81	Orakzai	FATA	55.8
33	D.I. Khan	KPK	76.1	82	Swat	KPK	55.3
34	Ziarat	B	75.8	83	Sanghar	S	54.8
35	Thatta	S	75.8	84	Gawadar	B	53.6
36	Jaffarabad	B	75.2	85	Pasni	B	53.6
37	Charsada	KPK	75.0	86	Narowal	P	53.2
38	Khushab	P	74.7	87	Gujranwala	P	53.1
39	Lakki Marwat	KPK	73.8	88	Gujrat	P	51.7
40	Tank	KPK	72.9	89	Peshawar	KPK	51.6
41	Shikarpur	S	72.1	90	Swabi	KPK	51.1
42	Shangla	KPK	71.7	91	Jhang	P	51.0
43	Lower Dir	KPK	71.5	92	Layyah	P	50.9
44	Hafizabad	P	70.9	93	Kohat	KPK	49.9
45	Buner	KPK	70.3	94	Hangu	KPK	49.0
46	Malakand P.A.	KPK	70.1	95	Toba T. Singh	P	47.8
47	Muhmand	FATA	68.3	96	Pakpattan	P	46.9
48	Bhakhar	P	68.2	97	Bajour	FATA	46.3
49	Umar Kot	S	68.0	98	Multan	P	46.0

FSA 2009							Table 3.5
House structure-Kacha houses in Pakistan 2009							
Rank	**District Name**	**Province Name**	**% age**	**Rank**	**District Name**	**Province Name**	**% age**
99	Khyber	FATA	45.7	116	Attock	P	27.4
100	Khanewal	P	44.9	117	Hyderabad	S	26.1
101	Sheikhpura	P	42.7	118	Jamshoro	S	26.1
102	Sahiwal	P	40.5	119	Mitiari	S	26.1
103	Kurram	FATA	39.5	120	Tando Allahyar	S	26.1
104	Naushero Feroz	S	39.4	121	Tando M. Khan	S	26.1
105	Sukhar	S	38.9	122	Kamber	S	26.1
106	Sialkot	P	37.2	123	Jhelum	P	25.4
107	Haripur	KPK	37.2	124	Rahimyar Khan	P	24.4
108	Lodhran	P	37.1	125	Bahawalpur	P	19.4
109	Battagram	KPK	35.6	126	Ghotki	S	15.5
110	Faisalabad	P	33.8	127	Lahore	P	11.2
111	Mansehra	KPK	32.5	128	Rawalpindi	P	7.0
112	Quetta	B	31.8	129	ISLAMABAD	Capital	1.8
113	Vehari	P	31.3	130	Karachi Central	S	1.5
114	Abbottabad	KPK	30.0	131	Bahawalnagar	P	0.1
115	Chakwal	P	27.6				
KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area							

FSA 2009							Table 3.6
Monthly Income of the households in Pakistan 2009							
Rank 1=lowest	District Name	Province Name	Level	Rank 1=lowest	District Name	Province Name	Level
1	Shangla	KPK	<$1	50	Bhimber	PAK	<$1.25
2	Dera Bugti	B	<$1	51	Kohistan	KPK	<$1.25
3	Ghotki	S	<$1	52	Musakhel	B	<$1.25
4	Attock	P	<$1	53	Kohat	KPK	<$1.25
5	Jamshoro	S	<$1	54	Dalbadin	B	<$1.25
6	Tando Allahyar	S	<$1	55	Kotli	PAK	<$1.25
7	Bajour	FATA	<$1	56	Jhang	P	<$1.25
8	Muhmand	FATA	<$1	57	Malakand P.A.	KPK	<$1.25
9	Tando M. Khan	S	<$1	58	Sudhnooti	PAK	<$1.25
10	Kamber	S	<$1	59	Gujranwala	P	<$1.25
11	Swabi	KPK	<$1	60	Buner	KPK	<$1.25
12	Jaffarabad	B	<$1	61	Khuzdar	B	<$1.25
13	Rahimyar Khan	P	<$1	62	Pakpattan	P	<$1.25
14	Naushero Feroz	S	<$1	63	Hafizabad	P	<$1.25
15	Khushab	P	<$1	64	Panjgur	B	<$1.25
16	Tharparkar	S	<$1	65	D.G. Khan	P	<$1.25
17	Larkana	S	<$1	66	Barkhan	B	<$1.25
18	Orakzai	FATA	<$1	67	Nawabshah	S	<$1.25
19	Badin	S	<$1	68	Muzaffarabad	PAK	<$1.25
20	Kohlu	B	<$1	69	Dadu	S	<$1.25
21	Chakwal	P	<$1	70	Awaran	B	<$1.25
22	Neelam	PAK	<$1	71	Layyah	P	<$1.25
23	Vehari	P	<$1	72	Swat	KPK	<$1.25
24	Bahawalpur	P	<$1	73	Sheikhpura	P	<$1.25
25	Jacobabad	S	<$1	74	Chitral	KPK	<$1.25
26	Mirpur Khas	S	<$1	75	Karak	KPK	<$1.25
27	Thatta	S	<$1	76	Charsada	KPK	<$1.25
28	Mandi-Bahaudin	P	<$1	77	Kharan	B	<$1.25
29	Rajanpur	P	<$1	78	Bagh	PAK	<$1.25
30	Pasni	B	<$1	79	Khanewal	P	<$1.25
31	Kasur	P	<$1	80	Hangu	KPK	<$1.25
32	Mastung	B	<$1	81	Mianwali	P	<$1.25
33	Sahiwal	P	<$1	82	Kurram	FATA	<$1.25
34	Khairpur	S	<$1.25	83	Narowal	P	<$1.25
35	Mitiari	S	<$1.25	84	Kalat	B	<$1.25
36	Sargodha	P	<$1.25	85	Sibi	B	<$1.25
37	Bahawalnagar	P	<$1.25	86	Muzaffargarh	P	<$1.25
38	Mach	B	<$1.25	87	Lower Dir	KPK	<$1.25
39	D.I. Khan	KPK	<$1.25	88	Ghizer	GB	<$1.25
40	Kashmore	S	<$1.25	89	Noshki (Chagai)	B	<$1.75
41	Shikarpur	S	<$1.25	90	Lodhran	P	<$1.75
42	Lakki Marwat	KPK	<$1.25	91	Quetta	B	<$1.75
43	Okara	P	<$1.25	92	Ganche	GB	<$1.75
44	Rawalakot (Poonch)	PAK	<$1.25	93	Haripur	KPK	<$1.75
45	Tank	KPK	<$1.25	94	Upper Dir	KPK	<$1.75
46	Battagram	KPK	<$1.25	95	Zhob	B	<$1.75
47	Bolan	B	<$1.25	96	Hyderabad	S	<$1.75
48	Umar Kot	S	<$1.25	97	Jhal Magsi	B	<$1.75
49	Sanghar	S	<$1.25	98	Ziarat	B	<$1.75

| FSA 2009							Table 3.6
Monthly Income of the households in Pakistan 2009							
Rank 1=lowest	District Name	Province Name	Level	Rank 1=lowest	District Name	Province Name	Level
99	Sukhar	S	<$1.75	116	Lasbella	B	<$1.75
100	Gawadar	B	<$1.75	117	Mardan	KPK	<$1.75
101	Diamer	GB	<$1.75	118	Skardu (Baltistan)	GB	<$1.75
102	Toba T. Singh	P	<$1.75	119	N. Waziristan	FATA	<$1.75
103	Bannu	KPK	<$1.75	120	S. Waziristan	FATA	<$1.75
104	Multan	P	<$1.75	121	Bhakhar	P	<$1.75
105	Rawalpindi	P	<$1.75	122	Killa Abdullah	B	<$1.75
106	Nowshera	KPK	<$1.75	123	Pishin	B	<$1.75
107	Abbottabad	KPK	<$1.75	124	Loralai	B	<$1.75
108	Gilgit	GB	<$1.75	125	Killa Saifullah	B	<$1.75
109	Mansehra	KPK	<$1.75	126	ISLAMABAD	Capital	>$1.75
110	Nasirabad	B	<$1.75	127	Lahore	P	>$1.75
111	Khyber	FATA	<$1.75	128	Faisalabad	P	>$1.75
112	Peshawar	KPK	<$1.75	129	Karachi Central	S	>$1.75
113	Turbat (Kech)	B	<$1.75	130	Mirpur	PAK	>$1.75
114	Gujrat	P	<$1.75	131	Sialkot	P	>$1.75
115	Jhelum	P	<$1.75				
KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area							

FOOD ABSORPTION

Food absorption is the third pillar of food security. Despite food availability and access to food, proper absorption of food and its assimilation in the human body is an important factor for good health and the level of food security within any given region. The indicators used to assess food absorption include, access (or lack of access) to clean drinking water, environmental hygiene, health infrastructure, individual health status and female literacy rate etc.. Nutrition security cannot be achieved without environmental hygiene, primary health care and clean drinking water. Culinary habits also need careful evaluation, as some methods of cooking can make it difficult for food to get digested. To ensure food security, the supply of improved drinking water and sanitation has to be the priority of provincial and federal governments.

Pakistan has made commitments to achieve the Millennium Development Goals that aim to halve the proportion of people without access to environmentally safe sanitation by the year 2015 and to reach 100% coverage by the year 2025. However, the situation in reality is different. Sanitation facilities are not able to meet the needs of the growing population. Sanitation facilities are available to only 54 percent of the urban population and only to 30 percent of the population in rural areas. Sanitation facilities are widely, although not comprehensively, available in the larger cities, while small cities and urban areas have limited or no facilities. Around 45 percent of all households do not have access to latrines, 51 percent of houses are not connected to any form of drainage, 35 percent have access to open drainage and 16 percent to underground sewerage.

The state of clean water facilities is no better than that of sanitation facilities. The government plans to establish water treatment plants across the country. Unfortunately, these plants were only built in big cities. The majority of the population remains without clean water facilities. The same is true for solid waste management. Solid waste management facilities are not well organized and half of all garbage in big cities is dumped in non designated areas. In addition to that, most of the hospitals lack a proper hospital waste management system.[31]

4.1 Sanitation

In Pakistan, over 50 percent of houses are without toilet facilities. Reasonable toilet facilities are available only in approximately 34 percent of districts

FSA 2009 — Sanitation Facilities (Households without toilet facilities) — Chart 4.1

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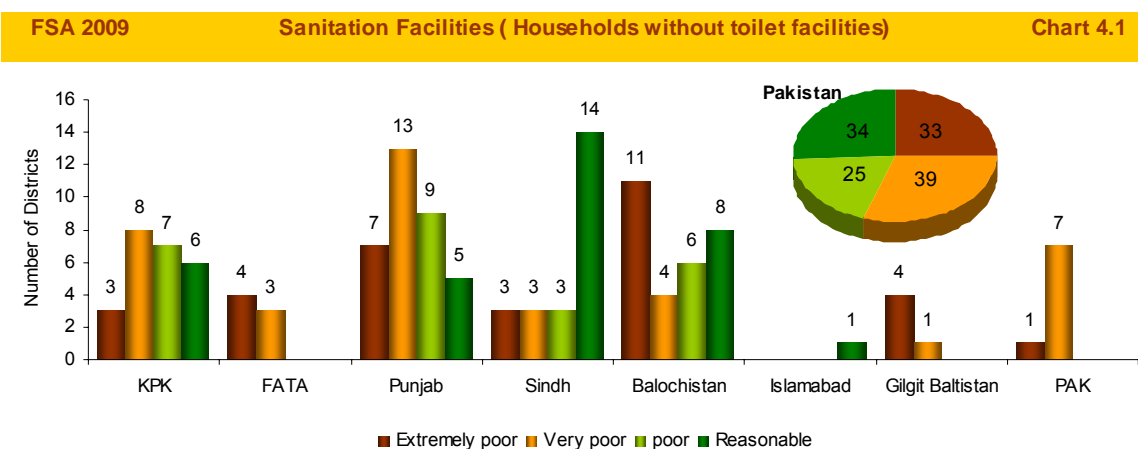
[31] http://www.crcp.org.pk/PDF%20Files/National_Sanitation_Policy.pdf

Sanitation (Toilet) Facilities in Pakistan

Map 4.1

CHINA

AFGHANISTAN

IRAN

INDIA

ISLAMABAD

Arabian Ocean

FSA-2009
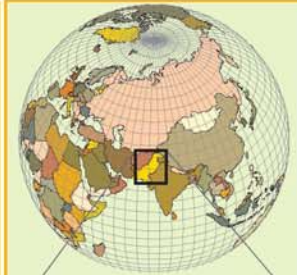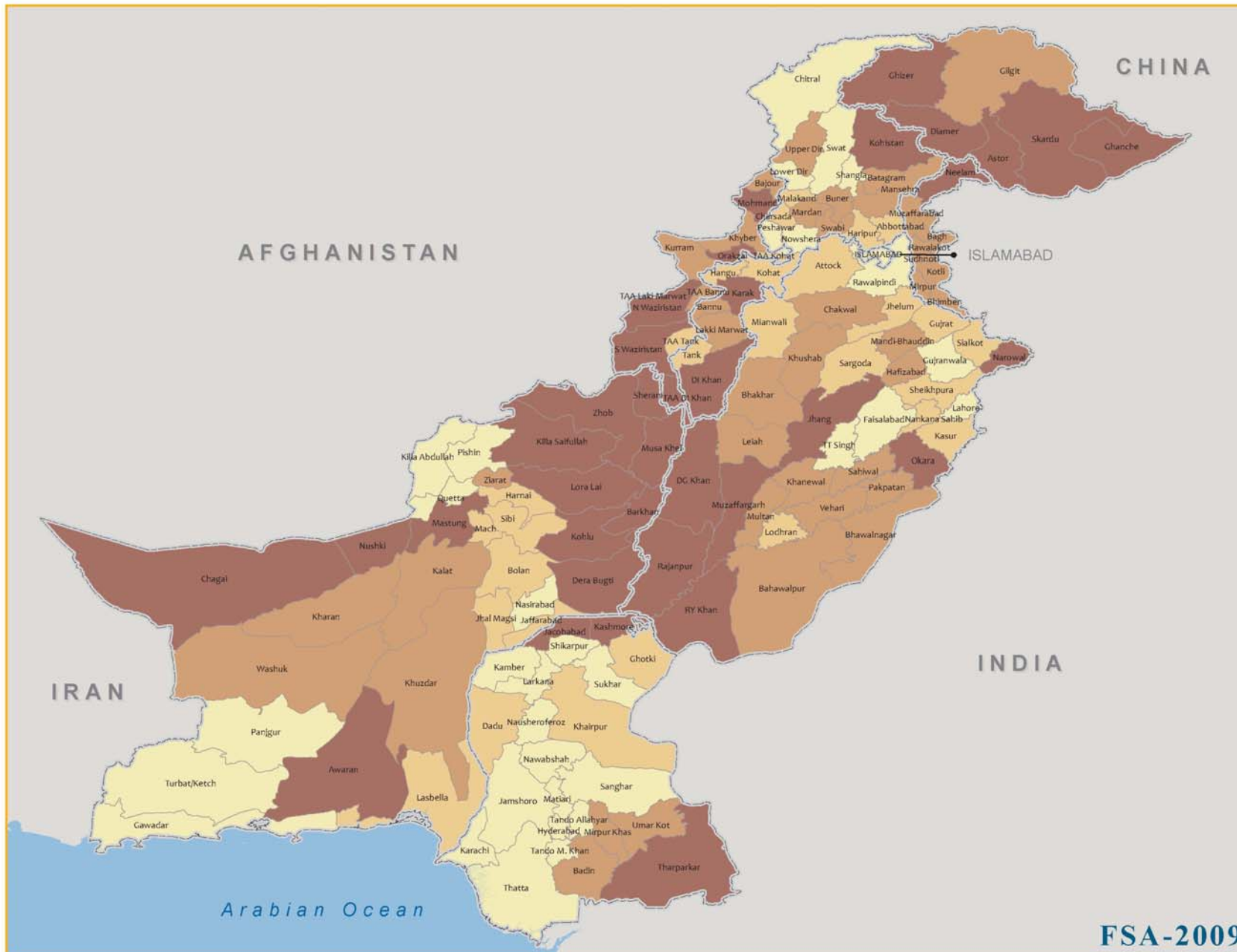
Sanitation (Toilet) Facilities Levels by District

- Extremely Poor
- Very Poor
- Poor
- Reasonable

—— District Boundary

—— Province Boundary

N

0 37.5 75   150   225
Kilometers

vam
food security analysis

World Food Programme

WFP-FS.III-09-13-PK

4.1.1   Punjab

The provincial picture of access to toilet facilities in Punjab differs greatly from that of the indicators of food availability as well as access to food. In Punjab, 59 percent (21 percent of districts have extremely poor toilet facilities, while 38 percent are in the very poor category) of districts fall under extremely to very poor category when it comes to provision of toilet facilities. Only 15 percent of the districts are reasonably better in terms of toilet facilities. The bleak state of sanitation in Punjab adversely affects the overall food security situation in districts with surplus production, and reasonable access to food.

Sanitation (Toilet) Facilities in Punjab   Map 4.1.1

Sanitation (Toilet) Facilities in Sindh   Map 4.1.2

4.1.2   Sindh

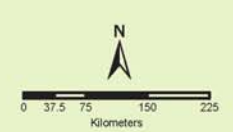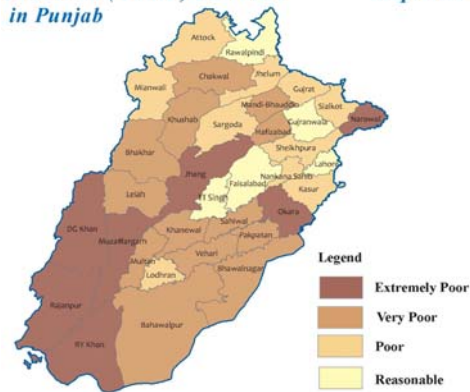Toilet facilities are better in Sindh than in Punjab, where only 13 percent of the districts are extremely poor. More than 60 percent of the districts are reasonable, where above 80 percent of the households have access to toilet facilities. Tharparkar, Kashmore and Jacobabad are the extremely poor districts of Sindh province when it comes to sanitation. More than 50 percent of the households in these districts have no access to toilet facilities. A comparatively better state of sanitation in Sindh positively affects the level of food security in districts, which are performing poor on food availability and access to food indicators.

4.1.3   Khyber Pakhtunkhwa

In KPK 13 percent of the districts are extremely poor, while 33 percent are very poor with regard to the availability of toilet facilities. Around 25 percent of the districts have reasonable toilet facilities.

Sanitation (Toilet) Facilities in KPK   Map 4.1.3
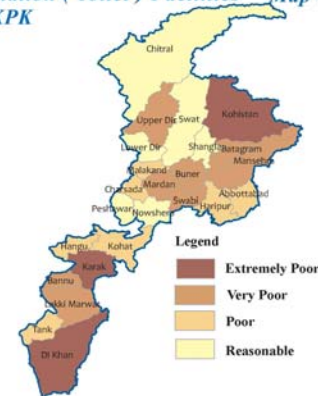
Sanitation (Toilet) Facilities in FATA   Map 4.1.4
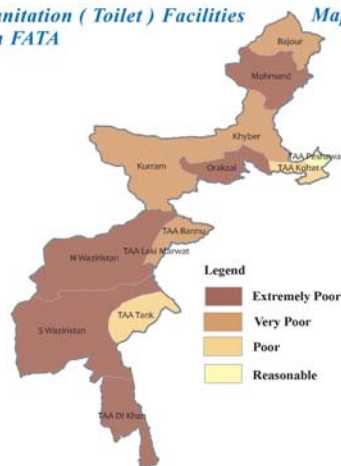
4.1.4   FATA

FATA has very poor sanitation facilities, where people have limited awareness about health. A high percentage of districts (57 percent) have extremely poor access to toilets, while 43 percent have very poor access. This essentially means that 100 percent of FATA is lacks adequate sanitation facilities, pushing overall food security status even lower.

its

4.1.5   Balochistan

Around 38 percent of the districts in Balochistan are in the extremely low "access to toilet" group, while 28 percent have reasonable access.

4.1.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

In GB region 80 percent of the districts are extremely poor while 20 percent are very poor in terms of access to toilets. None of the districts fall under "reasonable access to toilet" category.

In PAK 13 percent of the districts have extremely poor, while 87 percent have very poor access to toilet facilities. Like GB and FATA, none of its district is in the "reasonable access to toilet" group.
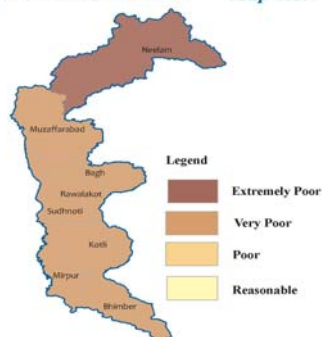
4.2 Improved Water

Water is an important component of our food and is consumed with every meal. However, drinking contaminated water leads to water borne diseases, which means that even the households with reasonable food availability and access to food can turn food insecure. The severity of drinking water problems in Pakistan can be assessed with the fact that 101 out of 1000 children in Pakistan die before they reach the age of five. It is estimated that 60 percent of deaths are due to water borne diseases. It is estimated that in total Diarrheal disease caused some 200,000 deaths during 2009.[32] This situation is posing four serious problems: (i) high expenditures on diseases, (ii) constraints on an active life and less economic opportunities (iii) hindrances to improve education status, and iv) growing food insecurity.

The secondary data on improved drinking water in Pakistan refers to "access to water" (whether or not it is safe for drinking does not get reflected through statistics). "Improved drinking water" refers to "containerized water", which is being obtained from a covered source, such as tap water, water from a hand pump, or motorized pump etc. Again the data on improved drinking water does not reflect whether that water is safe for human consumption. According to secondary data on access to water, more than 25 percent of districts in Pakistan have extremely poor access to water, whereas 50 percent of districts have reasonably better access (with more than 80 percent of households accessing improved water facilities). Further research is required to assess an accurate picture of availability of clean drinking water in Pakistan.

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[29] http://www.safewaterpak.com/http://www.safewaterpak.com/

Access to Improved Drinking Water in Pakistan

Map 4.2

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Kohistan
Diamer
Skardu
Ghanche
Astor
Upper Dir
Swat
Lower Dir
Shangla
Batagram
Neelam
Bajour
Malakand
Buner
Mansehra
Mohmand
Mardan
Muzaffarabad
KPK
Abbottabad
AJK
Charsada
Peshawar
Swabi
Haripur
Bagh
Khyber
Nowshera
ISLAMABAD
Sudhnoti
Hawalakot
Kurram
Orakzai
TAA Kohat
Attock
ISLAMABAD
Kotli
Hangu
Kohat
Rawalpindi
Mirpur
N Waziristan
TAA Bannu
Karak
Bhimber
Bannu
Chakwal
Mianwali
Jhelum
Gujrat
FATA
Lakki Marwat
Mandi-Bhauddin
Sialkot
S Waziristan
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
Tank
Hafizabad
DI Khan
Sheikhpura
Sheran
TAA DI Khan
Bhakkar
Jhang
Lahore
Zhob
Faisalabad
Nankana Sahib
Killa Saifullah
Musa Khel
Leiah
T Singh
Kasur
Killa Abdullah
Pishin
PUNJAB
Ziarat
Harnai
Lora Lai
DG Khan
Sahiwal
Okara
Quetta
Barkhan
Khanewal
Pakpatan
Mastung
Sibi
Mach
Muzaffargarh
Vehari
Nushki
Kohlu
Multan
Chagai
Kalat
Bolan
Lodhran
Bhawalnagar
Kharan
Dera Bugti
Rajanpur
Nasirabad
Bahawalpur
Washuk
Khuzdar
Jhal Magsi
Jaffarabad
RY Khan
BALOCHISTAN
Jacobabad
Kashmore
Shikarpur
Ghotki
IRAN
Kamber
Panjgur
Larkana
Sukhar
Dadu
Naushferoze
Khairpur
Awaran
Nawabshah
Turbat/Ketch
Lasbella
Jamshoro
Matiari
Sanghar
Tando Allahyar
Gawadar
Hyderabad
Nirpur Khas
Umar Kot
Karachi
Tando M. Khan
SINDH
Badin
Tharparkar
Thatta

INDIA

Arabian Ocean

FSA-2009

Access to Improved Drinking Water Levels by District

- Extremely Low
- Very Low
- Low
- Reasonable

— District Boundary
— Province Boundary

N

0   265   530   1,060   1,590
Kilometers

vam
food security analysis

WFP World Food Programme

WFP-FS.III-09-14-PK

Chart 4.2 – Households without improved drinking water
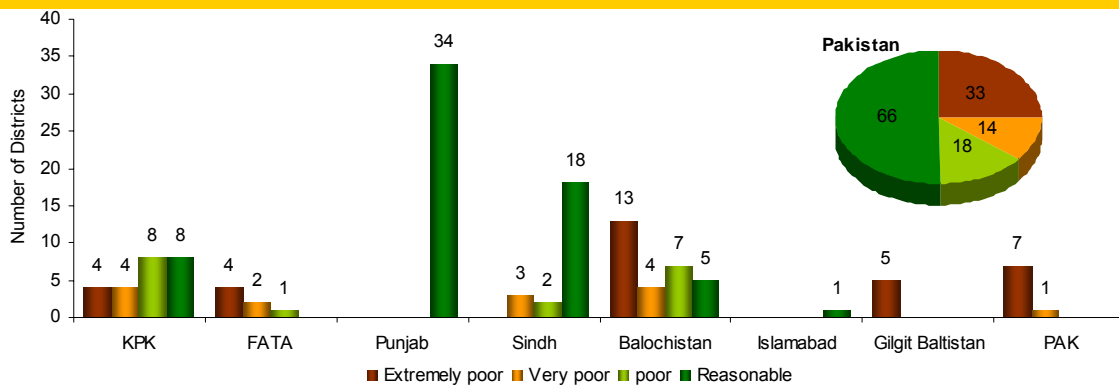
4.2.1 Punjab

According to secondary data, all districts of Punjab are in the reasonable group, where more than 80 percent of households have access to improved water sources for drinking. It should be noted, however, that hand pumps are common in Punjab because of the low water table. The catchments of these water pumps and dug wells accumulate the seepage water from the surface or waterlogged areas, which is not hygienically suitable.

Access to Improved Drinking Water in Punjab — Map 4.2.1

Access to Improved Drinking Water in Sindh — Map 4.2.2

infrastructure for portable water distribution.

4.2.3 Khyber Pakhtunkhwa

Around 17 percent of the districts in KPK have extremely poor access to improved portable water, while another 17 percent are in the very poor category. Nearly 33 percent of districts have reasonable access to improved portable water facilities.
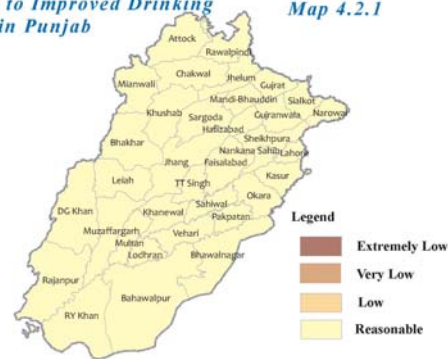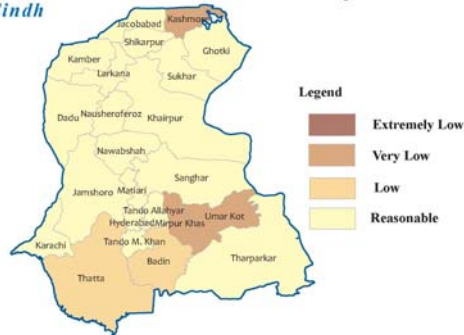
4.2.2 Sindh

According to secondary data, more than 78 percent of the districts are "reasonably good" in access to improved water. However, 13 percent of the districts are in the very poor access group. Most of the urbanized districts like Karachi, Hyderabad and Sukkar have

Access to Improved Drinking Water in KPK — Map 4.2.3
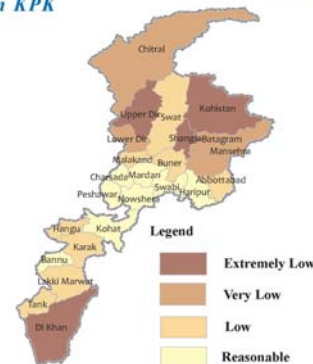
Access to Improved Drinking Water in FATA — Map 4.2.4
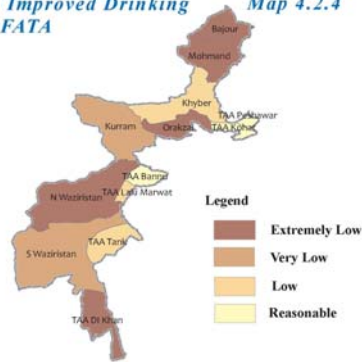
4.2.4 FATA

Again, FATA is lacking adequate facilities for better portable water. No single agency has reasonable access to improved portable water. Above 57 percent of the agencies are extremely poor, while another 29 percent are very poor in access to improved portable water sources.

4.2.5 Balochistan

Portable water is a serious issue in Balochistan. The low level of rainfall has made a major part of the province vulnerable to water scarcity. The majority of rural inhabitants use water from streams or *karez* water for drinking. In most of these cases, these sources are unprotected.

The secondary data reveals that 45 percent of the districts are extremely poor in access to improved portable water sources. Around 17 percent of the districts have reasonably better portable water facilities

Access to Improved Drinking Water in Balochistan — Map 4.2.5

4.2.6 Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

The majority of the population in all districts of GB is water for drinking from open sources. There is a lack of awareness and also limited infrastructure facilities for better drinking water sources. The area has abundant springs, but development of these springs to protect them from harmful bacteria has never been a priority.

The PAK region has the same problem, where around 88 percent of the districts are extremely poor in access to improved portable water. No single district has reasonably better access to portable water.

Access to Safe Drinking Water in PAK — Map.4.20
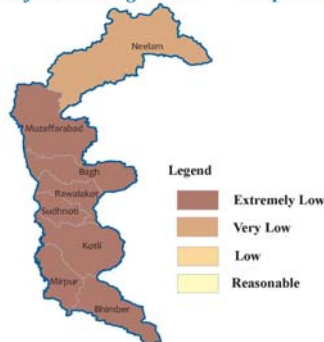
Access to Improved Drinking Water in Gilgit Baltistan — Map 4.2.7

Female Literacy in Pakistan

Map 4.3

CHINA

AFGHANISTAN

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Upper Dir
Swat
Kohistan
Diamer
Skardu
Ghanche
Lower Dir
Shangla Batagram
Astor
Bajour
Buner
Mansehra
Neelam
Mohmand Malakand
KPK
Muzaffarabad
Charsada Mardan
Abbottabad
PAK
Peshawar
Swabi Haripur
Bagh
Khyber
Nowshera
ISLAMABAD
Rawalakot
ISLAMABAD
Kurram
Orakzai TAA Kohat
Attock
Sudhnoti
Hangu
Kotli
Kohat
Rawalpindi
Mirpur
N Waziristan
TAA Bannu Karak
Jhelum
Bhimber
FATA
Bannu
Mianwali
Chakwal
Gujrat
Lakki Marwat
Mandi-Bhauddin
Sialkot
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
S Waziristan
Tank
Hafizabad
DI Khan
Sheikhpura
TAA DI Khan
Bhakhar
Lahore
Zhob
Sherani
Jhang
Faisalabad Nankana Sahib
Kasur
Killa Saifullah
Musa Khel
Lelah
TT Singh
Killa Abdullah Pishin
PUNJAB
Okara
Ziarat
Lora Lai
DG Khan
Sahiwal
Quetta
Harnai
Khanewal
Pakpatan
Mastung Mach
Sibi
Barkhan
Muzaffargarh
Multan
Vehari
Kohlu
Lodhran
Bhawalnagar
Nushki
Kalat
Bolan
Dera Bugti
Rajanpur
Bahawalpur
Chagai
Kharan
Nasirabad
RY Khan
BALOCHISTAN
Jhal Magsi Jaffarabad
Washuk
Jacobabad
Kashmore
Shikarpur
Ghotki
Khuzdar
Kamber
Larkana
Sukhar
Panjgur
Dadu Nausheroferoz
Khairpur
Turbat/Ketch
Nawabshah
Awaran
Lasbella
SINDH
Sanghar
Jamshoro Matiari
Gawadar
Tando Allahyar
Umar Kot
Hyderabad Mirpur Khas
Karachi
Tando M. Khan
Tharparkar
Badin
Thatta

IRAN

INDIA

Arabian Ocean

FSA-2009

Female Literacy Levels by District

- Extremely Low
- Very Low
- Low
- Reasonable

District Boundary
Province Boundary

N

0   37.5   75   150   225
Kilometers

vam
food security analysis

World Food Programme

WFP-FS.III-09-16-PK
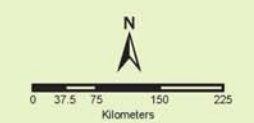
4.3 Female Literacy

In Pakistan women play a major role in maintaining dietary standards and food hygiene at the household level. In rural areas this role becomes more important, where male members work in farming or off-farm activities, while female members stay at home. Illiteracy is very high among women and approximately two thirds of the illiterate population in Pakistan comprises women. This situation not only affects food absorption at the household level, but literacy amongst children and hence access to food as well.

Keeping in view the involvement of women in household food selection and preparation, women's literacy is one of the important indicators of food security.

In Pakistan, nearly 23 percent of districts are in the group of extremely low female literacy, with female literacy rates standing at 10 percent or below. Around 37 percent of districts, on an average, have a very low literacy rate (above 10 to 30 percent). Female literacy in general is quite low as compared to male literacy (67 male, 42 female)[33.] In total, 9 percent of districts in the country are reasonably better off, with female literacy rates at over 50 percent.

The highest female literacy is recorded in Islamabad (74 percent). The top five districts with higher female literacy rates are Islamabad, Rawalpindi (72), Karachi (71), Lahore (70) and Jhelum (70).

FSA 2009	Female literacy rate	Chart 4.3
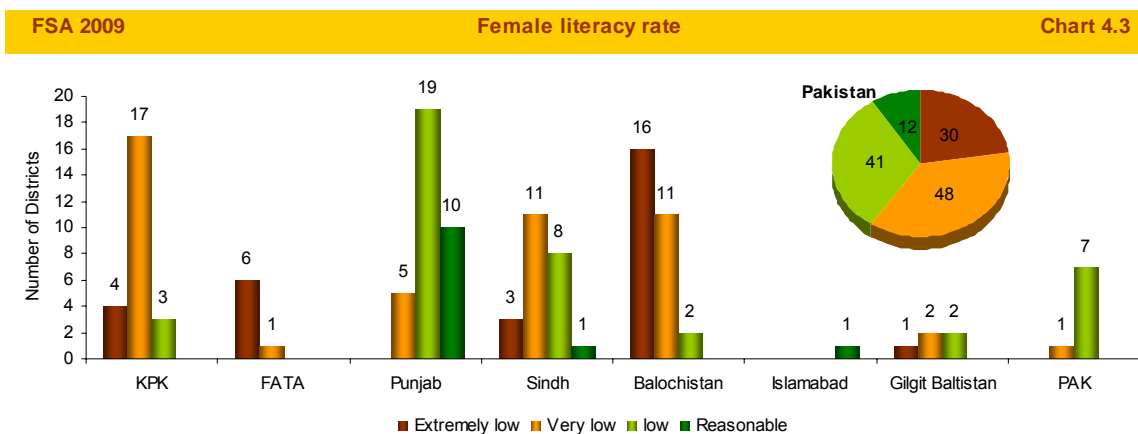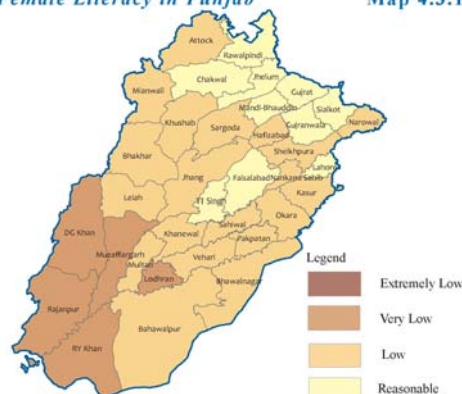
4.3.1   Punjab

Punjab has the highest female literacy rate (48 percent[34]) among all the provinces. Female literacy in urban areas of Punjab is 68 percent and 38 percent in rural areas.

The FSA 09 study reveals that above 29 percent of the districts are reasonably better, female literacy rates standing at over 50 percent. No single district in Punjab is in the extremely low female literacy group. However, nearly 15 percent of the districts are in the very low female literacy category (below 30 percent).

Map 4.3.1

Female Literacy in Punjab

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[33] Pakistan Social & Living Standards Measurement Survey (PSLM) 2006-07
[34] Pakistan Social & Living Standards Measurement Survey (PSLM) 2006-07

4.3.2   Sindh

The female literacy rate in Sindh province is 42 percent,[35] and thus has the second highest provincial female literacy rates after Punjab. However, only 4 percent of the districts are reasonable in female literacy, while 13 percent are in the extremely low female literacy rate group

Female Literacy in Sindh   Map 4.3.2
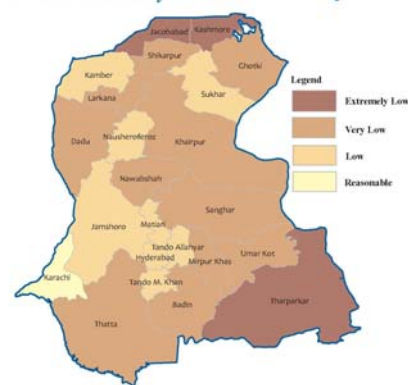
Female Literacy in KPK   Map 4.3.3
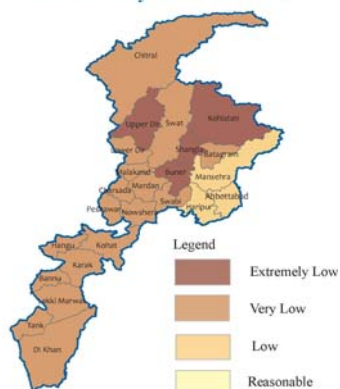
4.3.3   Khyber Pakhtunkhwa

The female literacy rate in KPK is 28 percent[36,] which is quite low as compared to the national average (42 percent).

Around 17 percent of the districts are in the extremely low literacy group, while 71 percent are in the very low literacy rate group. No district qualifies for the reasonable female literacy group in KPK.

4.3.4   FATA

FATA is the worst in terms of female literacy rates. Cultural limitations and inadequate education facilities have impacted female education in the area. A high number of districts (around 86 percent) are in the extremely low female literacy rate group with 10 percent or below, while no district qualifies for the reasonable female literacy group.

The unique status of FATA, with regard to conflict, security issues, and continuous war in many parts have adversely affected all sectors of socio-economic development. Many schools, especially of females, and health centers were, and continue to be, damaged or destroyed.

Female Literacy in FATA   Map 4.3.4
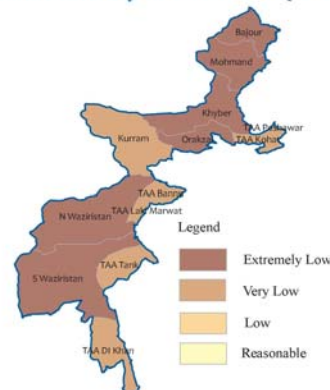
Female Literacy in Balochistan   Map 4.3.5
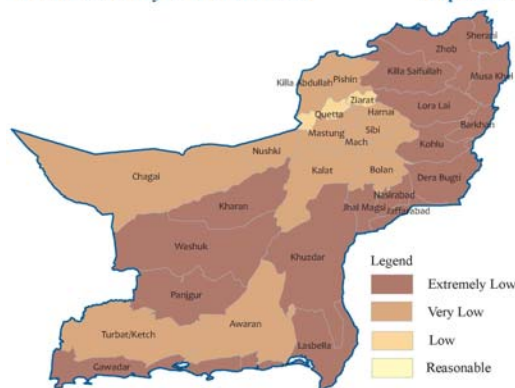
4.3.5   Balochistan

The female literacy rate in the province is 22 percent, the lowest among the four provinces. Above 55 percent of the districts are in the extremely low female literacy group. No district is in the reasonably better female literacy group.

4.3.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

District Diamer is the only district with extremely low female literacy, while Skardu and Ganche districts are in the very low female literacy group. No district in GB is in the reasonable female literacy group.

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[35] As above
[36] As above

In PAK the female literacy rate is better as compared to GB. All districts are in the middle female literacy groups; however, no district is in the reasonable female literacy category.

Female Literacy in Gilgit Baltistan   Map 4.3.6

Female Literacy in PAK   Map 4.3.7
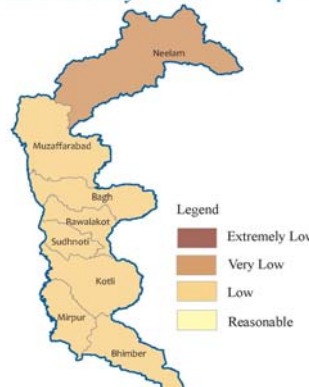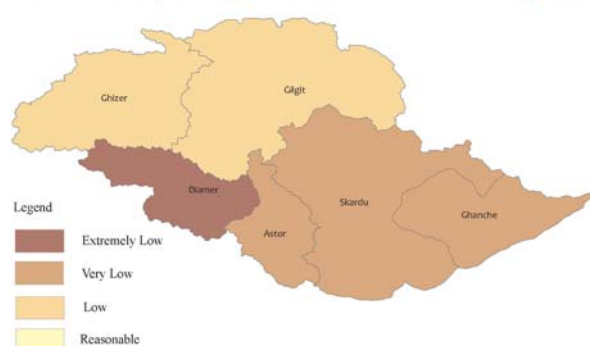
4.4 Food Absorption

In the country, 59 percent of the districts are in the extremely low or very low food absorption groups. Food absorption indicators show a very bleak picture of the population. A limited number of districts (only 10 out of 131) have reasonable food absorption.

| FSA 2009 | Food Absorption | Chart 4.4 |
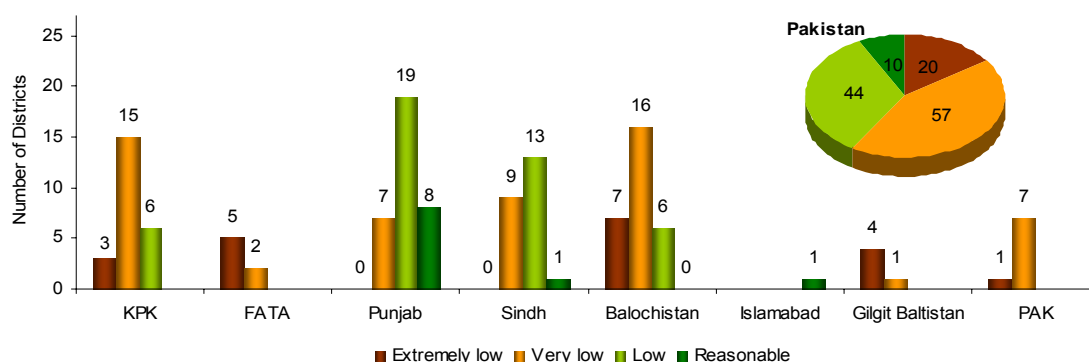
In comparing the present data with the food security report of 2003, the extremely and very low food absorption districts increased from 55 percent to 59 percent. On the other hand, the districts with reasonable food absorption decreased from 9 percent to 7 percent.

4.4.1   Punjab

Around 21 percent of the districts in Punjab fall in the extremely to low food absorption category. Nearly 24 percent   of   the   districts   are

Food Absorption in Punjab   Map 4.4.1

Food Absorption in Pakistan

Map 4.4

CHINA

GILGIT BALTISTAN

Chitral
Ghizer
Gilgit
Diamer
Kohistan
Astor
Skardu
Ghanche

Upper Dir Swat
Lower Dir
Bajour
Shangla Batagram
Buner
Mansehra
Mohmand Malakand
Muzaffarabad
AJK
Charsada Mardan
Abbottabad
Peshawar
Swabi Haripur
Khyber
Nowshera
Bagh
Orakzai TAA Kohat
ISLAMABAD
Rawalakot
ISLAMABAD
Sudhnoti
Kurram
Hangu
Kohat
Attock
Kotli
Mirpur
TAA Labi Marwat
TAA Bannu Karak
Rawalpindi
Jhelum
Bhimber
N Waziristan
Bannu
Lakki Marwat
Mianwali
Chakwal
Gujrat
Mandi-Bhauddin
Sialkot
TAA Tank
Khushab
Sargoda
Gujranwala
Narowal
S Waziristan
Tank
Hafizabad
DI Khan
Bhakhar
Sheikhpura
Lahore
TAA DI Khan
Jhang
Faisalabad Nankana Sahib
Sheran
Zhob
Leiah
TT Singh
Kasur
Killa Saifullah
Musa Khel
PUNJAB
Okara
Killa Abdullah
Pishin
Ziarat
DG Khan
Khanewal
Sahiwal
Pakpatan
Quetta
Harnai
Lora Lai
Muzaffargarh
Vehari
Mastung
Sibi
Barkhan
Multan
Bhawalnagar
Mach
Kohlu
Lodhran
Kalat
Bolan
Dera Bugti
Rajanpur
Chagai
Nasirabad
Bahawalpur
Kharan
Jhal Magsi
Jaffarabad
RY Khan
BALOCHISTAN
Jacobabad
Kashmore
Washuk
Khuzdar
Shikarpur
Ghotki
Kamber
Larkana
Sukhar
Panjgur
Dadu
Nausheroferoz
Khairpur
Awaran
Nawabshah
Turbat/Ketch
Lasbella
Jamshoro
Matiari
Sanghar
Gawadar
SINDH
Tando Allahyar
Umar Kot
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Mirpur Khas
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Badin
Tharparkar
Thatta

AFGHANISTAN
KPK
FATA
IRAN
INDIA

ISLAMABAD

Arabian Ocean

FSA-2009

Food Absorption Levels by District
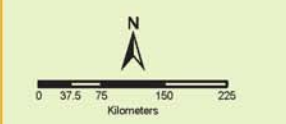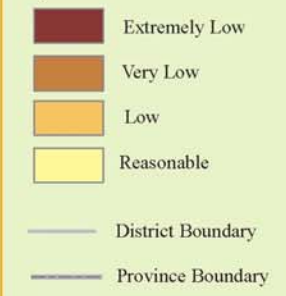
- Extremely Low
- Very Low
- Low
- Reasonable

District Boundary
Province Boundary

N

0   37.5   75   150   225
Kilometers

vam
food security analysis

World Food Programme

WFP-FS-III-09-16-PK

in the reasonable food absorption category. The number of better-off districts increased from 21 percent in 2003 to 24 percent in 2009, while the worst affected districts decreased from 47 percent to 21 percent. As a whole, Punjab has improved on health related indicators; however secondary data on some of the indicators need further research to be qualified. The most important is the improved water sources. As explained earlier, hand pumps and dug-wells are common in Punjab, which may have contaminated water because of inadequate septic tanks.

Food Absorption in Sindh   **Map 4.4.2**

4.4.2   Sindh

In Sindh province, the districts with low to extremely low food absorption are around 39 percent. The percentage of such districts was 65 in 2003. On the other hand, districts with reasonable food absorption decreased from 11 percent in 2003 to 4 percent in 2009.

4.4.3   Khyber Pakhtunkhwa

The food absorption indicators are quite severe for KPK. In the province 75 percent of the districts are in the extremely to low food absorption groups. The number of districts in this category doubled since 2003. Around 13 percent of the districts were in the reasonable food absorption group in 2003, while no district qualified to be in this group in 2009.

Food Absorption in KPK   **Map 4.4.3**
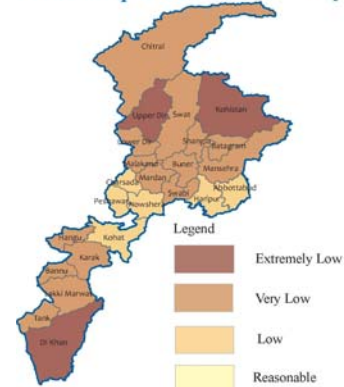
The province has been greatly impacted by militancy and military operations, resulting in large-scale damage and destruction of schools, health centers and social institutions, as well as high levels of uncertainty. The large-scale migration from the conflict zone to settled districts has also increased the vulnerability of the population in the province.

Food Absorption in FATA   **Map 4.4.4**

4.4.4   FATA

FATA, as expected, has poor food absorption. All agencies of FATA are in the extremely or low food absorption groups. The region has lost most of its health and education institutions due to continuous war and the presence of various warring groups.

4.4.5   Balochistan

Nearly 79 percent of the districts are in extremely or low food absorption group. This percentage increased from 65 percent in 2003 to the current level mentioned above. The reasonable food absorption districts declined from 3 to nil in the province. The province has become more vulnerable to food insecurity since 2003.

Food Absorption in Balochistan   **Map 4.4.5**
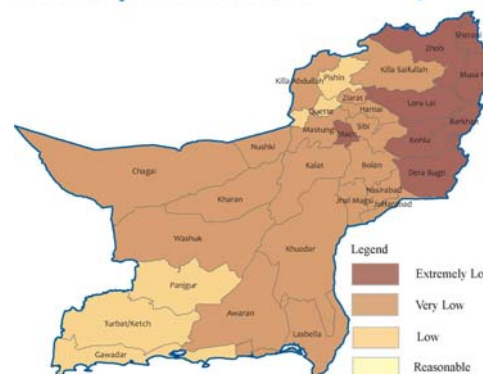
4.4.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

The situation in GB and PAK has deteriorated since 2003. All districts in both regions are in the extremely to low food absorption groups at present. In 2003, two districts were reasonably better, while five were classed as moderate in PAK. Similarly, one district in GB was moderate in 2003 in terms of food absorption. The change in status of food absorption since 2003 reveals a decline in water, sanitation, and health indicators in GB and PAK.

Food Absorption in Pakistan 2009
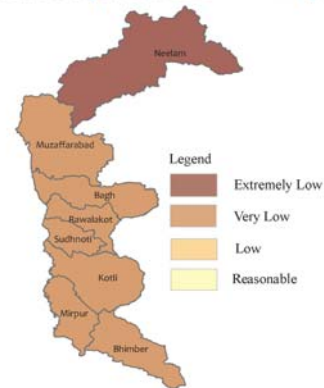
Rank	District Name	Province Name	Index	Rank	District Name	Province Name	Index
1	Dera Bugti	B	0.05	50	Kalat	B	0.54
2	Kohlu	B	0.10	51	Karak	KPK	0.55
3	N. Waziristan	FATA	0.13	52	Lakki Marwat	KPK	0.57
4	Diamer	GB	0.17	53	Killa Abdullah	B	0.57
5	Musakhel	B	0.20	54	Rawalakot (Poonch)	PAK	0.57
6	Muhmand	FATA	0.22	55	Sibi	B	0.57
7	Kohistan	KPK	0.22	56	Kharan	B	0.58
8	Loralai	B	0.23	57	Mansehra	KPK	0.58
9	Barkhan	B	0.25	58	D.G. Khan	P	0.58
10	Zhob	B	0.27	59	Lasbella	B	0.58
11	Orakzai	FATA	0.27	60	Lower Dir	KPK	0.59
12	Skardu (Baltistan)	GB	0.28	61	Hangu	KPK	0.60
13	S. Waziristan	FATA	0.30	62	Thatta	S	0.60
14	Ganche	GB	0.33	63	Muzaffargarh	P	0.60
15	Upper Dir	KPK	0.34	64	Tank	KPK	0.61
16	Ghizer	GB	0.35	65	Badin	S	0.61
17	Bajour	FATA	0.36	66	Ghotki	S	0.63
18	D.I. Khan	KPK	0.39	67	Rahimyar Khan	P	0.63
19	Neelam	PAK	0.40	68	Swat	KPK	0.65
20	Mach	B	0.42	69	Malakand P.A.	KPK	0.65
21	Muzaffarabad	PAK	0.42	70	Bannu	KPK	0.65
22	Mastung	B	0.43	71	Jhang	P	0.65
23	Kashmore	S	0.43	72	Swabi	KPK	0.66
24	Nasirabad	B	0.43	73	Chitral	KPK	0.66
25	Bolan	B	0.43	74	Pakpattan	P	0.67
26	Killa Saifullah	B	0.44	75	Okara	P	0.67
27	Kurram	FATA	0.44	76	Dadu	S	0.44
28	Jhal Magsi	B	0.44	77	Mardan	KPK	0.69
29	Jaffarabad	B	0.46	78	Bahawalnagar	P	0.69
30	Battagram	KPK	0.46	79	Pishin	B	0.70
31	Shangla	KPK	0.46	80	Panjgur	B	0.70
32	Kotli	PAK	0.46	81	Gawadar	B	0.70
33	Awaran	B	0.47	82	Pasni	B	0.70
34	Umar Kot	S	0.47	83	Bahawalpur	P	0.70
35	Gilgit	GB	0.47	84	Kohat	KPK	0.70
36	Ziarat	B	0.48	85	Khairpur	S	0.70
37	Noshki (Chagai)	B	0.49	86	Charsada	KPK	0.71
38	Dalbadin	B	0.49	87	Hafizabad	P	0.71
39	Mirpur Khas	S	0.50	88	Narowal	P	0.71
40	Bagh	PAK	0.51	89	Vehari	P	0.71
41	Rajanpur	P	0.51	90	Lodhran	P	0.72
42	Bhimber	PAK	0.51	91	Layyah	P	0.72
43	Khuzdar	B	0.51	92	Khanewal	P	0.73
44	Khyber	FATA	0.52	93	Sanghar	S	0.74
45	Sudhnooti	PAK	0.53	94	Peshawar	KPK	0.75
46	Tharparkar	S	0.53	95	Mianwali	P	0.75
47	Buner	KPK	0.53	96	Abbottabad	KPK	0.76
48	Mirpur	PAK	0.53	97	Nawabshah	S	0.76
49	Jacobabad	S	0.54	98	Bhakhar	P	0.76

Food Absorption in Pakistan 2009

Rank	District Name	Province Name	Index	Rank	District Name	Province Name	Index
99	Khushab	P	0.77	116	Hyderabad	S	0.85
100	Haripur	KPK	0.77	117	Jamshoro	S	0.85
101	Turbat (Kech)	B	0.77	118	Mitiari	S	0.75
102	Shikarpur	S	0.77	119	Tando Allahyar	S	0.78
103	Larkana	S	0.77	120	Tando M. Khan	S	0.85
104	Nowshera	KPK	0.77	121	Kamber	S	0.85
105	Sahiwal	P	0.78	122	Faisalabad	P	0.85
106	Multan	P	0.78	123	Sialkot	P	0.88
107	Kasur	P	0.79	124	Toba T. Singh	P	0.89
108	Attock	P	0.81	125	Gujrat	P	0.90
109	Mandi-Bahaudin	P	0.82	126	Jhelum	P	0.91
110	Naushero Feroz	S	0.83	127	Gujranwala	P	0.95
111	Sargodha	P	0.83	128	Karachi Central	S	0.96
112	Chakwal	P	0.84	129	ISLAMABAD	Capital	0.97
113	Sukhar	S	0.84	130	Rawalpindi	P	0.97
114	Quetta	B	0.84	131	Lahore	P	1.00
115	Sheikhpura	P	0.85				

KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

Female Literacy in Pakistan 2009

Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
1	Dera Bugti	B	1.00	50	Pishin	B	16.00
2	Diamer	GB	1.23	51	Charsada	KPK	17.00
3	Kohistan	KPK	3.00	52	Ganche	GB	17.26
4	Nasirabad	B	3.00	53	Shikarpur	S	18.00
5	Kohlu	B	3.00	54	Sibi	B	18.00
6	Musakhel	B	3.00	55	Bannu	KPK	19.00
7	Bajour	FATA	3.10	56	Mirpur Khas	S	19.00
8	Orakzai	FATA	3.40	57	Sanghar	S	20.00
9	Muhmand	FATA	3.50	58	Lower Dir	KPK	21.00
10	S. Waziristan	FATA	4.30	59	Swat	KPK	21.00
11	N. Waziristan	FATA	4.50	60	Nawabshah	S	21.00
12	Loralai	B	6.00	61	Kohat	KPK	22.00
13	Kashmore	S	6.50	62	Mardan	KPK	22.00
14	Jacobabad	S	7.00	63	Dadu	S	22.00
15	Tharparkar	S	7.00	64	Larkana	S	22.00
16	Jaffarabad	B	7.00	65	Khairpur	S	22.00
17	Jhal Magsi	B	7.00	66	Mastung	B	22.00
18	Killa Saifullah	B	7.00	67	Swabi	KPK	23.00
19	Kharan	B	8.00	68	Peshawar	KPK	23.00
20	Buner	KPK	9.00	69	Karak	KPK	24.00
21	Upper Dir	KPK	9.00	70	Malakand P.A.	KPK	24.00
22	Khuzdar	B	9.00	71	Rahimyar Khan	P	25.00
23	Lasbella	B	9.00	72	Killa Abdullah	B	25.00
24	Gawadar	B	9.00	73	Lodhran	P	26.00
25	Pasni	B	9.00	74	Nowshera	KPK	27.00
26	Zhob	B	9.00	75	Muzaffargarh	P	27.00
27	Shangla	KPK	10.00	76	D.G. Khan	P	28.00
28	Panjgur	B	10.00	77	Neelam	PAK	28.00
29	Barkhan	B	10.00	78	Chitral	KPK	29.00
30	Khyber	FATA	10.10	79	Naushero Feroz	S	30.00
31	Tank	KPK	11.00	80	Muzaffarabad	PAK	30.58
32	Awaran	B	11.00	81	Pakpattan	P	31.00
33	Hangu	KPK	12.00	82	Ghizer	GB	32.16
34	Noshki (Chagai)	B	12.00	83	Bahawalpur	P	33.00
35	Dalbadin	B	12.00	84	Jhang	P	34.00
36	Skardu (Baltistan)	GB	12.21	85	Okara	P	34.00
37	Lakki Marwat	KPK	13.00	86	Vehari	P	34.00
38	Thatta	S	13.00	87	Kotli	PAK	34.32
39	Ghotki	S	13.00	88	Gilgit	GB	34.98
40	Kalat	B	13.00	89	Khanewal	P	35.00
41	D.I. Khan	KPK	14.00	90	Mansehra	KPK	36.00
42	Mach	B	14.00	91	Bahawalnagar	P	37.00
43	Kurram	FATA	14.40	92	Bhakhar	P	37.00
44	Umar Kot	S	15.00	93	Sukhar	S	37.00
45	Battagram	KPK	16.00	94	Bagh	PAK	38.72
46	Rajanpur	P	16.00	95	Hafizabad	P	39.00
47	Badin	S	16.00	96	Kasur	P	39.00
48	Turbat (Kech)	B	16.00	97	Mianwali	P	39.00
49	Bolan	B	16.00	98	Quetta	B	39.00

Female Literacy in Pakistan 2009

Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
99	Mirpur	PAK	39.71	116	Sargodha	P	46.00
100	Bhimber	PAK	40.70	117	Attock	P	47.00
101	Layyah	P	41.00	118	Rawalakot (Poonch)	PAK	47.63
102	Ziarat	B	41.00	119	Sheikhpura	P	49.00
103	Sahiwal	P	42.00	120	Faisalabad	P	55.00
104	Khushab	P	42.00	121	Toba T. Singh	P	55.00
105	Hyderabad	S	42.00	122	Mandi-Bahaudin	P	55.00
106	Jamshoro	S	42.00	123	Sialkot	P	56.00
107	Mitiari	S	42.00	124	Chakwal	P	59.00
108	Tando Allahyar	S	42.00	125	Gujranwala	P	64.00
109	Tando M. Khan	S	42.00	126	Gujrat	P	64.00
110	Kamber	S	42.00	127	Lahore	P	70.00
111	Sudhnooti	PAK	42.24	128	Jhelum	P	70.00
112	Multan	P	43.00	129	Karachi Central	S	71.00
113	Abbottabad	KPK	44.00	130	Rawalpindi	P	72.00
114	Haripur	KPK	44.00	131	ISLAMABAD	Capital	74.00
115	Narowal	P	45.00				

KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

House without improved drinking water in Pakistan 2009

Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
1	N. Waziristan	FATA	100.00	50	Kalat	B	27.93
2	Kohlu	B	94.25	51	Awaran	B	26.20
3	Dera Bugti	B	92.03	52	Karak	KPK	25.05
4	Barkhan	B	88.39	53	Swat	KPK	24.36
5	Musakhel	B	85.33	54	Malakand P.A.	KPK	22.35
6	Skardu (Baltistan)	GB	79.00	55	Lasbella	B	21.71
7	Ghizer	GB	76.00	56	Hangu	KPK	21.67
8	Zhob	B	75.07	57	Abbottabad	KPK	19.82
9	Diamer	GB	75.00	58	Noshki (Chagai)	B	18.99
10	Kohistan	KPK	73.94	59	Dalbadin	B	18.99
11	Muhmand	FATA	72.70	60	Badin	S	17.51
12	Upper Dir	KPK	72.30	61	Tank	KPK	17.47
13	Muzaffarabad	PAK	72.20	62	Pishin	B	16.57
14	Mach	B	72.00	63	Kharan	B	16.29
15	Bolan	B	70.89	64	Lakki Marwat	KPK	15.26
16	Killa Abdullah	B	68.91	65	Buner	KPK	15.10
17	Kotli	PAK	68.80	66	Sanghar	S	13.60
18	Loralai	B	68.00	67	Panjgur	B	13.04
19	Ziarat	B	67.83	68	Mianwali	P	12.61
20	Bagh	PAK	64.80	69	D.G. Khan	P	11.69
21	Ganche	GB	64.00	70	Dadu	S	11.26
22	Mirpur	PAK	63.90	71	Karachi Central	S	11.00
23	Bhimber	PAK	63.00	72	Faisalabad	P	10.21
24	Bajour	FATA	62.90	73	Ghotki	S	10.00
25	Nasirabad	B	62.53	74	Jhelum	P	9.17
26	Orakzai	FATA	62.00	75	Gawadar	B	9.02
27	Gilgit	GB	62.00	76	Pasni	B	9.02
28	Sudhnooti	PAK	61.60	77	Quetta	B	9.00
29	Shangla	KPK	61.43	78	Larkana	S	8.72
30	D.I. Khan	KPK	57.06	79	Haripur	KPK	8.48
31	Rawalakot (Poonch)	PAK	56.70	80	ISLAMABAD	Capital	7.64
32	Jhal Magsi	B	53.53	81	Rajanpur	P	7.54
33	Jaffarabad	B	51.73	82	Bannu	KPK	6.33
34	Kurram	FATA	47.60	83	Kohat	KPK	5.61
35	S. Waziristan	FATA	45.50	84	Bahawalnagar	P	5.21
36	Mastung	B	45.46	85	Rawalpindi	P	4.62
37	Lower Dir	KPK	45.38	86	Tharparkar	S	4.21
38	Chitral	KPK	45.31	87	Nawabshah	S	4.21
39	Neelam	PAK	45.00	88	Attock	P	3.99
40	Umar Kot	S	43.00	89	Chakwal	P	3.84
41	Battagram	KPK	41.99	90	Lodhran	P	3.61
42	Mirpur Khas	S	41.30	91	Hyderabad	S	3.52
43	Sibi	B	36.83	92	Jamshoro	S	3.52
44	Mansehra	KPK	32.32	93	Mitiari	S	3.52
45	Khuzdar	B	31.93	94	Tando Allahyar	S	3.52
46	Killa Saifullah	B	30.91	95	Tando M. Khan	S	3.52
47	Kashmore	S	30.00	96	Kamber	S	3.52
48	Thatta	S	29.31	97	Jacobabad	S	3.21
49	Khyber	FATA	28.80	98	Toba T. Singh	P	2.89

Rank	District Name	Province Name	% age		Rank	District Name	Province Name	% age

FSA 2009   **Table 4.3**

House without improved drinking water in Pakistan 2009

Rank	District Name	Province Name	% age	Rank	District Name	Province Name	% age
99	Okara	P	2.57	116	Sialkot	P	0.58
100	Jhang	P	2.52	117	Naushero Feroz	S	0.58
101	Pakpattan	P	1.91	118	Muzaffargarh	P	0.55
102	Swabi	KPK	1.62	119	Vehari	P	0.52
103	Khushab	P	1.49	120	Nowshera	KPK	0.31
104	Bahawalpur	P	1.43	121	Bhakhar	P	0.27
105	Sahiwal	P	1.39	122	Gujranwala	P	0.25
106	Hafizabad	P	1.37	123	Gujrat	P	0.24
107	Rahimyar Khan	P	1.30	124	Lahore	P	0.22
108	Peshawar	KPK	1.27	125	Sargodha	P	0.22
109	Khanewal	P	1.23	126	Sukhar	S	0.11
110	Khairpur	S	1.12	127	Mardan	KPK	0.00
111	Multan	P	1.05	128	Charsada	KPK	0.00
112	Kasur	P	0.98	129	Layyah	P	0.00
113	Turbat (Kech)	B	0.79	130	Mandi-Bahaudin	P	0.00
114	Sheikhpura	P	0.59	131	Shikarpur	S	0.00
115	Narowal	P	0.58				

KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area

FSA 2009							Table 4.4
Houses without toilet facilities in Pakistan 2009							
Rank	**District Name**	**Province Name**	**% age**	**Rank**	**District Name**	**Province Name**	**% age**
1	Dera Bugti	B	94.00	50	Kotli	PAK	42.00
2	Kohlu	B	81.76	51	Sudhnooti	PAK	42.00
3	Diamer	GB	78.00	52	Swabi	KPK	41.87
4	Neelam	PAK	78.00	53	Vehari	P	41.65
5	S. Waziristan	FATA	75.20	54	Lakki Marwat	KPK	41.64
6	Loralai	B	73.89	55	Rawalakot (Poonch)	PAK	41.00
7	Muhmand	FATA	70.20	56	Bagh	PAK	40.00
8	Rajanpur	P	70.01	57	Bajour	FATA	38.10
9	N. Waziristan	FATA	68.00	58	Khanewal	P	38.09
10	Orakzai	FATA	67.20	59	Khyber	FATA	37.80
11	Kohistan	KPK	66.26	60	Mandi-Bahaudin	P	37.40
12	Ghizer	GB	66.00	61	Khushab	P	35.34
13	Muzaffargarh	P	65.20	62	Bannu	KPK	34.95
14	Ganche	GB	65.00	63	Kalat	B	34.93
15	Mastung	B	62.36	64	Khuzdar	B	34.00
16	Musakhel	B	61.94	65	Mirpur	PAK	34.00
17	D.G. Khan	P	60.79	66	Chakwal	P	33.00
18	Zhob	B	60.63	67	Mardan	KPK	32.70
19	Noshki (Chagai)	B	58.03	68	Multan	P	31.88
20	Dalbadin	B	58.03	69	Sahiwal	P	31.42
21	Kashmore	S	58.00	70	Bhakhar	P	30.85
22	Tharparkar	S	57.52	71	Kharan	B	30.52
23	Jhang	P	57.22	72	Badin	S	30.20
24	Awaran	B	56.84	73	Haripur	KPK	29.99
25	Skardu (Baltistan)	GB	56.00	74	Jhal Magsi	B	29.45
26	Narowal	P	55.74	75	Ghotki	S	28.82
27	Killa Saifullah	B	55.25	76	Khairpur	S	28.00
28	Jacobabad	S	55.13	77	Attock	P	27.78
29	Barkhan	B	52.69	78	Jaffarabad	B	27.53
30	Rahimyar Khan	P	52.24	79	Lodhran	P	27.43
31	Okara	P	51.54	80	Kasur	P	26.63
32	Karak	KPK	51.29	81	Gujrat	P	26.19
33	D.I. Khan	KPK	50.94	82	Dadu	S	25.93
34	Pakpattan	P	49.50	83	Bolan	B	25.48
35	Mansehra	KPK	49.32	84	Mach	B	25.48
36	Battagram	KPK	48.81	85	Tank	KPK	25.32
37	Buner	KPK	48.41	86	Malakand P.A.	KPK	25.27
38	Layyah	P	48.19	87	Lasbella	B	24.82
39	Gilgit	GB	48.00	88	Hangu	KPK	24.40
40	Hafizabad	P	47.66	89	Sargodha	P	24.08
41	Ziarat	B	47.65	90	Mianwali	P	23.56
42	Kurram	FATA	46.30	91	Sibi	B	23.53
43	Bahawalnagar	P	46.28	92	Kohat	KPK	23.49
44	Muzaffarabad	PAK	46.00	93	Sheikhpura	P	22.34
45	Umar Kot	S	44.00	94	Sialkot	P	22.24
46	Bhimber	PAK	43.00	95	Charsada	KPK	21.97
47	Mirpur Khas	S	42.41	96	Abbottabad	KPK	21.80
48	Bahawalpur	P	42.33	97	Jhelum	P	20.99
49	Upper Dir	KPK	42.23	98	Swat	KPK	19.37

FSA 2009							Table 4.4	
Houses without toilet facilities in Pakistan 2009								
Rank	**District Name**	**Province Name**	**% age**		**Rank**	**District Name**	**Province Name**	**% age**
99	Shangla	KPK	18.62		116	Nawabshah	S	8.58
100	Nasirabad	B	18.38		117	Sukhar	S	7.94
101	Faisalabad	P	18.28		118	Pishin	B	5.69
102	Thatta	S	17.51		119	Shikarpur	S	5.42
103	Peshawar	KPK	16.81		120	Karachi Central	S	5.00
104	Nowshera	KPK	15.45		121	Lahore	P	4.73
105	Lower Dir	KPK	14.56		122	Gawadar	B	4.24
106	Toba T. Singh	P	13.90		123	Pasni	B	4.24
107	Gujranwala	P	11.67		124	Naushero Feroz	S	3.21
108	Rawalpindi	P	11.31		125	Sanghar	S	2.77
109	ISLAMABAD	Capital	11.00		126	Chitral	KPK	2.25
110	Hyderabad	S	9.46		127	Turbat (Kech)	B	2.07
111	Jamshoro	S	9.46		128	Panjgur	B	1.30
112	Mitiari	S	9.46		129	Larkana	S	1.00
113	Tando Allahyar	S	9.46		130	Quetta	B	0.81
114	Tando M. Khan	S	9.46		131	Killa Abdullah	B	0.00
115	Kamber	S	9.46					
KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir FATA= Federally Administrated Tribal Area								

FOOD INSECURITY

Food insecurity is one of the most acute forms of poverty when poverty is calculated or defined on the basis of per capita caloric requirement of people (Jean-Luc Dubois, 2003). Physical and economic accesses to food along with biological absorption are determinant factors of food security. In developing and least developing countries physical and economic access and poor health are major constraints to overcome food insecurity. Security on these indicators is crucial to attain food security at a national, societal, community and household level. Success or failure of these indicators is determined by the social and economic structure of a group, a community, a society or a nation.

Countries with poor resources and marginalized economies have the largest number of poor and food insecure people. Angola, Haiti, Mozambique, Burundi and the Democratic Republic of Congo are among the most food insecure countries in the world.[37] Pakistan is one of them and ranked 11th at 'extreme risk' on the Food Security Risk Index (FSRI) ahead of Bangladesh and India which, though at 'high risk' (ranked 20th and 25th[38]), are better off than Pakistan. Developed countries including the United States, France, Canada, Germany and the Czech Republic, are among those at the least risk on the world food security risk ranking.[39]

The recent food crisis in 2007 and 2008 compelled global leaders to think differently to solve problems of food. This food crisis posed a very serious threat to peace and security in the world leading to riots in many countries.[40]

Food and fiscal crisis leading to high inflation during 2007, 2008 and 2009 increased poverty across the world. About 100 million people were pushed into the poverty group and now the absolute number stands at some 1.10 billion people, who are living below one dollar per day. Poverty is a major source of food vulnerability,[41] but not the only one.[42] Agricultural development, trade and foreign aid, as well as government policies on nutrition and health greatly affect food security.

5.1 Food Insecurity in Pakistan

Pakistan is passing through one of the most difficult times of its history. With the dislodging of the Taliban government in Afghanistan, Pakistan has become a hotspot of sporadic fighting/wars, especially in western parts of the country (FATA, KPK). The impact of this long-lasting war remains quite visible at various levels. Social development and livelihood sources are gradually depleting and many people have become refugees, and fertile agricultural land is becoming unproductive. A significant number of professional and skilled people have either migrated or died in the conflict. The impact could not be confined to the regions/ provinces (KPK, FATA) and have spread across the whole country.

The second major crisis in Pakistan is fuel or energy crisis, which has impacted all walks of life and means of production (including agriculture). Increase in power tariff and frequent power cuts due to power shortage, coupled with widespread reductions in income and employment sources, declining

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[37] http://www.montrealgazette.com/story_print.html?id=1972574&sponsor=
[38] Maplecroft, Britain
[39] http://74.125.153.132/search?q=cache:ysbFzXXPsvYJ:www.dawn.com/wps/wcm/connect/dawn-content-library/dawn/news/sci-tech/12-pakistan%2Bat%2Bextreme%2Bfood%2Bsecurity%2Brisk--bi-07+In+the+World+food+security+risk+ranking,+the+United+States+is+least+at+risk+followed+by+France,+Canada,+Germany+and+the+Czech+Republic,+according+to+the+study+by+Maplecroft,+a+Britain-based+firm+that+provides+risk+intelligence+for+businesses.&cd=2&hl=en&ct=clnk&gl=pk
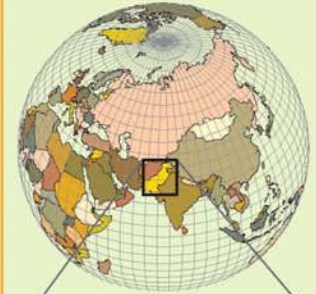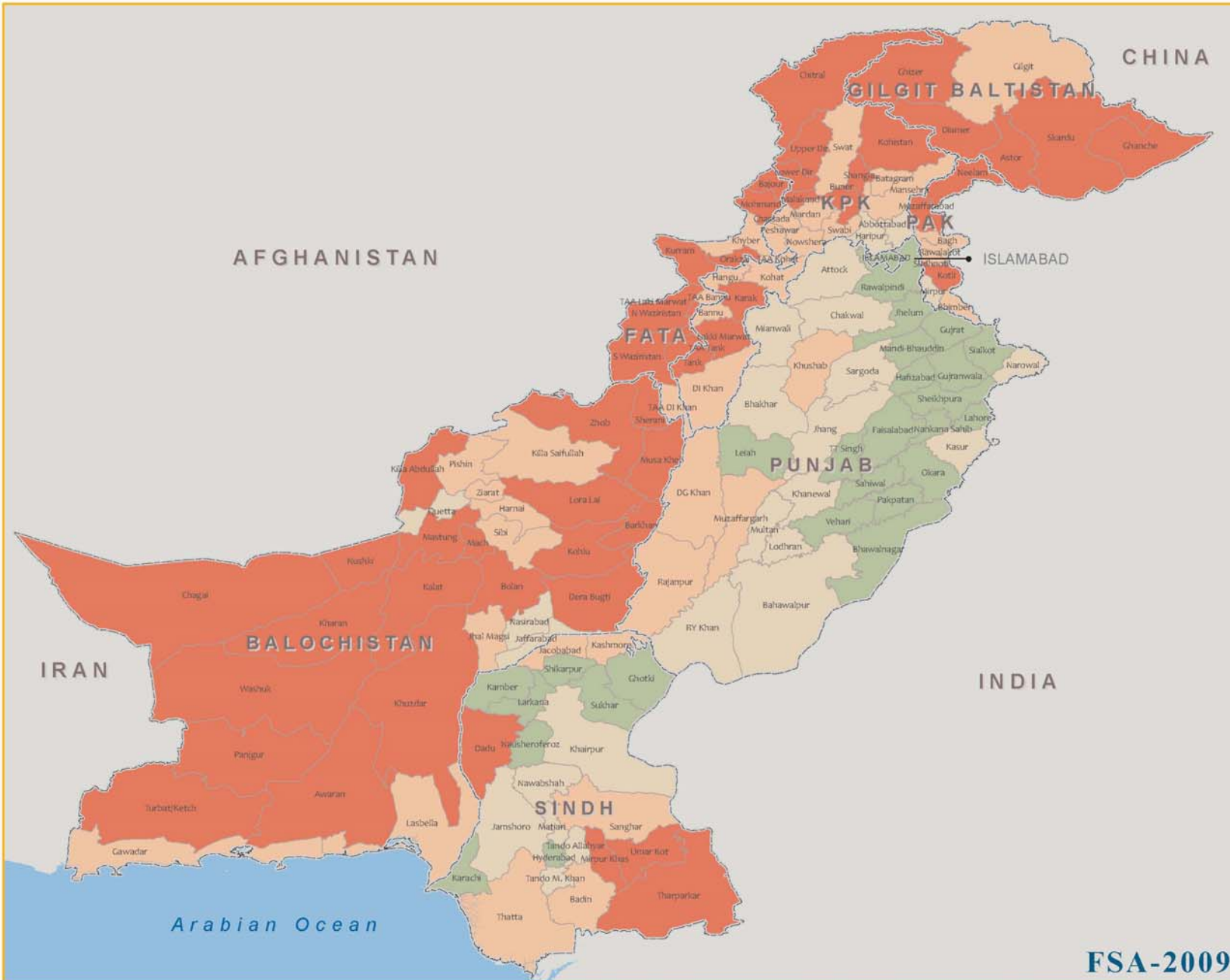[40] http://74.125.153.132/search?q=cache:99VQF0QhTZgJ:www.dawn.com/wps/wcm/connect/dawn-content-library/dawn/the-newspaper/front-page/pakistan-at-extreme-food-security-risk-899+Food+stress+jumped+towards+the+top+of+the+global+agenda+after+soaring+commodity+prices+in+2007+and+2008+sparked+riots+in+30+countries,+including+many+tottering+on+the+brink+of+severe+shortages+or+widespread+hunger.&cd=1&hl=en&ct=clnk&gl=pk
[41] http://74.125.153.132/search?q=cache:99VQF0QhTZgJ:www.dawn.com/wps/wcm/connect/dawn-content-library/dawn/the-newspaper/front-page/pakistan-at-extreme-food-security-risk-899+The+World+Bank+estimates+that+food+inflation+during+the+period+pushed+an+additional+100+million+people+into+deep+poverty,+on+top+of+a+billion+that+were+already+scraping+by+on+less+than+a+dollar+a+day.&cd=1&hl=en&ct=clnk&gl=pk
[42] http://www.iwmi.cgiar.org/news_room/pdf/DailyTimes.pdf

Food Insecurity in Pakistan - 2009

Map 5.1

CHINA

GILGIT BALTISTAN

Chitral | Ghizer | Gilgit

Diamer | Skardu | Ghanche

Kohistan | Astor

Upper Dir, Swat | Shangla | Batagram | Neelam

Lower Dir | Buner | Mansehra

Bajour | Malakand | KPK | Muzaffarabad

Mohmand | Mardan | PAK

Charsadda | Abbottabad | Haripur | Bagh

Khyber | Peshawar | Swabi | Nowshera | Rawalakot

Kurram | Nowshera | ISLAMABAD

Orakzai | TAA Kohat | ISLAMABAD | Sudhnoti

Rangu | Kohat | Attock | Kotli

TAA Lali Marwat | Karak | Rawalpindi | Mirpur

N Waziristan | Bannu | Jhelum | Bhimber

FATA | Mianwali | Chakwal | Gujrat

Middi Mianwal | Lakki | Tank | Sialkot

S Waziristan | Khushab | Mandi Bhauddin | Narowal

DI Khan | Sargoda | Hafizabad | Gujranwala

TAA DI Khan | Sheikhpura | Lahore

Zhob | Sherani | Bhakhar | Jhang | Faisalabad | Nankana Sahib

Killa Saifullah | Leiah | TT Singh | Kasur

Musa Khel | DG Khan | Okara

Kila Abdullah | Pishin | PUNJAB | Sahiwal

Ziarat | Lora Lai | Khanewal | Pakpatan

Quetta | Harnai | Barkhan | Muzaffargarh | Vehari

Mastung | Sibi | Multan | Bhawalnagar

Mach | Kohlu | Lodhran

Kalat | Bolan | Rajanpur | Bahawalpur

Chagai | Dera Bugti | RY Khan

Kharan | Nasirabad

Jhal Magsi | Jaffarabad | Kashmore

BALOCHISTAN | Tacobabad

Washuk | Shikarpur | Ghotki

Kamber | Larkana | Sukhar

Panjgur | Khuzdar | Nausheroferoz | Khairpur

Awaran | Dadu | Nawabshah

Turbat/Ketch | Jamshoro | Matiari | Sanghar

Lasbella | Tando Allahyar | Umer Kot

Gawadar | Hyderabad | Mirpur Khas

Karachi | Tando M. Khan | Thparkar

SINDH | Badin

Thatta

AFGHANISTAN

IRAN

INDIA

ISLAMABAD

Arabian Ocean

FSA-2009

vam
food security analysis

World Food Programme

Food Insecurity Levels by District

- Extremely Food Insecure
- Food Insecure
- Borderline
- Secure
- District Boundary
- Province Boundary
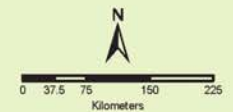
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0 37.5 75   150   225
Kilometers

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The designations employed and the presentation of material in this publication donot imply the expression of any opinion whatsoevero n the part of the World Food Programme (WFP) concerning the legal status of any country, territory, city or area or of its frontiers or boundaries

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growth in industrial and agricultural production, increase in prices of essential commodities, and the reduction of state subsidies due to international debt conditionalities has not only affected physical and economic availability of food, but also affected the government's and household's priorities in spending. Resultantly, both at the household as well as at state level, expenditures on health, education, improved drinking water, and sanitation are least important on the list of priorities thus negatively affecting the absorption of food. The overall impact of all these factors is increased food insecurity in Pakistan.

As explained in the section on methodology (chapter 6) the country is divided into four categories, vis-à-vis food security; i.e., extremely insecure; insecure; at the borderline, and reasonably secure. The results show that Pakistan at the household, district, province and country level has become more food insecure compared to 2003. Many districts became food insecure, while others became extremely food insecure. The food security situation at the household level is much more severe. The widening gap between income and market prices has compelled many households to reduce their food intake or opt for cheaper food sources

At the country level, 45 districts (34 percent) are extremely food insecure, while this number was 38 districts during 2003. The increase in extremely food insecure districts depicts an alarming situation, where people could not be able to meet their requirements adequately. In the second grouping, food insecure, the number of districts more than doubled in 2009 compared to 2003 (from 16 to 35). On the other hand, the food secure districts reduced from 34 percent to 20 percent. The decline in food secure districts is quite significant. This means that even the better off districts are losing the pace of development where many people cannot earn sufficient money, or cannot have access to water and sanitation (WATSAN) facilities to be food secure.

FSA 2009	Food Security	Chart 5.1
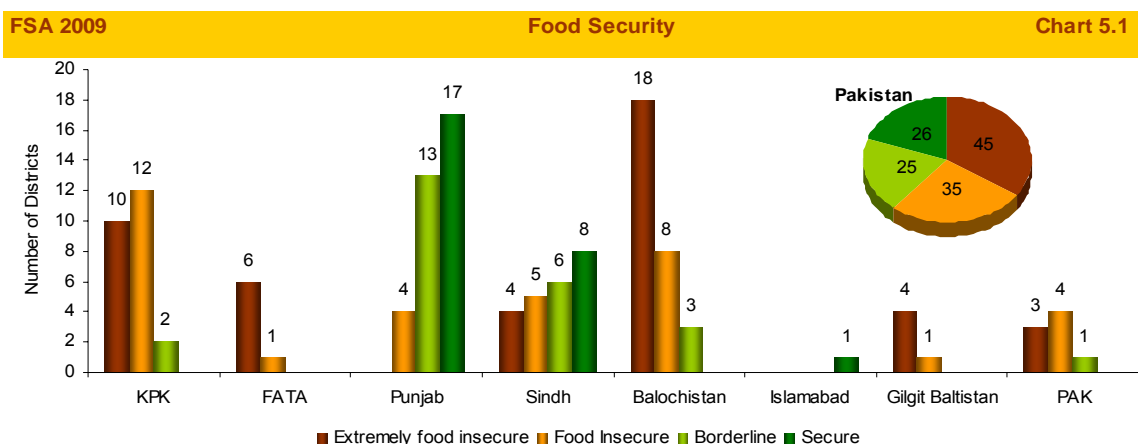
Many districts that were on the borderline in 2003, have moved down to the food insecure group in 2009. This shift indicates that the borderline group is losing out its resilience to external and internal shocks and the current 25 borderline districts are also prone to turn food insecure if their livelihood assets and activities, and WATSAN facilities are not improved.

Food Insecurity in Punjab   Map 5.1.1

Legend
Extremely Food Insecure
Food Insecure
Borderline
Secure
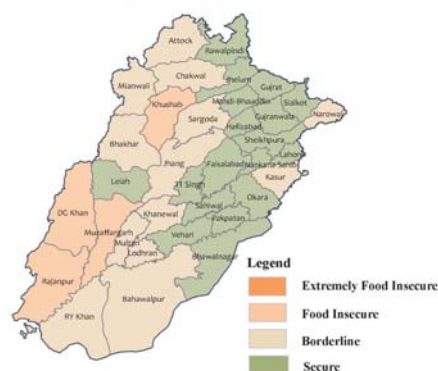
The state of food insecurity is not uniform in the country, as the current study reveals. Some of the provinces/regions are affected more severely than others.

5.1.1   Punjab

Nearly 12 percent of the districts in the province are food insecure, while 38 percent are at the borderline. The districts on the "borderline" more than doubled (6 to 13) since 2003. There is no district in the extremely food

insecure group. The number of food secure districts decreased from 24 to 17 compared to 2003. Punjab, being the bread basket of Pakistan and host to many industrial units, suffered a severe setback in the past few years. The industrial crisis due to power shortages, increases in production costs and insignificant growth in income of households are some of the reasons for increasing vulnerability to food insecurity.

Districts of D.G. Khan, Muzaffargarh, Rajanpur and Khoshab are in the food insecure group. The food secure districts are Bahawalnagar, Layyah, Faisalabad, Toba T. Singh, Gujranwala, Gujrat, Hafizabad, Mandi-Bahaudin, Sialkot, Lahore, Okara, Sheikhopura, Pakpattan, Sahiwal, Vehari, Jhelum and Rawalpindi.

Food Insecurity in Sindh — Map 5.1.2

5.1.2   Sindh

In Sindh, the number of extremely food insecure districts increased from one to four during 2009 in comparison to 2003. Similarly, the food insecure districts also increased from 3 to 5 during the same period. Food insecurity in the province is on the increase.

On the other hand, the number of food secure districts increased from 6 to 8 during 2009 as compared to 2003.

5.1.3   Khyber Pakhtunkhwa

The number of districts in the first two categories (extremely food insecure and food insecure) increased from 14 to 22 since 2003. Due to the deteriorating security situation in KPK, it remained the worst price hike hit province after FATA since 2007.

The shortage of food in markets, comparatively higher prices of food and depleting livelihood sources played a significant role in making people food insecure. A sharp decline in the level of food security has created many social problems in the area.
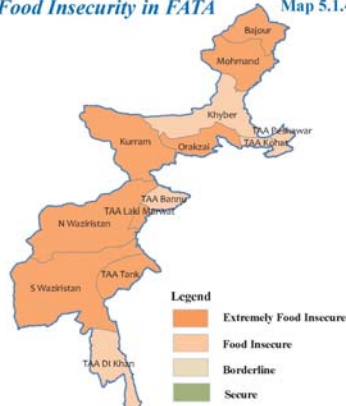

Food Insecurity in KPK — Map 5.1.3
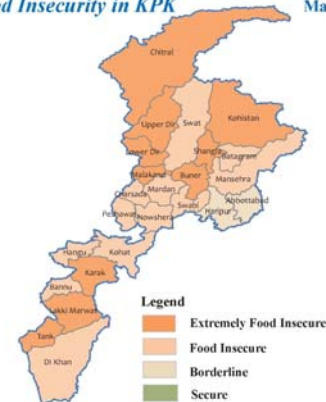
The majority of districts (92%) are in the low to extremely low food insecure groups. No district qualified for the food secure group during 2009.

Food Insecurity in FATA — Map 5.1.4

5.1.4   FATA

The whole of the FATA region is food insecure and no agency qualified for even borderline food security. FATA has the highest level of food insecurity compared to other regions of the country. All development indicators are at their lowest in FATA. Livelihood opportunities are rare, while most of the social institutions are practically nonfunctional. Most educated people migrate to urban areas of the country for livelihoods, while many migrated because of war.

Food Insecurity in Balochistan   Map 5.1.5

5.1.5   Balochistan

Around 90 percent of the districts in Balochistan are in the extremely to low food insecurity groups. More than 10 percent of the districts are in the borderline group. No district in Balochistan qualifies for the food secure group. The number of food insecure districts in Balochistan increased from 18 to 26, while the food secure districts (4) moved to the borderline group in 2009 as compared to 2003.

5.1.6   Pakistan Administered Kashmir (PAK) and Gilgit-Baltistan (GB) regions

Around 90 percent of the districts in Balochistan are in the extremely to low food insecurity groups. More than 10 percent of the districts are in the borderline group. No district in Balochistan qualifies to be categorized as food secure. The number of food insecure districts in Balochistan increased from 18 to 26, while the food secure districts (4) moved to the borderline group in 2009 as compared to 2003.

Food Insecurity in Gilgit Baltistan   Map 5.1.6   *Food Insecurity in PAK*   Map 5.1.7
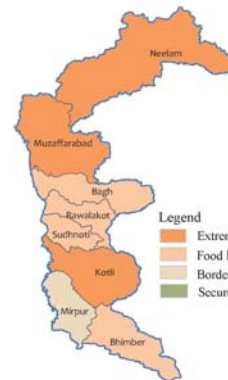
5.2 Trend in food insecurity

Since 2003, many districts moved to the extremely food insecure group. During the current study, 45 districts are found to be extremely food insecure. The trend of districts turning from secure to food insecure and from low food insecurity to extreme food insecurity continues to date. Districts in all provinces/regions except Punjab fall in the extremely food insure group. Districts of Lakki Marwat, Karak, malakand in KPK, Umerkot, Mirpur Khas, Dadu in Sindh, Dalbadin, Panjgur, Noshki, Loralai, Mastung, Turbat and Mach in Balocistan as well as Neelum, Muzaffarabd and Kotli in Pakistan Administered Kashmir are newly added to the extremely food insecure group.

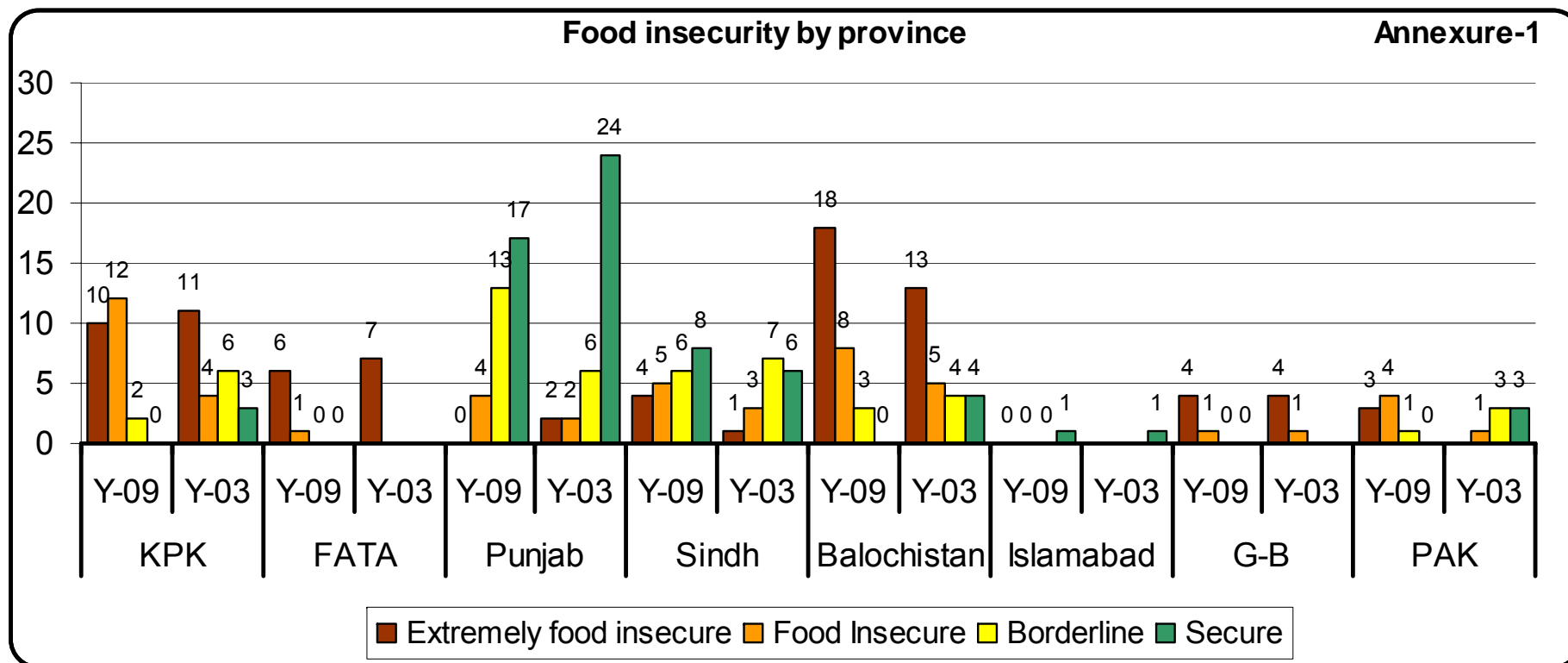| FSA 2009			Table 5.1
Trend of Food Insecurity in Pakistan			
District Name	Province Name	Rank 2009	Rank 2003
Dera Bugti	B	1	2
Musakhel	B	2	3
Upper Dir	KPK	3	15
N. Waziristan	FATA	4	4
Kohistan	KPK	5	7
Muhmand	FATA	6	16
Dalbadin	B	7	
S. Waziristan	FATA	8	5
Orakzai	FATA	9	21
Panjgur	B	10	35
Noshki (Chagai)	B	11	56
Loralai	B	12	63
Bajour	FATA	13	23
Mach	B	14	
Awaran	B	15	32
Zhob	B	16	12
Tharparkar	S	17	1
Lakki Marwat	KPK	18	59
Diamer	GB	19	11
Bolan	B	20	14
Mastung	B	21	68
Lower Dir	KPK	22	36
Killa Abdullah	B	23	24
Kalat	B	24	29
Khuzdar	B	25	25
Karak	KPK	26	42
Neelam	PAK	27	
Ghizer	GB	28	38
Ganche	GB	29	10
Skardu (Baltistan)	GB	30	13
Barkhan	B	31	28
Kohlu	B	32	18
Muzaffarabad	PAK	33	41
Turbat (Kech)	B	34	30
Malakand P.A.	KPK	35	69
Shangla	KPK	36	8
Chitral	KPK	37	37
Buner	KPK	38	49
Kharan	B	39	6
Kotli	PAK	40	77
Tank	KPK	41	33
Umar Kot	S	42	34
Mirpur Khas	S	43	71
Dadu	S	44	80
Kurram	FATA	45	19

5.3 Intensity of food insecurity in Pakistan

The intensity of food insecurity in the country has increased since 2003. Many households have become insecure due to deteriorating socio-economic conditions. The increase in prices of food commodities has pushed many people below the food security line. Provinces with wheat flour crises showed a sharp increase in food insecurity.

Across the country, 48.6 percent of the population is food insecure, with various degrees of food insecurity. Of the total food insecure population *22.4 percent are extremely food insecure* in the country.

FSA 2009	Table 5.2
Food Insecure Population in Pakistan 2009	
Province	**% Food insecure**
KPK	56.2
Punjab	38.5
Sindh	44.3
Balochistan	61.2
FATA	67.7
Pak Administered Kashmir	46.9
Gilgit Baltistan	52.4
Islamabad	23.6

FATA has the highest percentage of food insecure population (67.7 percent) followed by Balochistan (61.2 percent) and KPK (56.2 percent). The lowest percentage of food insecure population is in Islamabad. Among the districts, Dera Bughti has the highest percentage of food insecure people (82.4 percent)

Food insecurity by province   **Annexure-1**

Food insecurity by province chart showing Extremely food insecure, Food Insecure, Borderline, and Secure categories for Y-09 and Y-03 across KPK, FATA, Punjab, Sindh, Balochistan, Islamabad, G-B, and PAK.

■ Extremely food insecure ■ Food Insecure □ Borderline ■ Secure

FSA 2009								Table 5.3
Food Insecure Population in Pakistan 2009								
SN	Province ID	Province	District Name	%age Food Insecure	SN	Province ID	Province	District Name	%age Food Insecure
1	1	**KPK**	Bannu	52.1	66	4	**Sindh**	Tharparkar	53.4
2	1		Lakki Marwat	66.3	67	4		Umar Kot	59.4
3	1		D.I. Khan	56.0	68	4		Mirpur Khas	38.6
4	1		Tank	60.0	69	4		Dadu	49.2
5	1		Abbottabad	40.6	70	4		Kashmore	40.8
6	1		Battagram	50.4	71	4		Badin	40.0
7	1		Haripur	40.2	72	4		Jacobabad	38.7
8	1		Kohistan	73.5	73	4		Thatta	39.1
9	1		Mansehra	46.7	74	4		Sanghar	25.0
10	1		Hangu	54.2	75	4		Khairpur	50.4
11	1		Karak	63.7	76	4		Jamshoro	36.0
12	1		Kohat	52.6	77	4		Mitiari	33.5
13	1		Buner	60.6	78	4		Nawabshah	57.5
14	1		Chitral	60.7	79	4		Tando M. Khan	34.3
15	1		Lower Dir	64.5	80	4		Tando Allahyar	59.5
16	1		Malakand P.A.	61.0	81	4		Hyderabad	46.6
17	1		Shangla	60.9	82	4		Sukhar	66.9
18	1		Swat	54.2	83	4		Ghotki	59.8
19	1		Upper Dir	75.6	84	4		Larkana	37.3
20	1		Mardan	51.3	85	4		Kamber	44.1
21	1		Swabi	53.0	86	4		Shikarpur	32.4
22	1		Charsada	54.7	87	4		Naushero Feroz	39.3
23	1		Nowshera	47.5	88	4		Karachi	38.0
24	1		Peshawar	49.3	89	5	**Balochistan**	Awaran	67.2
25	2	**FATA**	Bajour	67.9	90	5		Kalat	64.2
26	2		Khyber	57.4	91	5		Kharan	60.6
27	2		Kurram	59.4	92	5		Khuzdar	63.9
28	2		Muhmand	73.0	93	5		Lasbella	49.8
29	2		N. Waziristan	74.4	94	5		Mastung	65.0
30	2		Orakzai	70.8	95	5		Gawadar	53.6
31	2		S. Waziristan	71.0	96	5		Turbat (Kech)	61.2
32	3	**Punjab**	Bahawalnagar	33.3	97	5		Panjgur	69.9
33	3		Bahawalpur	43.6	98	5		Pasni	54.7
34	3		Rahimyar Khan	39.0	99	5		Bolan	65.2
35	3		D.G. Khan	55.0	100	5		Jaffarabad	41.6
36	3		Layyah	37.4	101	5		Jhal Magsi	52.1
37	3		Muzaffargarh	49.9	102	5		Nasirabad	41.4
38	3		Rajanpur	55.3	103	5		Mach	67.6
39	3		Faisalabad	31.9	104	5		Noshki (Chagai)	69.6
40	3		Jhang	38.7	105	5		Killa Abdullah	64.3
41	3		Toba T. Singh	29.9	106	5		Pishin	58.2
42	3		Gujranwala	37.0	107	5		Quetta	40.9
43	3		Gujrat	38.0	108	5		Dalbadin	71.4
44	3		Hafizabad	34.3	109	5		Dera Bugti	82.4
45	3		Mandi-Bahaudin	31.6	110	5		Kohlu	62.2
46	3		Narowal	43.5	111	5		Sibi	56.0
47	3		Sialkot	29.2	112	5		Ziarat	57.9
48	3		Kasur	40.2	113	5		Barkhan	62.2
49	3		Lahore	29.1	114	5		Killa Saifullah	57.2
50	3		Okara	36.1	115	5		Loralai	68.8

FSA 2009								Table 5.3	
Food Insecure Population in Pakistan 2009									
SN	Province ID	Province	District Name	%age Food Insecure	SN	Province ID	Province	District Name	%age Food Insecure
51	3		Sheikhpura	35.8	116	5		Musakhel	78.5
52	3		Khanewal	39.2	117	5		Zhob	67.0
53	3		Lodhran	39.0	118	6	**Capital**	ISLAMABAD	23.6
54	3		Multan	44.6	119	7	**G-B**	Skardu (Baltistan)	62.3
55	3		Pakpattan	29.9	120	7		Diamer	65.9
56	3		Sahiwal	33.8	121	7		Ganche	62.7
57	3		Vehari	35.4	122	7		Ghizer	63.4
58	3		Attock	41.9	123	7		Gilgit	57.7
59	3		Chakwal	41.7	124	8	**PAK**	Bhimber	58.1
60	3		Jhelum	34.3	125	8		Kotli	60.3
61	3		Rawalpindi	28.6	126	8		Mirpur	44.2
62	3		Bhakhar	40.8	127	8		Bagh	59.3
63	3		Khushab	48.3	128	8		Muzaffarabad	61.3
64	3		Mianwali	44.0	129	8		Poonch	59.3
65	3		Sargodha	39.9	130	8		Sudhnooti	59.3
					131	8		Neelam	63.7
								PAKISTAN	**48.6**

| FSA 2009 | | | | | | | | | | Table 5.4 |

Food Insecurity in Pakistan 2009

Rank	District Name	Province Name	Index	Food Insecurity Groups	Rank	District Name	Province Name	Index	Food Insecurity Groups
1	Dera Bugti	B	0.23	1	50	Bhimber	PAK	0.55	2
2	Musakhel	B	0.28	1	51	Ziarat	B	0.55	2
3	Upper Dir	KPK	0.32	1	52	Gilgit	GB	0.55	2
4	N. Waziristan	FATA	0.33	1	53	Kashmore	S	0.56	2
5	Kohistan	KPK	0.35	1	54	Khyber	FATA	0.56	2
6	Muhmand	FATA	0.35	1	55	Killa Saifullah	B	0.56	2
7	Dalbadin	B	0.37	1	56	Sibi	B	0.57	2
8	S. Waziristan	FATA	0.38	1	57	D.I. Khan	KPK	0.58	2
9	Orakzai	FATA	0.38	1	58	Mirpur	PAK	0.73	3
10	Panjgur	B	0.39	1	59	Rajanpur	P	0.58	2
11	Noshki (Chagai)	B	0.40	1	60	D.G. Khan	P	0.59	2
12	Loralai	B	0.41	1	61	Charsada	KPK	0.59	2
13	Bajour	FATA	0.42	1	62	Pasni	B	0.59	2
14	Mach	B	0.42	1	63	Hangu	KPK	0.60	2
15	Awaran	B	0.43	1	64	Swat	KPK	0.60	2
16	Zhob	B	0.43	1	65	Gawadar	B	0.61	2
17	Tharparkar	S	0.43	1	66	Badin	S	0.61	2
18	Lakki Marwat	KPK	0.44	1	67	Swabi	KPK	0.61	2
19	Diamer	GB	0.45	1	68	Kohat	KPK	0.62	2
20	Bolan	B	0.46	1	69	Bannu	KPK	0.63	2
21	Mastung	B	0.46	1	70	Jhal Magsi	B	0.63	2
22	Lower Dir	KPK	0.46	1	71	Mardan	KPK	0.64	2
23	Killa Abdullah	B	0.47	1	72	Jacobabad	S	0.65	2
24	Kalat	B	0.47	1	73	Battagram	KPK	0.65	2
25	Khuzdar	B	0.47	1	74	Muzaffargarh	P	0.66	2
26	Karak	KPK	0.47	1	75	Lasbella	B	0.66	2
27	Neelam	PAK	0.47	1	76	Peshawar	KPK	0.66	2
28	Ghizer	GB	0.48	1	77	Thatta	S	0.66	2
29	Ganche	GB	0.49	1	78	Khushab	P	0.68	2
30	Skardu (Baltistan)	GB	0.49	1	79	Nowshera	KPK	0.69	2
31	Barkhan	B	0.49	1	80	Mansehra	KPK	0.70	2
32	Kohlu	B	0.49	1	81	Sanghar	S	0.70	2
33	Muzaffarabad	PAK	0.51	1	82	Multan	P	0.72	3
34	Turbat (Kech)	B	0.51	1	83	Khairpur	S	0.73	3
35	Malakand P.A.	KPK	0.51	1	84	Mianwali	P	0.73	3
36	Shangla	KPK	0.51	1	85	Bahawalpur	P	0.74	3
37	Chitral	KPK	0.51	1	86	Narowal	P	0.74	3
38	Buner	KPK	0.51	1	87	Attock	P	0.76	3
39	Kharan	B	0.51	1	88	Chakwal	P	0.76	3
40	Kotli	PAK	0.52	1	89	Jaffarabad	B	0.76	3
41	Tank	KPK	0.52	1	90	Nasirabad	B	0.77	3
42	Umar Kot	S	0.53	1	91	Quetta	B	0.77	3
43	Mirpur Khas	S	0.53	1	92	Jamshoro	S	0.77	3
44	Dadu	S	0.53	1	93	Bhakhar	P	0.77	3
45	Kurram	FATA	0.53	1	94	Abbottabad	KPK	0.78	3
46	Poonch	PAK	0.53	2	95	Haripur	KPK	0.78	3
47	Sudhnooti	PAK	0.53	2	96	Kasur	P	0.78	3
48	Bagh	PAK	0.53	2	97	Mitiari	S	0.78	3
49	Pishin	B	0.55	2	98	Sargodha	P	0.79	3

FSA 2009 **Table 5.4**

Food Insecurity in Pakistan 2009

Rank	District Name	Province Name	Index	Food Insecurity Groups	Rank	District Name	Province Name	Index	Food Insecurity Groups
99	Nawabshah	S	0.79	3	116	Kamber	S	0.86	4
100	Khanewal	P	0.80	3	117	Hafizabad	P	0.86	4
101	Tando M. Khan	S	0.80	3	118	Jhelum	P	0.86	4
102	Lodhran	P	0.80	3	119	Sahiwal	P	0.87	4
103	Rahimyar Khan	P	0.80	3	120	Shikarpur	S	0.87	4
104	Tando Allahyar	S	0.80	3	121	Bahawalnagar	P	0.87	4
105	Jhang	P	0.80	3	122	Naushero Feroz	S	0.88	4
106	Hyderabad	S	0.80	4	123	Faisalabad	P	0.89	4
107	Sukhar	S	0.81	4	124	Mandi-Bahaudin	P	0.89	4
108	Gujrat	P	0.81	4	125	Toba T. Singh	P	0.92	4
109	Layyah	P	0.82	4	126	Pakpattan	P	0.92	4
110	Ghotki	S	0.82	4	127	Sialkot	P	0.93	4
111	Gujranwala	P	0.82	4	128	Lahore	P	0.93	4
112	Okara	P	0.84	4	129	Rawalpindi	P	0.93	4
113	Larkana	S	0.84	4	130	Karachi	S	0.97	4
114	Sheikhpura	P	0.84	4	131	ISLAMABAD	Capital	1.00	4
115	Vehari	P	0.84	4					

1=Extremely food insecure,2=Food insecure,3=Borderline,4=Secure
KPK=Khyber Pakhtunkhwa ,P=Punjab,S=Sindh,B=Balochistan,GB=Gilgit Baltistan,PAK= Pakistan Administered Kashmir, FATA= Federally Administrated Tribal Area

SOCIAL DIMENSIONS OF FOOD INSECURITY IN PAKISTAN

As mentioned in the previous sections, Pakistan is facing multiple challenges (6F crises) and the government of Pakistan is trying to respond to these challenges. However it has to prioritize among individual security, national security, regional security and global security. Pakistan has been ruled by military governments for half its life; many allege that barring some exceptions, much of the other half was ruled by military backed civil governments. The huge influence of the armed forces at the key decision making levels has resulted in national security taking priority over all other security concerns. Achieving "defence oriented" national security has been the ultimate guiding principle for successive governments of Pakistan, and in the "national security interest" they often have been willing to compromise on individual security. To add to this, the military has a complete monopoly over what it defines as national security interests.

One needs also to understand that like the "six F crises," the four levels of security mentioned above are not mutually exclusive; rather they are interconnected and cumulative. Their interconnectedness has made it extremely difficult to address issues of national security when other levels of security are being compromised.

Groups of varying colorations (such as religious militia, ethnic groups, and nationalist groups) find it extremely easy to create parallel states within the state, when the "national" state fails to take care of individual security and cannot provide basic services such as food, shelter, health, and education to everyone. Growing militancy in Pakistan can be understood in this context. Generally "militants" are perceived to be Islamic hard-liners who want to implement a rigid version of Islam. However, many "militants" are those who are outraged by chronic hunger, endemic corruption, unfair courts, and the government's inability to supply basic education or other services. It is also pertinent to mention that in Swat some Talibans were redistributing land forcibly. Such classical "Robin Hood style" strategies enable the Taliban to earn the sympathies of local communities in many instances.

Sociopolitical instability in Pakistan emerging from individual insecurity may affect regional as well as global security. This situation provides an excuse to external actors for interference—such as the drone attacks by U.S. forces.

6.1 Food Insecurity and Militancy

Pakistan is a declared nuclear power. The Pakistan military is the world's seventh largest armed force, and is equipped to address the most serious threats to itself. A strong defence has helped in achieving national security, but security at the individual level still remains questionable. Food inflation in Pakistan reached its peak in 2007-08 when it soared to 36 percent. Steady increases in the number of food-insecure individuals have led to class conflict between "haves" and "have-nots" (those that are food secure and those that are not) and violence, which results in social instability.

As observed in chapter 5, almost half of the population (48.6 percent) in Pakistan is food insecure. Similarly 80 out of 131 districts of Pakistan are food insecure. The 10 most food insecure districts include Dera Bugti (one of the most troubled districts in Balochistan), Musa Khel, Upper Dir, North Waziristan, Kohistan, Muhmand, Dalbidin, South Waziristan, Orakzai, Panjgur. The international community might not have heard of these districts in the context of food insecurity. However, many people would easily recall that these districts are perceived as the "axis of evil" within Pakistan. There is no empirical evidence to prove that food insecurity is the only cause of militancy in the above mentioned districts. However it is an established fact that food insecurity leads to violence and conflict.

Recognising food insecurity as a major cause of militancy and violence, many analysts believe that in Pakistan some extremist forces are exploiting the (anti-elite) feelings of lower and lower middle class food insecure people, motivating their unemployed youth to commit heinous crimes such as suicide

attacks against innocent people. Here it is pertinent to mention that most suicide bombers have been young (between 15-24 years of age).

Compromised security at one level (individual security in our case) compromises security at each of the other levels (national, regional, and global). Food insecuirty heightens the potential for conflict, which translates into a security threat. Individual cases of relative hunger, marginalization, and poverty can turn into collective deprivation. This collective deprivation, when it gets an identity, be it creed, gender, class, or nationality, always leads to class conflict and ultimately to violence.

The Baloch national movement offers an example here. Dera Bugti in Balochistan is the most food insecure district in Pakistan. Natural gas was discovered in Dera Bugti in the early 1950s, and since the 1960s it has been supplied to the rest of Pakistan for domestic and industrial consumption. It was only in 1984 that Quetta, the capital of Balochistan, was supplied natural gas. Chronic food insecurity in Balochistan and especially in its gas producing districts aggravated the sense of marginalisation and deprivation to an extent where many Balochis started believing that other provinces were exploiting their resources. As a consequence, Balochistan has seen the rise of many nationalist movements.

Here one must mention that while food insecurity seems to be directly linked to violence in most cases, all types of violence may not necessarily originate from food insecurity and poverty. Karachi is a special case in Pakistan where conflict is political and only recently ethno-political.

6.2 "Extraordinary Behaviors"

The point that one needs to understand is that a high prevalence of food insecurity leads to intensified "extraordinary behaviour" of individuals. These extraordinary behaviours include (but are not exclusive to anti-social activities, working as bonded labour, selling of kidneys, selling of children, and suicides. We have estiamted that 48.6 percent of population in Pakistan is food insecure, this means that theoretically speaking they have the tendency to behave extraordinarily. In Pakistan, 22 percent of the elites own 85 percent of the farmland, while 78 percent of the population own only 15 percent of the land (or in most cases do not own any land, but serve as tenants). This situation results in large numbers of individuals who might go to any lengths in sheer desperation and frustration. Many of them commit suicide to end their misery. Others kill their dependents, to whom they cannot even afford to provide a square meal.

For many desperate individuals, madrassas (religious schools) are the solution for the problems they face in their day-to-day lives. They send their children to cost-free boarding schools—madrassas— when the public education system cannot absorb them. Madrassas also become handy where public schools simply do not exist. Thus, the failure of the public education system has made madrassas very attractive for the common person. As a matter of fact, religious groups offer complete social safety nets that the government sector cannot, due either to fiscal constraints or to governance issues. Hence, people tend to have a very strong belief in these institutions due not only to religious reasons but also to economic reasons.

While most of the religious schools in Pakistan are symbols of peace, tolerance, and harmony, there are quite a few which are being run by religious hardliners who have their own (mis)interpretation of Islam and feel obliged to challenge any "vice (they have their own definition of vice)" through force. On many occasions, they have challenged the writ of the state, declaring state institutions as un-Islamic. They can easily muster support from the poor and marginalised sections of society who are often let down by Pakistan's inadequate public service delivery system.

Chronically food insecure people who are often illiterate and marred by poverty become easy prey and can be brainwashed by their leaders who offer complete economic security to their dependents, assure them a confirmed place in heaven, and turn them into suicide attackers to eliminate the perceived nexus of external forces. These groups that behave extraordinarily, not only create

sociopolitical instability, jeopardise the country's economic activities, and threaten all foreign direct investors, but also pose a direct challenge to regional and global security.

In the aftermath of the 9/11 attacks, the United States provided around $11 billion to Pakistan in the shape of budgetary support, economic assistance from USAID (U.S. Agency for International Development), military assistance, and Coalition Support Funds from 2002 to 2008. This money, if spent judiciously and with political will, could have alleviated millions from extreme poverty and chronic hunger, thereby saving Pakistan from growing militancy.

Priorities in public spending matter. The composition of current account expenditures reveals that on average, around 28 percent of these expenditures are made on defence, almost a quarter on debt repayment, and public sector administration each, and left over (less than a quarter) on public sector development. The defence budget cannot be reduced due to the volatile security situation. Debt repayment cannot be reduced as the country keeps on borrowing to meet its fiscal deficit and has to repay its lenders. Reduction in cost of day-to-day administration is again difficult. Hence, public sector development expenditures always face the brunt of fiscal constraints.

It is not surprising that in Pakistan the average public spending on health is less than one percent of GDP. On education it is around 2.5 percent of GDP; on debt servicing it is around 6 percent of GDP; whereas on military expenditures it is 4-5 percent of GDP. One can argue that the evil of militancy could have been curtailed at the outset by focusing on social sector development in the areas that were chronically food insecure and now are at the center of conflict in Pakistan.

The strategy of achieving national, regional and global security at the cost of individual security and the creation of strategic assets (religious warlords since the Afghan war in the late 1970s) at the cost of moderate society indirectly resulted in internal displacement of almost three million people in KPK last year. Almost 25 percent of those displaced people were living in internally displaced persons (IDP) camps. Food security for all of them was severely threatened. The government was not able to guarantee food security of the displaced population, hence UN's WFP provided basic food commodities to the majority of IDPs for a period of time. However, food insecurity, lack of basic amenities, and the harsh summer weather led the displaced persons to think that they were safer and more secure under the rigid rule of the Taliban. For many of them the miserable situation of the people continued when they were asked to return to their hometowns by government authorities.

Unfortunately, hunger is perceived only as a humanitarian concern. This serves to attract the attention of the national government, support agencies, and donor countries, as part of a human disaster where all the efforts are focused on providing short-term relief on compassionate grounds. However, fighting hunger is not merely charity work as has been clearly reflected in this report. The case of Pakistan clearly indicates that in many cases, groups of people deprived of their individual security can sabotage national, regional, and global security as well as the overall economic health of the country.

6.3 Paradigm Change

So what needs to be done differently? First, the situation requires a change in paradigm where individual hunger is perceived as a national security threat. Such a paradigm shift would result in greater resources being channeled to improve food security. It would also result in reprioritization of public spending, so that social development would be given priority over other expenditures, and the benefits of such spending would accrue to individuals and not only to the state.

Second, perceiving hunger as a national, regional, and global security threat, the "Friends of Pakistan"—countries that are helping Pakistan in the war on terrorism—should realign their strategy and try to turn the pain of hunger into opportunity for social transformation, better awareness about human rights, women's empowerment, girls' education, adult education, and exposure to a secular face of the world. The international community should start investing in developing the social and

human capital of the chronically food insecure people of the Federally Administered Tribal Areas (FATA), Balochistan, as well as KPK's conflict hit people. This would not only directly aid those harmed because of the ongoing military operation, but also go some way towards fostering a more stable environment.

It is about time that the government of Pakistan and its international partners step up activities that not only strengthen livelihood assets and activities, but also address domestic governance issues. Without addressing the governance problems, issues of socio-economic justice that leads both to food insecurity as well as militancy cannot be addressed.

There are three types of militants in Pakistan: Islamic hard liners; those who feel that successive governments failed them and as a consequence oppose the establishment; and anti-social elements who have joined militant groups. The last two groups may be turned into peaceful citizens by ensuring their food security and social justice.

6.4 Way Forward

National Food Security Strategy (NFSS) should be chalked out to address the issues of food insecurity in Pakistan. Here it is pertinent to mention that food security cannot merely be measured on the basis of production and access; rather it depends on a number of other factors such as, governance at all levels, institutional frameworks and safety nets etc. Therefore it is necessary to understand the whole institutional and governance structure before analyzing food security. The following points can be used as an entry point for NFSS.

6.4.1   Availability of Food

Availability of food is not sustainable and it fluctuates frequently in Pakistan. The following steps can help to improve the availability of food;

- Productivity levels should be improved through investment in research, extension, and communication and irrigation infrastructure. Investment needs to include research to develop appropriate crop varieties, extension services to spread suitable intermediate technologies and raise farm productivity, timely public market information to help stabilize markets and irrigation infrastructure to ensure the most efficient use of water (water courses to improve water delivery, in addition to programmes for better water management through user's association).
- Climate change is a certain phenomena affecting the global temperature and rainfall pattern. Sustained investments in agricultural research to develop new varieties that are better adapted to the changing climate are need of the day. Crop successes in the future will continue to depend on strategic breeding improvements to relieve specific environmental and disease problems.
- Support prices should not be anti-productive. Keeping support prices higher than a reasonable limit will impact the production of other food commodities and will result in a chain of crises. Moreover, higher prices are anti-consumers, which constitute the major part of the population.
- The impact of increased food prices should be passed on to growers, by controlling the prices of inputs and ensuring that important inputs are available in time.
- Districts classified as extremely food insecure or food insecure should be targeted with special production programmes in order to bring them at par with other districts.
- For the last few years, water availability remained a serious issue and resulted in serious debates among provinces for their share. The shortage of water is forecasted to continue in the future and the situation may further deteriorate. The agriculture sector is heavily dependant on canal irrigation in Pakistan. There is a need to make sustainable plans for the conservation and efficient use of water. The Government should involve NGOs for the education of farmers, the introduction of better irrigation techniques and the control of water losses. The Government

should make a plan along with resources for the construction of small dams at the community or catchments level immediately in order to conserve rainwater and recharge the ground water.

- A food security analysis should be undertaken on a regular basis, at least after every two years.

6.4.2 Access to Food

- Strengthening the social safety nets, the process of identification of food insecure people, and process of delivery of social safety benefits is a must to ensure access to food for an extremely food insecure population. It is recommended that food insecure districts must be focus of special attentions for social safety strategies such as Benazir Income Support Program.
- Efforts should be made to provide livelihood opportunities in the worst affected districts.
- In order to reduce regional disparity among provinces regarding prices of food commodities, the Federal Government should play a vital role. A revolving fund for food deficit provinces, especially for wheat procurement by provinces, should be established.
- Good governance is essential to ensure that food is accessible to the people.
- It is observed that the conflict-hit areas through out the world including the FATA region are the most food insecure regions. It is strongly suggested that assuring food security should be adapted as a peace building strategy in these areas.

6.4.3 Absorption of food

- Due importance should be given to water and sanitation schemes in the public sector development programs.
- Funding for health sectors should be increased and it should not be only for HIV, cancer etc. It should also give due importance to other disease like water borne diseases, and gastoronomical diseases.
- The schemes such as micro-health insurance should be targeted on most food insecure districts to improve the food absorption in those areas through improving their acces to health.

METHODOLOGY

7.1 Coverage

Food security analysis is a complex issue covering a number of sectors and indicators. Food security Analysis (FSA) 2009 is the second report on food insecurity in Pakistan, the first was released in 2003. However, the current FSA covers the entire country contrary to that of 2003, which covered only rural parts of the country.

The FSA 2009 covers 131[43] districts/agencies in the country including Pakistan Administered Kashmir (PAK), Gilgit-Baltistan (GB), Federally Administered Tribal Area (FATA) and the capital district of Islamabad. The number of districts increased from 121 in 2003 to 131 in 2009. A number of new districts were created by splitting the old ones, especially in Sindh, Balochistan and lately in Punjab. These districts lack basic statistics and will need time for the proper documentation of major fields of essential data.

7.2 Data Requirement

In the 2003 FSA, secondary time series data was used for all the important indicators in estimating the food security level of the districts in the country. At that time, most of the indicators were performing in a systematic way with no abnormal deviation except for disasters such as droughts and floods. Therefore, the secondary data served the purpose of estimating the food security level of the people at the district level.

The situation in 2009 had changed quite drastically. The secondary data was no longer in line with the rapid changing situation of the country and especially in KPK and APK where the earthquake of 2005 changed the entire scenario of infra-structure and social sector development. Similarly, the recent wave of militarization and proxy war in KPK and FATA has also affected ground realities vis-à-vis available secondary data. Moreover, the secondary data available in the country does not reflect the impact of inflation and its consequence.

Therefore, FSA-09 is based both on secondary as well as primary data. The secondary data has been collected from the Federal Bureau of Statistics, provincial bureaus of statistics, the Ministry of Food and Agriculture (MINFA) and provincial departments of Agriculture and Livestock.

In order to collect primary data a questionnaire was designed. A rapid survey was conducted in all 131 districts/agencies of the country using the Small Area Estimation Techniques (SAET).

For conducting SAET in each district, 3 villages were randomly selected from the rural areas while two sites in the urban areas-one the poor and second the better-off, were chosen. In each village, 10 households and 6 households in each site of urban areas were randomly selected per district. A total of 5502 households were interviewed in order to assess the food security level of the families.

7.3 Food Availability

Food availability is the first pillar among the three of food security. Availability of food was examined in the following steps:

7.4 National Food Availability

$$\sum Fa = \sum Pa + \sum Ia + \sum Sa + \sum Aa - \sum Ea$$

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[43] The total number of districts/agencies in the country are 131, however, in chapter-2, six Frontier Regions were added to the list making it 137. Due to data limitation the FRs were dropped in the rest of the report.

Where F=Food Availability
    Pa= local production of all foods
    Ia = Import of all foods
    Sa= Stocks of all foods
    Aa= Food Aid of all foods
    Ea= Food Export of all foods
    Fa= All foods

The same formula was used for different types of food like wheat, rice, maize etc. where the word F replaced by W, R, M etc. for the respective crop.

7.5 District level food availability

At the district level, the import of food is difficult to estimate properly because of the lack of records regarding the movement of food among the districts. Therefore, it is assumed that in the case of all food, certain districts produce crops while others rear livestock and with the exchange of food items all districts will present a situation of net-deficit or net surplus. In the crop surplus districts, food is exported to the other districts with surpluses in animal food and the same is reciprocated by animal food surplus districts. The net results will be the overall deficit or surplus in food production from all sources

Production of all type of foods was converted into net production by deducting wastage, seed, non-food portion and grinding. Standard formulas prescribed by the FAO, Ministry of Food and Agriculture (MINFA) and Pakistan Agriculture Research Council (PARC) for wastage were used for calculating net-production. See table-6.2 for details.

The wastage in Pakistan is quite high, because of poor storage and inadequate processing facilities.

FSA 2009				Table 7.1
Food groups				
Agriculture Based Food				
Cereals	Wheat	Rice	Maize	
Tubers	Potatoes			
Pulses	Mong	Mash	gram	Masoor
Fruits	All Rabi and Kharif fruits			
Vegetable	All Rabi and Kharif vegetable			
Sugar	Sugarcane			
Oil Seed	Cotton seed	Mustard & Rape Seed	Ground-nuts	
	Sun flower	Soybean	Canola	
Animal Based Food				
Milk	Milk and milk products			
Poultry	Commercial and local chicken			
Beef	Cow	Buffaloes	Oxen	
Mutton	Goat	Sheep		
Fish	All types of fish			
Eggs	Eggs			

7.6 Consumption

Consumption of various food items varies by province and region. Wheat is the major staple food of the country however its consumption is not uniform. People in some of the provinces complement rice with wheat, which reduces its quantity. According to the Household Integrated Economic Survey (HIES) 2005-06, the average per capita consumption of wheat is 8.16 kg per month in the country. The per capita monthly consumption is 8.68 kg in Punjab, 6.41 in Sindh, 9.20 in KPK and 8.05 kg in Balochistan. The highest wheat consumption was found in KPK.

FSA 2009			Table: 7.2
Wastage/ Non-food portion			
SN	ITEM	Wastage Percentage	Source
1	WHEAT	10.02	
2	RICE	17.43	
3	MAIZE	40.50	
4	PULSES	38.50	FAO
5	POTATO	16.57	
6	MILK	20.50	
7	EGGS	15.56	
8	FRUITS	35.00	PARC
9	VEGETABLE	35.00	
10	OIL SEED	65-89	MINFA
11	SUGARCANE	91.43	

7.7 Food Surplus/Deficit

The per capita consumption of wheat in the respective provinces was considered for all districts in the respective province. The per capita net-production was compared with the per capita consumption in order to determine the surplus or deficit of wheat in the respective district. The same procedure was repeated for other crops like rice and maize.

All individual food items including animal food were calculated based on the HIES 2005-06 food consumption pattern.

The overall availability of food was calculated by converting all food items into Kcal based on established Kcal per unit in these food items. The Kcal conversion table of FSA 2003 was used for this purpose.

All the above indicators were analyzed and their correlation was observed. A composite indicator was prepared by giving weight to each indicator in order to develop the overall access to food trends. The weight for each indicator was determined by the Principal Component Analysis (PCA) clustering techniques.

The Zones classified, as food consumption VS availability, are the following:

The districts with food availability of all types (both agricultural and animal) below 1750 kcal per person per days are classified as "extremely food insecure"; The districts with food availability more than 1750Kcal but below 2350 Kcal are classified as "deficit"; with food availability from 2350-2799 Kcal are classified as "sufficient"; and with more than 2800 Kcal as "surplus".

The food availability zones in the country determine the dependency of certain districts on other districts or import from abroad during crisis. However, it was observed that during crisis, movement of food between districts and even provinces were stopped. In such circumstances food availability is the function of food production in the respective district or province.

FSA 2009		Table 7.3
Zone	Level	Kcal per person per day
Zone-1	Extremely deficit	<1750
Zone-2	Deficit	1750-2349
Zone-3	Sufficient	2350-2799
Zone-4	Surplus	>= 2800

7.8 Access to Food

The basic indicators used to measure access to food are the food consumption score, household expenditure on food and food diversity. The following are the main variables:

1. Income and income sources;
2. Purchasing power of various income groups
3. Percentage of expenditure on food;
4. Food consumption score, food diversity and frequency;
5. Exposure to natural disasters and Coping Strategies;
6. Households living conditions, and
7. Dependency of households.

7.9 Food Consumption Score

The food consumption score (FCS) is used as a proxy indicator for caloric intake in many countries of the world where food security is an issue. According to the food consumption score, the food intake for a completed one-week period is recorded.

Firstly the consumption of households is recorded, then the food items are grouped into major categories like, cereal, tuber, meat, milk (with products), sugar, cooking oil/ghee/butter, vegetables

and fruits. Each group has a certain weight based on its nutritional value in order to keep it aligned with Kcal.

Based on the FCS, households are divided into three groups as mentioned in the table. The food consumption groups are closely linked with food diversity.

The poor group eats only wheat flour and 2-3 days vegetable and pulses on a weekly basis. There is no consumption of meat or fruits in their diet. This shows a nutritionally poor diet.

FSA 2009	Table 7.4
Food Consumption Score	
Focus on food eaten INSIDE the house	During how many days was the food item eaten in previous 7 days? **0 = Not eaten 1= 1 day 2= 2 days 3= 3 days 4= 4 days 5= 5 days 6= 6 days 7= 7 days**
Wheat, bread	|___|
Rice, other cereals	|___|
Maize	|___|
Dhal, beans, lentils, peas, nuts	|___|
Vegetables	|___|
Fruits	|___|
Meat, poultry, fish	|___|
Eggs	|___|
Milk, cheese, yogurt	|___|
Sugar, honey	|___|
Oil, ghee, butter	|___|

7.10   Expenditure on food

Expenditure on food is another important indicator that determines food insecurity. Higher spending on food is directly correlated to food insecurity of the particular households.

Household expenditure is divided into two major groups, i.e., food and non-food. The following formula is used for the food expenditure share:

$$PrcFx = Fx / (Fx + Nx) * 100$$

Where F= food, N= non-food, x=expenditure, Prc=percentage

All the above indicators were analyzed and their correlation was observed. A composite indicator was prepared by giving weight to each indicator in order to develop the over all access to food trend. The weight for each indicator was determined by the Principal Component Analysis (PCA) clustering techniques.

FSA 2009	Table 7.5
Grouping of FCS	
Group	**Food Consumption Score**
Poor	28 & below
Borderline	Above 28 and up to 42
Reasonable	Above 42

The secondary data about housing condition and dependency ratio - indicators of households' capacity were analyzed. The impact of primary data on the households was regressed with the secondary data sets for formulating the current situation of food security.

All districts were ranked on the basis of these results in terms of access to food.

7.11   Food Absorption

The following indicators are used in the third pillar of food security- Food absorption:

- Availability of improved water for drinking;
- Sanitation facilities;
- Female literacy rate –women's education as a proxy indicator for household level health and hygiene practices.

All the three indicators were combined to have a composite indicator for food absorption. Different weights were used keeping in view the impact of each indicator on the food absorption of individuals. The weight for each indicator was determined through PCA technique.

$$\sum FAi = wW\sum Wj + wS\sum Sk + wF\sum Fl$$

Where FA= food absorption, W=improved water, F= female literacy rate, w=weight, for i, j, k and l household.

7.12   Food Insecurity in the country

Food security = food availability + access to food + food absorption

All the three composite indicators were aggregated to determine the food insecurity level of the districts. The food insecurity indicator was not the simple sum of all composite indicators, but rather PCA was used for clustering and degree of impact. The PCA based on the impact of the respective indicator determined the weight. The following formula has been used:

∑ PSi = ∑ [wFa * Fai + wFA * FAj + wAB * ABk]

Where PS = food security, Fa =food availability, FA = food access, AB = food absorption, w=weight

The Cross-tabulation between food consumption and food access resulted in the number of population that fall in different food security groups.

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