



PAKISTAN EARTHQUAKE



JOINT WFP/UNICEF RAPID EMERGENCY FOOD SECURITY AND NUTRITION ASSESSMENT

November 2005



**Pakistan Earthquake
Joint WFP/UNICEF Rapid Emergency Food Security and Nutrition Assessment**

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Abbreviations and Acronyms

AJK	Azad Jammu and Kashmir (Pakistan Administered Kashmir)
CCA	Common Country Assessment
FAO	Food and Agriculture Organization of the United Nations
FFW	Food-for-Work
GDP	Gross Domestic Product
GFD	Gross Fiscal Deficit
HH	House Hold
HMIS	National Health Management Information System (Pakistan)
ILO	International Labour Organization
JBIC	Japan Bank for International Cooperation
Km	kilo-meter
MCH	Mother and Child Healthcare
MINFAL	Ministry of Food, Agriculture and Livestock, Pakistan
MT	Metric Ton
NGO	Non-Governmental Organization
NNS	National Nutrition Survey
NWFP	North West Frontier Province
ODAN	Emergency Needs Assessment Branch of WFP
OCHA	United Nations Office for the Coordination for Humanitarian Affairs
ORS	Oral Dehydration Solutions
OXFAM	Oxford Committee for Famine Relief
SPHERE	The Sphere Project "Humanitarian Charter and Minimum Standards in Disaster Response"
UN	United Nations
UNICEF	United Nations Children's Fund
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme

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1. Executive Summary

A 7.6 earthquake (depth 10 kilometres) hit at 08.50 Pakistan time on 8 October with the epicentre in Muzaffarabad, 95 km north-northeast of Islamabad. The affected area consists of nine districts¹ (Batagram, Mansehra, Shangla, Muzaffarabad, Neelam, Abbotabad, Poonch and Kohistan) in the NWFP (North West Frontier Province) and AJK (Azad Jammu and Kashmir) provinces with a total population of 5.5 million people. The vast majority of the population (88 percent or 4.8 million people) live in rural areas, 9 percent in major urban centres and 4 percent in semi-urban areas, mostly surrounding rural market centres.

Already prior to the earthquake, six out of nine districts belonged to the most food insecure parts of Pakistan, characterised by difficult-to-reach areas, small landholdings and very low literacy rates. NWFP and AJK are traditionally food deficit areas, supported by the government through market interventions and pre-positioning of food stocks for places cut-off by snow during winter months. These support mechanisms have been disrupted by the earthquake.

Nearly half of the population lost their houses, leaving roughly 2.5 million people homeless. But also families who haven't lost their houses sleep outside, either because their houses are badly damaged, or out of fear of after-shocks. Overall, the government estimates that between 3.2 to 3.5 million people are affected.

The earthquake had a serious impact on all dimensions of food security – food availability, access and utilization. Rural areas are worse off than urban and semi-urban areas in respect of all three dimensions, partly because of higher pre-crisis vulnerability.

Maize and rice harvests were underway when the earthquake struck. FAO estimates slightly more than thirty percent of the rice crop and nearly 75 percent of the maize crop are lost. In addition, many farmers have not been able to plant the winter wheat crop during the current planting season, as seeds or arable land have been destroyed or damaged, and families must care for their injured. Many households may miss the next harvest (June-August) and be forced to wait for the following rice/maize harvests in October 2006. FAO also estimates that half of the wheat planting area is lost in AJK and one third in NWFP.

Food availability and household food security in the affected areas is not only constrained by agricultural losses, but also by the loss of livestock (milkcows and animal traction). According to the household survey undertaken by the assessment mission, some 75 percent of the affected households had livestock, of which almost 60 percent lost some animals and 20 percent reported a total loss of livestock. As both animal sheds against the cold and dry fodder are no longer available, it is very likely that even more livestock will die, depriving many affected people of their remaining assets, an important source of animal protein in the diet, animal traction for cultivation and an important source of income.

Households usually store substantial amounts of food for the winter months in the home, particularly wheat. According to the assessment findings, 90 percent of the surveyed households had some cereals stocks prior to the earthquake, with more than half of this percentage reporting total loss of stock after the earthquake. Remaining grain stocks - for half of the interviewed households – were estimated to last no longer than two more weeks.

The earthquake has resulted in a dramatic loss in employment and income. Prior, the main income sources in the affected areas were farming, livestock, agricultural labour and wage labour. Small farmers were usually also engaged in wage labour, which dropped dramatically from 35 percent pre-quake to around 5 percent two weeks after the event. Similarly, percentage of households engaged in agricultural labour decreased from one third to roughly 10 percent post-quake, while farming activities are reduced more modestly by one third, i.e. down from 35 to 25 percent.

¹ Recently, Muzaffarabad district has been divided into two districts, and the former sub-division Neelam became a separate district. For the analysis of pre-crisis data, Neelam remains part of the Muzaffarabad district, as sub-division data were not available.

Besides the loss of income, food access is also compromised by the increase of food and non food prices, which is the result of destroyed stocks, reduced market activities and a sharp rise in transportation costs. The price increases vary by area depending on the extent of damage and remoteness, and affects particularly the rural poor who spend up to 54 percent of their total consumption expenditure on food, compared to 42 percent in urban areas.²

Purchasing power of many households is lowered due to prices increase and loss of employment, while large shares of households' food stocks and standing crops have been destroyed. This has direct implications on food consumption. 80 percent of the surveyed households reported a decrease in quantity and quality of their meals. It is estimated that currently 1.2 million people consume very poor diets, while another 1.1 million have a *borderline* and unsustainable food basket. There are still cash reserves and market supplies in most affected areas, reflected in the relatively large share of food that is purchased on the market. But many households cannot continue purchasing food in the long run without compromising their ability to meet other basic needs and to invest in recovery.

Diets differ between urban and rural areas. Although 25 percent of surveyed households have very poor consumption patterns, on average, urban households consume a greater variety of all food items more frequently than rural households. Diets lack both animal protein and micronutrients, particularly in rural areas, as food consumption consists primarily of cereals, pulses and fat (ghee).

Landless labourers and sharecroppers are the poorest and most food insecure groups as the few income sources available pre-earthquake are now drastically reduced. Female headed households are rare, but they are likely to face exceptional difficulties in accessing assistance of all types and restoring their lives, considering that for women employment opportunities and appearance in public are restricted, especially in the very conservative NWFP.

Pre-shock levels of acute malnutrition were already high. A sharp decline in the nutrition situation is likely in the coming weeks given aggravating factors, such as the high incidence of common diseases (infection), poor access to health services, inappropriate feeding practices and lack of access to food as well as reduced food stocks. The mission estimates that 2.3 million people are in need of food aid, and has the following fifteen recommendations. The implementation of these recommendations requires the combined efforts of the humanitarian community and the government, and cannot be the responsibility of one organisation:

- 1) General Food Distribution for 2.1 million people in rural areas at least until the end of March 2006 (for a breakdown of food insecure population by rural/urban areas and by districts, see Table 1 below). A planned re-assessment in early 2006 will advise on a realistic timetable for shifting to more targeted interventions.
- 2) Priority should be given to the roughly 200,000 people in the difficult to reach rural areas, particularly those that will also be partially or entirely cut off for months by winter snow from November onwards.
- 3) For around 230,000 people in the worst affected urban and semi-urban areas (with more than 60% of houses destroyed), a general ration for the next 3-4 months is recommended. Targeted interventions such as FFW or school feeding should replace GFD, starting at the latest from April 2006.
- 4) Cash-based interventions, such as cash for work, cash grants and income-generating activities, are considered more appropriate in other less affected urban and semi-urban areas where markets are more integrated.
- 5) The ongoing market analysis indicates that market recovery might be faster than expected, and trader activities may be inhibited if food is distributed for too long, thus prices and markets should be monitored closely.
- 6) Preference should be given to households that have lost their houses. In addition landless labourers and female headed households should receive food assistance
- 7) The provincial Governments of AJK and NWFP (as well as Government of Pakistan) should pursue plans to implement market interventions in the affected areas. A targeted food voucher scheme for the most affected would seem to be a preferred response for the most affected in the urban and semi-urban areas.

² Pakistan Poverty assessment, World Bank 2002

- 8) Blanket supplementary feeding (fortified with micro-nutrients) for 280,000 children between 6 months and five years in rural areas is recommended.
- 9) Therapeutic feeding centres should be introduced in concentrated areas of affected populations and in collaboration with or as a part of currently operating health care facilities.
- 10) Establish a nutrition surveillance system.
- 11) Support and care for the mothers to continue breastfeeding.
- 12) Continue measles campaign for 6 months to 15 years children with vitamin A supplementation.
- 13) Distribution of ORS through all food distribution points or depots at the community level such as shops.
- 14) Micro-nutrient supplementation for pregnant women.
- 15) Seeds and other farming inputs are urgently required to enable farmers to sow winter wheat during the remaining planting season. Fodder and shelter for animals should be provided in order to prevent further depletion of livestock, and where this is not possible, de-stocking programmes should be initiated.

Table 1– Food Insecure Population by District

Prov.	District	Population	Food insecure Population			
			Rural	Urban	Semi urban	Total
AJK	Bagh	455 432	289 891	21 825	27 400	339 116
AJK	Neelum	135 206	18 412	-	1 280	19 692
AJK	Muzaffarabad	775 878	540 259	138 311	27 000	705 570
AJK	Poonch	463 510	225 513	-	-	225 513
NWFP	Batagram	341 031	210 020	-	2 100	212 120
NWFP	Shangla	544 342	210 537	-	-	210 537
NWFP	Mansehra	1 361 032	530 729	-	18 000	548 729
NWFP	Kohistan	472 570	52 581	-	-	52 581
	Grand Total	5 548 180	2 077 941	160 136	75 780	2 313 857

2. Objectives and Methodology of the Assessment

The principal objective of the WFP-led rapid emergency assessment was to quickly describe and assess the current food security situation in the affected areas, and how and where food aid should be directed at onset to have the greatest impact. Specifically, the assessment team was supposed to

- examine the food security situation in the affected areas, the main causes thereof, and the capacities of people, communities, the government and other organizations to improve the situation;
- develop estimates of the extent and severity of food insecurity (including food access shortfall), if any, including an analysis of how the food security situation is expected to evolve over the next 3 to 4 months, future risks to food security and the capacities of national and local authorities to respond through the use of existing social safety nets;
- determine the potential number and location of beneficiaries; and where food aid is an appropriate response option, determine the necessary quantities, as well as the most appropriate interventions, and how they should interface with on-going programmes.
- describe the pre-crisis health and nutrition situation in the affected areas, analyse the effect of the earthquake on the health infrastructure, sanitation and nutrition of the affected population, utilizing secondary and primary data; determine the main health and nutrition risks for the affected population in general, and specifically for the most vulnerable people; and describe how the health and nutrition situation is likely to evolve over the next 3 months and beyond.
- analyse the main effect of the earthquake on food markets, in terms of major supply shortfalls, disruption of supply chains, accessibility to markets and markets prices, general prospects for

agricultural production in the affected areas, develop a general sense as to whether or not markets are functioning and to what degree remain integrated in affected areas, and describe the most important markets-related issues to track in the follow-up assessment.

The assessment mission (18-28 November in Pakistan) collected primary data through a quick market analysis, more than 40 Key Informant interviews and a survey covering 700 households in more than 200 locations in eight out of the nine earthquake affected districts. The households interviewed provided important information in terms of changes in household food consumption, sources of food and income, loss of food stocks and livestock as well as care and feeding practices. The household data were weighed by urban/rural population shares using PPS (population proportionate to size) in order to obtain a more representative picture of the affected area.

Equally important was the secondary pre- and post-shock information from various sources, especially reports posted on relief web and on the UN Pakistan website. The Report “Food insecurity in rural Pakistan” (WFP VAM unit – Islamabad), as well as the World Bank Poverty Assessment of 2002, provided important secondary information on the socio-economic situation and livelihoods of the earthquake affected areas.

Table 2 - Household Survey Breakdown

Province	District	Sub-districts	Household Forms
AJK	Bagh	2	130
	Muzaffarabad	4	185
	Poonch	1	8
	Neelum	1	2
Sub-Total	4 districts	8	325
NWFP	Abbotabad	1	2
	Battagram	2	115
	Mansehra	3	196
	Shangla	2	64
Sub-Total	4 districts	8	375
Grand Total	8 districts	15 tehsils	700

Based on initial investigations, aerial surveys and findings of a three-day OCHA led inter-agency survey in inaccessible areas, the WFP Pakistan determined the areas and the share of houses damaged by the earthquake at sub-division level. The mission validated or adjusted these figures during the survey.

The household survey covered urban, semi-urban and rural areas. 16 Sub-districts (*tehsils*) were selected taking into account large concentrations of affected people as well as logistics (travel time and accessibility). (See table 2 for breakdown by districts and *tehsils*). In each *tehsil*, affected villages were purposively selected based on secondary information as well as discussions with *tehsil Nizams* (government representatives), representing different degrees of destruction and urban/rural differences. In the communities and towns, households were selected by way of pen-spinning.

Table 3 Key Informant Interviews by Tehsil

	District	Tehsil	Communities
NWFP	Mansehra	Balakot	3
		Mansehra	2
	Battagram	Oghi	1
		Battagram	2
	Shangla	Alai	6
		Besham	2
		Alpuri	1
		Chakser	1
Total		18	
AJK	Rawalakot	Rawalakot	2
	Muzaffarabad	Muzaffarabad	5
		Hattian	5
	Bagh	Bagh	7
		Deerkot	3
Total		22	
G. Total		40	

Seven teams of 30 people were in the field for three days. One team with 6 enumerators went by helicopter to the inaccessible areas in Neelum and Jehlum valley (Muzaffarabad), Naran valley (Mansehra) and Alai (Battagram). The site selection of the helicopter team was determined by the availability of coordinates of affected villages and helipads. The helicopter landed in four different sites in Muzaffarabad and in two different locations in Alai, where the team spread out to cover a wide range of small hamlets.

Forty semi-structured community level interviews were conducted in the eight districts with teachers, locally elected government representatives (*Nizams*), village elderly and other key informants, mostly in a group of two to three (see Table 3). The information complements the HH survey and provides a broader picture of the overall situation in the various areas visited.

3. Limitations of the Assessment and Further Assessments Required

The sample of households is not statistically representative, but provides a timely overview of the food security and nutrition situation in the most affected areas. As the situation changes with the weather, opening up of roads, population movements and the start of modest recovery activities, the assessment provides only a snapshot in time, while trying to identify factors that influence livelihoods of the affected population in the short and medium term.

The assessment was conducted within less than 10 days, thereof three days in the field. Due to time constraints questionnaires were not field tested and only half day was dedicated to training of enumerators and supervisors.

The assessment provides a planning basis for the immediate humanitarian response, but should be updated within the next two to three months through a more in-depth assessment. The re-assessment should review the assumptions upon which this report based its recommendations, and review issues that the assessment mission was not able to cover sufficiently, such as

- recovery of the local economy in urban areas
- cash compensation scheme of the government and its impact on local economies
- results from the nutrition surveys planned by UNICEF
- food availability in affected areas
- IDP movements
- a more comprehensive market analysis
- reopening of banks and access to savings and credits
- investigating further possibilities and requirements for market interventions to stabilize prices and /or ensure food availability in the markets by the government
- Likely impact of food and non-food response by humanitarian community on livelihoods of affected population.

The next assessment should also determine the timing for a phase out of general food distribution in the worst affected urban and semi-urban areas, and possibilities to start FFW, MCH and school feeding activities. In addition, the food security situation in the rural areas needs to be reassessed, with the aim to suggest a timeline for phasing out GFD. The re-assessment should be closely linked to programming and operational issues, to be reflected in the mission member composition.

4. Overall Impact on the Economy

The ferocity of the 8 October earthquake is likely to widen the Government of Pakistan fiscal budget deficit, while its impact on economic growth, which was expected to be 7 percent this year, might be modest. The areas hit by the earthquake were not centres either of industrial, commercial or agricultural activity. The economic infrastructure of Pakistan – ports, telecommunication, power plants, oil refineries- remains intact. A host of industries will gain from relief and reconstruction activities, as indicated already in steep price increases in transport costs, textiles, construction materials and some food items in affected areas.

However, according to Government of Pakistan preliminary estimates, in the hard-hit areas 80 percent of public buildings, 25 percent of main roads, and 75 percent of local roads are severely damaged in the hardest hit areas, and the reconstruction cost of the lost infrastructure is expected to amount to at least \$5 billion. The World Bank, the Asian Development Bank, JBIC, and other donors are working on a Damage and Needs Assessment that will help the Government refine its initial estimates. The assessment report is expected in mid-November.

ILO estimates that the earthquake cost 1.1 million jobs. Most jobs in the affected areas are in the less productive sectors of the economy such as agriculture and services, and the bulk of the workforce is made up of unskilled and semi-skilled labour. Prior to the earthquake nearly 1.4 million people were engaged in agriculture, 730,000 workers in the service sector and 230,000 in industry. An estimated 40

to 50 percent of these people are likely to have lost their primary source of income due to the earthquake.

5. Socio-Economic Background of Affected Areas

The affected area is approximately 30,000 sq. miles and consists of nine districts³ in the NWFP and AJK provinces with a total population of 5.5 million people (Batagram, Mansehra, Shangla, Muzaffarabad, Neelam, Abbotabad, Poonch and Kohistan). The vast majority of the population (88 percent or 4.8 million people) live in rural areas, 9 percent in major urban centres and 4 percent in semi-urban areas, mostly surrounding rural market centres. Nearly half of the population lost their houses, rendering roughly 2.5 million people homeless. Families who did not lose their homes still sleep outside due to structural damage or fear of aftershocks. The worst affected areas are Muzaffarabad (epicentre), Mansehra and parts of Bagh districts, where the earthquake has destroyed more than 70 percent of houses (see table in Annex 1). Muzaffarabad town is home two percent of the affected population, but accounts for two thirds of the affected urban population.

The government speaks of 3.2 to 3.5 million people affected. Here, the term *affected* is used in a broader sense than only houses damaged.

Table 4 - Percentage of Poor in Rural Population

Province	District	% of poor among rural pop
AJK	Bagh	29
	Muzaffarabad	34
	Neelam	34
	Poonch	26
NWFP	Abbotabad	18
	Battagram	31
	Mansehra	26
	Shangla	37

Poverty in Pakistan

According to a World Bank study (2002), the incidence of rural poverty is highest among those who one third of Pakistan's population lives in poverty,¹ a share that has remained more or less unchanged since early 1990s. Two-thirds of the poor reside in rural areas and their poverty is both deeper and more severe than urban poverty. More than one-half of the rural population in Pakistan is landless, and over 40 percent of landless households are poor and together constitute 70 percent of the rural poor. Poor educational attainment is another determinant of poverty: 42 percent of the population living in households with illiterate heads is poor, compared to 21 percent of those in other households.

Source: World Bank Pakistan Poverty Assessment October 2002

Already prior to the earthquake, six out of nine districts belonged to the most food insecure parts of Pakistan, characterised by difficult-to-reach areas, small landholdings and very low literacy rates. Only two districts (Abbotabad and Poonch), could be considered less food insecure before the earthquake, due to their vicinity to neighbouring Punjab and its business centres. Abbotabad is the district least affected by the earthquake.

Literacy rates, access to land, markets and employment are important determinants of poverty and food security in Pakistan, and the affected areas score poorly on most of these indicators. Pre-quake, roughly one third of the rural population in the affected districts was poor, translating into almost 1.5 million people in rural areas.

Table 5 – Crops Season

Crops	Planting season	Harvest season
Maize	May-June	October
Rice	May-July	October-November
Wheat	November-December	June-August

Agriculture is the most important sector in the affected districts and employs between 70-85 percent of the population. Maize and wheat are the main food crops in the affected areas, but also rice, potatoes and vegetables are grown. Maize provides primarily fodder for the animals. In AJK, where only 10 percent of the total land area is cultivated, roughly 15 percent is used for wheat and 10 percent for maize cultivation. In NWFP, 63 percent is under maize cultivation and one third under wheat.

³ Recently, Muzaffarabad district has been divided into two districts, and the former Sub-Division Neelam became separate district. In the analysis of pre-crisis data Neelam is still treated as part of Muzaffarabad district, in case sub-division data were not available.

Cultivation patterns depend on altitude. In most places, maize and rice is planted between May and July and harvested in October/November, while winter wheat is sown in November and harvested between June and August; in higher up areas harvest is even later. Households living above 6,000-7,000 feet plant mainly potatoes and maize in March/April.

The majority of landholdings are small, below five hectares and are rain fed and barely sufficient for subsistence farming.⁴ Marginal cultivators are thus highly dependent on other income sources, such as wage labour during the lean season. The smaller the size of the landholding, the more intense, active and efficient the role of women becomes, as it is not cost effective for smallholders to hire paid labour.

Indeed, land ownership is one of the most important factors associated with the economic status of rural households. Country-wide, 40 percent of rural households that do not own land are poor, compared to 30 percent of the total rural population. However, land ownership is only one issue in regard to the structure of rural poverty in Pakistan. Overall, rural households derive an average of 44 percent of their income from non-agricultural sources, including non-farm wage earnings, non-farm enterprise income, remittances, and other sources. Landless labourers and sharecroppers are amongst the poorest and most food insecure groups as their income sources are very limited.

In the more mountainous areas, livestock is the most important household asset as arable land is scarce and agricultural production is limited. Agro-pastoralists mostly shift their homes throughout the year. During the 4-5 months of summer they migrate – either with the entire family or only a few members – to alpine pastures, where green fodder is in abundance. In winter they would come down to lower areas, i.e. to the valleys⁵. From October onwards, livestock (specifically buffalo and cows) have to be kept inside and fed with dry fodder⁶. In some parts people sell half of their animals before winter starts, as it is difficult to ensure survival of animals during the harsh winter months' condition.

Livestock raising is a subsistence activity to meet food needs and supplement farm income. Almost every rural household owns some livestock, with men, women and children engaged in livestock production. The role of women comprises cleaning sheds, collecting farmyard manure, stall feeding, water animals, fodder cutting, chopping and milking. Typically, households have 1-2 cows and 4-5 goats. Buffalo are essential for traction for the ploughing of land for wheat and maize. Most valuable are milking animals: animal products such as milk, milk products, meat and eggs contribute 7 – 16 percent to household energy consumption, and the rural households usually consume milk on daily basis, especially children. Moreover, one cow may produce 7 to 8 kg of milk per day, sold at 24 rupees (40 US cents) per kg (prices at time of assessment). The loss of cow and buffalo therefore has an immediate and adverse effect on rural diets and future livelihood.

Role of livestock

Livestock production plays important roles both in contributing to the national economy and livelihood for a large number of people living in rural and urban areas. Total livestock population, including cattle, buffalo, sheep, goats, camels, horses and mules, is estimated at 55 million heads. About 15 million or 27 percent are found in NWFP. In normal years, livestock production contributes nearly 9 percent to Pakistan GDP, about 37 percent to the agriculture sector output and about 10 percent of total export earnings of the country. Available estimates indicate that, for the country as a whole, animals provide around 20 kg of meat and nearly 160 kg of milk products per caput annually. The dietary contributions in the agro-pastoral regions is much larger. In addition, vast remote pastoral areas have little or no access to alternative food sources and animals play a vital role in household food security, providing essential nutritional needs through meat and milk. Large losses, therefore, will have direct and severe impact on household food security, especially for those in remote and inaccessible areas.

Source: FAO/WFP Crop and Food Supply Assessment Mission to Pakistan July 2001

Women are economically active and substantially contribute to many activities, including:

- crop farming and livestock keeping
- post harvest activities
- household management
- off-farm and non-farm economic activities
- bearing and rearing children and looking after the sick

⁴ More than half of the cultivated areas in NWFP and almost all in AJK are rainfed.

⁵ For example, people from Kaghan valley would move to Balakot in winter. This is not an option anymore due to the total destruction of this location.

⁶ Livestock require fodder throughout the winter. Winter feed (called Trifolium) is purchased from the market. Due to the loss of livelihoods, incomes will, for many households, be insufficient to cover purchases of animal feed.

While some of these activities are recognized as important, the visibility of women is selective. Rural women are economically active but are also economically dependent. These women have neither ownership nor control over resources and they are expected to surrender their rights in favor of brothers or husbands. Women work and produce on land they do not own. The harvest is sold by and through men, and men control cash income. Women have limited power to take decisions on how to behave or dress, whether or not to get an education, whom to marry, whether to have children and how many, marriage or divorce, contact with the outside world, her health and so forth. Almost all power and property is vested with the males of the family.

6. Demographic Impact and Housing Conditions

Government casualty estimates continue to rise: as of 3 November, the death toll reached 73,000 and the number of injured 69,000. Information from hospitals indicates that the majority of injured individuals are women and children, who were inside houses when the earthquake occurred at 8.50 a.m in the morning, while men were outside at work.

As observed by the assessment mission, female headed households are rare, as culturally, women who lose their husbands are absorbed by the extended family. However, the few cases that exist are likely to face exceptional difficulties in accessing assistance and restoring their lives, considering that women's appearance in public is restricted, especially in the very conservative NWFP.

Almost all sampled households reported that their houses are either completely destroyed or damaged. But even if houses are undamaged, people camp outside, out of fear of recurrent aftershocks that may bring further destruction; these families still have most of their assets. Only three percent of the surveyed households are still living in their homes, while the vast majority (86 percent) are currently sleeping in tents or makeshift shelters. The remaining 10 percent are staying with families and friends or in community buildings (see graph below). Those whose houses have been destroyed are worst off, as they are likely to have lost food and seed stocks, livestock and other belongings under the rubble, and thus require larger investments to recover.

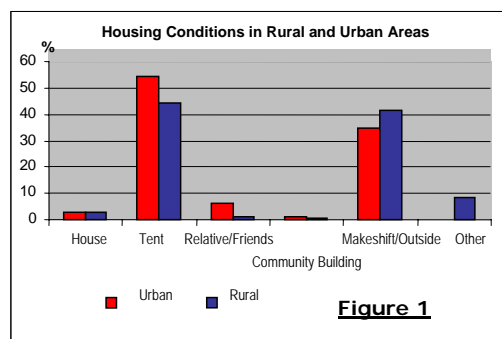


Figure 1

The survey indicates that the current housing situation in urban areas may be slightly better with more families having tents or being hosted by relatives/friends; whereas in rural areas more than 40 percent are living in makeshift shelters that hardly provide any protection against bad weather. The UN calculated that 600,000 tents are needed, of which 132,000 have been delivered by the international community and 241,000 by the Pakistani government as of 8 November. Often tents are pitched next to the destroyed houses, even if they high up in the mountains and can only be reached on foot, as families refuse to leave their homestead. The *“operation winter race”* - that has started end October - aims at the provision of 10,000 self-help shelter kits for 70,000 people in high altitude villages that are above-the snow-line.

It seems that there is still only a relatively small number of displaced people. Key informant interviews and observations of the mission indicate that less than 12 percent of the affected population has left their communities, although larger movements are expected with the onset of winter. As households are traditionally very attached to their land, and can not take their livestock into camps, it is likely that moving into a camp will be seen as a last resort. Currently, displaced people are mainly found around hospitals where they are either taking care of injured relatives or seeking relief goods to bring back to their villages.

Eighteen relief camps have been established thus far (seven around Mansehra, Balakot and Batagram; eight around Muzaffarabad and three near Bagh) housing some 3,265 families. The total camp capacity is for 32,000 families (up to 225,000 individuals). In addition, 30 new camps are being planned to accommodate another 150,000 people who might come down from their homes in the mountains.

There is an increasing concern that a large share of the roughly 100,000 affected people in the Allai Valley, particularly those above 5,000 feet or higher will need to relocate due the lack of suitable shelter. The authorities are planning for the establishment of a camp at Meira, to accommodate 40,000 people.

7. Food Availability

The following chapters describe the impact of the earthquake on livelihoods and the changes in food availability, access and utilization. As will be seen, all dimensions of food security have been affected, and rural areas are worse off in respect to availability, access and use, mainly due to higher pre-crisis-vulnerability.

Wheat is the most important staple in Pakistan, catering for 40 percent of caloric intake. Annual wheat production averages 18-20 million metric tons (MT) and accounts for nearly 75 percent of total national cereal production. Imports of food commodities, notably edible oils, sugar and grains play a prominent role in total food supply in Pakistan. Pakistan is traditionally a net importer of wheat, although production has increased in recent years. Wheat imports have declined to less than 300,000 MT over the past four years. Pakistan is a net exporter of rice, with annual export volumes fluctuating between 2.5 and 3.6 million metric tons. The rice and pulse markets are privatised in Pakistan.

The government of Pakistan maintains a support price for wheat and purchases wheat stocks through the Government Pakistan Agricultural Storage and Services Corporation, Ltd (PASSCO). These stocks are redistributed to the provinces, particularly to AJK and NWFP to ensure adequate supply to these deficit areas and pre-position stocks to those areas typically cut-off during winter. The wheat and sugar markets, among others, are regulated to provide price stability to producers through farmgate support price system, while only wheat flour prices are regulated at the consumer level. Support prices are established and announced annually by the Government on the recommendation of the Agricultural Price Commission. The farm gate price is usually announced before the crop is sown and acts as a floor price, below which the free market prices should not fall, and also acts as a producer incentive to ensure production.

AJK and NWFP are food, and particularly wheat deficit provinces. A few districts in NWFP are producing limited surplus of rice and livestock in a typical production year. The Government supplies wheat and wheat flour to AJK to cover the deficit, which is around 70% of total consumption. The Government of Pakistan has a network of food distribution outlets managed by the Food Department of AJK. The department constructed food storage in all major towns, where food is issued to local populations at fixed prices. The Government subsidizes the transportation cost in order to keep the prices low; however, there is still some variation depending on the distance to various locations.

Muzaffarabad (AJK) for example, is a food deficit district with most of the food consumed locally originating from Punjab and other provinces. The federal government annually subsidises the import of around 300,000 MT of cereals with subsidies taking the form of free transportation and milling which amounts to 35 percent of the total cost.⁷ In NWFP, the food is not distributed through government outlets, but wheat is sold to flour mills on a quota basis at fixed prices. The prices in small towns and remote villages are higher, as transportation costs and retail margins are additional parts of the cost structure. The earthquake destroyed many warehouses, stores and dislocated staff; hence the system is no longer operational. Government intends to restart, but this requires rebuilding storage space or making alternative arrangements, mobilizing staff, arranging for milling at Rawalpindi, as flour mills in AJK are damaged, and establishing a distribution/sales mechanism for the inaccessible areas.

When the earthquake hit, maize and rice harvest was underway, while the planting season for wheat started in November. In some places families had already harvested and sold parts of the crops in local markets before the earthquake. In others, standing crops in the fields spoil as farmers are concentrating on caring for the injured, or are still too traumatised to work on their fields.

⁷ One 40kg bag of wheat flour costs 450 rupees; and transport and milling from Kale to Muzaffarabad costs 150 rupees

Table 6 – Crop damage and livestock lost (FAO)

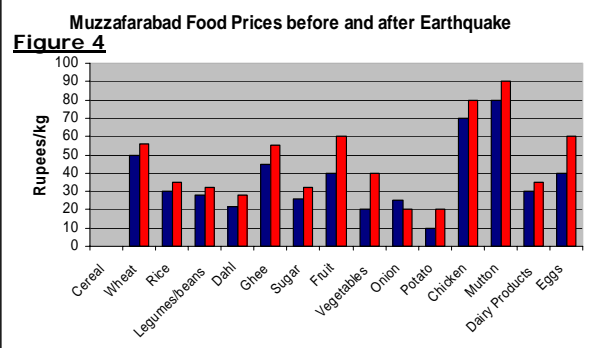
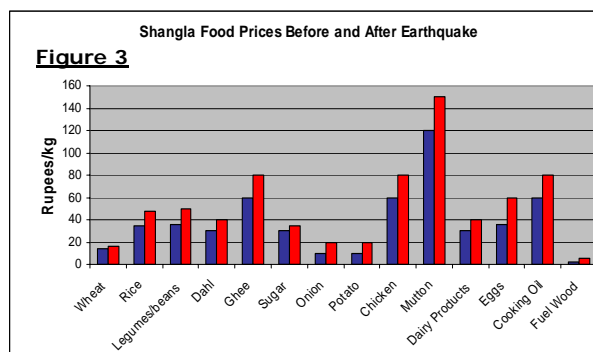
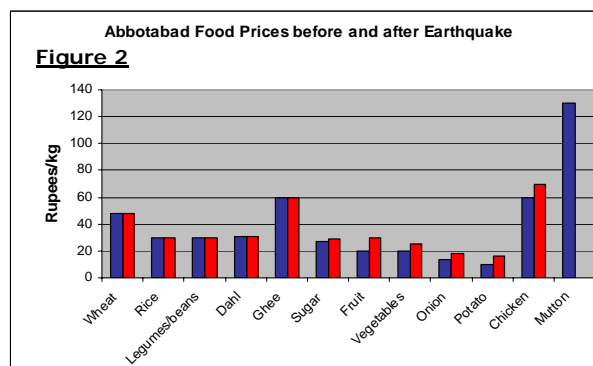
Province	Districts	Maize	Rice	Wheat area	Livestock lost
AJK	Bagh	75 %	30%	50%	20%
	Muzaffarabad ⁸	75%	30%	50%	20%
	Poonch	40%	30%	50%	15%
NWFP	Abbotabad	30%	7%	30%	10%
	Mansehra	50%	15%	30%	10%
	Kohistan	30%	10%	30%	15%
	Batagram	50%	15%	30%	10%
	Shangla	35%	10%	30%	15%

Where seeds or arable land have been destroyed, sowing of winter wheat is no longer possible, which means that the next harvest in June-August may be lost and affected households may have to wait until the following rice/maize harvests in October next year.

FAO and the Ministry of Food, Agriculture and Livestock (MINFAL) estimated that crop and livestock losses were worst in AJK (see Table 6), with up to 75% of maize crops, 30% of rice crops and 20% of livestock lost. Also, indications are that 50% of the wheat planting area is lost in AJK and some 30% in NWFP. Losses of crop planting and maize harvest will further impact on availability of fodder for livestock.

Households usually store substantial amounts of food for the winter months in their homes, especially wheat. According to the household survey, 90% of the households had some stock of cereals before the earthquake. Of those, more than half reported total loss of stock and another 10% reported that more than 50% of stocks were lost. Ten percent said that less than 50% was lost, and the same percentage reported no loss in grain stocks. The remaining grain stocks will - for at least half of the interviewed households - last no longer than two more weeks.

Food availability in the affected areas as well as household food security is not only constrained by agricultural losses, but by loss of livestock (milking cows and animal traction). Three fourth of the sampled households had livestock, of which almost 60 percent lost some animals (20 percent lost all), which is a slightly higher estimate than the FAO one above. As both sheds and dry fodder are no longer available, it is very likely that even more livestock will die, depriving the affected people of their remaining assets, an important source of animal protein in the diet, and animal traction for cultivation and cash income.



⁸ The Department of Agriculture estimate that 25000 MT of maize grain will have been lost in Muzaffarabad. Due to loss of land and given that the earthquake will deter sowing of wheat flour, a further 25,000 MT of the wheat flour harvest will be lost due to the earthquake. Total cereal deficit is therefore estimated at 50,000 MT, on top of the Muzaffarabad's 300,000 MT deficit.

8. Impact on Markets, Prices and Access to Credit and Savings

Prior to the quake, urban and semi-urban households, particularly, were depending greatly on markets, and were spending around half of their income on food purchases.

Wholesale markets in the main markets centres in Muzaffarabad collapsed after the earthquake and have not yet recovered. Those usually engaged in marketing are pre-occupied with their traumas and the salvage of families and possessions. Banks remain closed and data on accounts have been lost. The Department of Commerce estimates that it will be a number of weeks until the correct account data will be accessible; access to credit has therefore ceased. Small shopkeepers and traders keep their funds in bank accounts, but with banks closed, and data for bank clients being lost, it will be some time before shop keepers can access their savings and or credit in order to replenish their stores.

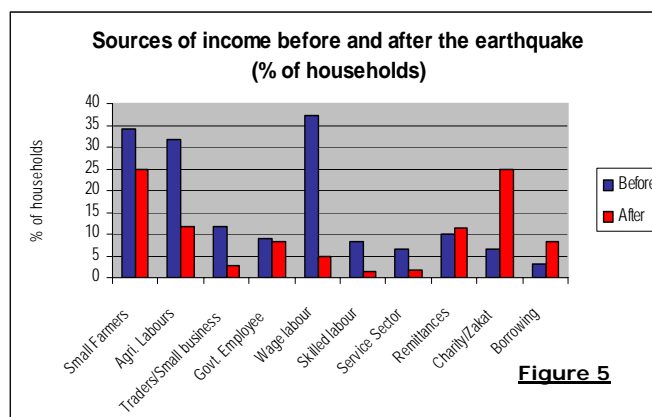
However, the other major urban centres that supply the affected areas, Abbottabad and Mansehra, are hardly affected. Also, retail marketing activities in less affected semi-urban are continuing. Shops were open in most towns visited throughout the assessment though stocks are depleting. Obviously, the situation is different in the inaccessible areas, where road communication is disrupted. There, markets are not working and people walk many hours, sometimes days, to the next market.

Food and non-food prices have increased since the disaster, as many stocks are destroyed, market activities are reduced and transportation costs have more than doubled on average. The increase varies by area depending on the extent of damage and remoteness. The charts below show that in Muzaffarabad prices for all essential food items rose by at least 10 percent, and in the case of vegetables priced doubled. In the much less affected Abbottabad, slight changes were reported for perishable food items, such as fruits and vegetables. The highest prices were found in Shangla, which is less affected than Muzaffarabad, but very remote with higher transportation costs.

On average, the rural population in Pakistan spends around half of their total consumption expenditure on food, compared to 42 percent in urban areas. For the rural poor the share goes up to 54 percent, which makes this group particularly vulnerable to food price shocks⁹.

9. Livelihoods, Household Access to Food and Food Consumption

The earthquake had a serious impact on food availability – as described in the previous chapter – as well as on household food access. The purchasing power of many households has been lowered due to price increases and loss of employment, while large shares of household food stocks and standing crops have been destroyed. This has direct implications on food consumption. Based on the government estimates of the number of affected people¹⁰ - 3.3 million people - and the survey results, it is estimated that currently 1.2 million people consume very poor diets, while another 1.1 million are *borderline*, while likely to deplete their last cash and food

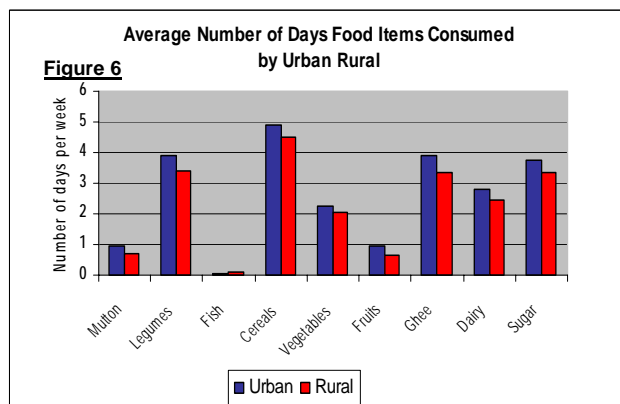


⁹ Pakistan Poverty assessment, World Bank 2002

¹⁰ The assessment used 3.3 million, which is rather at the lower end of the 3.2 – 3.5 million figure given by the government

reserves as they lost their main income sources.

Prior to the quake, the main income sources in the affected areas were farming, agricultural labour and



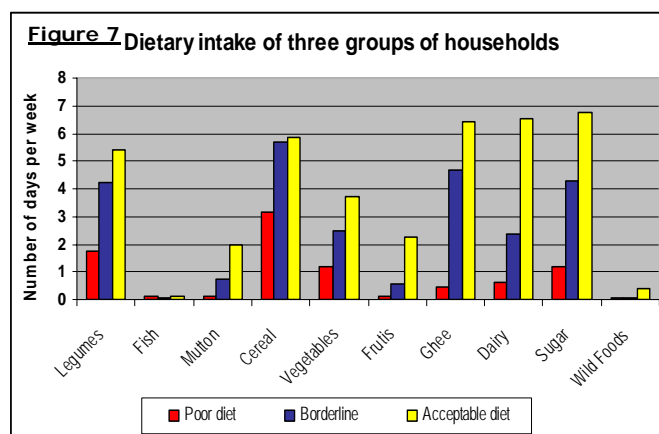
wage labour. Small farmers were usually also engaged in wage labour. Small business/trade, remittances and government employment and other skilled labour were other though less important sources. The Key Informant interviews indicate that in all sectors employment declined. Especially wage labour employment dropped dramatically from 35 percent pre-quake to around 5 percent two weeks after the quake. Similarly, percentage of households engaged in agricultural labour decreased from one third to roughly 10 percent post-quake, while farming activities are reduced more modestly by one third, i.e. down from 35 to 25 percent (see figure 5).

As expected, government employment remained more or less stable, while the share of households that rely on borrowing and charity went up significantly. Now, *Zakat* is the most important income source, besides farming. One fourth of households rely on charity, up from 5 percent before the quake. While the data from the few Key informant interviews at community level have to be treated with caution, they nevertheless support observations and are in line with general assumptions.

Household survey results indicate that food consumption of the affected population has clearly deteriorated since the earthquake, in terms of quantity and quality. Almost 80 percent of sampled households have reduced the amount of food eaten and shifted to less preferred food. A seven day recall shows that cereal is the most frequently consumed food, on average 4-5 days per week, pulses, ghee and sugar are consumed 3-4 days a week, while milk (dairy) and vegetables are available on only 2-3 days per week. A certain increase in the consumption of certain food items can be explained by the fact that people are eating what's left in their stocks and what is given to them.

Food basket differs between urban and rural areas. As can be seen from the graph below, urban households consume more food variety/types than rural households, and consume all food items more frequently. Especially in rural areas, diets lack both animal protein and micronutrients, and consist primarily of cereals, pulses and fat (ghee).

According to humanitarian standards, a minimum food ration should provide sufficient calories, protein and fat for which at least three food items from different food groups are required daily¹¹. By considering food frequency and diversity and these standards, households can be clustered according to poor, borderline and acceptable food consumption. More than one third of the households reported to have eaten on average 1.2 food items daily. Their diet comprises mainly cereals, legumes and vegetables, but with the main staple available on only three days per week and the other items even less, which is a very inadequate diet and puts people at high risk of malnutrition. It is estimated that this group comprises 1.2 million, who are in urgent need of food assistance.



¹¹ SPHERE standards, p. 157

Table 7 – Households by food consumption pattern

	Food Frequency and Diversity			Total
	Poor consumption	Borderline consumption	Acceptable diet	
Urban	26%	37%	37%	100%
Rural	39%	43%	18%	100%

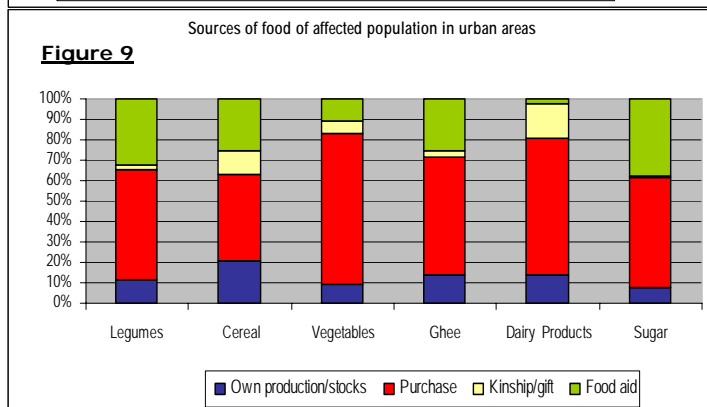
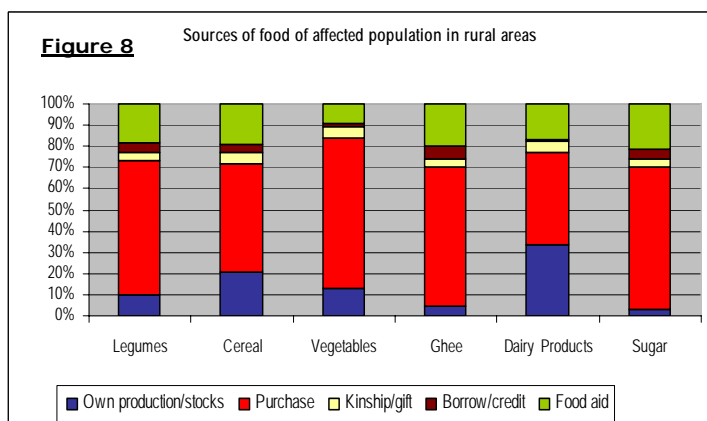
Another 40 percent of households have a *borderline* diet. They eat on average 3.6 items daily with cereals being available on 5 to 6 days per week, pulses, fat and sugar on more than 4 days per week, with fresh foods such as vegetables and dairy products available less than

three days per week. The roughly 20 percent of households that are believed to have a currently acceptable diet manage to consume between five to six different items every day, including vegetables and fruits.

In rural areas, almost 40 percent of households have poor diets, and only 18 percent have acceptable dietary intake.

To better understand whether these consumption patterns are sustainable or are based on damaging coping strategies and external assistance, sources of food have to be analysed. The following pattern emerges from the survey:

- One third of the surveyed households rely on external support, in the form of food aid, kinship or borrowing/credit.
- 60 – 80 percent are still able to secure food from either their own stocks, production or through purchase. Market purchases are by far the most important source of food. In urban areas, they range from 40 percent of cereals, up to 70 percent of vegetables, while in rural areas more than 60 percent of pulses, vegetable and fat are bought from the market.
- Own production is especially relevant for dairy products, with 30 percent consumed in rural areas derived from own production.
- It appears that more food aid has reached urban areas, where it accounts for roughly one fourth of food consumed, compared to one fifth in rural areas.
- Interestingly, borrowing food or on credit appears to be only practised in rural areas, where especially ghee is sourced this way.
- Kinship support seems to be negligible, with the exception of cereals and dairy products in urban areas - the reason for the low percentage might be that relatives are equally affected.



The above indicates there are still cash reserves and market supplies in affected areas. Considering the importance of purchases, the main question is whether these households can continue to purchase food in the near to longer term without compromising their ability to meet other basic needs and to invest in recovery. If livelihoods cannot be resumed, cash reserves will probably be exhausted fairly soon. Considering the overall loss of employment, it is estimated that around 80 percent of the borderline cases (1.1 million people) need food assistance to prevent deterioration of their livelihood and nutritional situation.

The majority of sampled households – 75 percent – are able to prepare meals as they have cooking utensils. However for cooking fuel almost all now depend on wood, compared to 75 percent before the earthquake, which may result in

further environmental pressures in the affected areas. Almost half of the households stated that their reserves will last less than one month.

10. Food Utilization, Nutritional and Health Status

Health and nutrition indicators are generally poor in Pakistan. According to a nutrition survey in 2001–2002, among children aged 6 to 59 months (NNS 2001-02) prevalence of chronic and acute malnutrition in Pakistan is 36 percent and 15 percent respectively. One third of pregnant mothers in Pakistan are estimated to be malnourished, resulting in 25 percent of live births being underweight. Iron-deficiency anemia is widely prevalent: 55 percent of children and 45 percent of non-pregnant women have sub-clinical deficiencies. Nutritional deficiencies are generally much worse in rural areas.

The Common Country Assessment (2003) states that almost half (45%) of the death in Pakistan are attributable to communicable diseases, linked to social and environmental factors, such as unsafe drinking water, malnutrition, low vaccination coverage, over-crowding. Small children have between 5 to 12 episodes of diarrhoea and respiratory infections, and vaccine preventable diseases, such as measles or tetanus. Other communicable diseases, such as tuberculosis and meningitis, are common in Pakistan (CCA 2003).¹²

In the earthquake affected provinces acute malnutrition rates were 11% in NWFP and 6% in AJK, lower than the national average. Chronic malnutrition in AJK (34%) was slightly lower than the country wide figure, but considerably higher in NWFP (43%)¹³. The prevalence of micronutrient deficiencies were reported to be significant both in NWFP and AJK by the National Nutrition Survey. Iron deficiencies were reported to be prevalent amongst 21% and 29% of children in NWFP and AJK respectively. Vitamin A deficiency was prevalent in 14% of children in NWFP and 4% of children in AJK. Zinc deficiency was reported to be prevalent amongst 26% and 33% children in NWFP and AJK respectively.

Pre-existing poor health and nutrition conditions in the affected areas are expected to deteriorate as a result of the earthquake.

The scope of the present rapid assessment does not allow drawing conclusions on the current nutritional situation of the affected population. However, data on the immediate causes of malnutrition (food security, caring practices, health and sanitation) were collected in order to assess the risk factors for malnutrition and to recommend appropriate interventions.

Three major diseases or health issues shown to have a direct impact on the nutritional status of children are diarrhoea, acute respiratory infection and fever and rash. The incidence of these problems in the affected areas surveyed were reported to be 12% (diarrhoea), 51% (acute respiratory infections) and 27% (fever and rash) during the week preceding the survey.

Only 32 percent of surveyed households who had a sick child or sick children reportedly sought health care. Decreased access to health facilities seems to be the primary cause for not seeking health care. Households reported long distances to health facilities (63%), no transport to reach facilities (19%) and not

Where are the most food insecure people - Snowbound Food Deficit Areas

Within the district of Muzaffarabad, two areas; Liba and Neelum valleys, are particularly vulnerable at the present time as they are both snow bound throughout the winter, (they are cut off for the winter by snow). are both cut off during the winter. The Liba valley hosts 65,000 people in 23 villages. Rains will bring landslides which will cut off the Liba valley before the snow arrives.

The government annually transports and stockpiles 124,000 MT of maize into these two areas to ensure food availability throughout the winter. This provisioning takes place over 40 days starting in October. The process of stockpiling was terminated this year by the earthquake. According to the Muzaffarabad District Commissioner, as some provisioning had already taken place at the time of the earthquake, there is at present cereal sufficient to last for 3 weeks. Soon the rains and snow start and will bring significant landslides. Both areas will be cut off by snow shortly after. The need to provide sufficient food relief and ensuring essential services is essential.

¹² The episodes of diarrhoea/dysentery diseases in one of the worst affected districts in NWFP (Mansera), were recorded to be 7.54 per child and the rate of fever/ARI was recorded to be 9.87 per child (draft report WFP/HMIS, 2005).

¹³ These and the following data are all taken from the National Nutrition Survey in 2002, unless indicated otherwise.

considering the problem as severe enough (11%) as the major reasons for not seeking health care for sick children.

More than 75 percent of sampled households use water from springs, rivers, and wells while only 22 percent of the households reported having access to tap water. Combined with current living conditions post-earthquake, such as makeshift tents, overcrowding and unsafe sanitary practices, any incidence of communicable disease can easily spread and turn into epidemic.

Food habits have been significantly affected by the loss of food stocks, assets and income sources, as described in the earlier chapter. Assessment of the food frequency and diversity has shown that only 22 percent of the surveyed households have an adequate diet, while food intake of at least two thirds is deficient in many of the essential nutrients.

Half of the respondents reported a change in feeding practices of small children, due to shortage of food (51%), fear/loss of appetite (25%), illness/weakness (17%) and others. Breastfeeding practices also changed to a lesser extent. Almost half of the households had a mother with a child under 2 years of age. Eighty percent of those mothers were still breastfeeding their children, while 20 percent stopped doing so. Of those who stopped, the majority mentioned sickness of the mothers and inability to breastfeed as reasons (55%), 14 percent thought there was not enough milk, while 9 percent reported that mothers were missing. As a substitute for breastfeeding, two thirds were feeding breast milk substitutes while 6 percent of the children were fed by relatives and neighbours.

All of the above conditions put children at high risk of malnutrition. Pre-existing levels of malnutrition, post-quake inadequate diets, high infection rates and poor feeding/caring practices and the collapse of health infrastructure in many places are likely to result in a quick deterioration of the nutritional status of children, unless appropriate interventions are implemented immediately.

11. Recommendations

The mission has the following fifteen recommendations. The implementation of these recommendations requires the combined efforts of the humanitarian community and the government(s), and cannot be the responsibility of one organisation alone:

1. **The mission suggests General Food Distribution for 2.1 million people in rural areas at least until end of March** (see table in Annex for population distribution by district and annex for distribution by sub-division). Whether general food assistance can then be replaced by more targeted interventions depends on several assumptions – a **best case** scenario would imply that
 - more people than expected will be able to harvest the standing rice and maize crops over the next few weeks,
 - A large share of farmers was/is able to finalize sowing of winter wheat, which would be harvested in June-August,
 - animal shelter and fodder is provided quickly to avoid further death and loss of livestock due to cold and lack of feed,
 - cash compensation (Rs.100,000 for each death per household, Rs. 50,000for injured and Rs. 25,000 for each affected household without death or injury) be paid by the government within the next couple of months,
 - further compensation be paid for destroyed/damaged houses – to allow at least a certain share of families to rebuild their houses,
 - Government employees (such as civil servants, teachers, police officers and others) receive their salaries, even if they cannot work because offices, schools and other workplaces are destroyed,
 - Cash injections through government compensation scheme revive local economy and wage labour employment opportunities - especially in the construction sector.
2. **Priority should be given to the roughly 200,000 people in the difficult to reach areas that will also be partly cut off by snow for months in mid to late November** (Neelam, Jehlum,

- Kargan and Naran Valleys as well as upper parts of Alai Valley). Pre-positioning (ideally for four months) of food stocks should be organised for these areas.
3. **For around 230,000 people in the worst affected urban and semi-urban areas (more than 60% of houses destroyed) a general ration for the next 3-4 months is recommended**, until the end of February/March, to allow economic activities to revive, government compensation schemes to reach the affected populations, banks to open, people to access their bank savings and restart their lives again. Targeted interventions, such as FFW and school feeding should replace GFD, starting latest April.
 4. In the other **less affected urban and semi-urban areas where markets are integrated - cash based interventions, such as cash for work, cash grants and income-generating activities, are considered more appropriate**. In addition, a targeted food voucher scheme for the most affected households seems to be an adequate response, which could be implemented by the Government through their outlets and/or through NGOs.
 5. The ongoing market analysis indicates that market recovery might be faster than expected, and trader activities might be inhibited if food is distributed for too long. Hence, **prices and markets should be monitored closely**.
 6. Within communities and towns, preference should be given to **households that have lost their houses**, as they are very likely to be more food insecure than the ones who still have their assets and food stocks. In addition, in the worst affected rural areas, **landless labourers** should also receive food aid, even if their houses are still intact. They belonged to the poorest and most food insecure groups prior to the earthquake, with hardly any savings and stocks, and are likely to now have further difficulties finding an income due to the damage to agricultural land and the greatly reduced wage labour opportunities. Equally, **efforts should be made to identify and target affected female headed households, who are extremely vulnerable, though the number is assumed to be very low, as well as the newly disabled**.
 7. **The Government should pursue plans to implement or extend market interventions in the affected areas** to ensure adequate food supply in the worst hit and traditionally food deficit areas of AJK and NWFP and initiate policy interventions to control price inflation.

HEALTH AND NUTRITION RECOMMENDATIONS

8. **Blanket supplementary feeding (fortified with micro-nutrients) for 280,000 children between 6 months and five years in rural areas**. Where possible targeted supplementary feeding should replace blanket feeding to best utilise the resources.
9. **Therapeutic feeding centres** at concentrated areas of affected population and in collaboration with currently operating health care facility (mainly base hospitals); establish referral mechanism and evacuation of severe malnourished children and infants below 6 months with no mother.
10. **Design of a nutrition surveillance system**.
11. **Support and care for the mothers to continue breastfeeding** and ensure safe space in the camps and training of health workers on re-lactation skills.
12. **Measles campaign for 6 months to 15 years children with vitamin A supplementation** should continue.
13. **Distribution of ORS through all food distribution points** or depots at the community level such as shops.
14. **Micro-nutrient supplementation for pregnant women** through health services.

AGRICULTURE AND LIVESTOCK RECOMMENDATIONS

15. To enable farmers to sow the winter wheat in the forthcoming planting season, **seeds and other inputs are urgently required**. In addition, **to prevent further depletion of livestock it is important to provide fodder and shelter for the animals**. Where this is not possible, alternatively, a de-stocking programme should be initiated.

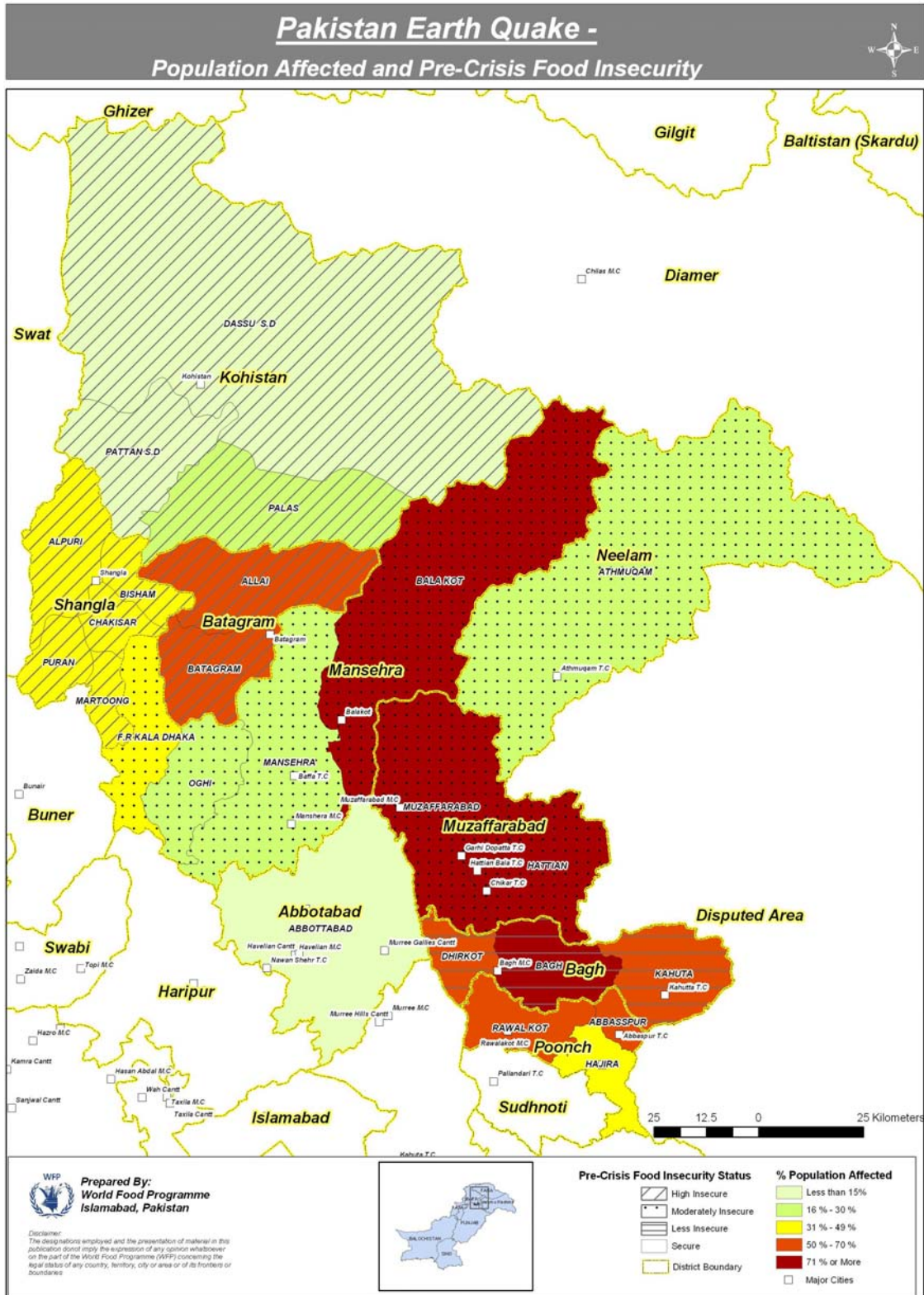
ANNEX I – Table of Affected Population in Need of Food Aid

Pakistan - Earthquake affected population in need of food aid

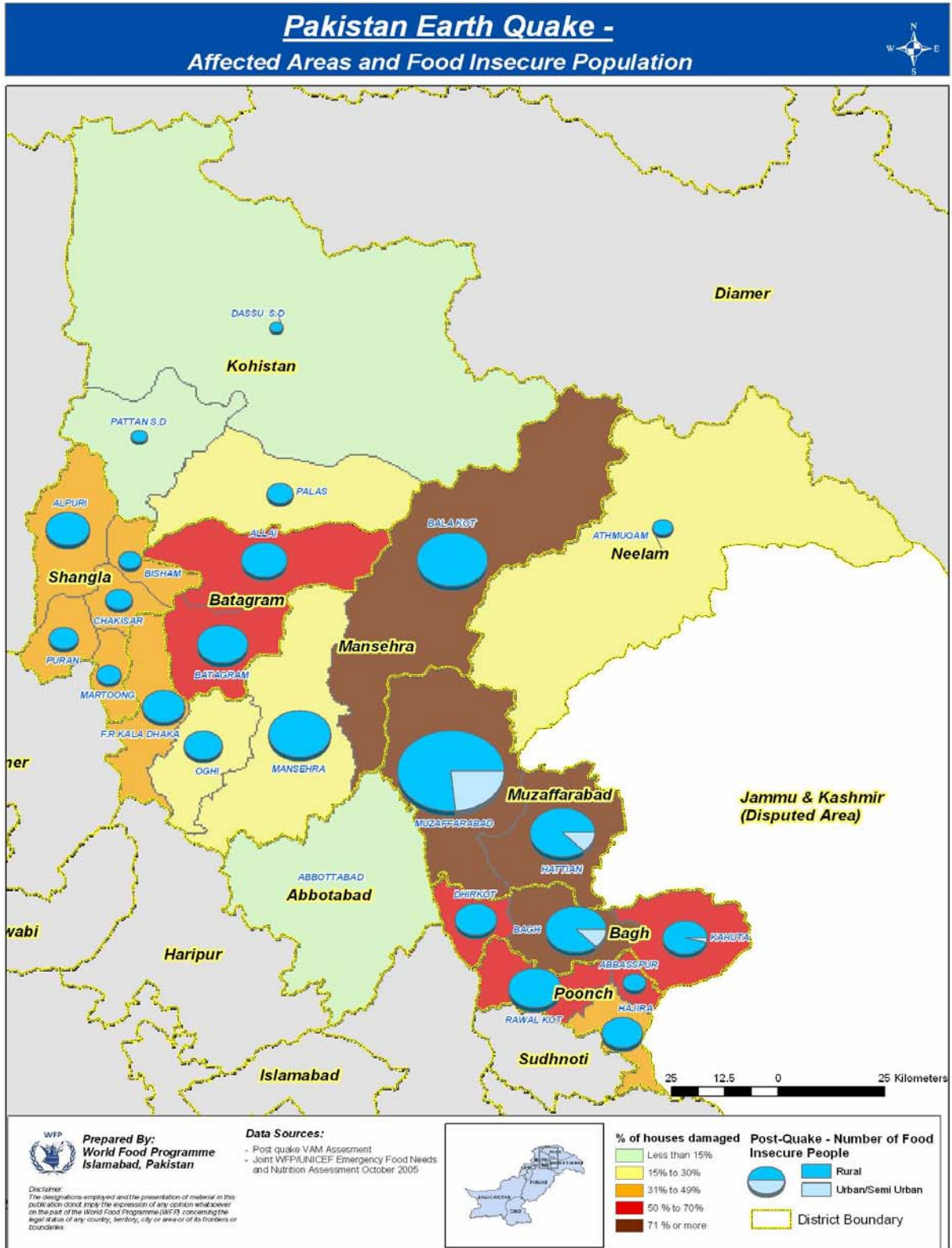
Prov.	District	TEHSIL	Population	Food insecure Population			
				Rural	Urban	Semi urban	Total
	BAGH	BAGH TEHSIL	208 878	131 124	18 379	17 600	167 103
AJK		DHIR KOT TEHSIL	116 010	74 207	-	7 000	81 207
AJK		HAVELI TEHSIL	130 544	84 560	3 446	2 800	90 806
	Total		455 432	289 891	21 825	27 400	339 116
AJK	NEELUM	ATHMUQAM TEHSIL	135 206	18 412		1 280	19 692
	Total		135 206	18 412	-	1 280	19 692
AJK	MUZAFFARABAD	HATTIAN TEHSIL	210 080	162 733	23 052	4 500	190 285
AJK		MUZAFFARABAD	565 799	377 526	115 259	22 500	515 285
	Total		775 878	540 259	138 311	27 000	705 570
AJK	POONCH	ABBASPUR TEHSIL	51 743	25 742			25 742
AJK		HAJIRA TEHSIL	166 351	74 837			74 837
AJK		RAWALAKOT TEHSIL	245 416	124 933			124 933
	Total		463 510	225 513	-	-	225 513
NWFP	BATAGRAM	ALLAI TEHSIL	135 015	92 410	-	2 100	94 510
NWFP		BATAGRAM TEHSIL	206 016	117 610	-		117 610
	Total		341 031	210 020	-	2 100	212 120
NWFP	SHANGLA	ALPURI TEHSIL	216 653	85 861	-		85 861
NWFP		BISHAM TEHSIL	72 325	24 930	-		24 930
NWFP		CHAKISAR TEHSIL	84 323	32 929	-		32 929
NWFP		MARTOONG TEHSIL	71 952	27 981	-		27 981
NWFP		PURAN TEHSIL	99 090	38 836	-		38 836
	Total		544 342	210 537	-	-	210 537
NWFP	ABBOTTABAD	ABBOTTABAD TEHSIL	999 178				-
	Total		999 178	-	-	-	-
NWFP	MANSEHRA	OGHI TEHSIL	222 603	65 281	-		65 281
NWFP		MANSEHRA TEHSIL	678 811	172 905			172 905
NWFP		F.R KALA DHAKA	206 228	82 491	-	-	82 491
NWFP		BALA KOT TEHSIL	253 390	210 051	-	18 000	228 051
	Total		1 361 032	530 729	-	18 000	548 729
NWFP	KOHISTAN	DASSU	184 746	8 737	-		8 737
NWFP		PALAS/CHILLAS	165 613	32 123	-		32 123
NWFP		Pattan	122 211	11 721	-		11 721
	Total		472 570	52 581	-	-	52 581
	G. Total		5 548 180	2 077 941	160 136	75 780	2 313 857

Source: World Food Programme Islamabad-Vulnerability Analysis and Mapping (VAM) Unit

ANNEX II – Map of Affected Areas and Pre-Crisis Food Insecurity



ANNEX III – Map of Affected Areas and People in need of food



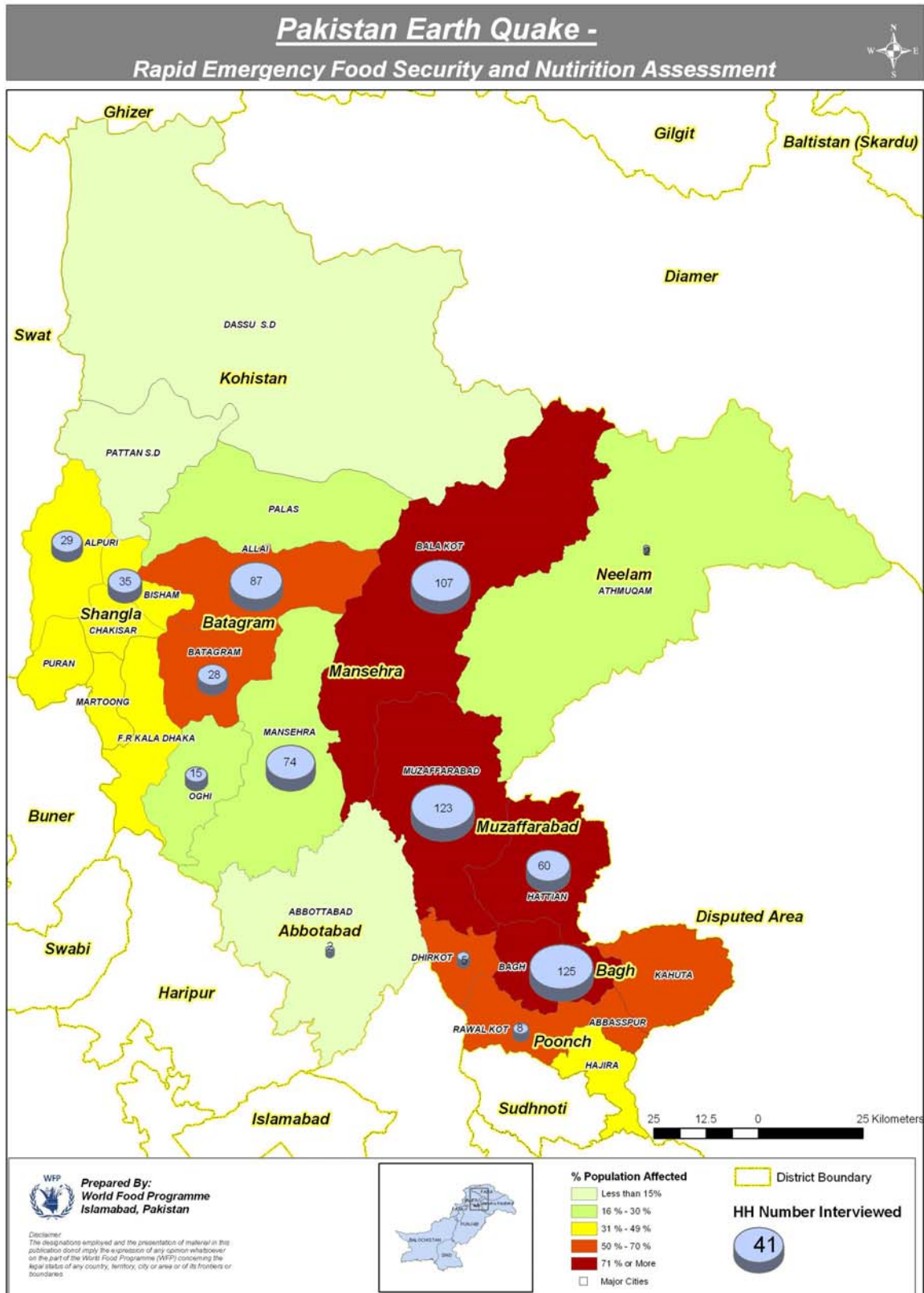
ANNEX IV – Share of population with damaged houses

District	Tehsil	Population				SHARE OF POPULATION WITH HOUSES DAMAGED						Overall	
		Rural	Urban	Semi Urban	Total	RURAL		URBAN		SEMI-URBAN		Total	%
						%	Population	%	Population	%	Pop		
BAGH	BAGH	163,904	22,974	22,000	208,878	80	131,124	80%	18,379	80%	17,600	167,103	80%
	DHIR KOT	106,010	-	10,000	116,010	70	74,207		-	70%	7,000	81,207	70%
	HAVELI	120,800	5,743	4,000	130,544	70	84,560	60%	3,446	70%	2,800	90,806	70%
Total		390,715	28,717	36,000	455,432	73	289,891	76%	21,825	76%	27,400	339,116	74%
NEELUM	ATHMUQAM	115,074	12,133	8,000	135,206	16	18,412	5%	607	16%	1,280	20,298	15%
Total		115,074	12,133	8,000	135,206	16	18,412	5%	607	16%	1,280	20,298	15%
MUZAFFARABAD	HATTIAN	180,815	24,265	5,000	210,080	90	162,733	95%	23,052	90%	4,500	190,285	91%
	MUZAFFARABAD	419,473	121,325	25,000	565,799	90	377,526	95%	115,259	90%	22,500	515,285	91%
Total		600,288	145,591	30,000	775,878	90	540,259	95%	138,311	90%	27,000	705,570	91%
POONCH	ABBASPUR	42,904	5,839	3,000	51,743	60	25,742	60%	3,503	60%	1,800	31,046	60%
	HAJIRA	149,674	11,677	5,000	166,351	50	74,837	40%	4,671	50%	2,500	82,008	49%
	RAWALAKOT	208,222	29,193	8,000	245,416	60	124,933	60%	17,516	60%	4,800	147,249	60%
Total		400,800	46,710	16,000	463,510	57	225,513	55%	25,690	57%	9,100	260,303	56%
BATAGRAM	ALLAI	132,015	-	3,000	135,015	70	92,410		-	70%	2,100	94,510	70%
	BATAGRAM	196,016	-	10,000	206,016	60	117,610		-	60%	6,000	123,610	60%
Total		328,031	-	13,000	341,031	62	210,020		-	62%	8,100	218,120	64%
SHANGLA	ALPURI	214,653	-	2,000	216,653	40	85,861		-	40%	800	86,661	40%
	BISHAM	62,325	-	10,000	72,325	40	24,930		-	40%	4,000	28,930	40%
	CHAKISAR	82,323	-	2,000	84,323	40	32,929		-	40%	800	33,729	40%
	MARTOONG	69,952	-	2,000	71,952	40	27,981		-	40%	800	28,781	40%
	PURAN	97,090	-	2,000	99,090	40	38,836		-	40%	800	39,636	40%
	Total		526,342	-	18,000	544,342	40	210,537		-	40%	7,200	217,737
ABBOTTABAD	ABBOTTABAD	790,025	179,153	30,000	999,178	10	79,002	5%	8,958	10%	3,000	90,960	9%
Total		790,025	179,153	30,000	999,178	10	79,002	5%	8,958	10%	3,000	90,960	9%
MANSEHRA	OGHI	217,603	-	5,000	222,603	30	65,281		-	30%	1,500	66,781	30%
	MANSEHRA	576,351	72,460	30,000	678,811	30	172,905	5%	3,623	30%	9,000	185,528	27%
	F.R KALA DHAKA	206,228	-	-	206,228	40	82,491		-		-	82,491	40%
	BALA KOT	233,390	-	20,000	253,390	90	210,051		-	90%	18,000	228,051	90%
Total		1,233,572	72,460	55,000	1,361,032	48	530,729	5%	3,623	52%	28,500	562,852	41%
KOHISTAN	DASSU	174,746	-	10,000	184,746	5	8,737		-	5%	500	9,237	5%
	PALAS/CHILLAS	160,613	-	5,000	165,613	20	32,123		-	20%	1,000	33,123	20%
	PATTAN	117,211	-	5,000	122,211	10	11,721		-	10%	500	12,221	10%
Total		452,570	-	20,000	472,570	12	52,581		-	10%	2,000	54,581	12%
G. Total		4,837,417	484,763	226,000	5,548,180	45%	2,156,943	41%	199,014	50%	113,580	2,469,537	45%

ANNEX V – List of Households Interviewed By Province, District and Tehsil

Province	District	Tehsil	Household Forms
AJK	Bagh	Bagh	125
AJK	Bagh	Dheerkot	5
Sub-total Bagh			130
Su-Total Neelam			2
AJK	Muzaffarabad	Hattian	60
AJK	Muzaffarabad	Muzaffarabad	123
Sub-Total Muzaffarabad			185
AJK	Poonch	Rawlakot	8
Sub-total Poonch			8
Total AJK			323
NWFP	Abbotabad	Abbotabad	2
Sub-total Abbotabad			2
NWFP	Battagram	Alai	87
NWFP	Battagram	Battagram	28
Sub-total Battagram			115
NWFP	Mansehra	Balakot	107
NWFP	Mansehra	Mansehra	74
NWFP	Mansehra	OGHI	15
Sub-total Mansehra			196
NWFP	Shangla	Alpuri	29
NWFP	Shangla	Bisham	35
Sub-total Shangla			64
Total NWFP			377
Grand Total			700

ANNEX VI – Map of households interviewed by *tehsil*



ANNEX VII – Household Questionnaire

Date |__|__|__|__| 2005

Name of Interviewer (print) _____ IntID |__|__|

Province _____ Districts _____

Sub-District _____ Community/Town _____

Urban |__| Rural |__| Camp/Settlement |__|

Section 1 – Household Circumstances

1.1 – Gender of household head Male |__| Female |__|

1.2- Total number of household members |__|__|

1.3- Have you left from your town/village because of the earthquake ?

Yes |__| No |__|

1.4- Has your house been damaged/destroyed by the earthquake? (*tick one only*)

damaged |__| destroyed |__| undamaged |__|

1.5- Where are you currently living? (*tick one only*)

In your house |__|

In tents |__|

With relatives/friends |__|

In a community building |__|

Outside |__|

Other, specify _____ |__|

1.6- Do you have currently have access to cooking utensils? (*tick one only*)

Yes |__| No |__|

1.7- What is your *main* source of cooking fuel? (*tick one only*)

	Before	After
Electricity	__	__
Wood	__	__
Charcoal	__	__
Gas	__	__
Kerosene	__	__
Dung	__	__
None	__	__
Other, specify _____	__	__

1.8 Do you have access to enough fuel to last you for 30 days?

Yes |__| No |__| NA |__| (*if no above*)1.9 – Did you lose any animals as a result of the earthquake? (*tick one only*)

All |__|

More than half |__|

Less than half |__|

None |__| NA |__|

1.10 – Have you lost any grain stocks as a result of the earthquake? (*tick one only*)

All |__|

More than half |__|

Less than half |__|

None |__| NA |__|

1.11 – What long does your current stock of grain last? (*tick one only*)

Less than two weeks |__|

2-4 weeks |__|

> one month |__|

3 months |__| NA |__|

Section 2 – Sources of income before and after the earthquake

Income activity codes

1 = sale of agricultural product	2 = sale of timber	3 = sale of livestock
4 = sales of animal products	5 = wage labour	6 = skilled labour
7 = government employee	8 = petty trade/small business	9 = remittances
10 = service sector (tourism, barber, tailor etc.)	11 = kinship	12 = social benefits (pensions)
13 = borrowing	14 = begging	15 = Zakat/charity
16 = cottage industry	17 = Aid (including food)	18 = other_____

Participant codes

1 = men only	2 = women only	3 = Both M & W	4 = Everybody
--------------	----------------	----------------	---------------

*(insert income and activity codes from above)***Before and after the earthquake****Before After**

2.1a - What is your most important income source? |__| |__|

2.1b - Who participates? |__| |__|

2.2 – When do you expect to be able to go back to your normal work?

Immediately |__|

Within the next month |__|

In more than one month |__|

Section 3 – Food Consumption3.1 - Since the earthquake has any household member ...*(tick yes or no)*

3.1a Reduce the amount of food eaten? Yes |__| No |__|

3.1b Substituted for less quality food? Yes |__| No |__|

3.4 - In the last seven days, how often have you eaten the following foods? Is this more or less than before the earthquake? Please indicate the source for each food item.

(for each food item, enter 0-7 for number of days, and tick for more or less and the source of food using the codes provided below)

	Food item	Days 0-7	More	Less	Same	Sources of food (see codes below)
	Cereals					
	Legumes, Dhal, beans, groundnuts					
	Mutton/Beef/Chicken					
	Fish					
	Ghee/oil/butter					
	Vegetables					
	Fruits					
	Dairy products (Milk, yoghurt, cheese, eggs etc.)					
	Sugar					
	Wild foods (including leaves)					

Source codes:3 = Traded goods or services
6 = Food aid

1 = Own production/collection/stocks

4 = Kinship/gift
7 = other

2 = Purchase

5 = Borrowed/ credit

ANNEX VIII – Key Informant Questionnaire

Date __ __ __ __ 2005	
Name of Interviewer (print) _____	
Province _____	District _____
Tehsil _____	Community _____
GPS: Latitude (y) _____ Longitude (x) _____	

Section 1 – Community Characteristics and Population movement

1.1 – Before the earthquake, how many people lived in this location?

|_____|

1.2 – What percentage of houses has been destroyed in this location as a result of the earthquake?

% |__|

1.3 – Since the earthquake, what share of the population has left this location?

% |__|

1.4 - Who has mainly left?

Families	__
Mainly men	__
Mainly women and children	__

1.5 - Since the earthquake, how many have come to this location?

|_____|

1.6 - Who is mainly arriving?

Families	__
Mainly men	__
Mainly women and children	__

1.7 - From where are most of them coming?

the surrounding villages	__
other districts	__

1.8 - What percentage of the population of this village is currently living..

In their own houses	__
In tents/camps	__
With relatives/friends	__
In a community building	__
Outside	__
Other, specify _____	__

Section 2 - Income

2.1 – What are the main sources of income in this community? Give percentage for each income source

	before	after
Small Farmers	__	__
Agricultural labourers	__	__
Traders/small business	__	__
Government employee	__	__
Wage labour	__	__
Skilled labour	__	__
Service sector	__	__
Remittances	__	__
Charity/Zakat	__	__
Borrowing	__	__

2.2 - Have wage labour rate changed?

Went up	__
Went down	__
remained the same	__

2.3 - If changed, why?

Section 3 - Education

3.1 - Is there a boys/girls school in this area?

	Yes	No
Girls' school	__	__
Boys' school	__	__

3.2 - Are these schools still functioning?

	Yes	No
Girls school	__	__
Boys school	__	__

3.3 - If no, why?

School destroyed	__
Teacher absent	__
Access blocked	__
Transportation costs increased	__
Others, _____	

3.4 - Do you think it is a good idea to start school feeding in this area?

Yes |__| no |__|

Please explain

Section 4 – Nutrition and Health

4.1 - Is the health centre still functioning in your area?

Yes |__| no |__|

4.2 - How long does it take to travel from here to this or the nearest functioning health centre?

Walking

< ½ hours	__
½ hours - 2 hours	__
less than half day	__
more than half day	__

Truck/vehicle

< ½ hours	__
½ hours - 2 hours	__
< 2 hours	__
less than half day	__
more than half day	__

4.3 - Has there been any major outbreak of diseases?

ARI	__
Dysentery	__
Fever	__
Measles	__
Diarrhoea	__

4.4 - Do you anticipate major health problems in the near future? Please explain.

4.5 – After the earthquake, are children under 2 in this area breastfed?

Yes |__| No |__| (if No then go to 4.7)

4.6 If no, what are the reasons?

Stopped before earthquake	__
Stopped breast feeding because mother is sick	__
Stopped breast feeding because indadequate breast milk	__
Other (specify) _____	

4.7 If stopped breastfeeding, how are they being fed?

Started infant formula

Breast feeding by other relatives

Other

4.8 Have feeding practices (children 2-5years) changed after the earthquake?

Yes no

4.9 If yes, what changed?

4.10 – Have children in this area developed night blindness/*shabkori*? (shabkori, falling down in the night)

Yes No NA (NA if no children)

4.11 – What is the main source of drinking water in your community? Before and after

Piped/Tubewell/borehole with pump

Protected spring/protected dug well

Open/unprotected well

Surface water (Rain water, river, pond, dam..)

Tanker/bladder

Other_____

Section 5 -Agriculture and livestock

5.1 – What percentage of the livestock in this community has been killed as a result of the earthquake?

100%

75%

50%

25%

0%

5. 2 - What type of animals have been killed?

5.2a – Cows /Buffaloes

5.2b – Oxen

5.2c - Donkeys

5.2d – Goats/sheeps

5.2g – Poultry

5.3 - What has been the major impact of the loss of animals on the household/community?

Reduced milk

Reduced meat

Reduced eggs

Reduced animal traction

Reduced savings

Reduced transportation

Others_____

5.4 - Has this affected men and women differently? Please explain

5.5 – Has the community lost any grain stocks as a result of the earthquake?

All

More than half

Less than half

None

5.6 – How long does the current stock of grain last? (Indicate number of households by duration)

Less than one week

1-2 weeks

2-4 weeks

1-2 months

More than 2 months

5.7 –What are the main food and cash crops cultivated in this area?

- Rice
- Wheat
- Raps
- Maize
- Millet
- Vegetables
- Dhals/beans/groundnuts
- Fruits
- others _____

5.8 - Has there been any impact on agricultural production as a result of the earthquake?

- Standing crops destroyed
- Land not usable anymore
- Destruction of irrigation channels
- Loss of water source/spring
- Loss of machinery/tools
- Inaccessibility of markets
- Other, specify _____

Section 6 - Markets

6.1 - Do you have access to a market?

Yes no

6.2 - If no, please indicate the reasons

- Roads/bridges damaged
- No means of transport available
- Increased transportation costs
- Market destroyed
- Other, specify _____

6.3 - If yes, are the following items still available on this market? Have the prices changed?

	<i>Available</i>	<i>Prices increased</i>	<i>Prices Remain the same</i>	<i>Prices went down</i>
<i>Cereals (rice, wheat)</i>				
<i>Dhal/beans</i>				
<i>Edible oil/ghee</i>				
<i>Milk</i>				
<i>vegetables</i>				
<i>Meat</i>				
<i>Sugar</i>				
<i>Non-food</i>				
<i>Fuel</i>				
<i>Livestock</i>				
<i>Construction materials</i>				

6.4 - What are the reasons for the main prices changes mentioned above?

6.5 - In the following month, do you anticipate any changes in supply/prices in any of the items above?

Yes no

6.6 - If yes, why

Section 7 – Food Consumption

7.1 - How many households in this community face food shortages?

- Few |__|
- Some |__|
- Many |__|
- All |__|

7.2 - Who are the most food insecure people in this community?

7.3 - How do people cope with food shortages?

(Tick the three most important coping strategies)

- Shift to less preferred foods |__|
- Reduce number of meals eaten per day |__|
- Reduce the amount of food eaten by adults |__|
- Borrow food |__|
- Collect wild foods, or harvest immature crops |__|
- Sell or slaughter livestock (goat, sheep, and chickens) |__|
- Outmigration |__|
- Work for food only |__|
- Charity/Zakat |__|
- Distress sales of assets |__|
- Others _____ |__|

7.4 - How many households in this location have cooking utensils?

- Most
 - some
 - none
-

Section 8 - Food aid and other assistance

**8.1 - Has your community received any of the following relief assistance?
What are the three most urgent needs?**

- | | | |
|------------------|------------|-------|
| | Assistance | needs |
| Shelter | | |
| Food | | |
| Medicine | | |
| Blankets | | |
| Water | | |
| Cooking utensils | | |
| Cash | | |
| Health | | |
| Other (specify) | | _____ |

8.2 - How long do you think it will take until the majority of the community resume their livelihood activities?

- Less than one month |__|
- Between 1-3 months |__|
- More than 3 months |__|

ANNEX IX - Report by Survey Team Member on SHANGLA District

Most of the food stuff received by the affected population in Shangla is useless, because when they reach there it has already been expired such as Sand whites, Tams, Bread etc before they eat. Therefore, food aid must consist of (i) Ghee, (2) Wheat, (3) Rice (4) Sugar, (5) dhal Etc which are essential items.

Also the price of such food items raised considerable due to the shortage in the market. People become unemployed after the shocks and they came down from the hilly areas to lower side in search of the aid. If they get something its O.K. otherwise their whole day is wasted in the market, and then they go back.

In Shangla main market is open and every food item is available over there but the price of such food item are too much and only few people can manage to buy for themselves. All the community demanded for essential food items.

(1) Population

Current population in 2004 (on the basis of 3.27% growth rate) = 512,000. Its area is 1586Sq.km. Average household size is 8 person. Shangla District consists of 28 Union Councils. Total No. of house are 53,529 of which 40% of the houses are affected. Total No. of villages are 111. Union Council wise population details of District Shangla are attached.

In Besham Tehsil Maira Union Council is badly damaged. Total population of Maira is 12,800. 1500 houses are affected which makes 90% of the Maira Union Council. They have no tents. They make tents for themselves by using plastic bags which is really not good because of the intense cold in that area.

(2) Infrastructure Damages

A total of 14 Nos (160Kms) District's link road were badly affected and damaged due to earthquake. Some of these roads are affected so badly which cannot be used for traffic purpose. Karora Opal (link road (6 Km) is still block). Bar Bakot link road (7Km) is block. However machinery has already been deployed on this road to open it for traffic purposes.

(3) Water Supply Schemes

A total of 40 Nos. drinking drinking water supply schemes were badly damaged due to the earthquake which requires immediate restoration.

(4) Education Building/Schools

According to initial reports of the school in Literacy Department Shangla, 20 Nos High/Higher Secondary Male and Female Schools, 50 Nos Middle Male and Female Schools and 270 Nos Primary Male and Female School buildings are badly damaged due to severe earthquake on 08-10-2005.

(5) Private Property Damages

Due to the severe earthquake private property link houses (Pacca and Kacha), Shops, Land mosques, Madrassas and all kind of livestock were badly damaged. The Administration is in process to make assessments of these damages.

(6) Telecommunication

All telephone exchanges are functioning properly except Maira Union Council.

(7) Electricity/Transmission Lines

Transmission lines from Thakot to Besham and Chakisar areas stand disconnected and needs really restoration.

(8) Shelter Requirements.

The following tents and blankets are the immediate requirements of the District:

- (a) Tents 10,000
- (b) Blankets 25, 000

(9) Deaths and Injuries

Total Death in District = 410 person

Total Injured in District = 1323 person

Earthquake Situation Report updated 23-10-2005

1.	Total Population (According to Population Census 1998)	434,563
2.	Annual Average Growth rate	3.27%
3.	Current Population in 2004 (on the basis of 3.27%GR)	512,000
4.	Area	1586 Sq km
5.	Population Density	274 persons /Sq km
6.	Average household size	8 persons
7.	Total deaths 410 injured 1323 amount of compensation received Rs.57,040,000/- Cheques issued Rs.9,000,000	
8.	Total Union Councils	28
	Total Households	53529
	Total No of Patwar Circles	44
	Total No. of Villages	111
9	Immediate Requirements	
	Tents	10,000
	Blankets	25,000
	Food stuff	10,000
10.	Aid Received	
	Cabinet Division	9 Truck
	P.R.C	500 Tents
	F.H. Islamabad	3 Truck
	Private Donors	250 Truck/Mini Truck
11	Other Requirements	
1	21 Nos (160 Kms) Link Roads	52.00 (M)
2	12 Nos Bridges partially damaged	5.00 (M)
3	3 Nos D. Water Supply Schemes fully damaged	3.00 (M)
4	39 Nos D. Water Supply Schemes partially damaged	4.25 (M)
5	20 Nos High, 50 Nos Middle, 270 Primary (Total 340) Schools	187.5 (M)
6	(a) 15 Nos BHUs, (6 fully collapsed & 9 partially damaged) (b) 04 Nos Civil Hospitals(1 fully collapsed & 3 partially damaged) (c) 11 Nos Civil Dispensaries (3 fully collapsed & 8 partially damaged) (d) 1 No THO	61.5 (M)
7	23 General Administration Buildings	13.5(M)
8	Police Department	20.0(M)
9	3 Nos Degree Colleges	28.02
	Total	274.95 (M)