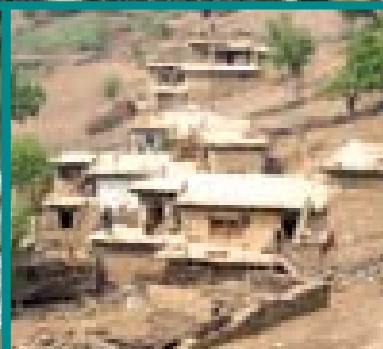
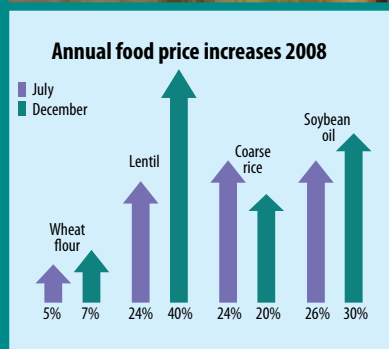
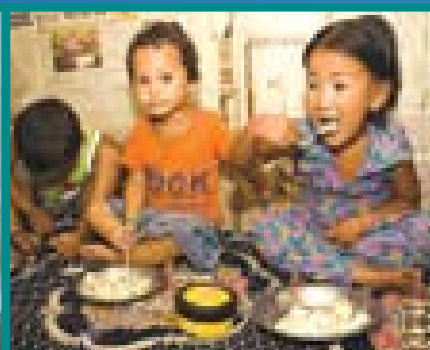




The Cost of Coping



A Collision of Crises and the Impact of Sustained Food Security Deterioration in Nepal





The Cost of Coping; a Collision of Crises and The Impact of Sustained Food Security Deterioration in Nepal

Executive summary

In recent years, Nepal has experienced a sharp and sustained decline in food security. Like many countries in the world, Nepal has been hit by a collision of crises, the intertwining effects of: *the World Food Crisis*, *the International Economic Crisis*, and *the Global Climate Change Crisis*. These crises come on top of serious domestic food challenges, including a domestic food production crisis, high rates of poverty, 10 years of recent civil conflict and ongoing political instability. Compared to neighboring countries, and indeed countries around the world, Nepal's food security situation has suffered considerably over the past 3 years. WFP estimates that:

- 3.4 million people have become highly to severely food insecure due to 2007/08 food price increases and the 2008/09 winter drought,
- an additional 5 million people have potentially fallen below the poverty line in Nepal during the past 3 years, and
- the cost of coping with food insecurity has increased dramatically (e.g. 30 percent of rural and regional families monitored by WFP during October—December 2008 removed children from school, and over 30 percent sold agricultural assets).

While the onset of this decline in food security has appeared rapid, a serious food crisis in Nepal has been long in the making. Increased food vulnerability across much of the country is the inevitable result of a growing population coupled with relative stagnation in both food production and other development. Over the past 3 decades, the percentage of government expenditure on agriculture steadily fell from around 30 percent in the 1980s, to below 20 percent in the 1990s, to 5 percent in 2008. During this period, Nepal has frequently fallen food deficit, including a food grain deficiency of 225,000 mt in 2006/07 and 133,000 mt in 2008/09¹. In addition, poor food access, and limited capacity to manage food shocks, is a chronic reality across much of the country. Great disparity in agricultural production exists between geographical regions and Nepal has one of the highest prevailing rates of poverty in the world. Following 10 years of civil conflict, Nepal now ranks 142 amongst 177 nations in terms of the Human Development Index, and 156 in terms of Purchasing Power Parity (PPP\$)².

Box 1. Measuring the cost of coping

Since 2001, over 30 field monitors from the World Food Programme (WFP) have been deployed across Nepal to better understand the lives, livelihoods and food security situation of the most vulnerable. They travel beyond the district headquarters for days and weeks at a time to gain insight into the lived reality of communities across the country.

Through satellite phone technology they have delivered surveys of over 3,000 households in the past year alone. In doing so, they have created a voice for the extreme poor of Nepal. The results are startling, and demonstrate the reality of the human, economic and social costs of sustained deterioration in food security— an urgent call to action.

“No statistic can embody the sheer terror of hunger. For hundreds of millions of people, hunger is a fact of life that imperils their health, reduces their productivity and diminishes their educational attainment”.

- World Hunger Series 2008

Hunger and malnutrition are often considered a ‘silent crisis’, and in few places is this more so than Nepal. Even prior to the recent deterioration in food security, the rate of malnutrition was alarming; at crisis level according to definitions set by the World Health Organization. The rate of chronic malnourishment in children under 5 is estimated at 48 percent, with an average rate of 60 percent in mountain areas³. This is the worst level of malnourishment in Asia, and is comparable to the worst countries in Sub-Saharan Africa, including: the Democratic Republic of Congo (44 percent), Sudan (48 percent), Uganda (45 percent) and Somalia (42 percent)⁴. Yet Nepal is not internationally associated with harrowing images of hunger. Even within Nepal there is often publicly displayed denial, acceptance or ambivalence towards the absolute seriousness of the situation and the critical cost of coping.

¹ MoAC, WFP & FAO, 2009. 2008/09 Winter Drought in Nepal, Crop and Food Security Assessment.

² UNDP, 2007/8. Human Development Index.

³ Government of Nepal, CBS, World Bank & WFP, 2006. Small Area Estimation of Poverty, Caloric Intake and Malnutrition in Nepal. Based on prevalence of stunting amongst children under 5.

⁴ WFP Rome, 2009. World Hunger Series: Hunger & Markets, (Based on 2003 –2005 data).



A Domestic Food Production Crisis

Increase in population, stagnation in production

The average annual agricultural yield in Nepal is poor, particularly compared to neighboring countries. In addition, sluggish growth in crop production has not kept pace with growth in population and increasing demand. Over the past 5 years, overall cereal production has increased by only 5 percent, whereas the consumption requirement has increased by more than 20 percent¹.

The result is that each year, the people of Nepal are becoming increasingly more vulnerable to food shocks and hunger. Since the early 1990s food production shocks—generally caused by drought, flooding and other severe weather conditions—have frequently lead to national annual food deficits; historically, this has generally not been the case. In 2006, a severe winter drought caused 895,000 households to experience, or be at high risk of an acute food and livelihood crisis. While in 2009, a winter drought caused 700,000 people to become highly or severely food insecure (this was on top of 2.7 million people who were already food insecure due to high food prices)².

If current production growth rates remain constant, and requirement continues to increase, then it is likely that within the next 3-5 years Nepal will become stably food deficit at a national level, even during years of ‘normal harvest’. Figure 15 on page 13 demonstrates this trend. This likely scenario is of critical concern, particularly given that the increasing effects of climate change (drought, flooding and other severe weather conditions) on production means that a significant increase in agricultural investment will be required to merely maintain current rates of production.

Production disparity

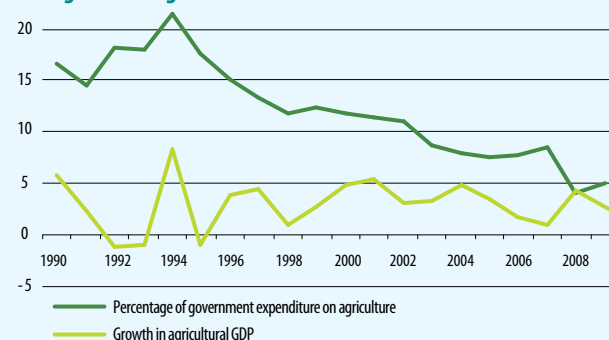
At a regional level, the situation is even more grim. While the Terai produces a surplus of food, the Hills and Mountains of Nepal are already consistently food deficit. In some districts of the Mid to Far West, household production is typically only sufficient to meet demand for 3-5 months of the year³. Figure 3, on the following page provides a map of Nepal showing which areas were food sufficient and deficient in 2008/09.

Constraints to agricultural growth

Several constraints impede growth in agriculture, this includes poor usage of improved seeds and fertilizer, and heavy reliance on water intensive crop agriculture, but with limited supporting inputs or infrastructure (nearly two fifths of agricultural land is irrigated but only 20 percent of irrigable land has access to year round water supply). These factors make Nepal particularly vulnerable to drought and other severe weather conditions. Box 2, demonstrates the relationship between low levels of agricultural investment, poor usage of inputs and low yield and production growth.

Box 2. Agricultural inputs, yield and production

Figure 1. Percentage of government expenditure on agriculture, and agricultural growth



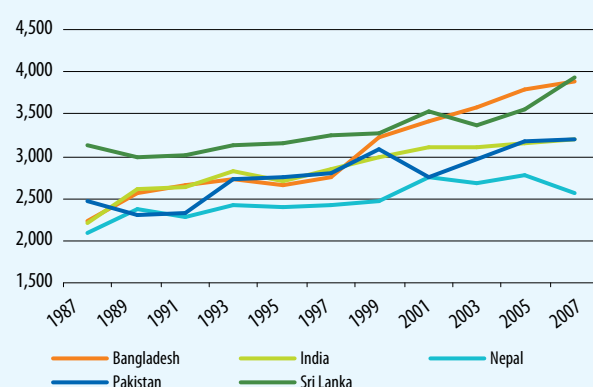
Source: ADB, 2008. Key Indicators for Asia and the Pacific 2008, and Ministry of Finance Budget Annex 2007/08.

Table 1. Comparative use of fertilizers and irrigation in 5 Asian countries during the ‘Green Revolution’

Country	Rural population density	Fertilizer use (kg/ha)		Irrigation (% of arable land)	
		1980	2000	1980	2000
Sri Lanka	1,607	180	277	28.3	33.6
India	460	35	107	22.8	32.2
Pakistan	438	53	136	72.7	81.6
Bangladesh	1,228	46	166	17.1	49.6
Nepal	668	10	26	22.5	36.2

Source: World Bank (2008). World Development Indicators 2008.

Figure 2. Rice yield in 5 Asian countries (Kg/Ha)



Source: FAO Stat. Accessed June 28 2009: <http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor>

¹ MoAC, WFP & FAO, 2009. 2008/09 Winter Drought in Nepal Crop and Food Security Assessment.

² Ibid.

³ FAO & WFP, July 2007. Special Report, FAO/WFP Food Security Assessment Mission to Nepal.

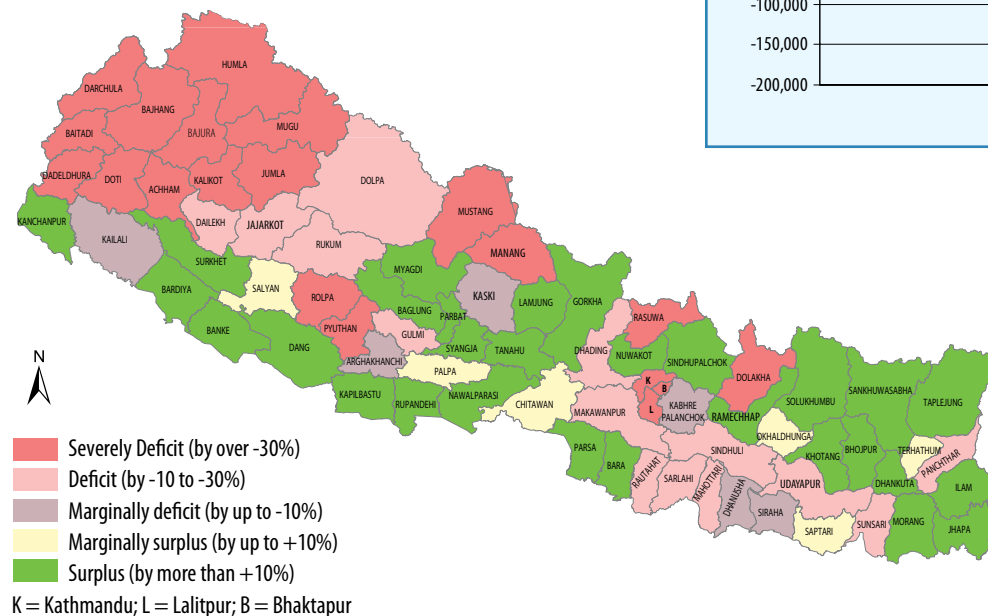


Severe Weather and a Domestic and Global Climate Change Crisis

Nepal is a country which is particularly vulnerable to several types of natural and human induced disasters. These include: drought, flooding, landslide, hailstorms, earthquakes and fires. Floods and landslides are the most common disasters, however in recent years the prevalence of drought and fire has been increasing.

Extreme weather events between 2006-09, including droughts and floods, have significantly affected food production in Nepal. Compared to 2008, the 2009 winter crop harvests of the Mountain, Hill, and Terai districts decreased by 40 percent, 25 percent, and 10 percent, respectively. A national year-on-year decrease in wheat and barley production (the two major winter crops) of 14.5 percent and 17.3 percent, led to an annual cereal deficit of 133,000 mt in 2008/09¹ (this was inspite of one of the best summer crop harvests on record). The 2009 winter drought came on top of: a variable 2007/08 harvest; a severe 2006 winter drought combined with extensive summer flooding (resulting in 225,000 mt deficit)²; and at a time when households were still reeling from 18 months of sustained high food prices. Given the context of low stock levels prior to the 2009 poor harvest (down 20 percent compared to 2008³) the result is a seriously deteriorated food availability situation, particularly in the most hard hit and isolated regions of the Mid to Far Western Hill and Mountains.

Figure 3. Food insufficiency following the 2008/09 winter drought



Box 3. The impact of global climate change on Nepal

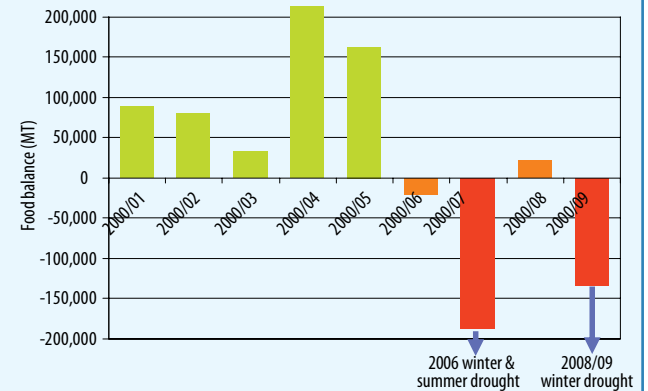
According to UNDP, increases in temperature and water stress are expected to lead to a 30% decrease in crop yields in Central and South Asia by the mid-21st century⁴.

There is strong indication that global climate change is already having an adverse impact on food security in Nepal.

The temperature in Nepal increased at an average rate of 0.6°C per decade between 1977 and 2000. In addition, over the past 3 years, Nepal has suffered two of the worst winter droughts in recent history. The 2006/07 winter drought was considered one of the worst on record, and this was followed by the 2008/09 winter drought which caused almost half the country to match or set new record low monthly rain fall levels⁵.

The prevalence of floods, hailstorms, landslides and crop disease also appear to be increasing. In addition to this, the melting of Himalayan glaciers, reportedly thinning by 0.3-1 m/year, is leading to increased risk of natural disaster in the form of mass flooding from glacial lake overflow⁶.

Figure 4. Annual cereal production surplus/ deficit



¹ MoAC, WFP & FAO , 2009. 2008/09 Winter Drought in Nepal Crop and Food Security Assessment.

² FAO Rome & WFP Rome, July 2007. Special Report, FAO/WFP Food Security Assessment Mission to Nepal.

³ MoAC, WFP & FAO , 2009. 2008/09 Winter Drought in Nepal Crop and Food Security Assessment.

⁴ UNDP, 2006. Human Development Report: Beyond Scarcity: Power, Poverty and the Global Water Crisis.

⁵ Department of Hydrology and Meteorology, Nepal, 2009. "Dry and Warm Winter 2009".

⁶ ICIMOD. 2007. 'The Melting Himalayas: Regional Challenges and Local Impacts of Climate Change on Mountain Ecosystems and Livelihoods'.



A Crisis of Conflict and Continued Instability

The impact of civil conflict

Nepal's decade long civil war, which came to an end in 2006, had a severe impact on agricultural production, agricultural marketing and food security. Not only were production activities and markets disrupted, but the delivery of vital agriculture development programs by government and international development partners also suffered. In addition, the conflict was responsible for destroying existing infrastructure, including irrigation projects and rural agricultural service centers¹.

Following successful democratic elections as a republic in 2008, high hopes for improved agricultural investment and program delivery have so far failed to initiate. Ongoing political instability, including disruption to political proceedings, the reformation of cabinet between May and June 2009 and continued bandhs/strikes, has largely hampered this progress. In addition, pressure to meet the mid July 2010 date for completing the constitution, has consumed much of cabinet's attention.

While some peace and rebuilding programs have been implemented successfully, including those carried out by WFP, the negative effects of the conflict continue to impair the ability of households, and district development authorities to manage chronic food insecurity and food shocks. Ten months into the 2008/09 financial year, the Peace and Reconstruction Ministry, which was established to speed up the reconstruction process, had reportedly managed to spend only 11 percent of its total annual budget, NRs. 779 million (USD 10 million).

The relationship between national security and food security should not be underestimated. Poverty, food insecurity, and the overwhelming fear of hunger fuel political instability. Whereas, improved agricultural and economic development is first and foremost dependant upon peace.

The impact of continued instability

While agricultural production and agricultural marketing have improved since the end of the conflict, continued political instability is deepening and prolonging hunger across Nepal. By June 2009, 10 months into the financial year, across all Ministries, the Government had reportedly failed to spend 64 percent of budgeted and available funds for the year. This includes the Ministry of Agriculture and Cooperatives which had spent only 16.5 percent of money available to develop agriculture³. Under-spending, is severely impairing development within the country, and is discussed in more detail on page 15.

Frequent unrest, in the form of politically motivated bandhs, strikes and blockades are also causing major problems in food supply, market operation and ultimately food prices. In April 2009, a 13 day strike in the Terai resulted in nearly 40 percent of Hill and Mountain markets having insufficient or depleted supply of major commodities. Indeed, in the first six months of 2009 there were reportedly only 12 days without major bandhs⁴. During 2008, WFP found that 20 percent of traders listed bandhs as the most important factor influencing food prices in Nepal. This was considered as more important than the rising price of imported commodities. Figure 5 on the following page highlights the extent of the problem across the country during a 38 day period in mid 2008.

Continued agitation is also impacting the delivery of humanitarian assistance on a weekly, if not daily basis. For instance, during the above mentioned Terai bandh in April 2009, WFP was unable to move 3,000 mt of food through the Terai for ten days. This resulted in food deliveries not reaching more than 325,000 highly food insecure people. Each bandh creates a domino effect across the country, reducing access to food and basic services especially for the poor⁵.

Table 2. World Bank governance indicators for Nepal, percentile rank 0 (bottom) - 100 (top).

Governance Indicators	Nepal								South Asian Average	
	1996	1998	2000	2003	2004	2005	2006	2007	1996	2007
Voice and Accountability	46.4	42.3	43.3	25.5	18.3	13.9	15.4	22.6	29.5	28.0
Political Stability	26.9	23.6	14.4	5.3	2.9	1.4	2.9	2.9	25.3	19.3
Government Effectiveness	36.0	36.0	40.8	34.1	22.3	15.2	21.8	21.8	45.4	36.5
Regulatory Quality	22.9	31.7	28.3	33.2	31.2	25.9	26.3	26.7	43.3	31.9
Rule of Law	51.4	52.9	44.8	37.1	32.4	23.8	33.3	31.0	33.9	38.3
Control of Corruption	44.2	42.7	40.3	51.0	33.0	28.2	29.6	30.4	35.2	33.9

Source: World Bank . n.d. Worldwide Governance Indicators 1996-2007. Washington DC

¹ WFP & OCHA , 2007. Impact of Conflict and Priorities for Assistance.

² Kantipur Report, June 19. 64pc of dev budget remains unspent.

³ Ibid.

⁴ Himalayan Times, Sunday, 28 June 2009. More than 500 bandhs in 6 months.

⁵ For more information see: WFP Nepal, 2008. Struck Out; the impact of bandhs and strikes in Nepal.

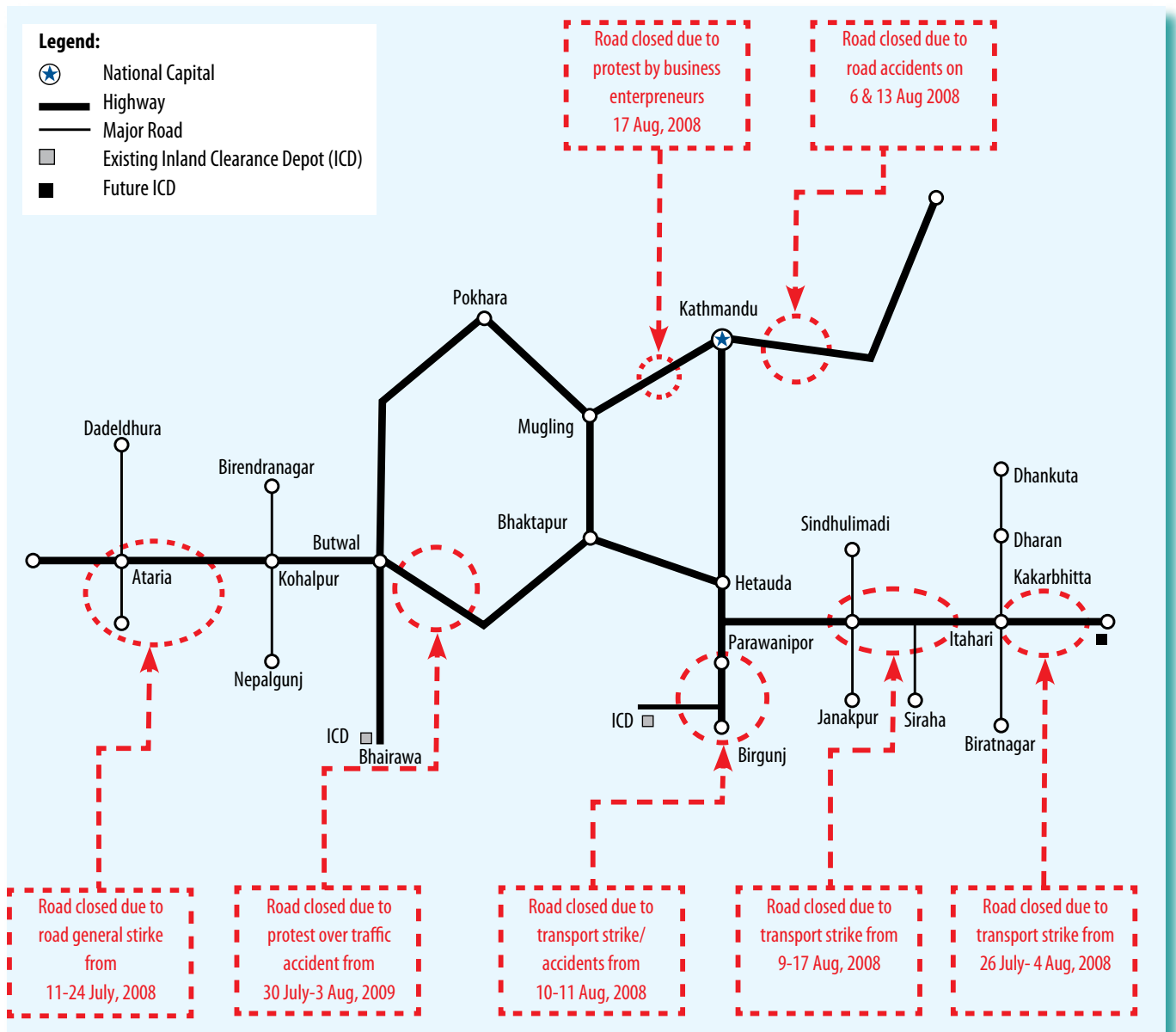


A Crisis of Conflict and Continued Instability

Bandhs, strikes and blockades

Bandhs, strikes and blockades are having a major impact on market supply, transportation costs and ultimately food prices across much of the country. In addition, WFP food assistance is regularly refused passage.

Figure 5. Disruptions in traffic from 11 July to 17 August 2008



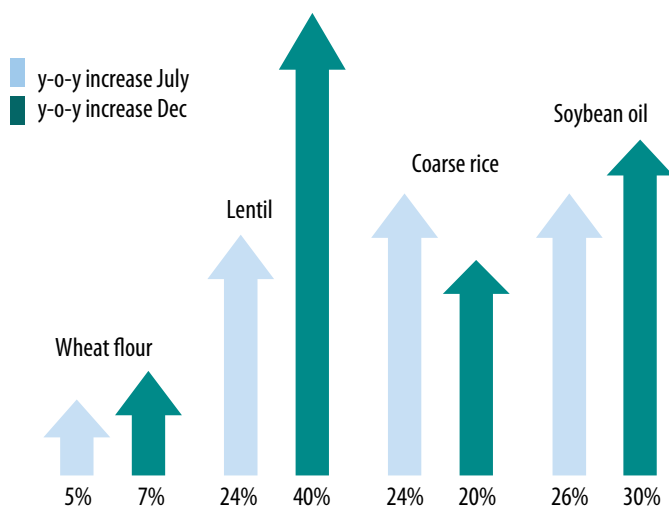
Source: Diagram taken from: Asian Development Bank. 2009. Country Diagnostics Studies, Nepal: Critical Development Constraints Highlights.



A Domestic and World Food Price Crisis

Increased reliance on purchased food, due to poor growth in agricultural production, has heightened Nepal's reliance on international food markets. As a result, Nepal is now more than ever exposed to international shocks within these markets. This was clearly demonstrated during 2007/08 when the World Food Crisis led to rapid domestic food price increases. Nepal's vulnerability was particularly exposed in October 2007 when India enforced a trade ban on several key food commodities. This caused particular concern in 2008/09 as Nepal had a 133,000 mt production deficit and India is by far Nepal's major trading partner. As of mid 2009 the trade ban was still in effect.

Figure 6. Food Price increases during 2008



Compared to neighboring countries, Nepal has been particularly hard hit by the global food crisis and experienced steep food price inflation during the end of 2007 and the majority of 2008 as a result. In addition, Nepal has not yet experienced the considerable price deflation which occurred across much of the region during late 2008 and early 2009. Official year-on-year food price inflation is still very high. In March 2009 this was 17.1 percent¹. Table 3. provides an overview of some of the key domestic factors which heightened the food crisis in Nepal and are continuing to keep prices high. This includes: poor domestic agricultural production; India (Nepal's largest trading partner) enforcing a trade ban on various key commodities; high transportation costs due to poor infrastructure (particularly in the Mid and Far West of Nepal); non market based fuel pricing; poorly integrated markets; anti competitive market behavior; and frequent political unrest resulting in road and market closure².

2009. However, they are likely to rise again in 2010, and could increase by 25 percent compared to 2009 as global growth picks up. This will have a significant impact on Nepal food prices and will likely lead to further increased food prices from early 2010 onwards³.

The populations worst affected by high food prices are the landless poor of the Terai (who completely rely on purchased food) and those in the remote Hill and Mountain regions, where the price of staple food items are typically almost three times the price in the Terai⁴. In January 2008, 1.3 million people were identified by WFP Nepal as requiring urgent food assistance. Because of high food prices, this number had increased to 2.5 million by June 2008, and again to 2.7 million people by December. Due to drought and winter crop losses during the first quarter of 2009, this increased again to 3.4 million.

Table 3. Past, present and future high food prices in Nepal, an interplay of national and domestic factors

Major factors impacting price	Demand factors	Supply factors
Regional/global	<ul style="list-style-type: none"> Global population growth Higher incomes and increasing food consumption Increasing use of BioFuels Food price speculation Depreciation of USD International financial crisis (medium term food and oil demand reduction) 	<ul style="list-style-type: none"> Low investment in agriculture, resulting in generally poor growth in production across South Asia Weather related shocks Increasing energy prices and fertilizer prices (recent short term decline due to financial crisis, but likely to increase from 2010) Indian trade ban enforced on key commodities
Nepal specific	<ul style="list-style-type: none"> Domestic population growth Increasing domestic consumption requirement Limited purchasing power Hoarding 	<ul style="list-style-type: none"> Poor agricultural yield (particularly recent years) High prevalence of natural disaster, including drought Poor transportation infrastructure and high transportation costs Lack of integration between markets Bandhs/blockades blocking supply Carteling between major wholesalers/ traders Government fuel price control

¹ Nepal Rastra Bank, March 2009. Inflation figures.
² WFP Nepal, March 2009. Nepal Market Review 2008 & Outlook 2009.
³ According to latest estimates by the U.S. Energy Information Administration.
⁴ WFP Nepal Market Watch series, 2008/09.



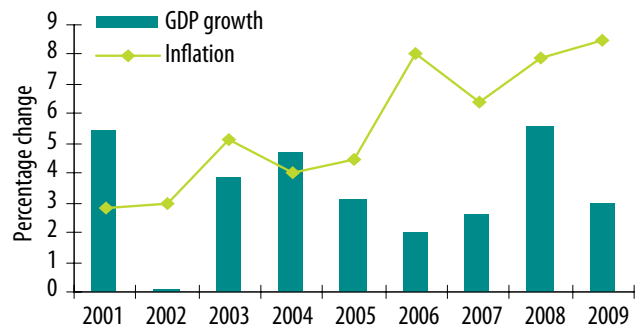
A Domestic and International Economic Crisis

In recent years, an increased reliance on markets for food consumption, combined with increased food prices, has resulted in a higher dependence on wage income to cover basic food item expenditure. However, continued political instability, poor security, lack of electricity, poor labor legislation, poor labor workforce productivity (including an increase in labor strikes over the past three years), and lack of investment, has resulted in weak growth in Gross Domestic Product (GDP). In 2008 growth in GDP reached 5.6 percent on the back of strong harvests; however, the expectation for 2009 is only around three percent. Therefore, while food prices in Nepal have been escalating rapidly (over 17 percent inflation in the past year), growth in income levels and workforce opportunity has remained low. Figure 7, highlights the contrast between high levels of inflation and low levels of GDP growth over the past 9 years.

Nepal's per capita GDP remains the lowest in the region. In 2007, this was estimated at USD 243 compared with USD 439 for Bangladesh, USD 660 for Pakistan, USD 686 for India, USD 1,144 for Sri Lanka, USD 1,277 for Bhutan, and USD 3,668 for Maldives¹. According to the Asian Development Bank, Nepal is now where Sri Lanka was in 1960, Pakistan was in 1970, and India and Bhutan were in 1980². Nepal is the poorest nation in South Asia, and ranks 142 among 177 nations on the Human Development Index³. In addition, earning inequality is also on the increase⁴. Figure 8, demonstrates the sluggish growth in GDP in Nepal over the past 3 years compared to other countries in South Asia.

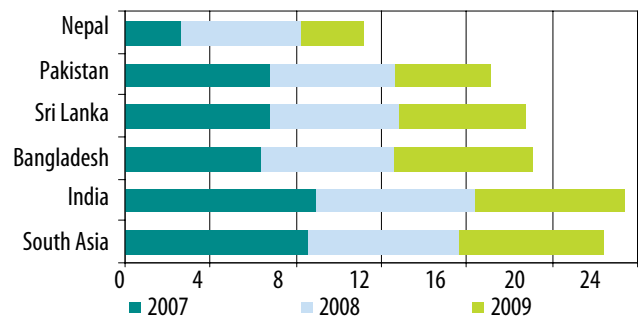
In recent years remittance flows have contributed significantly to the reduction of poverty incidence from 42 percent in 1995/96 to about 31 percent in 2003/04⁵. However, there is serious concern that this remittance trend could be reversed due to the regional implications of the International Economic Crisis.

Figure 7. GDP growth vs. inflation



Source: Inflation figures taken from Nepal Rastra Bank, based on WFP staff estimates, GDP growth taken from ADB Asia Development Outlook 2009 & ADB Key Indicators for Asia and the Pacific 2008-Data set.

Figure 8. Comparative GDP growth across South Asia

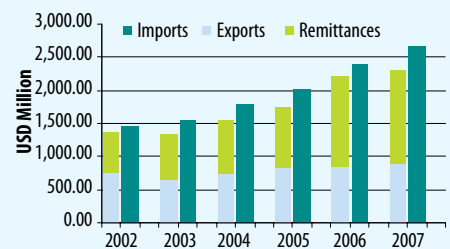


Source: information taken from: Asian Development Bank. 2009. Country Diagnostics Studies, Nepal: Critical Development Constraints Highlights.

Box 4. Impact of the International Economic Crisis on Nepal; remittances under greatest threat

- During the first quarter of 2009, Nepal began to experience the initial signs of negative economic impact due to secondary flow on effects of the International Financial Crisis. The key economic sectors under threat are foreign remittances, manufacturing and tourism.
- Reduction in foreign remittance is the most serious economic concern as it represents 17 percent of Nepal's GDP and has accounted for the majority of growth in GDP during recent years. Nepalese economists warn that hundreds of thousands of Nepalese jobs abroad could go by the end of 2009.
- As of mid 2009, a decreasing US\$ was helping to prop up remittance flows coming into Nepal; however, the number of Nepalese leaving for abroad was in decline.
- Between March 2008 and 2009, the number of Nepali workers leaving for foreign employment reduced by 17 percent⁶. Malaysia, which currently employs 400,000 Nepalese, has blocked future work visas, and the United Emirates, which also employs hundreds of thousands of Nepalese, has reportedly cut its foreign workforce by 45 percent, sending tens of thousands of Nepalese workers home.
- Of most concern is reducing demand for migrant workers in India, as this is where the poorest of Nepalese migrant workers generally migrate to; particularly the Indian construction industry, which employs tens of thousands of Nepalese⁷.
- Any significant reduction in remittances will also have a considerable impact on Nepal's foreign exchange earnings which could decline by 15 to 20 percent in 2009/10 according to some estimates. Figure 9, demonstrates how important remittances are to maintain a foreign account surplus, given the high dependence on imported product.

Figure 9. Increasing importance of remittances



Source: ADB 2009. Asian Development Bank Year Book, Nepal 2008.

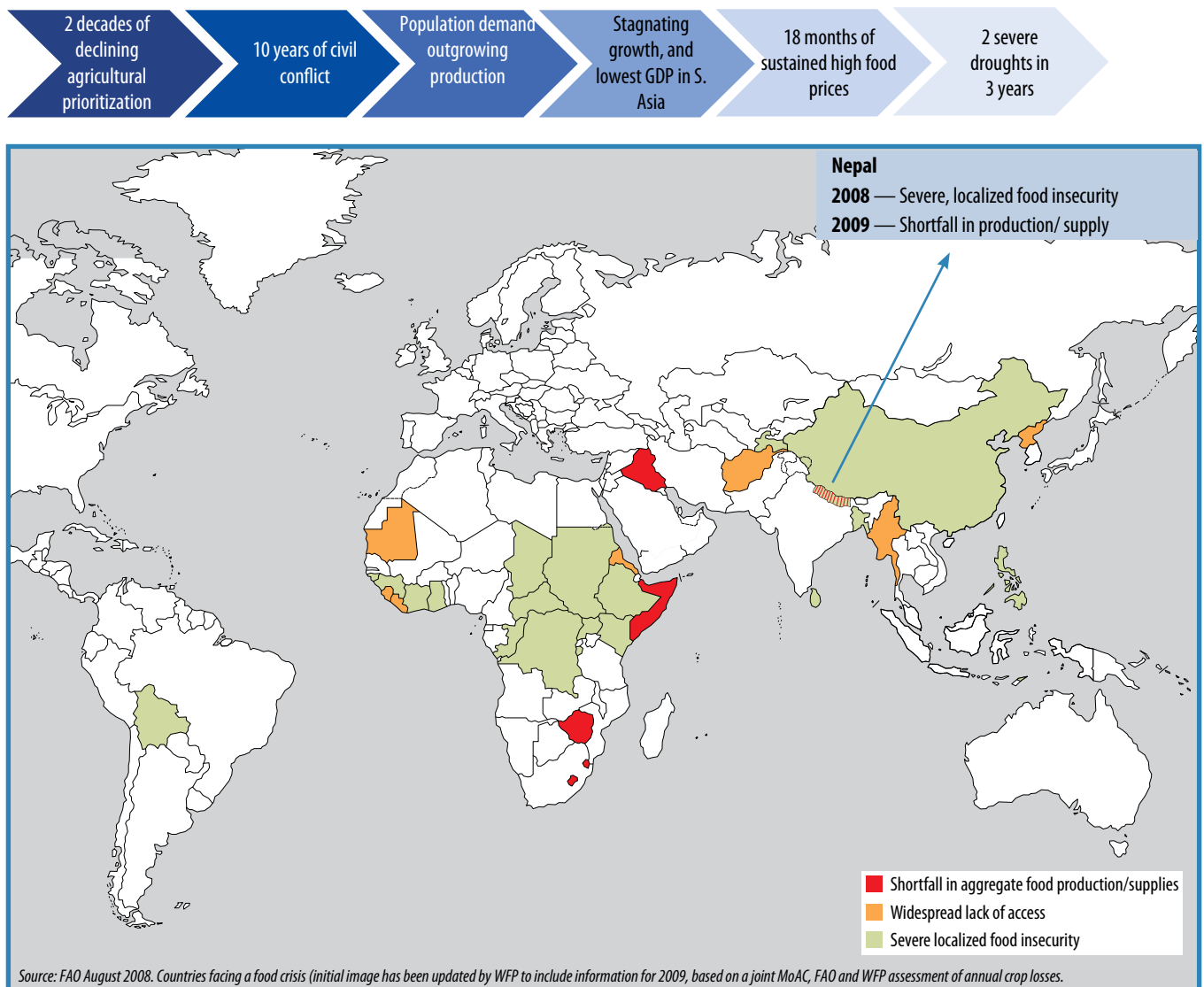
¹ Estimated at 2000 prices, Asian Development Bank. 2009. Country Diagnostics Studies, Nepal: Critical Development Constraints Highlights.
² Ibid.
³ UNDP, 2007/8. Human Development Index.
⁴ In terms of the Gini coefficient, inequality increased from 0.34 in 1995/96 to 0.41 in 2003/04, source as above.
⁵ WFP & NDRI, 2008. Passage to India.
⁶ Department of Foreign Employment (DoFE) estimates, April 2009.
⁷ CBS, 2006. Resilience Amidst Conflict.



A Collision of Crises

Following the World Food Price Crisis, and the International Economic Crisis, in August 2008, 33 countries were identified by FAO as facing a food crisis. Nepal was one of those countries —with severe, localized food insecurity. The situation has since deteriorated and the country is experiencing a shortfall in production and supply; the only country in Asia. This ranking demonstrates the international seriousness of the situation in Nepal. Figure 10. provides a timeline of recent events which have impacted food security.

Figure 10. Nepal, one of 33 Countries facing a Food Crisis





The Poverty of Collision

The Impact of High Food Prices, and Low Economic Growth

Figure 11. Impact of 10 percent increase in food prices on welfare¹



Note: Bubble size represents the relative portion of that category of the rural population that has land or landless.

Source: FAO

As can be seen in Figure 11, virtually all Nepalese, rich and poor, landless and land owners, have been negatively impacted by high food prices. The Welfare index indicates the affect on purchasing power caused by a ten percent increase in food prices¹. In Nepal, the reality is that the price increase of key commodities, has been twice this percentage over the past 18 months.

Given that growth in GDP has been minimal during this period, and that income for the poor has remained virtually unchanged, this has had an enormous impact on the rate of poverty in Nepal.

An estimation of increased prevalence of poverty, based on food price inflation, non food item inflation and population increase, is provided below in Figure 12. Food price inflation has been calculated based on government reported year-on-year inflation figures, and has not been calculated separately per food basket item. This calculation also does not factor in the potential impact of a minor increase to the wage levels of the poorest. Therefore, this estimate should be considered as an indication of increased poverty only, the upcoming Nepal Living Standard Survey will provide a more thorough analysis of poverty.

Figure 12. Estimation of increased incidence of poverty, between 2003/04 and 2008/09

Wealth Decile	Per capita average expenditure 2003/04
Poorest	4,183
Second	5,647
Third	6,786
Fourth	7,960
Fifth	9,230
Sixth	10,913
Seventh	13,179
Eighth	16,144
Ninth	22,479
Richest	62,037

← 2003/04 poverty line (NRs 7,696)
 } Increase in food costs of 25-30 percent
 ← 2008/09 poverty line (NRs 9,500– 9,900)

The impact of increased population, stagnation in agricultural production and economic development, combined with high food prices, has potentially pushed over 5 million Nepalese into poverty since 2003/2004

Population	Year	Total Population	% of Population	Total
Below the poverty line	2003/04	25.3 million	31%	7.9 m
Below the poverty line	2008/09	27 million	Up to 50%	Up to 13.5m
At risk of falling below poverty line	2008/09	27 million	10 %	2.7 m

¹ The welfare impact in this case is the amount of income needed to restore a household to its position prior to the income shock of high prices, and therefore the real income lost to high food prices.

² CBS 2003/04. Based on NLSS estimates.



The Hidden Cost of Coping

“Before the election we smelt like roses to these people, now we smell like manure”-

**Villager in Humla,
June 2009**

(Referring to the perceived attention that their community receives from political parties)

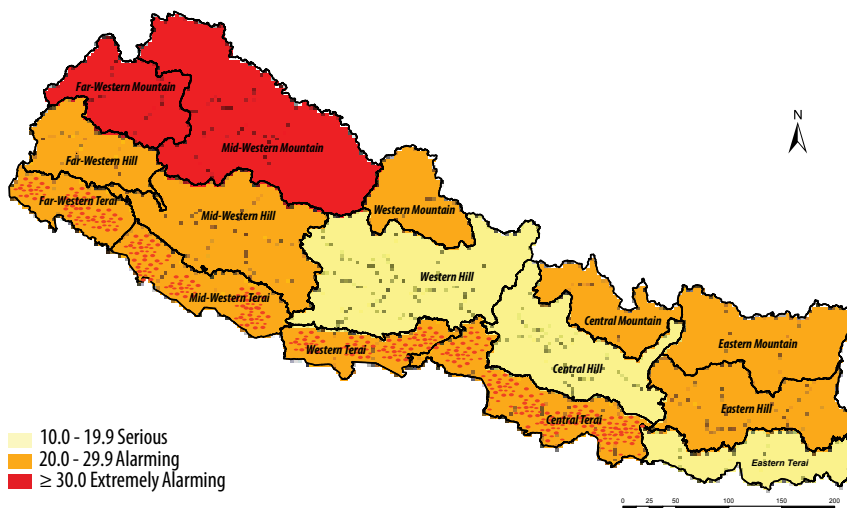


© World Food Programme, J Giambone.

The majority of Nepal’s food insecure, live in the Mid to Far Western Hill and Mountain areas of Nepal — some of the most remote and isolated communities in the world. In districts such as Dolpa, Mugu, Bajura and Humla average agricultural production in a good year is normally only sufficient for 3—5 month’s consumption. In addition, these areas are among those most impacted by the increasing prevalence of drought and natural disaster caused by climate change.

In the mountain areas a recent WFP household survey has indicated that households regularly travel on foot for days to reach the nearest food market. Ironically, these remote populations have suffered some of the greatest costs of global, regional and domestic food security challenges—yet the cost of their hunger remains largely hidden due to their isolation. Few journalists, government officials or even development workers venture past the district headquarters into these areas. However, the ramifications of their food insecurity pose a serious challenge to the entire country.

Figure 13. A map of hunger in Nepal



In addition to the remote poor, are the hidden poor who live within the most fertile regions of the country. These people are the landless of the Terai. With no household agricultural production these people have been those most vulnerable to sudden food price increases, but even before rapid food price increase, acute malnutrition rates were as high as 21 percent. The Terai region is currently also the most politically unstable area of the country. Regular week to month long bandhs shut down entire regional centers, and this has huge food security ramifications for the poor who rely on each day’s income for the same day’s food supply.



The Human Cost of Coping

For the millions of Nepalese who suffer sustained food insecurity each year, the experience is ultimately life defining. The human cost includes: reduced productivity, diminished learning capacity, the dread of hunger and feelings of hopelessness.

Lack of food ultimately ruins health, stunts growth, impairs fetal development, and leads to wasted and reduced brain development, particularly in young children. In Nepal the malnutrition statistics are staggering. Even before the collision of crises, every other child in Nepal was chronically malnourished, 39 percent were underweight, and 13 percent were wasted¹. In the highly and severely food insecure areas of the Mid to Far Western Hills and Mountains these statistics are even higher (e.g., an ACF survey found that up to 80 percent of children in Mugu, which is a district in the Mid Western Mountain Region, are chronically malnourished²).

It is no longer just isolated pockets of the country who suffer severely from hunger. Following severe drought in 2006, isolated drought and flooding in 2007, the recent 2008/09 winter drought, and high food price increases on top of this, the majority of families across Nepal are now taking desperate measures to sustain themselves.

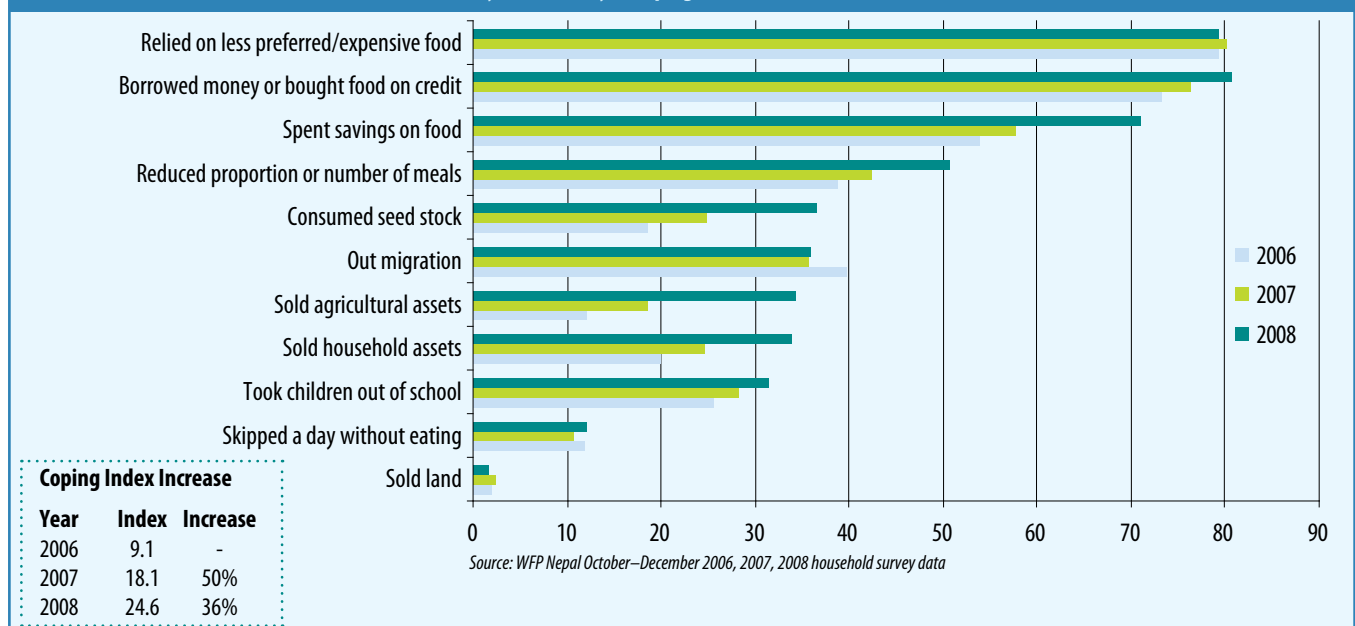
In 2006, following one of the worst winter droughts in decades, coping mechanisms were already intense³. However, between the end of 2006, and the end of 2008, the use of severe mechanisms has increased substantially. For instance, in the 42 districts regularly surveyed by WFP⁴, one in three households sold agricultural assets in 2008, compared to only one in ten in 2006, and 38 percent of households consumed seed stock in 2008 compared to 19 percent in 2006. In rural areas, one in three families are regularly removing children from school, eight out of ten households are borrowing money or buying food on credit, and almost half of all Nepalese families are eating less. See Box 5 below.

These coping mechanisms are not sustainable. The long term impact is that households are ultimately forced to decide whether they consume less now—increasing malnutrition and reducing health—or undertake strategies of coping which will ultimately leave them trapped in long term poverty, such as consumption of seed stock, and sale of agricultural assets or land.

“When most people think about hunger, they focus on its physical manifestations: the emaciation of famine-affected populations, the small stature of chronically malnourished people. But for those who survive hunger, perhaps its most damaging impact is its legacy for learning. Hunger in childhood can lead to irreversible mental stunting, lower intelligence quotients (IQs) and reduced capacities to learn.”

- World Hunger Series 2006

Box 5. An increase in the intensity and severity of coping mechanisms, October—December, 2006, 2007, 2008



¹ Ministry of Health & Population, 2006. Nepal Demographic and Household Survey.

² ACF, 2008. Nutritional Anthropometric Survey, Children from 6 to 59 months Covering 18 VDC of Mugu District.

³ Based on household data collected as part of the WFP Food Security Monitoring System; for more information and for a list of districts surveyed, see: <http://groups.google.com/group/NeKSAP?hl=en>

⁴ Ibid.



The National Cost of Coping

Beyond the manifestation of hunger in the individual, is the considerable long term economic and social costs inflicted on a nation coping with high reliance on poor agricultural production and suffering high levels of food insecurity.

The national cost of hunger

The current and future economic cost of hunger in Nepal is of serious concern, this includes:

- reduced national agricultural production (due to consumption of seed stocks, sale of agricultural assets and general fatigue caused by hunger);
- increased health costs due to increased prevalence of illness, disease and death because of poor nutrition;
- reduced national education rates, due to removal of children from school for work (particularly for girls);
- high rates of future unskilled labor due to reduced education;
- long term workforce losses relating to irreversible mental stunting and physical impairment caused by malnutrition;
- weakened position for obtaining and maintaining political stability.

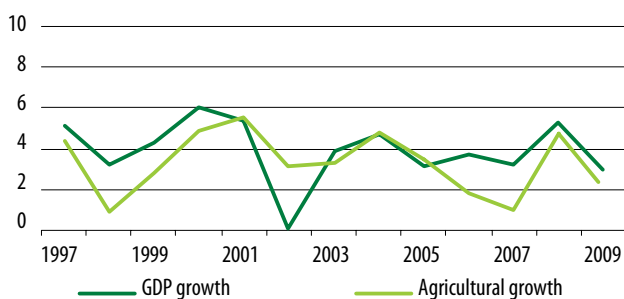
Given that half of all children in Nepal are chronically malnourished, and that one in three families are removing children from school due to food insecurity, hunger in Nepal is no longer merely a household issue. Rather, it is an issue of national and international concern, a reality which is destroying the future prospects of entire generations of Nepalese.

The national cost of poor agricultural production

As agriculture continues to provide a broad base for the Nepalese economy, the growth originating in agriculture holds high potential to have relatively wider impact on poverty reduction and inclusiveness. In Nepal, agriculture provides a livelihood for more than 80 percent of the population and accounts for nearly 40 percent of GDP¹. In comparison with many other countries of Asia, the structure of the Nepalese economy has not changed greatly in recent years – the share of agriculture in total GDP fell by only 5 percent over a period of about 15 years, from 44 percent in 1990-92 to 39 percent in 2003-05². Moreover, industrial activities are still dominated by the processing of agricultural products like jute, sugarcane, tobacco and cereals. As a result, agricultural performance is also a strong determinant of industrial GDP. Figure 14 demonstrates this relationship, and provides a strong economic justification for increased investment in agricultural production.

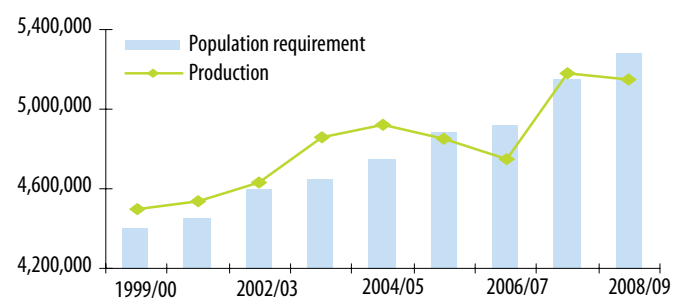
The opportunity to markedly increase GDP and livelihoods of families across Nepal through increased agricultural investment is large. Consider that between a 5 year period, 2002– 2007, the production of rice increased by 9 percent in Sri Lanka, 16 percent in Bangladesh, 24 percent in Pakistan and 31 percent in India, but in comparison, decreased by 1 percent in Nepal³. This, plus the current poor usage of agricultural inputs (see page 3) indicates that the gains which could be made are substantial. The use of micro irrigation, improved seeds, fertilizers and other inputs could realistically increase production by 25 percent over the next 3-5 years. Given current rates of growth in consumption requirement, a growth in agricultural production of 25 percent will be the bare minimum required to maintain a production balance through to the end of the next decade. Figure 15 demonstrates the relationship between growth in cereal production and increasing cereal demand.

Figure 14. Growth in GDP & agricultural production



Source: GDP growth taken from ADB Asia Development Outlook 2009 & ADB Key Indicators for Asia and the Pacific 2008—Data set. Agricultural production figures from above source and Nepal Ministry of Finance 2008/09 budget estimates.

Figure 15. Cereal Production and population requirement



Source: MoAC supplied data.

¹ Based on Nepal Living Standards Survey 2003/2004.

² FAO Rome & WFP Rome, July 2007. Special Report, FAO/WFP Food Security Assessment Mission to Nepal.

³ FAO Stat., accessed June 28 2009: <http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor>.



The Disparate Cost of Coping

Table 4. Percentage of male and female headed households employing selected coping mechanisms following the 2009 winter drought

Coping Mechanism Employed	% of Male HH	% of Female HH
Reduced proportion of meals/ reduced number of meals	46	63
Skipped a day without eating	15	40
Consumed seed stock	34	41
Took children out of school	24	39
Reduced spending on educational material	33	22
Sold household assets	31	51
Sold agricultural assets	29	67
Coping Score	23.1	38.6

Source: WFP Nepal. April –June 2009 household survey data.

Table 5. Coping score experienced by households of differing caste, following the 2009 winter drought

	Brahmin/ Chhetri	Dalit	Janjati	Other	Average
Coping Score	22	32.8	21	12.2	24

Source: WFP Nepal. April –June 2009 household survey data.

The cost of hunger in Nepal is widespread but it is not even. In Nepal, it is women and children who typically suffer the greatest hunger. Table 4 demonstrates the significantly harsher coping mechanisms employed by female headed households vs. male headed households. Female headed households also include households where the father has migrated, and this demonstrates the high cost to the family left behind. Indeed, the only coping mechanism which is lower amongst female headed households is the reduction of spending on educational materials. This indicates that when females are in charge of spending, they are more likely to defer reduction of spending on education for as long as possible. However, ultimately they are still more likely to remove children from school due to poverty and food insecurity.

More vulnerable caste groups are also likely to suffer greater hunger. The greatest disparity is found in the Terai, here vulnerable populations such as Dalits, Adivasi Janajatis and Kamaiyas often struggle to access sufficient food despite a food surplus in the area. A comparison of ‘coping scores’ shows that Dalits regularly employ much higher mechanisms than other caste groups, see Table 5. However, given that a high number of the families living in the Mid to Far Western districts, the most food insecure districts, are Brahmin or Chhetri, the coping mechanisms employed by these families are also very high.



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“Women face the greatest hardships and are the main victims of lack of food and health services. When there is only a small amount of food, we don’t eat so that our children can.” -

**Female villager in Humla,
June 2009**



Containing the Cost of Coping

The Government Response

The Ministry of Commerce and Supplies

The Nepal Food Corporation (NFC) provides subsidized rice to 30 districts across Nepal; this will likely total around 17,000 mt during 2008/09. With current widespread food unavailability due largely to the extensive recent winter drought, NFC is under mounting pressure to increase district supply.

However, these operations are expensive, particularly in the most needy and isolated districts of the Mid and Far Western Hills and Mountains. Given the general lack of connecting road infrastructure between rural market hubs and these districts, air transportation is costly, but the only means available. It typically costs four times the price of the rice to transport it by air to places like Mugu, Dolpa and Humla.

The budget for transportation subsidy severely limits the amount of food that NFC can supply. Indeed, NFC's distribution amounts to only 5-6 percent of the total deficits in these areas. In addition, a recent combined MoAC, WFP and FAO assessment found that there was more supply available in districts which already serve as market hubs, such as Surkhet (460 mt) and Jumla (970 mt), compared to other districts where the stock was generally less than 100 mt¹.

Even within a district, for a variety of reasons, NFC's subsidised food often does not reach the poorest and most needy households. In recent years, food distribution in remoter VDCs has been severely disrupted by the conflict, as remote VDC food distribution depots were closed. The majority have not yet functionally re-opened. This means that the most remote villagers have to walk for over a week return to make it to headquarters to purchase their ration. Therefore, while NFC provides a certain level of support to the most needy districts, it is not sufficient as a means of ensuring the household food security of the most vulnerable. In addition, given the high cost of the NFC to the Nepalese government, even the sustainability of current operations is questionable.



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The Ministry of Agriculture and Cooperatives (MoAC), and Other Development Related Ministries

In terms of a longer term response to food insecurity, budgeted agricultural investment has more than doubled over the past 5 years². In addition, over the past year there has been much speak of reprioritizing agricultural spending. However, in the most recent budget, spending on agriculture and irrigation still only represents around 5 percent of the overall budget, compared to 30 percent in the 1980's, and 20 percent in the 1990's. In addition, after the first 10 months of the 2008/09 Nepalese financial year, MoAC had spent just 16.5 percent, of its budget. Due to this, the ministry has reportedly received sanctions of NRs. 400 million from the Finance Ministry³.

Other development related Ministries are suffering similar difficulties. The Ministry of Industry has spent just 6.4 percent of the NRs. 919 million it received, and the Ministry of Physical Planning and Works, which received the largest development budget, has spent just 26.3 percent of NRs. 20.7 billion⁴.

Development funding at the local level has also not been spent. The Ministry of Local Development spent just 31 percent of its budget. The development budget allocated for the Ministry stands at NRs. 16.7 billion. The Ministry has received sanctions of NRs. 8.4 billion from the Finance Ministry⁵.

¹ Exceptions are: Rukum (330 mt), Rolpa (245 mt) and Dolpa (320 mt).
² Nepal Ministry of Finance Budget Speech Annex, 2008/2009 and 2003/2004.
³ Kantipur Report, June 19. 64pc of dev budget remains unspent.
⁴ Ibid.
⁵ Ibid.



Containing the Cost of Coping

The Humanitarian Response

WFP operations in Nepal

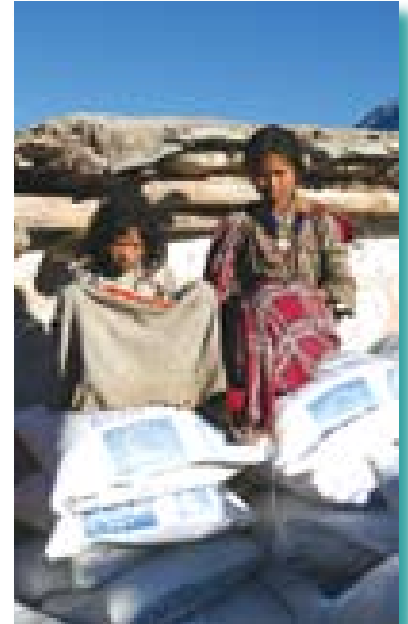
The foremost aim of WFP in Nepal is to prevent irreversible human, economic and social damage due to hunger and malnutrition. This is achieved through providing strategically targeted food assistance during critical moments of food insecurity. In addition, WFP works with vulnerable populations (i.e. communities impacted by conflict, high food prices and/or natural disaster and vulnerable populations such as lactating women and young children) to prevent hunger and foster food security for the future.

To handle the significant increase in poverty and hunger over the past 3 years, WFP has almost doubled its total number of Nepalese beneficiaries from 1.25 million in 2006 to 2.2 by the end of 2009¹. During 2009, WFP is providing this assistance through: school feeding for 182,000 children; fortified food for 31,000 pregnant and lactating women and their young children; micronutrient intervention for 114,000 children aged 6-59 months; cash/food for asset building to over 1.6 million people affected by conflict, high food prices and recent drought; and emergency food aid to over 60,000 displaced people in the aftermath of the 2008 Koshi River flood¹.

WFP and Nepal Government collaboration; food security monitoring and analysis

The Nepal Food Security Monitoring System (NeKSAP) produces timely and relevant information regarding food security and vulnerability issues based on field level data. This data is collected from 51 districts across Nepal—including the poorest and most remote. WFP is working together with the Ministry of Agriculture and Cooperatives to share data, knowledge and expertise to produce timely publications on food security to help guide decision making.

Each month WFP and MoAC produce a joint Market Watch report—together with the Federation of Nepalese Chamber of Commerce and Industries and the Consumer Interest Protection Forum. In addition, WFP and MoAC have worked together on joint emergency assessments, such as the 2008/09 winter drought assessment undertaken between April and May 2009.



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“We had very bad harvest. Without WFP I don't think we would survive. We have sold our things last year, if we sell our land for little money what do we do after that for food?

Even if my husband goes to India, how do my children eat now.”

Female villager in Dolpa, June 2009



Containing the Cost of Coping

Building Resilience not Reliance

Building resilience

Given the current collision of food crises in Nepal, providing food assistance to vulnerable populations is critical to preventing irreversible damage to the health, livelihoods and lives of a generation of Nepalese. In addition, WFP strives to provide food assistance in a way that contributes towards the long term resilience of targeted beneficiaries and their communities. This is largely achieved through a Food/Cash for Asset style of programming (in exchange for food people work on building community assets, or training projects). In addition, WFP school feeding projects (which encourage children to attend school) contribute towards community development through childhood education. In other words, apart from isolated emergency relief efforts, such as the Koshi River flood response, WFP in Nepal provides very little 'free food'. Table 6 demonstrates that households which received WFP assistance during 2008/09 were more resilient to the widespread 2008/09 winter drought.

Table 6. Household resilience following the 2009 winter drought

WFP Assistance?	House hold with food shortage (%)	Coping index	Sufficient food (%)			
			< 1 month	1-2 months	2-3 months	> 3 months
Assistance	68.5	18.4	25.9	41.8	20.6	11.8
No Assistance	88.5	35.7	53.7	28.5	12	5.8

Food/Cash for Assets



Local implementing partners, work directly with highly and severely food insecure communities (those impacted by conflict, high food prices, drought and/or other natural disasters) to identify the assets most useful for their long term food security. This includes: irrigation projects, cash crops, mule trails, and road works. WFP then provides food rations for completion of these projects. Through this mechanism WFP is able to provide immediate food and/or cash assistance, while enabling people to contribute towards long term food security. In the past year WFP Food for Work programmes have constructed over 120 km of road and irrigation systems to cover 854 ha of land.

School Meals



As well as directly addressing hunger, school meal projects encourage families to keep their children in school and so help them build better futures and allow them to find their own way out of hunger. If children are not hungry they will also concentrate better on their lessons. These projects benefit girls especially, who are generally the first to be taken out of school to work during times of hardship¹.

Avoiding reliance

WFP programming avoids creating community reliance upon future food assistance by ensuring that projects are well timed, well targeted and that the quantity of food provided is not sufficient to change eating habits or alter normal work-life. The majority of WFP beneficiaries live in communities dependent upon agriculture, therefore the timing of projects is normally between plantation and harvest periods. This is typically the time of greatest hunger and it is also a time when there is minimal farm work, thus programming does not significantly alter normal work activities. The quantity of food (or cash) provided is on average around 68kg for 17 days of work. For an average family of 6, this provides enough food for 23 full days, most households will only receive this assistance once in a year. The amount of food provided, is therefore not enough to encourage long term dependency or change of food preferences. However, it is sufficient to cover a households consumption for long enough that they can recover from a food shock without employing irreversible coping mechanism such as: sale of household assets, consumption of seed stock, removing children from school and/or drastically reducing consumption.



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¹ WFP Nepal also undertakes a girls incentive program which provides take home oil for girls who have at least an 80 percent school attendance rate.



Curing the Crisis

Opportunities and key recommendations

Nepal is facing a food crisis, and if urgent action is not taken to address the challenges identified in this report then the situation will deteriorate further through this decade and the next. In order to eliminate hunger across the country, urgent prioritization of national food security is required by the highest level of Nepalese Government and supporting development partners.

However, increased expenditure alone will not solve Nepal's hunger challenge. As this report has highlighted, the underlying causes of food insecurity in Nepal are complex, and therefore so is the solution. This is particularly so in the isolated regions of the Mid and Far Western Hill and Mountain districts. For this reason there is an urgent need for the reinvigoration of public debate relating to both immediate and long term hunger solutions. In particular, a cohesive long term vision – accepted by government, donors, UN agencies and other development partners – is required. This vision should focus on the Mid and Far Western Hill and Mountain districts.

To overcome the challenges identified in this report, the four key areas of: *agricultural production, trade and marketing; economic development; safety nets; and nutrition* should become the focus of a comprehensive long term food security plan for Nepal. Ultimately this process will require collaborative and innovative thinking combined with critical analysis and evidence based evaluation. During 2009 and 2010, WFP Nepal will facilitate the process for development of individual 'Food Security Priority Reports' which will provide recommendations for each key area below, with specific focus on the Far to Mid Western Hill and Mountain districts. The combined objective of this report, and each Priority Report, is to create a future framework to help guide food security policy, advocacy, and program decision-making for WFP, government and other development partners.

The 4 key priority areas to achieve enduring food security in Nepal

- 1 Agricultural production, trade and marketing:** *to address Nepal's low level of agriculture production, weak market functioning, and opportunities for enhanced two way trade flows—with a particular focus on remote Hill and Mountain market systems.*
- 2 Economic development:** *to address poor levels of economic growth, high rates of domestic unemployment/ underemployment, high levels of unskilled labor migration, and increasing economic disparity.*
- 3 Safety nets:** *to address the prevailing food insecurity experienced by the poorest households, and by other households in the face of short-term food shocks (i.e. natural disaster, sudden loss of income, food price shocks etc.).*
- 4 Nutrition:** *to address Nepal's chronic malnutrition rates which are amongst the highest in the world.*



The Cost of Inaction

Food security is a basic human right. However, it is also a prerequisite for sustainable achievement of all other development aspirations. In few countries is this more so than Nepal, where 80 percent of households are involved in agricultural production, and half of the population may have fallen below the poverty line due to the collision of crisis.

The food security situation in Nepal is already precarious, and at current rates of agricultural investment, it is likely that extreme poverty and hunger will increase significantly in the coming years. The impact of increased levels of coping will likely result in a substantial reversal of development gains made over the past 3 decades. Urgent action is required by both the Nepalese government, and development partners, to ensure that immediate food security, combined with long term growth in agricultural production, becomes a critical and sustained prioritization.

Box 6. The cost of inaction; the importance of food security to all development goals

Meeting The 8 Millennium Development Goals in Nepal



Not Likely to be achieved in Nepal by 2015 (UN Assessment, 2006)

	The Cost of Ignoring Immediate Food Insecurity	The Cost of Ignoring Agriculture & Livelihood Investment
Short Term	<ul style="list-style-type: none"> Increased rates of hunger and undernutrition Increased infant mortality Increased rates of maternal complication and impairment to fetal development Increased burden to women, as males out migrate and females are left with additional burden Reduced school attendance, particularly by girls Reduced labor productivity, due to lack of energy and fatigue Increased exploitation of natural resources (e.g., increased deforestation for firewood income) 	<ul style="list-style-type: none"> Decreased average agricultural yield Decreased cereal balance (consumption requirement vs. production) Increased vulnerability of crops to severe weather and natural disaster Increased vulnerability to food and labor market shocks Increased rates of food insecurity Increased reliance on environmentally degrading income sources
Long Term	<ul style="list-style-type: none"> Increased rates of malnutrition, stunting and wasted Long term reduction of agricultural production due to sale of household agricultural assets Increased rates and security of illness and disease due to undernutrition Increased rates of HIV, TB and other diseases/ illness associated with increased out migration¹ Lifelong reduced mental and physical capacity amongst today's children, and the future Nepalese workforce Increased political instability 	<ul style="list-style-type: none"> Poor foundation for enduring peace and national security Continued stagnation in agricultural contribution to gross domestic production Reduced economic growth rates Increased rates of poverty, particularly amongst women headed households Reversal of achievements towards millennium development goals, as chronic food insecurity increases

Nepal is one of 189 countries committed to the UN Millennium Development Goals, a pledge renewed in its Three-Year Interim Plan 2008-10.

1 See WFP & NDRI, 2008. Passage to India.
 2 CBS. 2003/04. National Living Standards Survey.



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