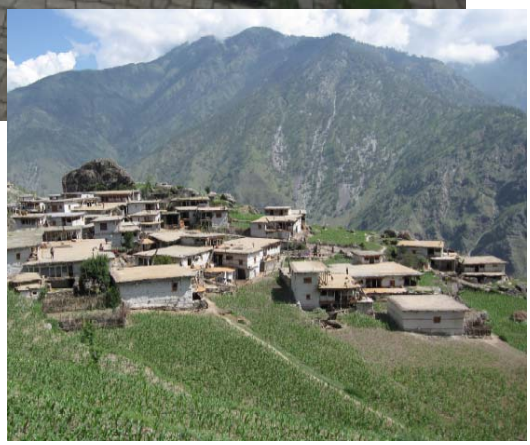
Summer Crop Nepal 2009/2010

Crop and Food Security Update



Joint Report February 2010

MINISTRTY OF AGRICULTURE AND COOPERATIVES

WFP

WORLD FOOD PROGRAMME

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2009 Summer Crop in Nepal

Crop and Food Security Update

HIGHLIGHTS

- Late start of the monsoon season and irregular distribution of rain caused a reduction in the 2009/2010 summer crop production across the country. Paddy production was down to 4.02 million MT and maize was 1.86 million MT. A reduction of 11 percent and 4 percent respectively compared to last year's yield (2008/2009).
- It is anticipated that the country will face a severe food deficit during the FY 2009/2010 despite the positive outlook of the ongoing winter crop season. In August 2009, the MoAC estimated edible cereal deficit of 400,000 MT for the FY 2009/2010 against the total requirement of 5.4 million MT. This deficit represented the cereal requirement of seven percent of the population. The deficit figure will be revised after the winter harvest.
- The global food market situation is currently not favourable for Nepal. Natural disasters caused substantial regional summer crop losses in countries such as India and the Philippines, which resulted in a recent increase in the international price of rice. Domestic food prices are stable at a higher-level but they are anticipated to increase further during 2010. In January 2010, the year-on-year food price inflation was 17.8%.
- The Mid- and the Far-Western Hill and Mountain districts were severely affected by the poor summer crop production. In those districts, some VDCs experienced a summer crop loss of up to 50-70%, resulting in food insecurity among vulnerable population. Those districts are traditionally food deficit and farmers are typically subsistent farmers with very limited alternative livelihood options due to its remoteness.
- Household food security shows an alarming situation among the population affected by the poor harvest: more than half of the affected households consume an inadequate diet; they are more likely to adopt severe and irreversible coping strategies including sale of household/agricultural assets; their food stocks are as low as one month on average; and their expenditure on food has increased due to higher dependency on markets.

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BACKGROUND AND OBJECTIVES

Socio-economic background: Nepal, one of the least developed countries in the world, only recently emerged from a decade-long armed political conflict. The progress has been marked by the Constituent Assembly elections in April 2008 and the subsequent formation of parliamentary governments. However, there is significant unrest within the country fuelled by factors such as poverty, food insecurity and political instability. As the deadline for the pre-announced date of constitution promulgation is coming closer, the country is still facing important political challenges in the post conflict transition to stability. Food security is a major problem across Nepal with nearly 41% of the population estimated to be undernourished (FAO/WFP 2007) and nearly 34% of the rural population classified as poor (CBS/WB/WFP 2006).

The global food crisis and Nepal: Nepal was particularly hard hit by the global food crisis and experienced steep food price inflation in 2007/08 as a result. Unlike other countries in the region, Nepal has not experienced the considerable food price deflation which occurred across much of the region during the late 2008 and 2009. Official year-on-year food price inflation is still very high. According to the latest figures the food price inflation was 17.8% in January 2010.

Agricultural situation: Agricultural production accounts for about one-third of the GDP in Nepal and employs two-thirds of the work force. The agricultural output growth is weak compared to other countries in neighbouring Asia, and in recent years the growth rate has been slowed. Various reasons are cited for this: lack of infrastructure limits access to markets; the steep and fragile land is easily damaged by landslides and flooding during the monsoon rains; soil fertility is declining due to the deforestation and erosion; little use is made of modern faming technology, improved seeds or chemical fertilizers; and there is only a small amount of irrigated land, so farmers must attempt to plan their crop production on the basis of the unpredictable precipitation during winter and the monsoon. While the production growth rate is still positive overall, it has not kept up with the increased demands of growing population. National food balance in the past decade has been either marginally surplus or deficit depending on the production outcome which fluctuates primarily due to the rainfall situation. The Hill and Mountain regions are more likely to be food deficit and therefore more vulnerable to such fluctuations. Nepal has been relying on unofficial imports mostly from India to meet its food deficit.

The summer crop harvest: Following a record-setting paddy production of 4.5 million MT during the summer of 2008, the winter crop of 2008/09 was marred by a country-wide severe drought resulting in significant loss in production. A joint Crop and Food Security Assessment was carried out by MoAC, FAO and WFP in May 2009, which estimated that the wheat and barley production were decreased by 14.5% and 17.3% respectively compared to the previous year. This resulted in a net food deficit of 132,916 MT in the country for the fiscal year 2008/09. In this backdrop, the summer paddy crop in 2009 was adversely affected by a delayed rainfall. After the planting season was over, MOAC prepared a preliminary forecast of impending reduced paddy harvest based on reports from district agricultural offices. According to the MoAC preliminary estimates of summer crop harvest in Nepal released in November 2009, production of the main summer crops, namely paddy and maize were reduced by 11% and 4% respectively, while the millet production was increased by 2% compared to last year.

Objectives of the joint mission: In response to the estimated reduction in summer crop production, MOAC and WFP carried out a joint mission to assess the crop situation and to look at its implication to household food security. The mission objectives were:

- to verify the summer crop production estimates through field mission in different regions of the country;
- to analyze the impacts on national food supply situation as well as household food security; and
- to make appropriate policy and programme recommendations for GoN, WFP and other relevant organizations to address the food insecurity situations of the vulnerable population.

METHODOLOGY

The crop and food security update is prepared using a range of information and data from different sources. It combines the national crop situation analysis method of MOAC with food security analytical methodologies of WFP.

In November 2009, MoAC gathered information on the crop situation from District Agricultural Development Offices through crop cutting exercises at randomly selected plots in each district. Based on the district reports, preliminary estimates of crop situation were thus prepared by MoAC.

In December 2009, joint MOAC and WFP crop verification mission visited a total of eleven districts in three development regions: namely, Morang, Jhapa, Ilam, Pachthar and Taplejung in the Eastern Development region; Banke and Surkhet in the Mid-Western Development region; and Kailali, Dadeldhura, Doti and Achham in the Far-Western Development region. The primary objective of the mission was to verify the preliminary estimates of summer crop situation and its impact on the food security situation. The mission had a series of consultation with district stake holders including DADO and also had interaction with communities in some districts. Information on crop production, food prices and food supply situation in each district was collected using a checklist.

Household food security data was collected by WFP field monitors in 35 districts using a standard questionnaire. A total of 95 communities were visited and 916 households were interviewed. Locations were selected based on the 2009 summer crop production outlook: twenty-five VDCs were selected randomly from a list of the total of 95 VDCs with poor production outlook across the 55 monitoring districts. Additional 700 households were interviewed in 70 VDCs and these samples serve as the control group. Household data is analyzed using SPSS.

The rainfall data was obtained from the Department of Hydrology and Meteorology (DHM). Market section was prepared based on the monthly Nepal Market Watch produced jointly by MOAC, WFP, Federation of Nepalese Chamber of Commerce and Industries (FNCCI) and the Consumer Interest Protection Forum (CIPF).

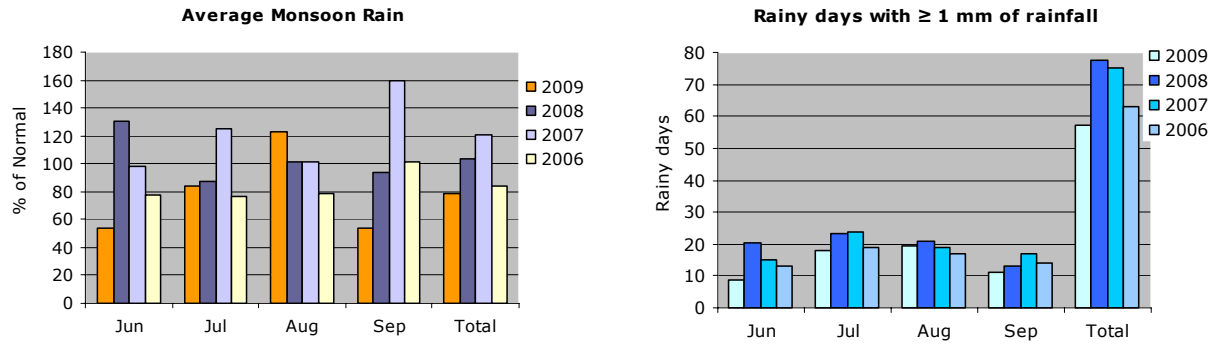
The methodology made it possible to analyze crop production and its impact on food security situation at different levels – national, district, VDC and household.

RAINFALL SITUATION

The 2009 monsoon experienced a significant delay: it started on the 23rd June and became active only after the 25th July. It remained active till the 15th October extending the retreat period by more than 20 days. As per the normal trend, monsoon rain starts on the 10th June and remains active till the 23rd September. June and July are the critical months for the plantation of main summer paddy in Nepal. Irrigation facility is available only in about one-third of the cultivated area, hence rain-fed irrigation is the only alternative source for summer crops. The late start of monsoon affected the paddy crop adversely: paddy plantation occurred only in 95% of the areas as a whole; farmers had to plant mature seedling excessively especially in the hills and mountains, which resulted in low paddy productivity[1].

The amount of rain was considerably low compared to previous years: overall the rainfall amount was even lower than 2006 when the country experienced a poor summer harvest in record (Source: Department of Hydrology and Meteorology). It is considered that the rainy days with ≥ 1 mm of rainfall per day in monsoon period provide a good irrigation to the summer crops (MoAC). In the 2009 monsoon season, however, the rainy days with such intensity remained only 8.7, 17.8, 20.0 and 11.3 days in the months of June, July, August and September respectively, which is lower than the past three years. Chart 1 below presents the rainfall distribution and intensity from June to September in the past four years.

CHART 1: RAINFALL DISTRIBUTION AND INTENSITY

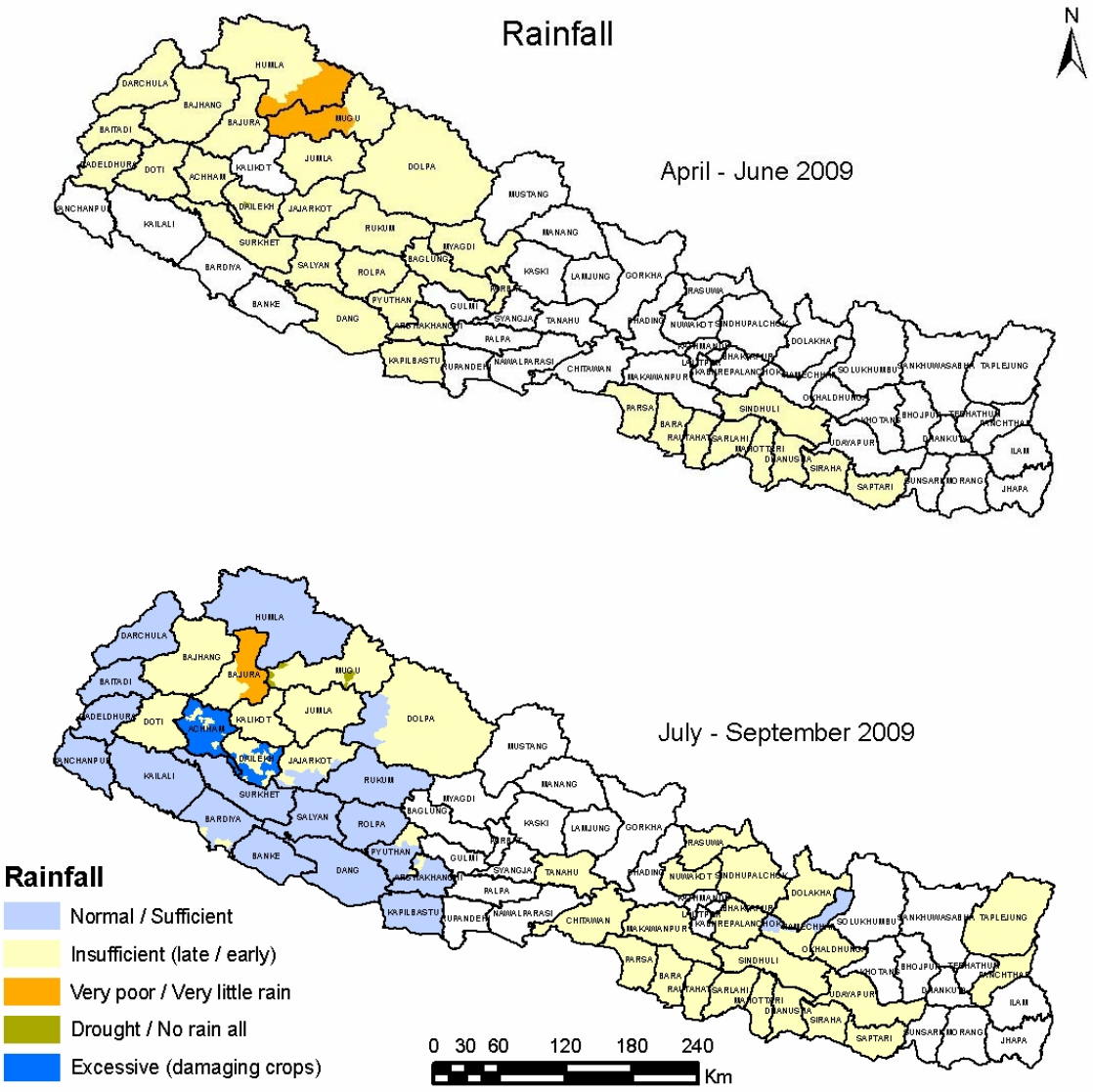


Source: Department of Hydrology and Meteorology

An excessive rainfall was observed during the 4-8th October, which caused floods and landslides in the Mid- and the Far-Western districts. The total amount of rainfall during the four days exceeded total monthly rainfall in some areas; at weather stations of Sundarpur and Dipayal in the south-west corner of the Far-Western Region recorded 1000% of the normal rainfall for the month.[2] Many districts in the Mid- and Far-Western Regions including Banke, Bardiya, Kanchanpur, Kailali, Dadeldhura, Doti, Achham, Bajura, Darchula, Bajhang, Jumla, Dailekh, Dang, Jajarkot, Rukum, Rolpa and Pyuthan received excessive rainfall, which resulted in a considerable damage to the summer crop production.

[1] Ministry of Agriculture and Cooperatives, Preliminary Estimate of main Paddy, Maize, and Millet for 2066/67 (2009/2010), December 2009
[2] Department of Hydrology and Meteorology, Preliminary Weather Summary of Nepal, October 2009

MAP 1: RAINFALL 2009 MONSOON SEASON



Source: DFSN and WFP FM

SUMMER CROP PRODUCTION 2009

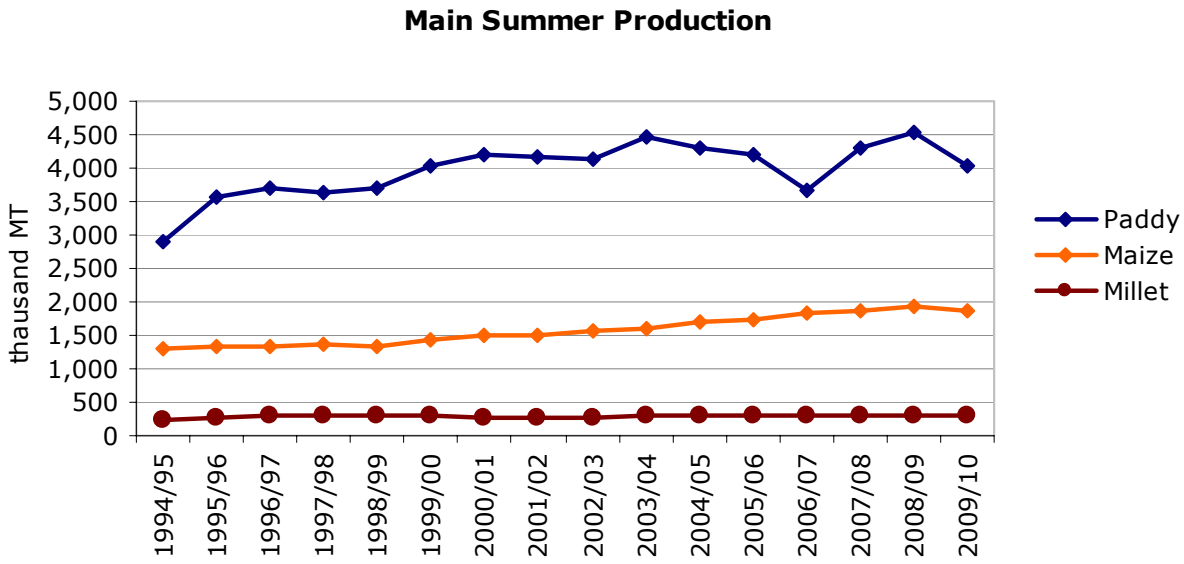
Summer crops of paddy, maize and millet comprise nearly eighty percent of total national cereal production: paddy is the first main crop cultivated extensively in the Terai region where more than 70% of the national paddy production is grown; maize is the second main crop mostly cultivated in hill and mountain districts; millet is the third crop which is important in mountain districts. Paddy accounts for more than 50% of the national cereal production.

According to the MOAC estimate, paddy production was reduced by half a million MT (equivalent to 11%) compared to last year. This significant reduction is mainly due to the late arrival of monsoon, which caused a delay for farmers in planting their crop. Overall productivity was reduced by more than six percent.

Maize, the second largest crop, also suffered from a reduced production by four percent compared to last year. Millet achieved a minor increase in production (2.3%) though the increase is not large enough to compensate the losses from paddy and maize due to its very small share (about 4%) of national cereal production.

Chart below presents the summer crop production trend over the past fifteen years.

CHART 2: MAIN SUMMER CROP PRODUCTION



Source: MOAC

Across the country production of paddy and maize, the two major summer crops, was lower than last year. Paddy production in the mid-western region experienced a minor increase (0.1%), which is attributed to the very poor harvest in the region during the 2008/09 summer crop season due to excessive rainfall and pests[3]. Eastern region experienced a higher percentage loss in paddy production (-15.6%, equivalent to 211,000 MT). Such reduction has had a significant impact on the national paddy production: the region has major paddy production districts including Jhapa and Morang, accounting for 28% of the national paddy production. Table below presents the regional summary of paddy, maize and millet production.

[3] Food Security Bulletin Issue 21, November 2008

TABLE 1: SUMMER CROP PRODUCTION FY 2009/2010

PRODUCTION 2009/2010

		Paddy			Maize			Millet		
		Area (,000ha)	Production (,000MT)	Yield (kg/ha)	Area (,000ha)	Production (,000MT)	Yield (kg/ha)	Area (,000ha)	Production (,000MT)	Yield (kg/ha)
ECO-BELT										
	Mountain	388	1,004	2,591	613	1,325	2,161	205	233	1,135
	Hill	1,031	2,905	2,816	171	352	2,055	10	11	1,100
	Terai	1,481	4,024	2,716	876	1,855	2,119	268	300	1,116
DEVELOPMENT REGION										
	E.Region	441	1,142	2,592	236	520	2,200	70	80	1,131
	C.Region	408	1,172	2,870	202	439	2,170	64	70	1,095
	W.Region	324	879	2,716	223	527	2,361	97	110	1,138
	MW.Region	165	493	2,985	159	279	1,752	21	24	1,115
	FW.Region	144	338	2,355	55	90	1,656	16	16	992
NEPAL		1,481	4,024	2,716	876	1,855	2,119	268	300	1,116

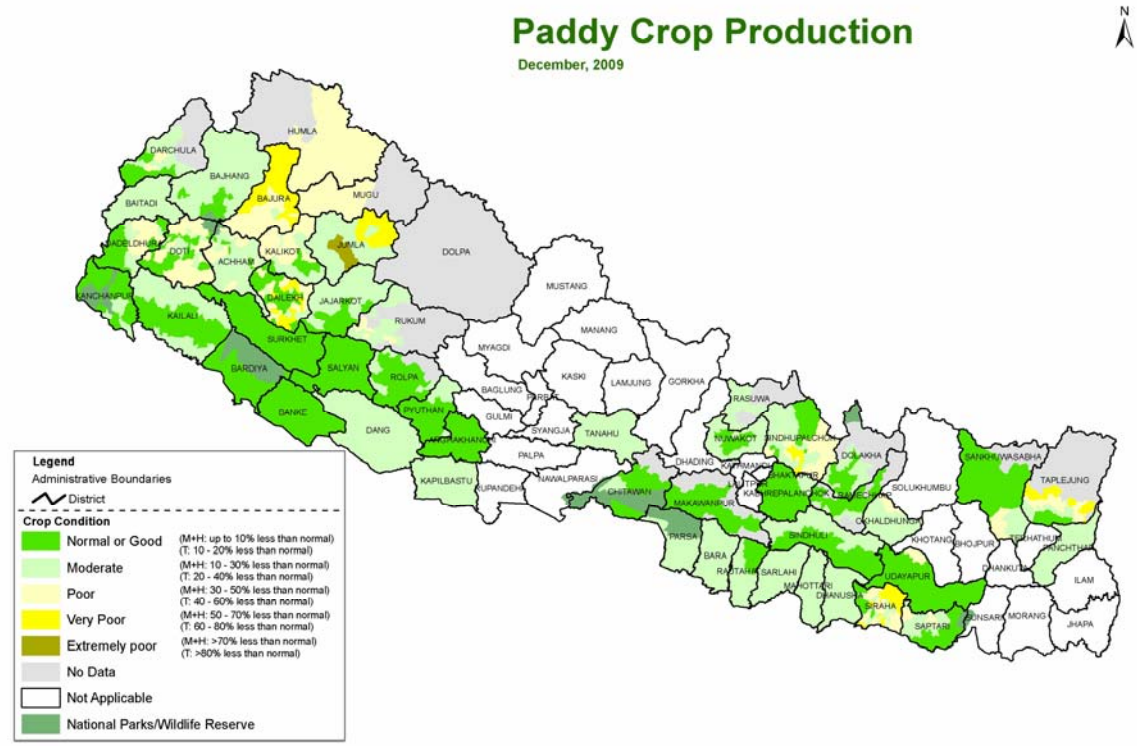
PERCENTAGE CHANGE COMPARED TO LAST YEAR

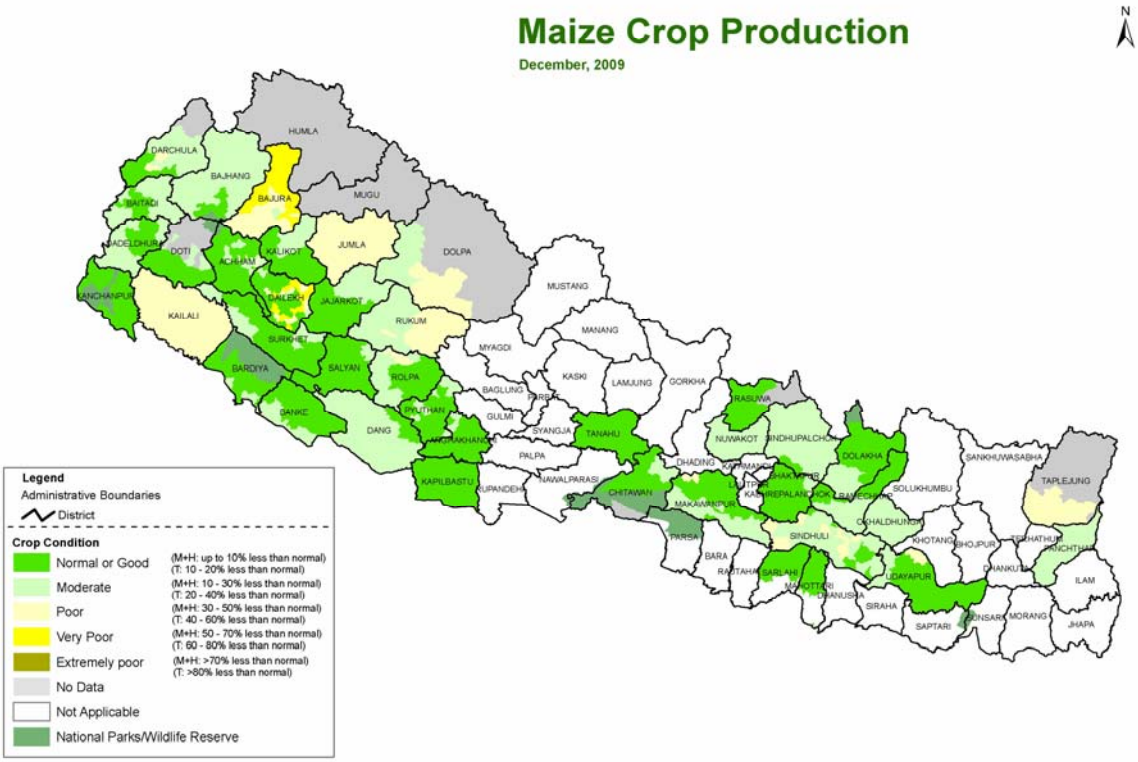
		Paddy (%)			Maize (%)			Millet (%)		
		Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
ECO-BELT										
	Mountain	-4.2	-11.3	-7.4	-0.1	-5.4	-5.3	0.4	-0.7	-1.1
	Hill	-1.3	-6.0	-4.8	-0.3	-2.1	-1.8	1.3	3.1	1.7
	Terai	-6.1	-12.7	-7.0	1.2	-9.5	-10.6	-2.3	3.4	5.8
DEVELOPMENT REGION										
	E.Region	-10.6	-15.6	-5.6	0.8	2.0	1.2	0.0	4.7	4.6
	C.Region	-3.9	-11.9	-8.3	-3.9	-9.0	-5.3	0.1	1.3	1.2
	W.Region	-0.6	-10.3	-9.7	0.4	-3.8	-4.2	0.3	0.6	0.3
	MW.Region	-0.5	0.1	0.6	3.7	-3.9	-7.3	3.1	0.6	-2.4
	FW.Region	-2.0	-8.2	-6.3	-0.2	-10.4	-10.3	10.9	11.2	0.3
NEPAL		-4.8	-11.1	-6.6	0.0	-3.9	-3.9	1.0	2.3	1.4

Source: MOAC

Map-2 illustrates the degree of crop loss by VDC (Source: DADO, DFSN) and by crop (paddy and maize). A severe paddy crop loss was reported in pockets of Bajura, Jumla, Dailekh, Siraha, Taplejung and Sindhpalchok districts. The major causes of the crop loss include late monsoon rain, excessive and damaging rainfall, landslide, flood, hailstorm and strong wind. Box 1 describes summer crop situation update of selected districts.

MAP 2: 2009/2010 SUMMER CROP PRODUCTION BY VDC (PADDY, MAIZE)





BOX 1: SUMMER CROP LOSS IN SELECTED DISTRICTS (Source: DADO, DFSN, MOAC/WFP Crop Verification Mission)

Paddy Production was decreased across the country. Following districts experienced severe losses due to late monsoon rain during the plantation and excessive and damaging rainfall during the pre-harvesting period:

Bajura experienced 50-70% decline in production in 8 VDCs in the east and north; likewise 30-50% of losses occurred in almost all remaining 18 VDCs except Pandusain due to insufficient and late rainfall by about two months. Paddy is the first main crop in the district. **Achham** saw losses of 50-70% in Chafamandu as 6 hectares of paddy field was swept away by flood; similarly the production decreased by 30-50% in 14 VDCs scattered around in the north, and west. A decrease of 30-50% occurred in Eyarkot and Dhuligada VDCs in **Darchula**. There was record high dry spell in 26 years time in **Dadeldhura** in 2009 (DADO). Many water sources were dried out and farmers did not have sufficient irrigation for the plantation of paddy, plantation was delayed by a month; also the excessive rainfall in 04-08 October '09 badly affected the pre-harvesting stage crops, which led to decrease in production by 41%. In **Doti** overall paddy loss was around 30%, however the losses of about 10-30% occurred in 28 VDCs mostly in the northern and southern belts. A decline of 11% occurred in **Kailali**; however 11 VDCs in the south and seven VDCs in the north lost the production by 20-40%. In **Mugu**, the crop has decreased by 30-50% in 20 VDCs in the eastern and central belts; there is no paddy cultivation in high mountain areas in four VDCs in the east—Pulu, Mangri, Dophu, and Mugu. Paddy is the second main crop in Mugu. Hailstorm and heavy rainfall (27 September—07 October) severely damaged the paddy crop in **Jumla**; the crop lost by more than 70% in Tatopani, Lamra, Talium, Kartikswami, and Haku VDCs; likewise 50-70% crop losses occurred in Dillichaur, and Patarasi VDCs. Paddy is the first main crop in Jumla. In **Humla**, the production of paddy decreased by 30-50% in 21 VDCs in the south, east, and middle parts of the district due to late and insufficient rainfall. Paddy is second main crop in Humla. Likewise **Kalikot** experienced production losses of 30-50% in almost 19 VDCs in the northern, western, and central belts of the district. Paddy is second main crop in Kalikot. In **Dailekh**, a decline in production of about 50-70% occurred in Baluwatar, Raniban, Salleri, Rum, Badabhairab, Awalparajul, Piladi, Goganpani, DandaParajul, Malika, and Badalamji VDCs due to excessive rainfall, flood, and landslide; likewise 30-50% of decrease experienced in Dwari, Kalika, Meheltoli, Bindhyabasini, Pagnath, Gauri, Baraha, Khadkabada, NauleKatuwal, ChhiudiPusakot, LayantiBindrasaini, Chamunda, Kasikandh, and Singhasain VDCs; paddy is the second main crop in Dailekh. Some VDCs in Taplejung lost the crop by 50-70%. Similarly quite many areas in **Rukum**, **Sindhupalchowk**, **Okhaldhunga**, **Udayapur**, **Sankhuwasabha**, **Taplejung**, **Siraha**, and **Saptari** saw production losses of 30-50%. In Taplejung and Panchthar, plantation of paddy was done only in 80% of areas.

Maize Production contributes more than 20% of share in national cereal production. The crop was highly affected by late/insufficient rainfall, excessive rainfall, landslide, flood, hailstorm, and strong wind in different parts of the country, which caused decrease in production.

Bajura saw losses of 50-70% in 8 VDCs in the east and north; likewise 30-50% of losses occurred in almost remaining VDCs except Pandusain. In **Achham**, Chafamandu and Warla VDCs lost the crop by 50-70% due to late rainfall during the time of plantation, and strong wind and landslide during the growth and harvesting of the crop; total of 26 hectares of maize fields were damaged by landslide in these VDCs. **Kailali** lost maize production by 60-80%. Crop loss of 30-50% occurred in Eyarkot and Dhuligada VDCs in **Darchula**, all over in **Jummla** and **Taplejung**, in Pahada, Liku, Tripurakot, Raha, Lawan, Suhun, Jufal, Majhfal, Dunai, and Saharatara VDCs in **Dolpa**, in northern belt of **Udayapur**, and in Kahairang Dandakharka VDCs of **Makwanpur.** Losses of maize by 50-70% occurred in Baluwatar, Raniban, Naumule, Kalika, Salleri, Rum, Pagnath, BadaBhairab, DandaParajul, Piladi, Malika, ChhiudiPusakot, and Badalamji VDCs in **Dailekh**; Maize is the first main crop in Dailekh. Most of the areas in **Sindhuli**, and western belts of **Rukum** and **Rolpa** lost the crop by 40-50%; maize is the first main crop in these districts.

Millet Production contributes a very small proportion (~4%) of share to the national cereal production. It has, however, a significant role to support to food security of people in some of the mountain districts. Below is situation update on millet this year.

Millet crop almost failed (lost by >70%) in 15 southern and eastern belts VDC in **Humla**; similarly the production declined by 50-70% in 10 VDCs concentrated in central belt including the district headquarters. **Mugu** lost 50-70% in 13 VDCs in the western, northern, and central belts due to late/insufficient rainfall and infestation of disease like blast; likewise a decrease of 30-50% occurred in 9 VDCs in the central and southern belts. Millet is the first main summer crop in Humla and Mugu districts. In **Bajura**, the plantation of millet was delayed by two months due to late and insufficient rainfall; farmers had to replant the crop in many places as the millet seedlings were damaged. Consequently the production lost by 50-70% in Bichhiya, Rugin, Bandhu, Jagannath, and Sappata VDCs; likewise 30-50% of decreases occurred in rest of all 21 VDCs in the district.

It is worth noting that the MOAC/WFP verification mission focused on cereal crop production and not cash crop. Cash crop is an important source of income for farmers, accounting for 29% of agro-products in FY 2007/08 in contrast to 50% for food crops (Economic Survey 2008, MOF). BOX 2 describes cash crop production in the Eastern Region.

BOX 2: CASH CROP PRODUCTION IN THE EASTERN HILLS AND MOUNTAINS

Since the 1990s, agricultural policies in Nepal have focused on cash crop production as a way to improve food security through increasing farmers' income to enable them to purchase food to meet their needs. Major cash crops produced in Nepal include oilseed, potato, tobacco, tea, sugarcane and jute.

In the Eastern Hill and Mountain districts of Mechi zone, cash crop production has been an important source of income for the population, which contributes to attaining food security for a significant number of households. In Ilam district, a pioneer of tea plantations in Nepal, various cash crops are commonly grown at household level. Cash crops in the area are known as "seven A's", called after the first Nepali vowel character "A": alaichi (Cardamon), aduwa (ginger), orthodox tea, akabari khursani (hot chilly), aalu (potato), olan (milk and its products) and amriso (a vegetation used for making brooms). The varieties of cash crops allow farmers to switch the crops depending on market demand and productivity. Such flexibility has contributed to improving the population's food security situation. In Ilam, for instance, despite its paddy production being reduced by 20% compared to last year, the farming population has managed to maintain their food security due to their income from other crops. Here the potato production in 2009/10 was estimated to be 87,280 MT and ginger production 47,475 MT. in addition, there is a significant income from tea, milk products, chilly and amriso.

Pachthar district also benefits from income generated by cash crop production though not as much as Ilam. In Taplejung, cardamom production has been the most significant income in recent years. Despite the decreased production of cardamom by 30-40% compared to last year production of 2,100 MT, farmers gainend a higher income due to a sharp increase of prices by 200-280% (NPR 150-175 per kg last year to NPR 400-425 per kg this year at farm gate). Thus the estimated income from cardamom this year ranges from 600 million to one billion NPR. In addition, the production of potato this year was estimated to be 42,000 MT in the district where paddy production was 15,400 MT (a decline of 33% from last year production of 22,890 MT). To date, districts of Taplejung, Sankhuwasabha and Bhojpur are the three most cardamom producing districts in Nepal.

Cash crop production in the Eastern districts is not without problems. For the cardamom, pest infestation is one major concern. According to the focus group discussion at Taragaun in Kanyam VDC in Ilam, cardamom production in Ilam has been greatly reduced due to pest infestation that started four years ago. The pest is a viral disease that spreads from one area to another, which has damaged significant amount of crops in Ilam and Pachthar. Taplejung District Agricultural Officer indicated that it would be a matter of time when the crops in Taplejung would be affected unless timely preventive measures were taken. The Alaichi development corporation set up by the government in Ilam has not been very effective. Similarly, the tea producing farmers in Taragaun also feel that much has to be done in promoting orthodox tea plantation and its management and linking the farmers with the right marketing channels. Members of the district chamber of commerce in Taplejung raised concern about the impact of the conflict in the area on trade and functionality of markets. It is reported that each truck containing cardamom from Taplejung has to pay informal taxes to as many as ten groups on the way before it reaches Birtamod in Jhapa. The impact of conflict was clearly noted by the mission during the field visit. Local government offices (including District Development Committee) were just open after 19 days of closure, which was again immediately followed by market closures and indefinite transport closures. Such closures have become frequent in recent months.

The issues of conflict and appropriate measures to facilitate farmers to continue with their cash crop production should be addressed in order to strengthen the potential of this region.

WINTER CROP PRODUCTION OUTLOOK

Winter crop (wheat and barley) outlook is reportedly normal across the country (Source: Crop Verification Mission; DFSN). The area planted by major winter crops of wheat and barley is reportedly higher than last year. Favourable rainfall to date is expected to bring a positive impact on wheat and barley production: the delay in monsoon retreat in 2009 by more than 20 days, which kept moisture content well enough for good germination and initial growth of the winter crops; and the rainfall in early February across the country.

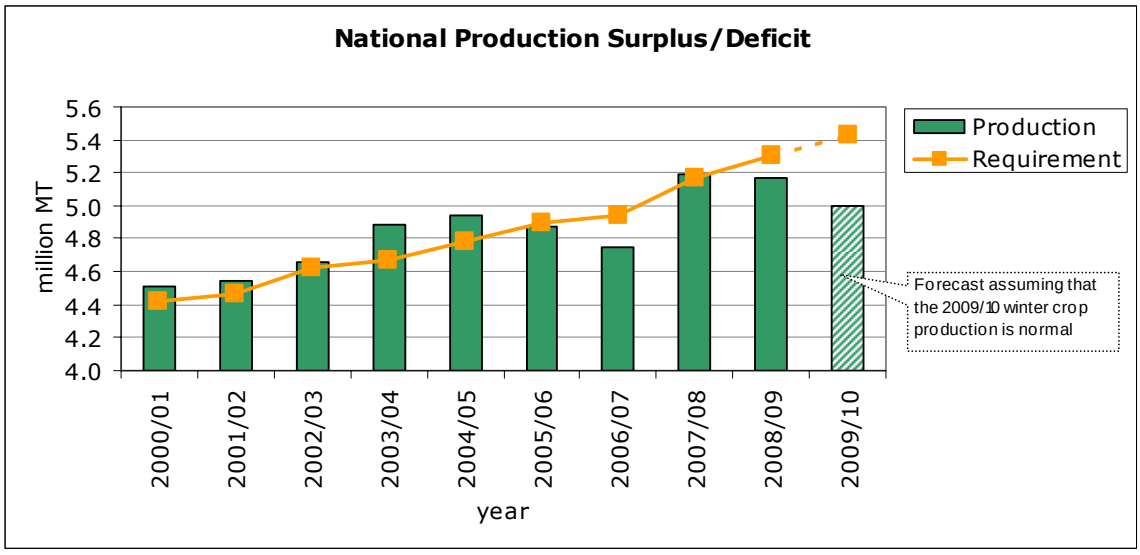
Geographical areas of concern are noted in Humla, Mugu, Rolpa, eastern Bajura, Rautahat, Siraha and Saptari where the winter crop situation is moderate (with an outlook of 10-30% decrease in production) due to the insufficient rain in the month of December 2009. Winter crop production outcome will be depending on the amount and the distribution of the rainfall during the critical crop growing period in February – March 2010.

IMPLICATION TO THE NATIONAL FOOD BALANCE

The 2009/2010 summer crop production was estimated to be reduced by 11% for paddy and 4% for maize compared to last year. Compared to the past five-year average (2004/05 – 2008/09), paddy production is lower by 4.2% and maize is higher by 2.2%. This reduction has a significant impact on national food balance since summer crop (paddy, maize and millet) accounts for approximately 80% of the annual production. In August 2009, MOAC estimated edible cereal deficit of 400,000 MT for the FY 2009/2010 against the total requirement of 5.4 million MT. The figure will be revised after the winter crop harvest.

Over the past years, the level of production has not kept up with the increasing demand of the growing population. The country is anticipated to face a food deficit even if the 2009/2010 winter crop production is above normal. Chart below illustrates edible cereal national production surplus and deficit since 2000/2001 and a projected deficit in the FY 2009/2010.

CHART 3: NATIONAL EDIBLE CEREAL PRODUCTION SURPLUS/DEFICIT



Source: MOAC

FOOD MARKET SITUATION

Agricultural market in Nepal is poorly integrated. Large price differentials in remote districts and frequent supply constraints reflect the degree of integration. Poor transportation infrastructure under difficult terrain in hills and mountains as well as low purchasing power among the rural population in Nepal are the major factors contributing to the poor degree of market integration.

Out of the total of 75 districts, forty districts were food deficit in the FY 2008/2009 (MOAC/FAO/WFP, 2009) and among them the deficit is particularly severe in 13 districts in the Mid- and the Far-Western Hills and Mountains. Food needs to be brought in from surplus area (mostly in Terai region) to the deficit area. Food deficit districts are mostly found in the mid and far western hills and mountains where commodity trade is limited by poor road connectivity. The weak physical access to markets especially in remote districts causes high transportation costs and reduced reach of private traders, which result in high food prices and unstable (and often low) availability of food in market.

Poverty incidence among the rural population is estimated to be 37% (CBS/WFP/WB, 2006). The incidence varies from one district to another and the issue of poverty is particularly severe in remote districts in the mid- and far-western hills and mountains where low purchasing power of the population limits commercial traders to bring commodities with high transportation costs.

The global food crisis led to a rapid price increase in Nepali market during 2007/08 and the price hike continues to date – the most recent year-on-year food price inflation was 17.8% (Nepal Rastra Bank, January 2010). Nepal has started to face a food deficit from domestic production since the 1990's and the deficit has to be met through imports from India and other neighbouring countries. This is to say that Nepal is vulnerable to shocks experienced by international food market. Despite the price deflation in the international food market during late 2008 and early 2009, prices in Nepal have continued to increase. This is attributed to domestic factors including: poor domestic agricultural production; India enforcing a trade ban on various key commodities; high transportation costs due to poor infrastructure; non market based fuel pricing, poorly integrated markets; anti competitive market behaviour; and frequent political unrest resulting in road and market closure ("Cost of Coping" WFP, 2009).

Over the past months the price of staple grains has remained relatively stable due to the summer harvest, though the weak harvest did not have a major impact on reducing the prices in most markets (Market Watch Issue 21). The price trend is anticipated to go up in coming months due to the weak summer crop production both domestically and regionally.

Natural disasters including drought, floods and typhoon caused substantial regional summer crop losses during 2009: India, Vietnam, Pakistan and the Philippines are among those countries experienced the paddy losses. Consequently, the international price of rice has started to increase from November 2009 and continued rising through January after months of steadily declining since May 2008. The increase in global prices is anticipated to have an impact on food prices in Nepal as it has been since late 2007.

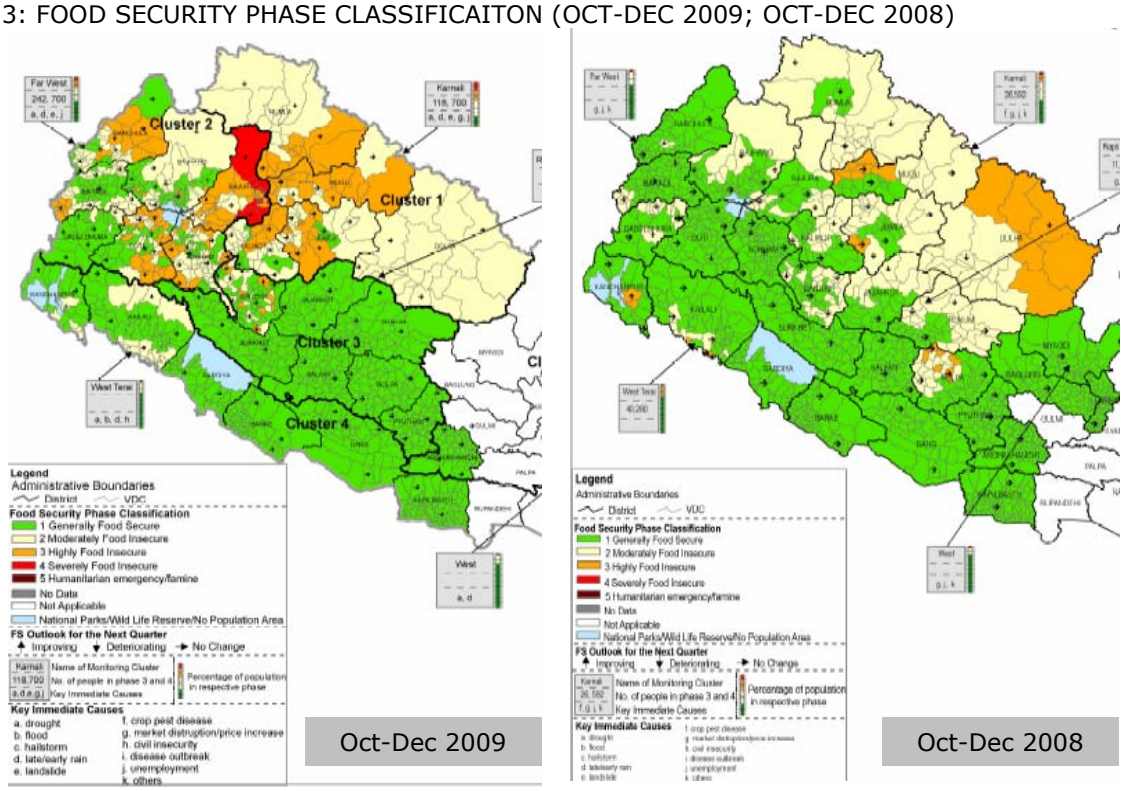
India, the major rice exporter for Nepal, has imposed various restrictions on rice exports since October 2007. Considering the lower rice production of the 2009/2010 summer season, it is not known if/how the restrictions would be eased in the near future. In February 2010, the Government of India reportedly agreed to export 50,000MT of wheat to Nepal. According to the media report, the partial lifting of the ban on wheat exports indicates the GoI's confidence about a higher wheat harvest, the main winter food crop in the country.

FOOD SECURITY SITUATION

Food security situation is in general worse than last year the same period. Map 4 illustrate the Food Security Phase Classification Maps of two cycles: October-December 2009 and October-December 2008. The impact of poor summer production is felt more in the Mid- and the Far-Western hills and mountains where a number of VDCs are classified as the Food Security Phase III (highly food insecure) with some VDCs under the Phase IV (severely food insecure). Bajura, Achham, Doti, Jumla, Mugu, Kalikot, Humla, Dalchula, Baitadi and Bajhang districts are among the food insecure districts. It is worth noting that many of those districts also suffered from severe crop losses during the 2008/2009 winter season.

Most of the Terai districts as well as east/central/western hill districts are currently under the Phase I (generally food secure). Rapti-Bheri Hill districts excluding Dailekh are also food secure reflecting a better summer harvest compared to last year when they experienced a severe summer crop loss due to excessive rainfall, strong wind and pest infestation.

MAP 3: FOOD SECURITY PHASE CLASSIFICAITON (OCT-DEC 2009; OCT-DEC 2008)



Source: Food Security Bulletin Issue 21, Issue 26

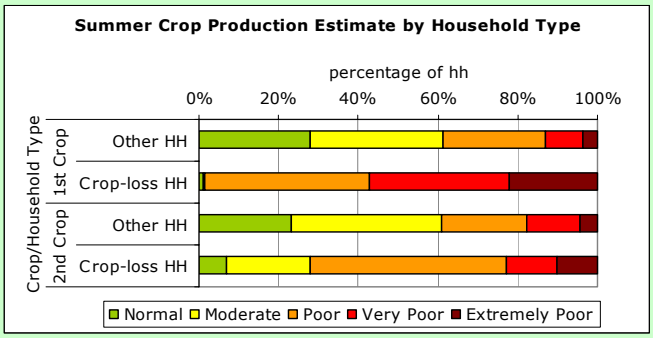
According to the household survey, almost all the households responded that they experienced a severe summer crop loss (from 30-40% to 70-80% less than normal) in those VDCs where crop-loss was reported. Reasons for the crop loss were (in order of significance): inadequate rainfall and pest/diseases. Household food security indicators of those households that lost their crops demonstrate an alarming situation: household food stock was on average 1.0 month; they adopt severe and irreversible coping strategies including "sale of household/agricultural assets" and "eating seed stock"; more than half of the households eat inadequate diet; their expenditure on food has increased due to higher dependency on markets. BOX-3 presents selected household food security indicators.

BOX-3: SELECTED HOUSEHOLD FOOD SECURITY INDICATORS (Source: VAM Household Survey)

Household food security indicators are presented by household type: "crop-loss" households refer to the households in the VDCs where severe crop-loss was reported and "other households" indicate the households in the VDCs where no crop loss was reported.

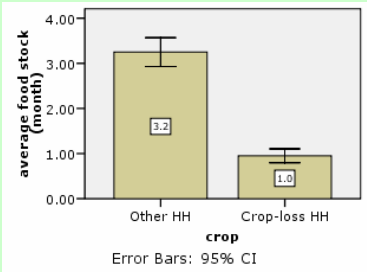
SUMMER CROP PRODUCTION ESTIMATE

Most of the crop-loss households reported substantial crop loss (more than 40%) for the main cereal crop as well as the 2nd crop.



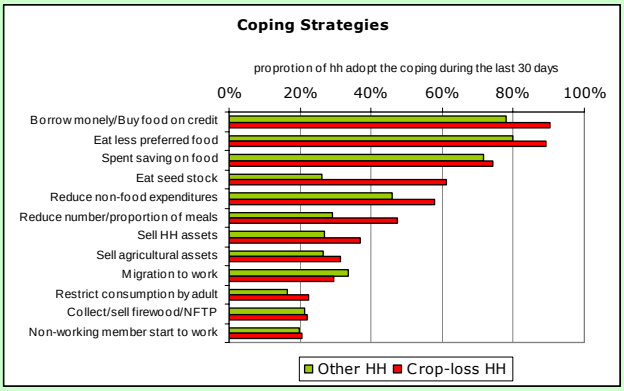
HOUSEHOLD FOOD STOCK

As low as one-month among the crop-loss households.



COPING STRATEGY

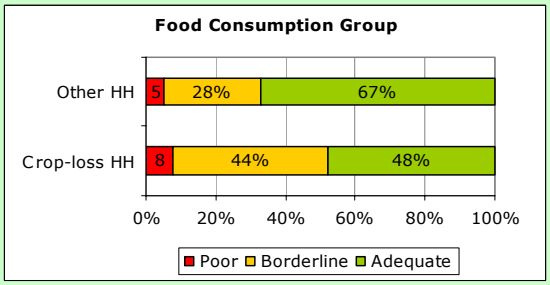
Severe/irreversible coping strategies adopted among the crop-loss households.



FOOD CONSUMPTION*

More than half of the crop-loss households consumed inadequate diet, typically eating cereals daily, pulses/lentils 1-2 days a week, green vegetables 2-3 days a week and oil 2-5 days.

*Food Consumption Group is constructed based on 7-day recall diversity and frequency of household dietary intake



In many of the areas where crop-loss was experienced, support programme is ongoing by different actors. BOX-3 describes interventions by the MOAC, NFC and WFP.

BOX 4: SUPPORT PROGRAMMES by MOAC, NFC and WFP

MOAC PROGRAMMES FY 2009/2010

MOAC has developed various mission programmes to boost crop production: maize mission program, potato mission program and pulses mission program. During the current fiscal year (2009/2010), there is a provision of subsidy for chemical fertilizers amounting 1.55 billion NPR. Food deficit districts in hills and mountains have been given the priority of MOAC intervention: seed and fertilizer transportation subsidies are provided to 26 mountain and hill food deficit districts as well as other various agricultural programmes to boost crop productivity. Irrigation is one of the major inputs to increase the crop production – MOAC, through the Department of Agriculture, implements Integrated Water Resource Management Project (IWRMP) in collaboration with the Department of Irrigation.

Natural disasters are the common phenomenon in Nepalese agriculture, affecting crop and livestock production each year. MOAC has incorporated the disaster risk reduction strategy in its annual plans and programmes as part of disaster preparedness activities. A ten million NPR fund has been set up for post disaster relief activities, which is to be utilized for farmers affected by disasters through providing seeds, small livestock and small irrigation facilities etc.

NEPAL FOOD CORPORATION

The government of Nepal supplies subsidized food to 30 districts including 22 remote districts across the country through the Nepal Food Corporation (NFC). In remote districts such as Dolpa and Humla, the NFC rice is often the only source of rice available in market. Due to its small quantity and the challenges faced in transportation, the NFC food is available only in the district headquarters. Consequently, poor households in remote areas often face difficulties in accessing the subsidized food. During the fiscal year 2008/09, a total of 17,000 MT of rice was planned to be supplied by NFC and for the 2009/2010 fiscal year, NFC has maintained about the same level of supply as the previous year. Currently NFC has 20,000 MT of rice in stock, which is within the normal stock-level.

WFP PRRO (Protracted Relief and Rehabilitation Operation) ASSISTANCE 2010

In 2010 WFP is planning to feed 1.6 million beneficiaries providing 45,000 MT of food in twenty-six food insecure districts under its Protracted Relief and Rehabilitation Operation (PRRO). The operation aims to target the most food-insecure populations affected by conflict, high food prices and/or natural disasters and to provide a social safety net while supporting to create economic opportunities and productive assets to restore livelihoods. The targeted districts are mostly in the Mid- and the Far- Western Hills and Mountains with a few districts in the Eastern Hills and Mountains.

Conditional transfers through labour-intensive food/cash-for-assets activities will create assets for the communities, through the construction of critical rural infrastructure linking farmers to markets, while enabling them to increase their agricultural output for these markets. Communities will also benefit from the creation of basic infrastructure, such as irrigation and drinking water systems, ponds and water harvest tanks, micro-hydro schemes and storage facilities. Small-scale enterprise activities shall establish orchards and cultivate medicinal and aromatic crops to generate income and reduce community vulnerability to food security, climatic variability and food price hikes. In areas prone to floods, disaster risk reduction activities will focus on slope stabilization, soil conservation, and the construction/rehabilitation of dams and river embankments.
In addition, in order to address high levels of micronutrient deficiencies, particularly iron-deficiency anemia, micronutrient powder will be provided to children aged 6-59 months in households participating in food/cash-for-asset activities, and tentatively to be expanded to children living in wards in which WFP is conducting activities.

While providing targeted food assistance through the creation of productive safety nets, WFP will work in close collaboration with FAO, responsible for providing targeted seed and fertilizer assistance to poorest and small-holder farmers. Beneficiaries receiving seed and fertilizer assistance from FAO will be selected on the basis of WFP food security assessments, government priorities, and underlying human development indicators. Furthermore, specific productive assets creation activities such as rehabilitation of small irrigation schemes and water storage facilities will benefit from complementary support from FAO through the provision of agriculture inputs and technical support. To this effect major efforts will be placed by WFP and implementing partners to coordinate interventions with FAO and MoAC, including on how to ensure that major food-for-assets interventions do not overlap with farming operations and are undertaken based on a well planned seasonal calendar and livelihood profiles. This is done through regular coordination mechanisms including the steering committee (with the government, FAO and WFP as members and the EU and EUFF NGOs as observers), and the district level planning committees.

FOOD SECURITY OUTLOOK

The food security situation is anticipated to deteriorate until the next major harvest in April/May especially among vulnerable households in food deficit remote districts. Availability of and access to food is hampered by multiple factors: prevailing poverty and lack/shortage of livelihood options such as wage labour, sale of livestock and NFTP limit the economical access to food while food prices increases; remoteness does the same on the physical access to food and the severe summer crop loss constraints the availability of food.

In many of the crop-loss area, WFP intervention is already ongoing, which has been a relief to the affected households. Winter crop production outlook is positive to date, though it is unknown to what extent household food security may improve as a result of positive outcome even if it is materialized.

National food balance remains a concern. It is estimated that the country would face a substantial food deficit in view of the summer crop loss and the increasing demand due to population growth. International food market situation is not favourable for Nepal: international price of rice has started to increase due to poor production in countries such as India and the Philippines. India, the major food exporter for Nepal, has imposed various export restrictions on Nepal and it is unknown if these restrictions could be lifted anytime soon. In February 2010, the Government of India has reportedly agreed to allow the export of 50,000 MT of wheat to Nepal, as a response to the GoN's request to lift the ban to allow the export of 50,000 MT of wheat and 200,000 MT of rice to Nepal.

CONCLUSION AND RECOMMENDATIONS

The late start of the monsoon and irregular distribution of rain caused a reduction of summer crop production by 11% and 4% for paddy and maize respectively compared to last year. The poor production has affected the food security situation. National cereal balance is anticipated to face a substantial deficit in 2009/2010 despite a positive outlook of upcoming winter crop production. The impact of summer crop loss was severely felt especially in the remote districts of the Mid- and the Far-Western Hills and Mountains where many of the population also experienced a severe winter crop loss during the 2008/2009 season. Household food security indicators among the affected population demonstrate an alarming situation: inadequate food consumption; reduced income and increased pressure on food expenditure; and adopting severe and irreversible coping strategies.

Vulnerability context in Nepal is complex. Geography determines the type of risks that the population is exposed: agro-ecological zone determines farming methods and type of crop grown in the area; geographical remoteness constraints livelihood options other than subsistent farming and limit access to market and services. The degree of exposure to risks has been increasing over the past decades due to natural and human factors. It is evident that the climate change has resulted in the increased frequency and severity of natural hazards such as drought, floods and landslides. Growing population has led to the deforestation, which resulted in soil erosion, landslides and deterioration of watershed conditions that cause shortages in drinking and irrigation water supplies. Meagre farm land is divided into smaller plots to be shared among household members, resulting in smaller land holdings. Subsistent farmers have become no longer being self-sufficient. Rural population has been adopting various coping strategies including crop diversification, use of credit, household/agricultural asset sales and increasing migration, which often damages livelihoods and results in mal-adaptation.

Disparity is observed in different layers including regional and community. Past surveys and studies consistently suggest a higher vulnerability among the rural population compared to the urban; mid- and far-western hills and mountain regions being more vulnerable than the others. Within community, there are disadvantaged groups such as ethnic minorities and dallit caste. Such structural complexity of vulnerability casts a major challenge in designing interventions as no single prescription can solve all the issues for everyone. While it is important to address the immediate needs of the vulnerable population, mid and long term interventions need to be strategically tailored towards tackling such complex vulnerability factors for different geographical areas and population groups.

Based on the findings of the mission, following recommendations are made:

SHORT-TERM, QUICK IMPACT INTERVENTIONS:

- Continue to monitor food security situation through Nepal Khadya Surakhsya Anugaman Pranali (NeKSAP). Karnali and Far-Western Hills and Mountains require a particular attention as the area experienced a severe summer crop loss.
- Continue to monitor market prices and market supply situation of local, regional and international markets.
- WFP to continue with its assistance to the vulnerable population and extend an immediate assistance through targeted food or cash for work activities in severely or highly food insecure populations where impact of the crop loss is severely felt. Priority is to be given for activities to enhance agricultural production (e.g. irrigation system improvement and extension) and market access.
- Increase the Nepal Food Corporation budget to cover the likely additional demand in food deficit districts.
- Continue to monitor the progress of winter crop production and provide further support to the ongoing relief program of MoAC to boost the production.

MIDIUM-TERM IMPACT INTERVENTIONS:

- Continue with the ongoing EU funded program on "support to mitigate the negative effects of high food prices on local rural populations" implemented by WFP and FAO in collaboration with MoAC and MLD, and look for possibilities to expand such project in other areas.
- Improve the knowledge about improved cereal crop production and include potato in the overall food balance. This will allow for more accurate reporting on the food balance and also monitoring of potato-dependant areas.
- Improve the knowledge and proper usage of agricultural inputs and machinery so as to increase the crop yields and to enhance resilience against drought and irregular rainfall.

- Improve knowledge about cash crops and work in the way to enhance the production of existing cash crops – e.g. providing a timely intervention to prevent damaging diseases. Improve the research, utilization and awareness of cash crops. Research potential markets for these crops and provide assistance to improve marketing.
- Continue with the ongoing collaboration between WFP, FAO and the Government of Nepal to transfer the NeKSAP capacities to the government system to strengthen food security assessment and monitoring capacities.

LONGER-TERM IMPACT INTERVENTIONS:

- Continue to work on national agriculture and food security strategy/plan currently being considered by NPC (National Planning Commission) and MoAC.
- Improve road access, irrigation infrastructure, provision of seeds and fertilizers, and implement crop diversification and commercialization programs.
- Support the development and utilization of drought resistant crops and farming methods that are appropriate for different districts.
- Improve crop assessment methods to include scientific methods such as remote sensing and updated field techniques.