



## Food Security Bulletin

October - December 2005

### Editorial

This monitoring cycle marks the primary harvesting season for paddy and maize. With some exceptions, survey participants report either no change or decreases in production due to the late monsoon earlier this year. The data indicates that the consequently delayed planting of these two major cereals contributed to lower food stocks and fewer agricultural labor opportunities in cases where less land was cultivated in the absence of sufficient irrigation.

As predicted in Food Security Bulletin 10, the actual effect of the delayed monsoon rains varies and is not equally extensive or adverse in all the districts monitored. Where the impact has been adverse, households report lower food stocks than last year, with some indicating stocks will run out one to three months earlier. The survey also picked up early indications of significantly increasing labor migration rates. The food stock shortfalls might drive migration rates up across the affected districts in the months ahead.

Fortunately, the ceasefire and consequent freer movement of goods between districts have depressed or maintained retail prices of basic foodstuffs. Food supplies have been unusually plentiful in the monitoring cycle. Both factors lower the bar for access to food and contribute to mitigating the effect of the decrease in summer crop production. The lower stock level may, however, drive prices up in the medium term, especially if the expiry of the ceasefire leads to intensified fighting and limited movement of food from surplus to deficit areas.

Another positive development was the early rain in December which is expected to boost the winter harvest of wheat and barley in April and May considerably.

### Monitoring in Real-time

On October 24, the WFP/VAM Food Security Monitoring system went real-time. With the technical assistance of the Norwegian Refugee

Council, WFP/VAM Nepal has pioneered the capability to collect, transmit and analyze data in real time. Each WFP/VAM Field Monitor is now equipped with a Pocket PC on which s/he enters respondents' answers. The questionnaire has been redesigned not only to match the latest thinking in food security, but also to capitalize on this new dynamic format and, for example, analyze respondents' answers for verification and elaboration during the interview.

Through connecting their satellite telephones to the Pocket PC, the Field Monitors are able instantly to transmit the data to a secure server based outside the country. Without delay, the data can be retrieved and subjected to preliminary trend analysis. The system is designed to be fully operational even when ordinary means of communication cease to function, for example in the event of an earthquake.

This is the first Food Security Bulletin to analyze and present this real-time data. While the potential of the new system is being explored, the most notable change is the fact that the data in the Food Security Bulletins is recent and up-to-date. WFP/VAM welcomes suggestions about how to develop this capability for the benefit of the wider donor and agency community.

#### **Food Security Monitoring (FSM) in Nepal**

World Food Programme monitors food security in the 32 Districts where it implements development activities in Nepal. The Department for International Development (DFID) of the UK Government has funded, and the Vulnerability Analysis and Mapping (VAM) Unit of WFP Nepal has managed, the project since its inception in October 2002.

Thirty field monitors monitor 32 Districts and 3 border points with India. 29 of them collect household and community data on food security in these 32 Districts. They aim to conduct about 1,500 repeat household interviews, in 150 VDCs, during every two-month monitoring cycle. In addition, each field monitor randomly selects 5-15 households to interview once in a cycle. The repeat households were selected through purposive sampling to represent vulnerable segments of the given population, for example, in terms of their physical isolation and limited landholding.

Additionally, one field monitor is assigned to collect migration data at 3 main Terai border points with India. He checks official migration records against spot interviews with migrants as they cross the border

## Development Regions, Administrative Zones and Districts



### Far-western Region

Seven WFP/VAM Field Monitors survey food security in the 7 Hill and Mountain districts of Achham, Baitadi, Bajhang, Bajura, Dadeldhura, Darchula and Doti.

**Production.** This monitoring cycle is the season of rice, millet, and potato harvesting and wheat, barley, millet, maize, and potato cultivation in the Far-western Development region.

There has been a decrease in the rice paddy harvest in six out of the seven districts monitored, generally attributed to the late monsoon this year. In Baitadi and Bajhang, survey participants reported a  $1/5$  decrease. In Doti, farmers reported harvests that yielded  $1/5$  to  $1/2$  that of last year; in the same district, however, District Agriculture Development Office (DADO) reported only a  $1/10$  decrease overall. Similarly, in Dadeldhura, the DADO estimated a decrease of anywhere between  $1/10$  and  $3/20$  in paddy while the participants in the survey, who are selected for their relative status of deprivation, in Koteli and Samaijhee VDCs suggested that this year's production would be  $3/10$  or even  $1/2$  of last year's. In contrast, participants in Jogbudha VDC expected their

harvest to be similar to last year's as they managed to cultivate and irrigate the crop in a timely fashion. Achham and Bajura also saw decreases in paddy production. But Darchula district reported a similar harvest as last year and this might be due to the fact that it had only cultivated paddy in lowland areas where irrigation facilities were available (Fig. 1).

Figure 1 presents an attempt to sketch the trend of paddy production in selected districts in the Far-western Development region over the past four years. Estimates for 2002, 2003, and 2004 production are HMG/N figures<sup>1</sup>. This data is the actual production tonnage for the relevant districts, overall. Estimates for 2005 are derived from narrative data collected by WFP/VAM Field Monitors in October to December 2005<sup>2</sup>. These are subjective assessments of year-on-year percent changes in production output. The latter were applied to the 2004 HMG/N actual production tonnage figures to gauge 2005 production quantities.

Two caveats should be noted in our use of these two data sources. First, the Ministry of Agriculture and Cooperatives data represent annual production,

<sup>1</sup> Statistical Information on Nepalese Agriculture from the Agri-Business Promotion and Statistics Division of HMG/N, Ministry of Agriculture and Cooperatives, 2001/2-2003/4

<sup>2</sup> The 2005 estimate of Dadeldhura paddy production was provided by DADO.

while the field monitor reports refer specifically to the period of October to December 2005. We expect this misalignment should contribute to only a small amount of error, as much of the annual production is from the summer crop harvested from October to December. As such, annual production estimates will be similar to production estimates from October to December.

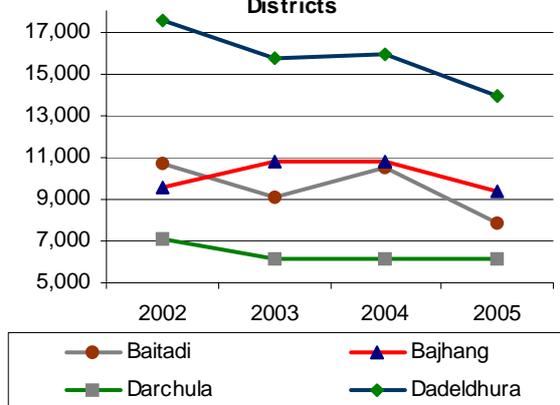
Second, and most significantly in terms of the bias of these trend graphs, the estimates of changes in production reported by WFP/VAM Field Monitors is gathered from only a limited number of VDCs within the given district. They thus do not describe changes in production throughout the district, but rather only in the VDCs visited during the monitoring cycle. Given the fact that the communities selected for participation in the WFP/VAM survey are some of the least resourceful members of the district population, it would be expected that they cope with natural hazards, such as delayed rains, in a less effective manner than other population segments. The estimates for 2005 production in figure 1 and 2 below are thus likely to be overtly pessimistic.

The maize harvest saw a decline during this cycle as well. According to survey participants, harvests were  $\frac{3}{20}$  to  $\frac{3}{10}$  smaller in Bajhang and Baitadi districts, due to delayed monsoon and in some cases, an excess of rains during the flowering period of the crop. In Bajura, maize production was down about  $\frac{1}{2}$  from last years. In some VDCs because of the insufficient rainfall, while in Darchula, farmers said harvests were  $\frac{2}{5}$  lower after the delayed cultivation due to lack of rain (Fig. 2).

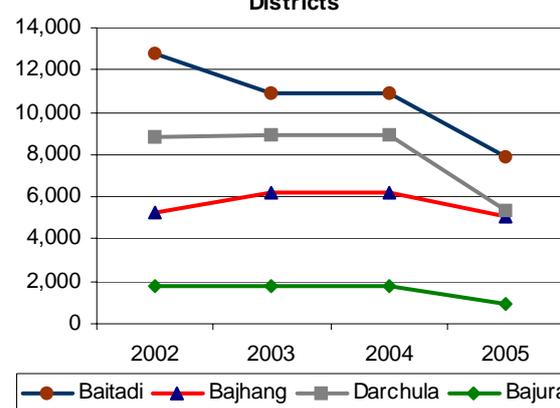
Millet was cultivated in additional parts of the region this year; it was grown in areas where paddy cultivation was not possible because of the late monsoon. Despite this increase in its cultivation area, farmers reported a  $\frac{3}{10}$  decrease in millet in Dangajee and Lekgaon VDCs of Bajhang district. Some millet crops were lost in a landslide in Doti this year, but the DADO reported an overall increase in the millet harvest of  $\frac{1}{2}$  due to a greater cultivation area in that district this year.

According to farmers, soybean harvests were  $\frac{1}{2}$  to  $\frac{4}{5}$  lower in Darchula, due to a delay in cultivation with the lack of rainfall. Farmers also reported a

**Fig. 1 Tentative Estimates of Production of Paddy (MT) in Selected Districts**



**Fig. 2 Tentative Estimates of Production of Maize (MT) in Selected Districts**

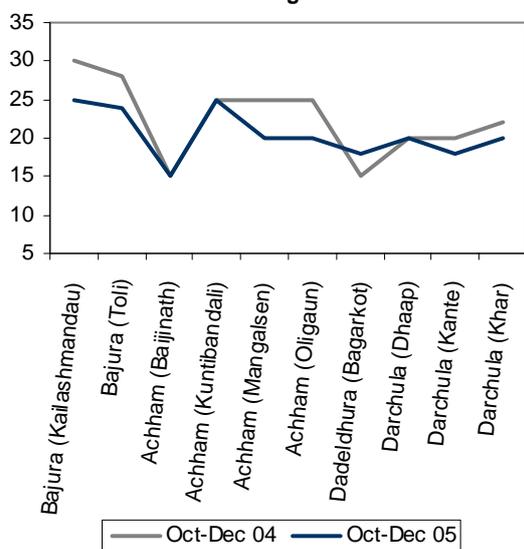


$\frac{2}{5}$  to  $\frac{1}{2}$  decrease in potato production in Bajhang district.

**Price.** The retail price of rice has been relatively stable throughout the region in this monitoring cycle. In Achham district, for example, it has remained the same as last year in the district headquarters, while it is about NRs. 1/kg lower in some village markets. Rice prices have increased by NRs. 1-2/kg in Doti and Darchula districts because of the slightly higher prices in source markets. Rice has also gone up by NRs. 1-2/kg in Dadeldhura, due to both increases in source prices and to reduced production in the district. In Bajura, the price of NFC rice remained relatively constant, while the cost of local rice increased slightly in district headquarter and north-eastern part of the district; food supplies in the district remained regular, however.

In Baitadi district, the CPN(M) has restricted food movement from the Dehimandu market to certain VDCs of the Tallo Sorad area since February 2005; people from this area have been taking food from the Patan market. Since October 2005, CPN(M) established a controlled price market in the northern VDCs of the district, fixing the price of food and other commodities. In Patan, Dehimandu and headquarter markets, the price of rice has increased by NRs. 2/kg this year, again because of higher prices in the source markets (Fig. 3).

**Fig. 3 Retail Price of Rice (NRs/kg) in Select Sourcing Markets**



**Movement.** People and food have been able to move freely in all districts of the region except for Baitadi. Since last February, the CPN(M) has restricted the movement of food and other commodities between Dehimandu market and about 15 VDCs of the Tallo Sorad area in that district. It is believed that these restrictions stem from a dispute between CPN(M) and local traders.

**Income.** Livelihood strategies in the Far-western region continue to be multifaceted, and vary both among and within the districts.

In Achham, the sale of dairy products and citrus fruits was an important means of income. Local traders in the district reported the export of about 25 MT ghee (worth about NRs. 3.5 million) to Doti and the tarai. Portering occupied about 200 people in the western VDCs and 100 people between Sanfe market and Bajura. Remittances were a major

source of income in some areas, such as in the Soukat survey community, where short-term migrants have brought Indian money into the market. In Baitadi district, the opening of a new Dairy meant that about 25 households earned wages by selling milk. Wage labor, portering, and the sale of bamboo crafts remained sources of income in the district.

In Doti, some people in Pachnali, Sanagaon, Daud and Toleni VDCs found employment in the RCIW construction project that began in November, while others, especially women, carried straw to earn NRs. 25/day, or prepared fields for wheat cultivation, from which they earned NRs. 60 plus 2 kg. rice paddy per day.

Approximately 100 people in Bajhang are engaged as mule shepherds, each earning about NRs. 2500/month. About 500 villagers in the district earned wages through the construction of roads, schools, and irrigation canals. Another 200 people earned income by portering. People in Surma, Daulichaur, Lekhgaun, Sainpasela, Bhamchaur, Dahabagar, Melbisauana, and Kanda VDCs collected hemp for weaving and sale; this earned each household between NRs. 1,500 and 10,000 over the course of the cycle.

In Bajura, herb collection and sale was a profitable occupation for households in Rugin and Bichhiya VDCs. They typically earned NRs. 105/kg, and between NRs. 10,000 and 20,000 total over the course of the season. The collection and sale of marijuana, and the sale of milk, vegetables and fuelwood also provided income to households in the district.

Fruits and pulses were harvested and sold in many of the districts, although production of traditionally important crops such as oranges and soybeans was significantly reduced this year due to the lack of rainfall. In Dadeldhura, for example, DADO reported a decrease of 1/5 in soybean production, which resulted in a price increase of NRs. 3-4/kg.

**Migration.** In Bajhang, out-migration has increased by 1/10 this year both in survey communities and as a whole. The survey community of Lwada Lekhgaun, for example, reported 71 migrants to India this season, compared to 63 people last year, apparently due to the decrease in summer crop production this year.

Migration out of the Baitadi district also increased due to reduced food production, as well as fewer wage-earning opportunities; RCIW has only recently begun in the district. According to survey communities and migrants in the Bus Park in Dadeldhura, migration rates are also a bit higher in that district this season. In Doti, survey communities reported an increase in migration linked to heightened insecurity.

In Achham, on the other hand, migration rates were lower than last year. This was likely due to the delay in winter crop cultivation, which kept people at home longer than usual.

According to a local schoolteacher, VDC secretaries and social workers in Bajura, migration rates in that district were in keeping with traditional trends. One to two people from each household participated in seasonal migration, traveling primarily to India for employment until the April harvests. Similarly, people in Darchula migrated to India at traditional rates.

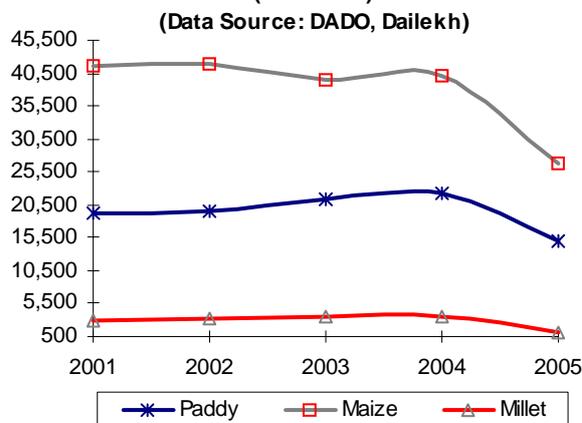
## Mid Western and Western Regions

Thirteen WFP/VAM Field Monitors survey food security in the 12 Mid Western Hill and Mountain districts of Dailekh, Dolpa, Humla, Jajarkot, Jumla, Kalikot, Mugu, Pyuthan, Rolpa, Rukum, Salyan, and Surkhet in addition to the Western Terai district of Rupandehi.

**Dailekh.** As anticipated in Food Security Bulletin 10, this year's delayed monsoon rains affected summer crop production in Dailekh district. The DADO data shows a district-wide decrease in production levels for maize, paddy, and millet by 1/3, 1/3, and nearly 3/4, respectively. These actual figures are somewhat greater than the predictions of DADO and Ministry of Agriculture published in the previous Bulletin.

Particularly, the seven VDCs in the eastern belt of the district of Ruma, Meheltoli, Bindhyabasini, Pagnath, Jaganath, Katti, and Badabhairab saw noticeable decreases in production. According to DADO figures, last year's total production of maize in these VDCs stood at 5,044 MT while this year it is down to 1,009 MT. Their records show great discrepancies between last year's paddy and millet production at 3,169 MT and 592 MT, respectively, on the one hand, and this year's figures which are 792 MT and 207 MT, on the other.

**Fig. 4 Production (in MT) of Cereal Crops in Dailekh (2001-2005)**



Some of the survey participants in these seven VDCs report that they have sold livestock and jewelry to purchase rice in the market. Labor migration is another and far more positive coping strategy which they employ. Respondents estimate that about 135 people leave each of these seven VDCs for India in a normal year but that as many as 225 have done so this year.

On a positive note, the wheat crop which should be ready for harvest in April and May 2006 is expected to turn out a strong yield after benefiting from the early rainfall on December 21<sup>st</sup> and 22<sup>nd</sup>, 2005.

Further mitigating the effect of the delayed monsoon, retail prices of basic foodstuffs, including rice, have decreased, probably due to a combination of infrastructure improvements and the unilateral ceasefire which enabled a steady flow of supplies from Nepalgunj. Thus, the rate of transportation has decreased by NRs. 1/kg and food items are readily available in the markets.

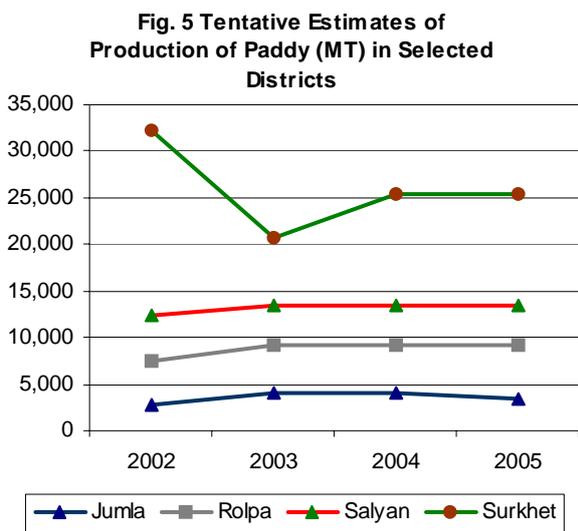
## Rest of the Regions

**Production.** During this monitoring cycle in the Mid-western and Western Development regions, rice paddy, millet, potatoes, maize, beans, and ginger are being harvested, and potatoes, millet, wheat, and barley are being cultivated.

Rice paddy harvests have varied throughout the Mid-western and Western districts. Slight decreases were reported in Surkhet and Jumla,

where delayed rainfall has caused lower production this year, according to DADO and respondents. A somewhat greater decline was reported in Rupandehi where paddy production fell from 3.08 MT/hectare last year to 2.97 MT/hectare this year. Also, in Jumla, the snowfall on October 19<sup>th</sup> reportedly damaged as much as 15% of the paddy crop, according to DADO, and depressed production figures to some extent.

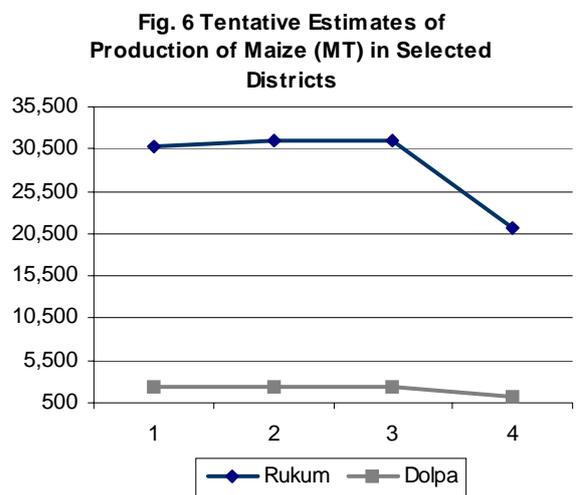
In contrast, Rolpa, Salyan, Mugu, Humla, and Rukum districts enjoyed similar levels of paddy production to last year. The picture is mixed in Kalikot where some VDCs reported a 60% decrease in paddy production because of the delayed monsoon but the VDCs which were equipped with good irrigation facilities reported up to 50% increase. Pyuthan district also saw higher production figures for paddy this year (Fig. 5).



The caveats and reservations discussed under Production for the Far-western Development region also apply to and should be studied in conjunction with Figure 5 above. As predicted in Food Security Bulletin 10, the effect upon the summer crop harvest of the late monsoon rains in 2005 has been mixed. Some districts appear to have experienced noticeable decreases in production levels while others have not. The coping strategies employed by the affected populations are discussed under their appropriate headings in this Bulletin. Based on past experience, it would be reasonable to expect labor migration rates to increase noticeably in January and February, in direct response to the lower levels of production. Other complimentary

livelihood strategies, such as the collection and sale of Non-timber Forest Products, might also be explored by more households as their food stocks begin to wane.

The maize harvests appear to have experienced a general decrease in the region. It is estimated that Rukum and Rolpa have seen production decreases in the order of 1/3 to 1/2 year-on-year. Yields in Salyan, Jajarkot, and Dolpa districts are reported to be considerably lower than last year due to the delayed monsoon rains but in the absence of reliable data on area cultivated the total production for these districts remain unclear. It is certainly a possibility that several farmers chose to plant less area with maize crops as they realized that the rains were not forthcoming (Fig. 6).



Wheat harvests were about half of last year's in Humla and Dolpa districts. These districts produce minimal quantities of wheat, though, and the production does not contribute significantly to the food basket anyway. Bean harvests were estimated to be half of last year's in Mugu. Crops in both Humla and Mugu suffered from an excess of rains during the flowering season.

Millet production saw a drop in Jajarkot districts, where it was down 3/5 from last year because of delayed rains. In the three VDCs of Khalanga, Paik, and Jhapra, this year's harvest of millet measured 400 compared to 1,000 kg/hectare of last year; and other regions of the district fared worse still. In contrast, Mugu millet production turned out at last year's level.

Potatoes and ginger had better harvests than most other crops in the region; although potato production decreased in Jumla, it remained the same as last year in Mugu, and increased by 1/2 in Jajarkot. Ginger harvests were particularly good in Salyan and Pyuthan districts.

Several districts have cultivated wheat, and some have also planted barley and potatoes. Farmers are expecting winter rains and good production of these crops to increase their food security in the upcoming months.

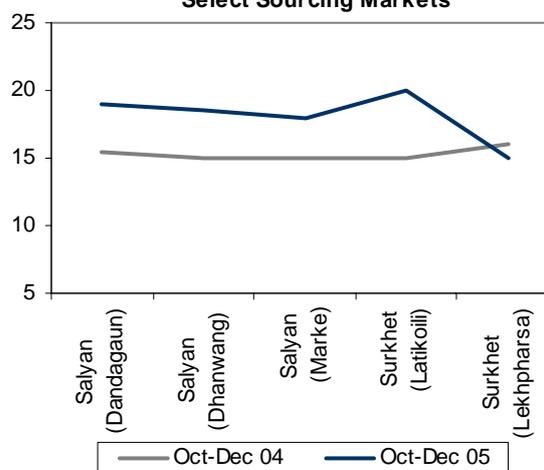
**Price.** Most districts in the Mid-western and Western region faced either increases or decreases in food prices, corresponding partly to the level of the conflict in each area. Salyan and Jajarkot district headquarters and main markets saw modest price decreases due to the ceasefire and subsequent free movement of commodities in the districts, whereas the prices in the rural communities on the periphery have increased by NRs. 3-5/Kg.

Prices in the Rukum district headquarters have been particularly influenced by the ceasefire; for example, the cost of rice has dropped by NRs. 9/kg, and the cost of sugar has fallen by NRs. 55/kg. In contrast, peripheral village food prices in Rukum remain similar to those of last year.

Pyuthan, on the other hand, reported an increase in the cost of rice of about NRs. 1/kg, and Surkhet and Humla reported increases in the price of most foodstuffs of about NRs. 2-4/kg. These increases are attributed to higher transportation costs, increases in prices at the source, and in some areas, decreased production. Jumla and Mugu also experienced sharp increases in the costs of certain foods, particularly beans in Jumla and potatoes in Mugu. In Rupandehi, where people of the southern VDCs depend on the Indian market for food items, the prices of rice and wheat have increased by NRs. 4-5. In Dolpa, prices remained largely consistent with those of last year except for the cost of kerosene, which increased by NRs. 20/L when the micro-hydro power station in the district was damaged by a flood (Fig. 7).

Prices in other districts such as Kalikot and Rolpa were generally consistent with those from last year. In Kalikot and Rolpa, fixed prices by the CPN(M) staved off price fluctuations.

**Fig. 7 Retail Price of Rice (NRs/kg) in Select Sourcing Markets**



**Movement.** In Rukum and Surkhet districts, food supplies are regular, but CPN(M) levies taxes on food items according to the quantity and type of trade. In Mugu, food items have been moving freely, but people must obtain verbal permission from CPN(M) to move in- and outside of the district.

People in Jumla have faced restrictions on moving food; despite the ceasefire, CPN(M) is alleged to have stopped supplies moving from villages to DHQ and been collecting donations of NRs. 500 or more. The RNA is reported to be interrogating those carrying more than 10 kg. of food from the market to villages. People in the district have been able to move more freely from villages to DHQ and back in this cycle, but some teachers were prohibited from traveling to DHQ as CPN(M) reportedly required them to be involved in an educational campaign programme.

In general, the situation in the districts is more comfortable in this monitoring cycle, probably due to the ceasefire. The other districts have reported free movement of both food and people.

**Income.** Agriculture-related activities, including wage labor and sales, were the primary source of income for people in Jajarkot, Rupandehi, and Salyan districts. About 300 households in Dailekh worked in WFP's Food for Work Programme, earning 112 MT of rice. In other VDCs of that district, people are selling fruit, soybean, ghee, and off-season vegetables. In Jajarkot, some 104 households earned NRs. 620,000 through the sale of honey, while in Salyan district, ginger-farming

occupied 12,000 households, each earning an average of NRs. 5,000 from this activity during the monitoring cycle.

In Rolpa and Surkhet, some respondents have migrated to India to earn money. Others have relied on agricultural labor and sales of skilled and unskilled labor in the villages.

Livelihood strategies in the other districts remain diverse and multifaceted. In Humla, Non-timber Forest Products (NTFP) have been the major source of income in this cycle. Around 800 households from all 27 VDCs were involved in collecting NTFPs, with each household earning NRs. 1,500-5,000. The GTZ-sponsored Food Security and Rehabilitation Project has supported some 10 VDCs in Rukum; the project distributed 731 MT of rice in 2005. The weaving and selling of traditional wool carpets has been an important source of income in Dolpa, where about 54 VAM households in Kakot and Tereng VDCs earned between NRs. 5,000 and NRs. 25,000 over the monitoring cycle.

Since the ceasefire, the construction of the Karnali Highway has provided wage-earning opportunities for people in Jumla and Kalikot. In Jumla, approximately 800 people are working on the highway rather than migrating to India. In Kalikot, some 300 people are working on the highway, each earning an average of NRs. 3,200 over the course of the cycle.

**Migration.** Rates of migration have been lower in most of the districts during this monitoring cycle. In Salyan and Rukum, there have been notable decreases in migration; respondents have cited the ceasefire and a more peaceful environment as the motivating factors to remain at home.

In Humla district, however, more than 1,000 people have migrated to India, particularly from the southern VDCs. The rate of migration in Kalikot was also high; a great proportion of the youths from Nanikot, Ramnakot, Khina, Dhaulagoha, and Thirpu VDCs reportedly left for India as well. Paddy production had been low in these areas this year, but people are hopeful that the implementation of the WFP Protection of Livelihoods in Crisis (PLIC) programme in their VDCs will improve the situation. In the majority of the districts, migration was

traditional and seasonal. There were increases in migration rates in some districts, but respondents cited reasons such as freer movement due to the ceasefire and short-term migration to escape cold weather as motivations. In addition, most of the districts reported an increase in the number of people returning home.

## Central and Eastern Regions

Nine WFP/VAM Field Monitors survey food security in the 12 Mountain, Hill and Terai districts of Dhanusha, Dolakha, Kavre, Makwanpur, Nuwakot, Parsa, Ramechhap, Rasuwa, Saptari, Sindhupalchok, Siraha, and Udayapur.

**Production.** During this monitoring cycle in the Central and Eastern Development regions, rice paddy, maize, and millet crops are being harvested, and potatoes, wheat and barley are cultivated.

Rice paddy harvesting started in the beginning of this monitoring cycle. In the Terai districts of Dhanusha, Parsa, Saptari, and Siraha, thrashing of paddy has been ongoing. There appears to be an overall decrease in production of paddy crops in all districts, except in Rasuwa, where production appears to be the same as last year, and in 4 VDCs (Gerkhu, Bageswhori, Manakamana and Salme) of Nuwakot, where farmers reported a 15% increase in paddy relative to last year when some of the crop was destroyed in a hailstorm.

The overall decrease in paddy production was estimated to be about  $\frac{1}{5}$  in the districts of Ramechhap, Sindhupalchok, Kavre, Udayapur, Parsa, Siraha and Dhanusha. In Sindhupalchok, for example, production has decreased from 2.42 MT/ha last year to 1.81 MT/ha this year, according to survey participants (Figure 8). In Siraha, this year's paddy yield of 2.28 MT/ha is lower than last year's yield of 3 MT/ha, according to the DADO in Siraha. In Dhanusha, the DADO has recorded a fall in paddy production from 3 MT/ha last year to 2.7 MT/ha this year. In parts of Saptari and Dolakha districts, paddy was reduced by  $\frac{2}{3}$  this year. These decreases were attributed to a delayed monsoon and insufficient rainfall, and in the Dhanusha district, to a reduction in the area cultivated which could have been in response to the delayed rains.

The caveats and reservations discussed under Production in the Far-western Region section also

apply to and should be studied in conjunction with Figures 8 and 9 below. The suggested noticeable decrease in the level of production in Saptari should warrant concern if it is not offset by alternative crops or livelihood strategies. Subsequent monitoring cycles should be able to identify whether that is the case. It would certainly be expected that, for example, labor migration rates in the district will increase significantly in the coming months.

The maize harvest has also seen decreases this year; in Rasuwa, Nuwakot and Udayapur districts, it has fallen by  $\frac{3}{10}$  to  $\frac{1}{2}$ . This reduction is again attributed to insufficient rainfall during the beginning of the growing season.

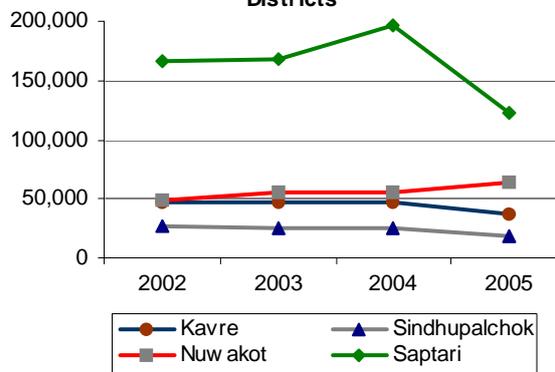
Wheat cultivation began in the first week of November in Dhanusha, Parsa, Saptari, Siraha, Ramechhap, Udayapur and Makwanpur districts, and started in mid-November in Kavre, Sindhupalchok, Rasuwa, Nuwakot, and Dolakha districts. In some districts the wheat cultivation was complete by December, and in other districts it has been ongoing. In Saptari, the area for wheat cultivation was reduced by  $\frac{2}{5}$  from last year but higher input of fertilizer and seeds and increased irrigation are expected to drive yields up and that might help to offset the effect of the lower paddy production. In lowland Makwanpur, however, wheat has been cultivated over a larger area than last year, as it has replaced last year's unsuccessful turmeric crop in some areas.

Potatoes have been growing in Siraha, Saptari, Parsa, Makwanpur, Kavre, Dhanusha, Udayapur, and Nuwakot districts and have been planted in Rasuwa, Ramechhap, Sindhupalchok and Dolakha. In upland VDCs of Makwanpur, potato production is reduced because of a disease called clubroot. According to DADO, vegetable production in the area has decreased by about  $\frac{1}{10}$  this year.

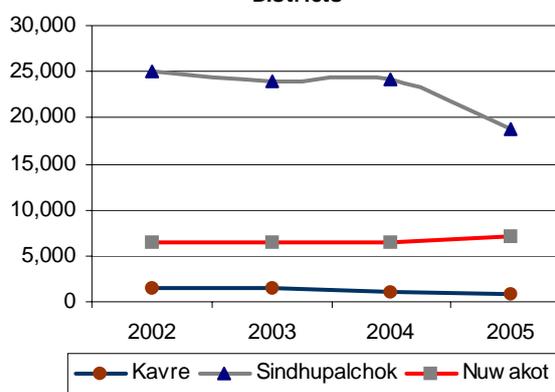
Millet has also seen decreases this season. Production has decreased by about  $\frac{1}{5}$  in Sindhupalchok, where last year's yield of 1 MT/ha has fallen to 0.75 MT/ha this year, and in Kavre. Farmers have also reported a decrease in millet production in Dolakha (Fig. 9)

In Ramechhap, Rasuwa and Makwanpur, however, survey participants reported production similar to that of last year. In parts of Nuwakot, there was a

**Fig. 8 Tentative Estimates of Production of Paddy (MT) in Selected Districts**



**Fig. 9 Tentative Estimates of Production of Millet (MT) in Selected Districts**

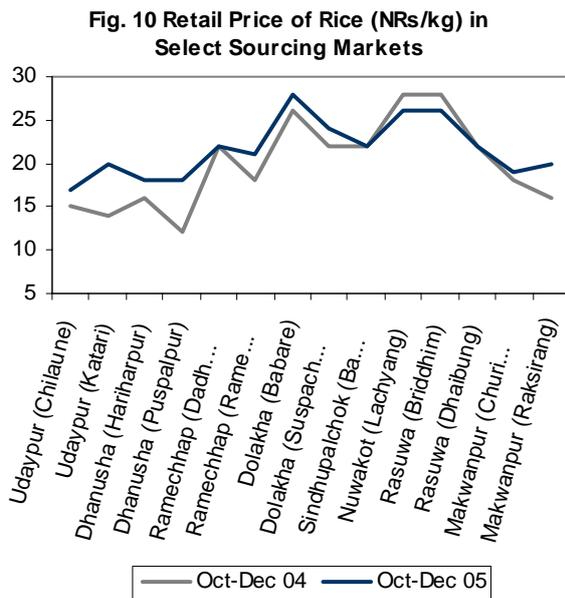


$\frac{1}{10}$  increase in millet production this year because of last year's low yield after the hailstorm.

**Price.** Districts throughout the Central and Eastern Regions experienced an increase in food prices over the last monitoring cycle, in large part due to low production in these areas.

A normal increase in food prices of about Rs. 1-2/kg was observed in the Hill districts of Ramechhap, and Udayapur. In Dolakha, the price of rice in the district headquarter market is Rs. 1/kg higher this year, while in the rural areas, the price has increased by up to Rs. 5/kg. In the peripheral communities of Rasuwa and Nuwakot, the retail price of rice has remained constant or decreased slightly.

In Makwanpur, the price of rice increased by Rs. 2-5/kg in survey VDCs; the later the date of monitoring in these areas, the higher the prices



were found to be. The price increases in this district appear to be partly a result of the failed harvest of ginger and turmeric in some villages of Makwanpur.

Due to the low production of maize and paddy this year in Sindhupalchok and Kavre districts, the price of these crops increased by Rs. 3/kg in these areas. The price of rice increased by Rs. 3-4/kg in Dhanusha, the main reason again being low production of rice in the district. In the Terai districts of Siraha, Saptari, Parsa, and Dhanusha, the price of rice has risen the most sharply; it has increased by Rs. 6/kg, due to the diminished production of paddy crop this year (Fig. 10).

**Movement.** No restriction on the movement of food has been reported in these regions. The movement of people has been restricted in some districts, but has improved after the ceasefire.

In Sindhupalchok, the CPN(M) restricted movement of I/NGO and HMG/N personnel between district headquarters and the villages. They charged personnel 5-10% of their total project's cost, and additionally charged staff the amount of one day's salary on a monthly basis.

In Ramechhap, politicians were able to return to their homes freely. The CPN(M) had restricted entrance to some Western VDCs (adjacent to Kavre district) before the ceasefire, but since then no restrictions on the mobility of people have been reported.

**Income.** Agricultural wage labor is the primary source of income in the districts of Parsa, Saptari, Siraha, Dhanusha, and Makwanpur. In Parsa, for example, 4/5 of the population works in agriculture (DDC Annual Report 2004/05) while in Saptari, about 3/4 of the survey households depended upon agricultural wage labour. Many people in these districts find income opportunities in the harvesting of summer crops, especially paddy. In all districts, there is also the opportunity to engage in the preparation of fields for winter crops (especially wheat) cultivation.

In the Terai districts, some laborers work on a contract, harvesting certain areas of land and earning one-fourth of the actual production. In Udayapur, Ramechhap and Dolakha districts, laborers work in the fields of neighbouring landlords and earn meals as well as wages in the form of cash or food. Those who own land are able to do relatively well; in Mahuan VDC of Parsa, for example, about 40-50 survey households who cultivated Ganja on their own 0.33 ha of land and also did agricultural wage labor in local landlord's fields earned NRs. 100-200/day as well as NRs.20,000/year from the Ganja production.

Parsa, Saptari, Siraha, and Dhanusha survey communities reported men working in construction, carpentry, firewood sales, and in brick factories for wages to supplement agricultural wage labor. Among all the working population in the Parsa district, 118,000 people, 5% reportedly work in factories; 80% work in agriculture and the remaining 15% work in other areas.

Throughout the regions, people partook in the growing and sale of seasonal cash crops. This monitoring cycle saw the harvesting of oranges and citrus fruits in Udayapur, Ramechhap, and Kavre, which provides work in the form of harvesting, sale, and portering. In Ramechhap, about 12-15 households from 7 VDCs are fully engaged in this occupation. This cycle also covered the harvest of pulses in Makwanpur, Udayapur, Siraha, Saptari, Dhanusha, and the northern part of Rasuwa, and the growing of mustard in Parsa, Siraha, Saptari, Dhanusha and Nuwakot. People in Siraha, Saptari, Parsa, Dhanusha, Kavre, Makwanpur and Nuwakot are earning cash from the sale of seasonal vegetables, and in Parsa Ganja (marijuana) is also being cultivated and sold.

Survey participants in Dolakha, Sindhupalchok, Kavre, and Udayapur are engaging in a diverse combination of income-earning activities. In Dolakha, activities range from goldsmithing, bamboo weaving, and migration to Kathmandu, India, or elsewhere for wage labor. In Kavre and Sindhupalchok, people engage in similar activities as well as in blacksmithing and wage labor in brick factories. In Udayapur, fishing, portering, sale of wild vegetables and firewood collection and sale are sources of income. In Rasuwa and Nuwakot districts, portering is an important form of wage-earning; people also partook in the collection and sale of herbs in Rasuwa.

**Migration.** Both short-term and long-term

migration have increased this year in all Central and Eastern districts, except in Makawanpur, where locally available agricultural work induced more people to remain in the district than last year. The survey indicated that the rates of migration in Sindhupalchok, Kavre, Udayapur, Rasuwa, and Dhanusha already have increased due to this year's decreased food production and hence lower food stocks.

In Nuwakot, increased migration this year appears to be partly the result of increased commercial activities in Kerung, which has attracted some of its people. In Dolakha, movement out of the region after the wheat cultivation indicates regular seasonal migration.

## Seasonal Calendar

Region	Rice		Wheat		Maize		Millet		Barley		Potato		
	Planting	Harvesting	Sowing/ Cultivation	Harvesting	Sowing/ Cultivation	Harvesting	Planting	Harvesting	Sowing/ Cultivation	Harvesting	Planting	Harvesting	
Eastern	Mountain	May-Jul	Oct-Dec	Nov-Jan	3rd week Mar-May	Dec-Apr	Jun-Sep	May-Jul	Oct-Dec	Oct-Nov	Mar-Apr	Dec-Feb	Jun-Aug
	Hill	May-Aug	Sep-Dec	Oct-Jan	Feb-May	May-Sept	Oct-Dec	May-Aug	Oct-Dec	Sep-Nov	May-Jul	Dec-Mar	June-Aug
	Terai	Apr-Aug	Oct-Nov	Sep-Dec	Mar-May	Apr-Jun	Jul-Sep	May-Jul	Sep-Nov	Sep-Nov	Apr-Jun	Summer Feb-Apr Winter Oct-Dec	Summer Jul-Sep Winter Feb-Apr
Central	Mountain	May-Aug	Oct-Dec	Oct-Dec	Mar-Jun	Feb-Jun	Aug-Nov	Jun-Jul	Oct-Jan	Oct-Dec	Apr-Jun	Mar-Jun	Aug-Oct
	Hill	May-Aug	Oct-Dec	Oct-Dec	Mar-Jun	Apr-Jun	Jun-Sep	May-Jul	Oct-Jan	Oct-Dec	Mar-Jun	Jul-Sep	Dec-Feb
	Terai	May-Aug	Aug-Dec	Oct-Jan	Mar-May	Feb-May	May-Sep					Sep-Nov	Dec-Mar
Western	Mountain			Oct-Dec	May-Jul	Feb-Apr	Aug-Oct	Mar-May	Aug-Oct	Oct-Dec	May-Jul	Feb-May	Aug-Oct
	Hill	May-Aug	Sep-Dec	Oct-Dec	Mar-May	Feb-Jun	Jun-Sep	May-Sep	Sep-Dec	Sep-Jan	Feb-May	Oct-Feb	Jan-Jul
	Terai	May-Aug	Oct-Dec	Oct-Jan	Feb-Apr	Apr-Jul	Jul-Sep	Jun-Aug	Oct-Dec			Sep-Nov	Dec-Feb
Mid Western	Mountain	Mar-Jul	Oct-Dec	Oct-Jan	Apr-Aug	Mar-Jun	Aug-Oct	Mar-May	Oct-Nov	Oct-Jan	Apr-Aug	Feb-Jun	Jun-Nov
	Hill	May-Aug	Oct-Dec	Sep-Dec	Mar-May	Apr-Jun	Aug-Oct			Sep-Nov	Mar-May	Oct-Feb	Sep-Dec
	Terai	May-Jul	Oct-Dec	Oct-Dec	Feb-Apr	Apr-Jul	Aug-Oct	Oct-Dec	Feb-Apr	June-Jul	Sep-Nov	Sep-Nov	Dec-Feb
Far Western	Mountain	Apr-Jun	Aug-Oct	Oct-Dec	Apr-May	Mar-Jun	Jun-Oct			Oct-Dec	Mar-May	Oct-Apr	Apr-Aug
	Hill	May-Aug	Sep-Nov	Oct-Dec	Mar-May	Apr-Jul	Aug-Oct	May-Jul	Sep-Nov	Oct-Dec	Mar-May	Summer Jan-Apr Winter Sep-Nov	Summer Sep-Winter Feb-Apr
	Terai	May-Jul	Sep-Nov	Oct-Dec	Feb-Apr	Summer May-Jul Winter Feb-Mar	Summer Aug-Sept Winter May-Jun	Jun-Aug	Oct-Dec	Oct-Dec	Feb-Apr	Sep-Nov	Dec-Feb

Source: HMG/N Department of Agriculture