



# Nepal Food Security Bulletin

## Year 2016, Issue 47



नेपाल खाद्य सुरक्षा अनुगमन प्रणाली  
Nepal Khadiya Surakshya Anugaman Pranali (NeKSAP)  
Nepal Food Security Monitoring System

### HIGHLIGHTS AND SITUATION SUMMARY

**This issue covers the period of mid-November 2015 to mid-March 2016, the second trimester of Nepalese Fiscal Year 2072/73.** This bulletin is based on the outcomes of NeKSAP district food security network (DFSN) meetings held in 74 of 75 districts during February-March 2016. The food security situation in this period was affected by seasonality (the winter lean period), climate events (poor monsoon, drought in the mid-and far-western hills and mountains), a significant natural disaster (the 2015 earthquake), and political reasons (trade disruptions with India and unrest in the Terai). In this period:

- DFSNs classified 134 Village Development Committees (VDCs) in 11 districts, namely Gorkha, Dhading, Dolakha, Ramechhap, Rasuwa, Nuwakot, Bajura, Dolpa, Humla, Mugu and Kalikot, as highly food insecure (Phase 3) and reported that nearly 300,000 people were affected. This situation was attributed to the winter lean period, continued impact of the April-May 2015 earthquakes and the impacts of drought in some of the mid- and far-western hill and mountain districts. DFSNs also classified an additional 751 VDCs in 28 districts as moderately food insecure (Phase 2).
- The food security situation in the earthquake affected districts has generally improved compared to the situation reported in the DFSNs in July and November 2015. None of VDCs in the current period were classified as severely food insecure (Phase 4) and the number of VDCs classified as highly food insecure (Phase 3) also decreased. Improvements were attributed to crop harvests, remittances, humanitarian assistance, resumption of market function and better road access.
- Three significant events should be noted in this period: first, a decrease in 2015 summer crop production due to poor monsoon rains; second, disruptions to cross-border trade with India affecting the supply of fuel and essential goods and transportation services; and, third, a drought in many mid and far western hill and mountain districts affecting crop growth and the production prospects of 2015/16 winter crops.
- According to Nepal Rastra Bank, the year-on-year Consumer Price Index (CPI) was 10.2 percent in March 2016. The pulse sub-group had the largest year-on-year increase at 36.1 percent in March 2016.

**NOTE: NeKSAP monitored the winter drought in the Karnali and far-western region through DFSN meetings, onsite observations and remote sensing information in collaboration with ICIMOD. The findings are presented on page 7.**

### CURRENT FOOD SECURITY SITUATION AND OUTLOOK

Food Security Cluster	Current period: Mid-Nov 2015 to mid-march 2016	Change from Mid-July to mid-November 2015	Outlook for mid-March to mid-July 2016
Karnali		↓	↓
Far-Western Hill and Mountain		↓	↓
Rapti-Bheri Hills		↓	→
Western Terai		→	→
Central & Eastern Terai		↓	↑
Western Hill and Mountain		→	→
Central Hill and Mountain		↑	↓
Eastern Hill and Mountain		↑	→

- Minimally food insecure
- Moderately food insecure
- Highly food insecure
- Severely food insecure
- Humanitarian emergency

#### Change / Outlook

- ↓ Deteriorate
- Stay the same
- ↑ Improve

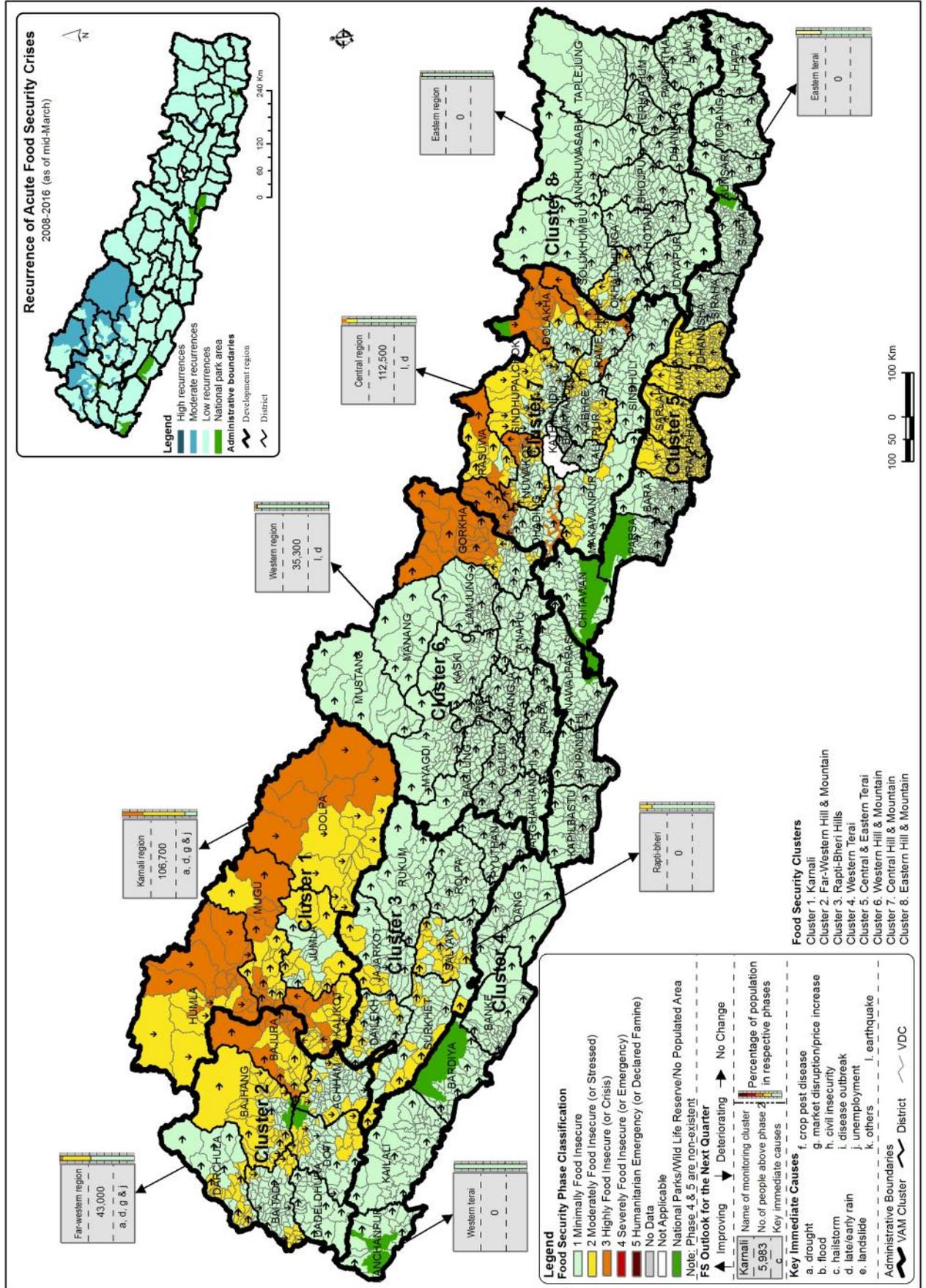
DFSNs in most earthquake affected districts reported an overall improvement in the food security situation, while DFSNs in the Karnali, far-western hills and central Terai reported a deterioration. DFSNs classified 134 VDCs in 11 districts as highly food insecure (Phase 3) with an estimated affected population of approximately 300,000. Furthermore, DFSNs in 28 districts classified an additional 751 VDCs as moderately food insecure (Phase 2).

Improvements in the earthquake affected districts were attributed to crop harvests, remittances, livelihood recovery interventions, improved market function and better road access. The deterioration in the Karnali and far-western region was attributed to the last year's poor summer crop production and the current winter lean period and the drought.

In the next four-month period, DFSNs forecasted a significant deterioration in the food security situation in the hills and mountains of the mid-and far-western regions. DFSNs in the earthquake affected districts also indicated a possible deterioration. DFSNs forecasted that the food security situation in 12 VDCs in Dolakha, 18 VDCs in Humla and 6 VDCs in Dolpa may be classified as severely food insecure (Phase 4) if response measures are not taken in time. Similarly, DFSNs projected that an additional 225 VDCs in 14 districts and 437 VDCs in 24 districts may be classified as highly food insecure (Phase 3) and moderately food insecure (Phase 2) respectively.

The Nepal Food Security Bulletin is jointly produced by the Ministry of Agricultural Development (MoAD) Food Security Monitoring Unit and the World Food Programme (WFP) Food Security Monitoring and Analysis Unit.

Map 1: Food security phase classification, mid-November 2015 to mid-March 2016  
 Source: NeKSAP District Food Security Networks, March 2016





**Current food insecure areas:** DFSNs classified 134 VDCs in 11 districts as highly food insecure (Phase 3) and estimated that roughly 300,000 people\* were currently highly food insecure and required humanitarian assistance. Phase 3 is defined as a situation where household food consumption gaps are higher than normal and households are able to meet minimum food needs only through the accelerated depletion of livelihood assets. DFSNs attributed the situation to the winter lean period, drought in many districts of the mid- and far-western regions, poor summer crop production (maize, paddy and millet), continued impact of the earthquakes, and the effects of the disruptions to cross-border trade with India, e.g., shortages of fuel and other essential goods, increased transportation costs, and high prices of food and other commodities.

**Table 1** shows the current number of highly food insecure (Phase 3) VDCs and the estimated affected population requiring humanitarian assistance as of March 2016.

In the earthquake affected districts of the western and central regions, 75 VDCs in Gorkha, Dhading, Rasuwa, Nuwakot, Dolakha and Ramechhap still remain highly food insecure (Phase 3). By and large, the situation is similar to that of the last reporting period (mid-July to mid-November 2015) except for Sindhupalchowk and Dhading. In Sindhupalchowk, the DFSN reported a marked improvement, with no VDCs classified as severely food insecure (Phase 4) and highly food insecure (Phase 3). The DFSN attributed the improvement to the summer crop harvest and post-earthquake recovery interventions. Whereas in Dhading the DFSN reported that the situation deteriorated because of water sources drying up, poor access to drinking water, poor health and sanitation, and difficult connectivity and access to markets in the remote, northern VDCs. In total, roughly 148,000 people from 75 VDCs were reported as highly food insecure (Phase 3) in six earthquake affected districts.

In the five districts of the Karnali (Humla, Mugu, Jumla, Dolpa and Kalikot) and Bajura district of the far western region, DFSNs reported a significant deterioration in the food security situation as a result of large production losses of 2015/16 summer crops, followed by the winter lean season, poor winter rains and the agricultural drought. Additional districts in the mid- and far-western hills were also affected by the drought, though not as severely as the six districts mentioned above.

Furthermore, DFSNs in 28 districts classified an additional 751 VDCs (10 in Makwanpur, 10 in Dolakha, 22 in Ramechhap, 12 in Rasuwa, 26 in Nuwakot, 32 in Kavrepalanchowk, 33 in Sindhupalchowk, 20 in Achham, 17 in Gorkha, 14 in Baitadi, 30 in Bajhang, 14 in Bajura, 25 in Darchula, 18 in Doti, 17 in Dolpa, 9 in Humla, 12 in Mugu, 14 in Jumla, 20 in Kalikot, 18 in Salyan, 13 in Dailekh, 14 in Surkhet, 6 in Jajarkot, 16 in Okhaldhunga, 77 in Dhanusha, 71 in Mahottari, 93 in Sarlahi, and 88 in Rautahat) as moderately food insecure (Phase 2), a situation where households are able to meet minimum food needs with traditional coping but are unable to afford some essential non-food expenditures without engaging in irreversible coping strategies.

See **Map 1** for the geographic distribution of current food insecure VDCs across Nepal.

### Changes in the earthquake affected districts:

NeKSAP has closely monitored the food security situation in the earthquake affected districts through regular and ad hoc DFSN meetings held in May 2015, July 2015, November 2015, January 2016 and recently in March 2016. Since the ad hoc DFSN meetings in May 2015 to assess the immediate impact of the earthquakes, subsequent DFSN meetings have reported a gradual improvement in the food security situation over time. These improvements have been attributed to remittance inflow, humanitarian assistance, the harvests of winter (wheat and potato) and summer (maize, paddy, millet) crops, the resumption of supply chains and market function and improved access with the repair and opening of roads and trails damaged by the earthquakes. Nevertheless, there remain pockets of food insecurity where initial damage was higher and/or recovery has been slow.

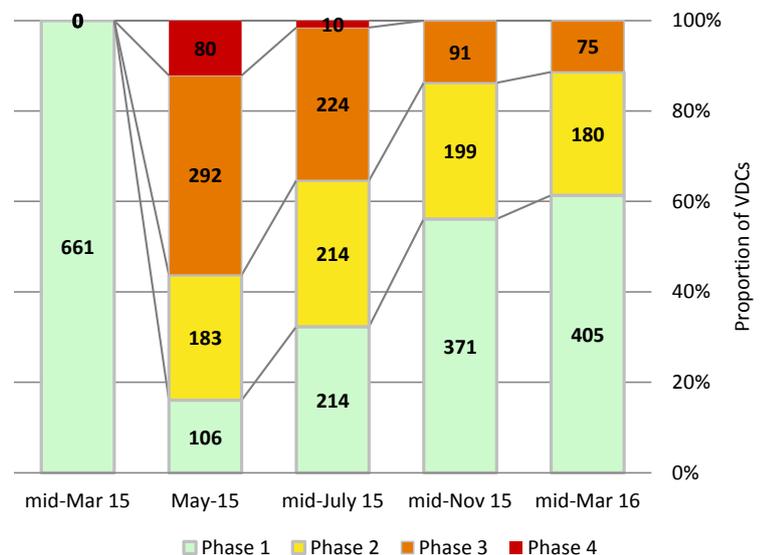
**Figure 1** shows the change in the food security phase classification in 12 of the earthquake affected districts (Dhading, Dolakha, Gorkha, Kavre, Makwanpur, Nuwakot, Okhaldhunga, Ramechhap, Sindhuli, Sindhupalchowk, Solukhumbu and Rasuwa) based on DFSN meetings in May, July and November 2015 and January and March 2016. The results of the DFSN meetings in March 2015—a pre-earthquake baseline—are also shown; at that time all VDCs were classified as minimally food insecure (Phase 1).

Overall, the number of food insecure VDCs, i.e., those classified as Phase 2, 3 or 4, has decreased over time in line with the overall recovery from May 2015 to March 2016. Notably, since mid-July 2015 no VDCs were classified as severely food insecure (Phase 4).

Despite this overall improvement, the recovery in Dhading, Gorkha, Ramechhap and Nuwakot has lagged behind. Partly this is due to the cross-border trade disruptions with India last year that hampered recovery activities because of the shortage of fuel and reconstruction materials as well as the negative impact the disruptions had on the supply of food and other essential goods and subsequent price spikes and rise in inflation. Additionally, DFSNs reported that households in these districts suffered post-harvest food grain losses due to storage problems.

District	VDCs in Phase 3	Est. population in Phase 3
Dhading	16	42,800*
Dolakha	12	15,000
Ramechhap	12	22,000
Gorkha	20	35,300
Nuwakot	13	29,400
Rasuwa	2	3,300*
<b>Sub-total</b>	<b>75</b>	<b>147,800</b>
Bajura	13	43,000
Dolpa	6	5,300
Mugu	12	23,000
Humla	18	38,400
Kalikot	10	40,000
<b>Sub-total</b>	<b>59</b>	<b>149,700</b>
<b>Total</b>	<b>134</b>	<b>297,500</b>

**Table 1:** Number of VDCs classified as highly food insecure (Phase 3) by district and the estimated affected population (Source: DFSNs)  
\*Includes ward-level Phase 3 population in 12 VDCs in Dhading and 2 VDCs in Rasuwa.



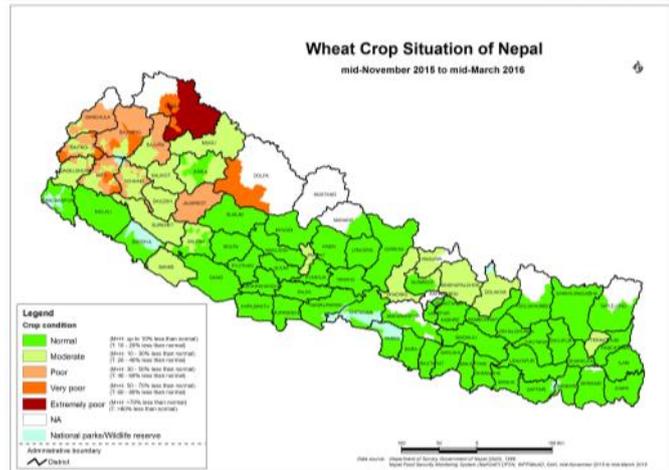
**Figure 1:** Changes in the food security phase classification in 12 earthquake affected districts, March 2015-March 2016 (Source: DFSNs)



**Availability:** In this period DFSNs reported that most households relied on food stocks from the harvest of summer crops in October and November. MoAD estimated total production of summer crops at 6.8 million mt, a 5.63 percent decrease compared to last year. Production of paddy, the most important cereal crop of the country, decreased by 10.22 percent compared to 2014/15. Production drops were even higher in some earthquake affected districts and many districts in the far-western hills and mountains, particularly the Karnali, where, because of poor summer crop production and the winter lean period, many households had low food stocks and food shortages from January onwards.

DFSNs reported that wheat crop growth was very poor in most mid- and far-western hill and mountain districts (see **Map 2**). Similarly, DFSNs in some earthquake affected districts reported moderate wheat crop growth. Poor soil moisture during sowing and the concurrent winter drought and lack of irrigation due to the fuel shortage were reported as the key factors contributing to poor wheat growth this year.

Using the CGIAR Regional Agricultural Forecasting Toolbox (CRAFT), a crop modeling tool developed for South Asia, WFP and MoAD produced an advance estimate of total 2015/16 wheat production at 1,718,120 mt from 756,547 ha of planted area. The area estimate was obtained from MoAD (as of 20 April 2016) and the cultivars (varieties) used were RR-21 for the hills and NL-297 for the Terai. The cultivar coefficients were obtained from NARC. For precipitation, the Department of Hydrology and Meteorology climate data (to 2009) was used and from 2009 onwards this data was supplemented by RFe2.0 estimates. To simulate the unfavorable conditions arising from less water availability and the fuel shortage in the Terai, it was assumed that the irrigated area was reduced by 25 percent and the sowing dates were postponed by 10 days. The sowing dates for the hills ecological belt were assumed to be December 11 and for the Terai to be December 2.



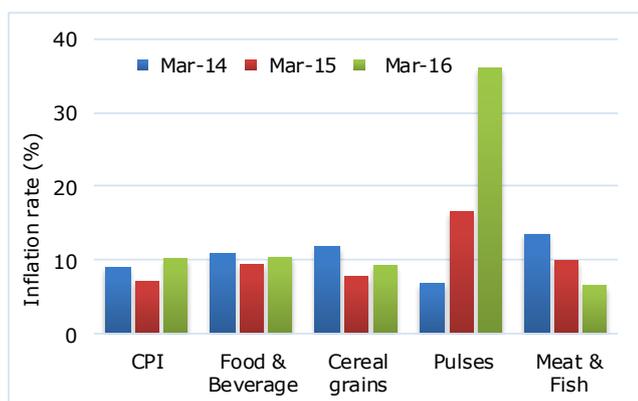
**Map 2:** Wheat crop situation, 2015/16 (Source: DFSNs)

**Household incomes:** Nepal Rastra Bank reported a remittance inflow of NPR 427.37 billion in the first eight months of the fiscal year 2015/16<sup>1</sup>. Since the remittance inflow during the first trimester of the fiscal year was reported at NPR 215.39 billion, remittances received during the second trimester is estimated at NPR 211.98 billion. It should be noted that this estimate is based on remittances delivered through formal channels only, e.g., the banking sector, and does not account for the remittances received through informal channels, e.g., hand-carry remittances, which are common in the mid- and far-western regions.

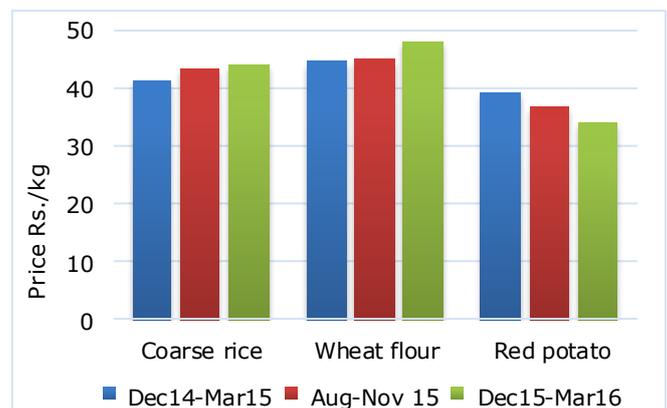
DFSNs reported significant income from the agriculture and livestock sectors, especially in the central Terai (37 billion NPR), eastern Terai (22 billion NPR), central hills and mountains (15.5 billion NPR), and western Terai (15.4 billion NPR). Key agricultural commodities included seasonal vegetables, fruits, fish, meat, milk, and potato. In the hills and mountains of the eastern, western, mid-western and far-western regions, households also earned income from the sale of Non Timber Forest Products (NTFPs) like *padamchal*, *kutki*, and *jatamasi*. DFSNs estimated that households in those areas earned roughly 10 billion NPR from the NTFP trade. DFSNs reported daily wages as another important source of income in this trimester, including from the private sector and development programmes of the government and non-governmental organizations. For example, in the Karnali, DFSNs reported that roughly 60,000 people earned approximately NPR 100 million through the Rural Access Programme (RAP) and other development programmes. Through WFP's post-earthquake recovery activities, roughly 50,000 households in Nuwakot and Sindhupalchowk received NPR 643 million through conditional cash transfers.

**Inflation and food prices:** The year-on-year Consumer Price Index (CPI), as shown in **Figure 2**, was 10.2 percent in March 2016 compared to 7.0 percent in March 2015. The food and beverage index was 10.3 percent compared to 9.5 percent in March 2015. The pulse sub-group had the highest increase year-on-year at 36.1 percent in March 2016, while the cereal grain sub-group was 9.2 percent in March 2016. **Figure 3** compares the retail price of major staples and red potato in December 2015-March 2016 with August-November 2015 and the corresponding period last year. Compared to December 2014-March 2015, the price of coarse rice and wheat flour increased by 6.3 percent and 7.7 percent respectively, while that of red potato decreased by 12.8 percent.

**Food purchasing power:** The average daily rate of unskilled wage labour and the average price (per kg) of coarse rice during December 2015-March 2016 were used to calculate the terms of trade, an indicator of household purchasing power. The average terms of trade was 8.4, with the highest in the hills (9.8) and the lowest in the mountains (7.3). Despite higher wages in the mountains, the terms of trade is lower because of the higher price of coarse rice. Labourers in the mountains, on average, paid 33.6 percent and 18.2 percent more for coarse rice compared to the hills and Terai respectively.



**Figure 2:** Year-on-year inflation rate (Source: Nepal Rastra Bank)



**Figure 3:** Retail price of major staples & red potato (Source: MoAD)

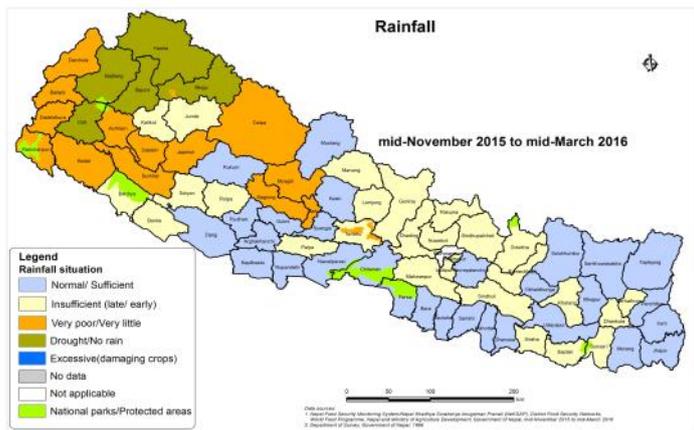
<sup>1</sup> Nepal Rasta Bank, Current macro economic and financial situation of Nepal (Based on eight month's data of 2015/16)

**Utilization:** DFSNs did not report any significant health and nutrition issues—i.e., acute shocks—impacting the food security situation in this period. The Central Bureau of Statistics and Unicef, in December 2015, released the final report of the Nepal Multiple Indicator Cluster Survey (2014). According to the report, the prevalence of stunting and wasting among children below five years of age was 37 percent and 11 percent respectively. Most (93.3 percent) surveyed households had access to improved sources of drinking water.

In some earthquake affected districts in the central hills and mountains, e.g., Dhading, DFSNs reported that water sources had dried up and resulted in reduced access to drinking water. The DFSNs in those districts, however, reported that many toilets damaged by the earthquake had been rebuilt and that sanitation conditions had improved to some extent.

**Stability:** Many parts of the country received poor winter rain this year. **Map 3** shows the rainfall conditions during mid-November 2015 to mid-March 2016 as reported by the DFSNs. DFSNs in the mid- and far-western regions reported that many districts received very poor winter rains which in turn adversely affected the growth of winter crops. This was confirmed by ICIMOD's analysis of the Normalized Difference Vegetation Index (NDVI) in January - see **Map 5** on page 7.

The disruptions to cross-border with India and the political unrest in the Terai that started in August/September and lasted until December/January adversely affected livelihoods across the country. The lack of fuel led to reduced and more costly transportation services, the shortage of food and other essential goods, and price hikes. Many districts in the Terai attributed poor winter crop growth to less irrigation because of the fuel shortage.



**Map 3:** Rainfall during mid-Nov 2015 to mid-Mar 2016 (Source: DFSNs)

### Food security outlook (mid-March to mid-July 2016)

District food security networks, based on current conditions and likely scenarios, have forecasted whether the food security situation will improve, remain stable or deteriorate during the period of mid-March to mid-July 2016. As a result of poor summer crop production last year and the potential decrease in the production of 2015/16 winter crops, the winter lean period, the severe drought in the mid-and far-western hill and mountain districts, and the persistent impact of the earthquakes on food security and livelihoods in some districts, DFSNs anticipated that a significant number of VDCs will be classified as moderately food insecure or worse in this upcoming period, especially in the mid-and far-western hill and mountain districts. As such, DFSNs forecasted that some 36 VDCs may be classified as severely food insecure (Phase 4), 225 VDCs may be classified as highly food insecure (Phase 3), and 437 VDCs may be classified as moderately food insecure (Phase 2) during the period of mid-March to mid-July 2016.

**Central Hills and Mountains:** DFSNs in the earthquake affected districts forecasted a deterioration in the food security situation, especially in Dolakha, Sindhupalchok, and Kavre. DFSNs projected that the food security situation in 12 VDCs in Dolakha might deteriorate to being severely food insecure (Phase 4) and the situation in 33 VDCs in Sindhupalchok and 32 VDCs in Kavre might deteriorate to being highly food insecure (Phase 3). DFSNs attributed the outlook to the potential decrease in winter crop production, monsoon induced road blockades and associated supply chain offsets, and possible health, sanitation and hygiene issues arising in the temporary shelters during the dry season (March/April) and monsoon period (June onwards). DFSNs forecasted that an additional 13 VDCs in Nuwakot, 5 VDCs in Dhading and 2 VDCs in Rasuwa might be classified as highly food insecure (Phase 3). Furthermore, DFSNs concluded that some 127 VDCs in 7 districts (46 in Sindhupalchok, 26 in Nuwakot, 12 in Rasuwa, 12 in Ramechhap, 10 in Dolakha, 10 in Makwanpur and 11 in Dhading) might be classified as moderately food insecure (Phase 2).

**Western Hills and Mountains:** Except for Gorkha, where the DFSN forecasted that the 20 VDCs currently classified as highly food insecure (Phase 3) will continue in the same phase during mid-March to mid-July 2016, all other VDCs will likely be classified as minimally food insecure (Phase 1), mainly due to the winter crop harvest.

**Far-Western Hills and Mountains:** DFSNs in the far-western hills and mountains forecasted a significant deterioration in the food security situation in Achham, Baitadi, Bajhang, Bajura and Doti districts. DFSNs projected that 82 VDCs (20 in Achham, 14 in Baitadi, 17 in Bajhang, 13 in Bajura, and 18 in Doti) may be classified as highly food insecure (Phase 3) during mid-March to mid-July 2016 due to anticipated production drops in wheat. The geographic remoteness and market price hikes towards the onset of monsoon are expected to further exacerbate the deterioration in the food security situation in this cluster. DFSNs anticipated that an additional 171 VDCs may be classified as moderately food insecure (Phase 2) in Achham (55), Baitadi (25), Bajhang (13), Bajura (14), Darchula (25), Doti (33) and Dadedhura (6).

**Karnali:** Because of the winter drought, DFSNs forecasted that the food security situation will continue to deteriorate in the Karnali. Humla and Dolpa are expected to be worst affected in mid-March to mid-July, and the DFSNs projected that 18 VDCs in Humla and 6 VDCs in Dolpa may be classified as severely food insecure (Phase 4). DFSNs forecasted that an additional 38 VDCs (17 in Dolpa, 9 in Humla, and 12 in Mugu) will likely be classified as highly food insecure (Phase 3) and another 36 VDCs (12 in Mugu, 14 in Jumla and 10 in Kalikot) will likely be classified as moderately food insecure (Phase 2). Because of the severity of the situation, affected households are expected to adopt crisis and distressed coping strategies, such as forced migration and selling of productive assets.

**Rapti-Bheri:** The food security situation in this cluster is likely to remain similar to the current period, with the number of moderately food insecure (Phase 2) VDCs increasing from 51 in the current period to 60 in the next period. DFSNs forecasted that 18 VDCs in Salyan, 15 VDCs in Jajarkot, 13 VDCs in Dailekh and 14 VDCs in Surkhet may be classified as moderately food insecure (Phase 2).

**Eastern Hills and Mountains:** The food security situation is expected to deteriorate in this cluster as well. DFSNs concluded that 11 VDCs in Taplejung, 8 VDCs in Panchthar and 7 VDCs in Terhathum may be classified as moderately food insecure (Phase 2). In these districts, winter crops contribute marginally to household food stocks and income from cash crops is expected to be low in this period.

District food security networks forecast that the rest of the country will be classified as minimally food insecure (Phase 1). With the winter crop harvest, a majority of households are expected to have increased food stocks. Regular income through wage labour, the sale of agricultural and livestock products and remittances will continue to contribute to food access. Nevertheless, with the onset of monsoon from mid-June onwards, and the forecast of normal and above normal rainfall this monsoon across most of Nepal, an increased incidence of landslides and floods is expected. Similarly, road blockades and supply offsets can be expected in some hill and mountain districts, which can lead to price hikes in local markets.

### Updates

- **NeKSAP district food security network meetings:** MoAD and WFP organized district food security network meetings in 74 of 75 districts during February-March 2016.
- **NeKSAP regional debriefing meetings:** MoAD and WFP organized NeKSAP regional debriefing meetings in each development region in April 2016. The meetings were aligned with Regional Agriculture Directorate's review workshops in all five development regions, where the Regional Agriculture Director, Senior Agriculture Development Officers (SADOs) and representatives from MoAD and the Department of Agriculture participated. At the meetings, food security focal points from District Agriculture Development Offices (DADOs) presented the food security situation in their respective districts from mid-November 2015 to mid-March 2016 and the outlook for the upcoming trimester. Regional Agriculture Directorates also presented the overall food security situation, issues, and challenges in their respective regions.
- **NeKSAP information on the Karnali drought:** MoAD and WFP presented the latest information from NeKSAP, together with remote sensing information from the International Centre for Integrated Mountain Development (ICIMOD), on the drought in the Karnali in various meetings with Government line ministries, UN agencies and other development partners throughout March, April and May. See the supplement on the drought on page 7.
- **Food security response analysis training:** As in the last trimester, MoAD and WFP continued to roll out the food security response analysis training, covering 22 districts this period. The outcome of the training was the development and approval of a district food security response plan. A majority (14) of the district councils endorsed the proposed activities which were identified during the response plan formulation. These activities will be implemented in the next fiscal year (2073/74).
- **Capacity development trainings:** WFP organized a series of trainings for NeKSAP focal points and relevant officials at MoAD, DoA and other stakeholders. These included a training on market and price analysis in April for NeKSAP focal points in the eastern and western regions; a NeKSAP-IPC training for NTCC members in April; a report writing workshop in Kathmandu in May for MoAD and DoA officials; and a training on sub-district food security monitoring in May in Dhading, Bardiya and Dailekh.
- **Project workshops:** NPC, MoAD, and WFP organized six NeKSAP project workshops at the regional and national level in May and June 2016. The workshops highlighted the key achievements and challenges over the past four years as part of the European Union funded project for the institutionalization of NeKSAP in the Government. MoAD reiterated its commitment to sustain NeKSAP activities through its own resources.

### District food security information

The Nepal Food Security Monitoring System (NeKSAP) monitors 74 districts across Nepal. The information collected forms the basis for this bulletin. District food security bulletins are available upon request in English and Nepali.

#### Cluster 1. Karnali

Dolpa  
Humla  
Jumla  
Kalikot  
Mugu

#### Cluster 2. Far-Western Hill & Mountain

Achham  
Bajhang  
Bajura  
Baitadi  
Dadeldhura  
Darchula  
Doti

#### Cluster 3. Rapti-Bheri Hills

Dailekh  
Jajarkot  
Pyuthan  
Rolpa  
Rukum  
Salyan  
Surkhet

#### Cluster 4. Western Terai

Kanchanpur  
Kailali  
Bardiya  
Banke  
Dang  
Kapilbastu  
Rupandehi

#### Cluster 5. Central and Eastern Terai

Nawalparasi  
Chitwan  
Parsa  
Bara  
Rautahat  
Sarlahi  
Mahottari  
Dhanusha  
Saptari  
Siraha  
Sunsari  
Morang  
Jhapa

#### Cluster 6. Western Hill and Mountain

Gorkha  
Lamjung  
Tanahu  
Arghakhanchi  
Gulmi  
Palpa  
Syangja  
Parbat  
Baglung  
Myagdi  
Mustang  
Manang  
Kaski

#### Cluster 7. Central Hill and Mountain

Sindhuli  
Ramechhap  
Dolakha  
Sindhupalchok  
Kavrepalanchok  
Nuwakot  
Rasuwa  
Makwanpur  
Dhading

#### Cluster 8. Eastern Hill and Mountain

Taplejung  
Panchthar  
Sankhuwasabha  
Ilam  
Okhaldunga  
Khotang  
Dhankuta  
Udayapur  
Solukhumbu  
Bhojpur  
Terhathum



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Nepal Khadhyo Surakshya Anugaman Pranali (NeKSAP)  
Nepal Food Security Monitoring System



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Food Security Monitoring Unit Ministry of Agricultural Development Singh Durbar, Kathmandu <a href="http://www.moad.gov.np">www.moad.gov.np</a>	National Nutrition and Food Security Secretariat National Planning Commission Singh Durbar, Kathmandu <a href="http://www.npc.gov.np/new/eng/index.php">www.npc.gov.np/new/eng/index.php</a>	Food Security Monitoring and Analysis Unit United Nations World Food Programme Box No 107, Chakupat, Patan Dhoka, Lalitpur <a href="http://www.wfp.org/countries/nepal">www.wfp.org/countries/nepal</a>
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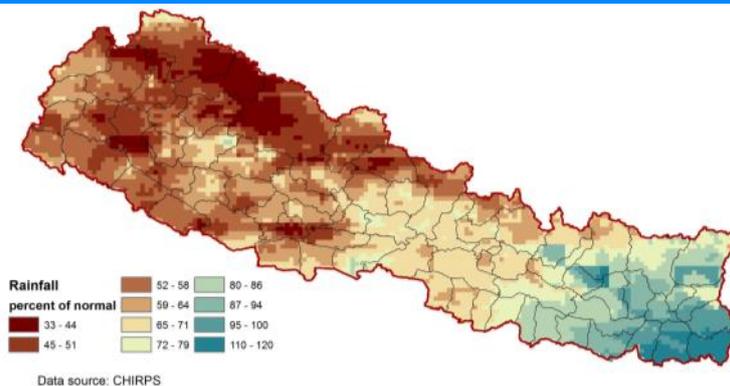
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The winter drought in the Karnali and Bajura district

The country received poor winter rain this year. **Map 4** shows the cumulative rainfall during the period of November 2015 to January 2016 expressed as a percentage of the normal level, or 30-year average. Although most parts of the country received poor winter rains, the mid-and far-western regions were the worst affected.

As a result, many districts in these regions experienced an agricultural drought, on par with, or worse than, the large scale droughts in 2006 and 2009, the most recent years with high rainfall deficits.

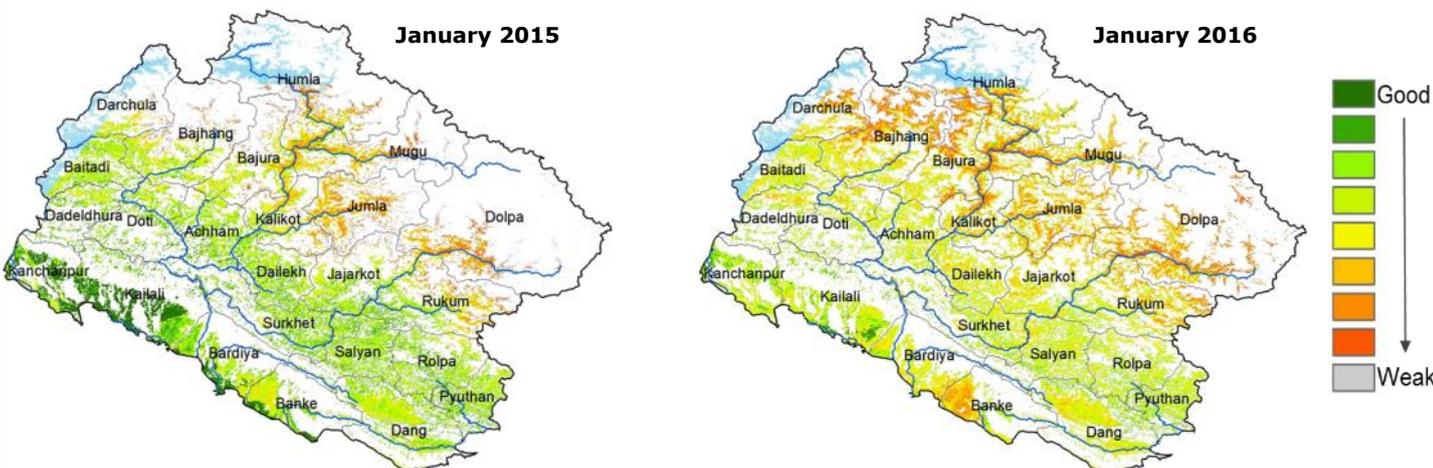
Based on the Standardized Precipitation Index (SPI), a common drought index, the drought condition was classified as 'extreme' in parts of 9 districts, mostly in Mugu, Dolpa, Humla, Jumla, Bajura, and Bajhang, and 'severe' in many parts of the mid-and far-western regions.



**Map 4:** Cumulative rainfall during November 2015 to January 2016 (as a % of the normal level) (Source: ICIMOD)

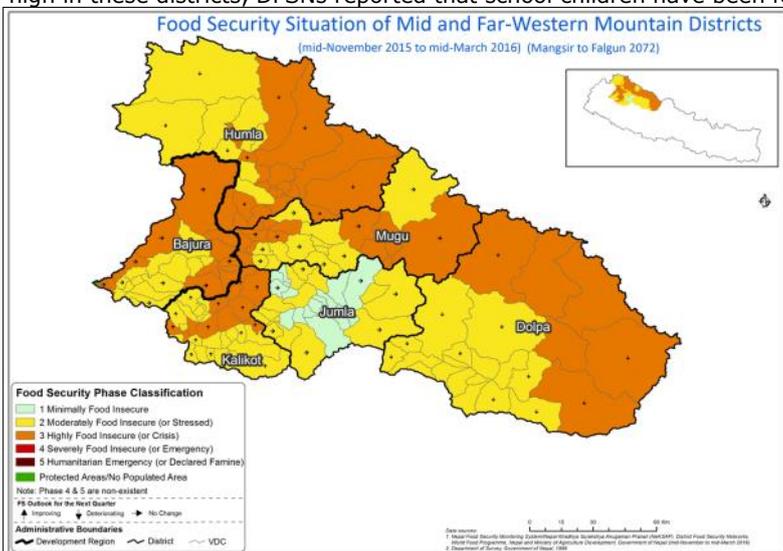
**Impact of the drought on winter crops**

The poor monsoon from June to September 2015 led to significant production drops in summer crops in the 5 Karnali districts of the mid-western region and Bajura district of the far-western region. With the pervasive winter drought, production of winter crops is also expected to decrease significantly in these regions. **Map 5** shows the Normalized Difference Vegetation Index (NDVI) analysis by ICIMOD in January 2016, which shows the poor vegetative growth this year. DADOs confirmed the poor conditions for winter crops in these districts and estimated a production drop of 60 percent or more in Mugu, Dolpa, Humla and Bajura. In a normal year most households in these areas would replenish their food stocks in May from the winter crop harvest. However, with two successive poor crop harvests, food security is expected to deteriorate in the hills and mountains of the mid- and far-western regions.

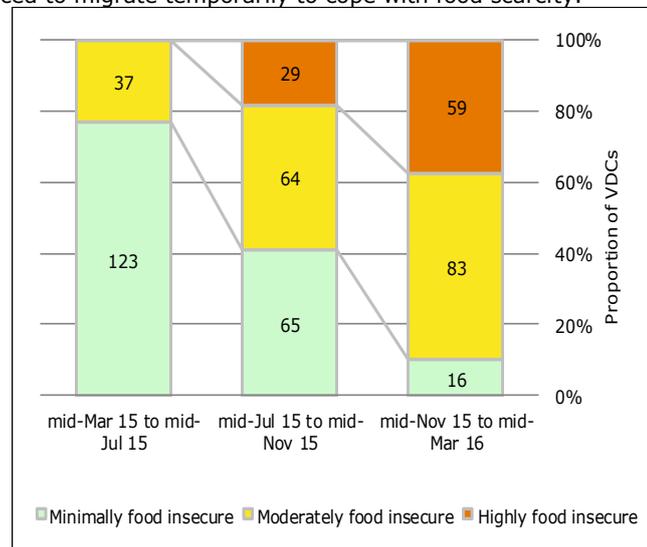


**Map 5:** Vegetation conditions in agriculture and range-land areas: January 2015 (left) and January 2016 (right). (Source: ICIMOD)

**Food security implications of the drought:** The food security situation in Karnali, especially in Dolpa, Mugu, Humla and Kalikot, and Bajura district of the far-western region has subsequently deteriorated since July 2015 (see **Map 6** and **Figure 4**). The deterioration started with the poor summer crop harvest and lower incomes from *yarchagumba* last year, which was further exacerbated by the winter drought. With the poor winter crop harvest, the food security situation is likely to further deteriorate during mid-March to mid-July 2016 with 144 VDCs (20 in Achham, 14 in Baitadi, 17 in Bajhang, 13 in Bajura, 18 in Doti, 23 in Dolpa, 27 in Humla and 12 in Mugu) forecasted by DFSNs to be classified as highly food insecure (Phase 3) or worse and requiring humanitarian assistance. Out of those VDCs, the food security situation in 18 VDCs in Humla and 6 VDCs in Dolpa is expected to be classified as severely food insecure or emergency (Phase 4). Affected households have already resorted to distressed coping mechanisms that have led to the loss of key livelihood assets in order to maintain minimum food needs for survival. With out-migration rates already high in these districts, DFSNs reported that school children have been forced to migrate temporarily to cope with food scarcity.



**Map 6:** Food security situation in the Karnali and Bajura district, March 2016 (Source: DFSNs)



**Figure 4:** Changes in the food security phase classification in the Karnali and Bajura district (Source: DFSNs)