

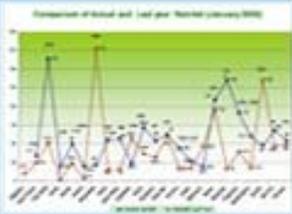
Agrometeorological

Monthly

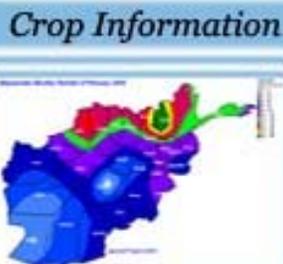
Bulletin

November - 2006

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Comparison of Rainfall



Rainfall Situation



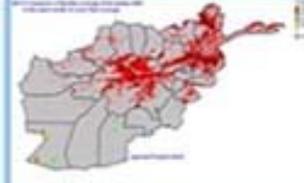
Snow Depth



Rainfall vs NDVI



NDVI



Comparison of NDVI



The Agromet Project of USGS, supported by the US Agency for International Development (USAID), is working together with the Ministry of Agriculture and Food (MAF) and the Afghan Meteorological Authority (AMA) Ministry of Transport (MoT)



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Agromet Network

Summary

In the South West region main adverse factors are late planting, storm and shortage of inputs as reported from Zarnj center of Nimroz Province late planting and storm, from Zabul Province shortage of inputs. From some parts of Herat Province reports are saying about ablate diseases of sheep's and goats which has killed some of them.

Temperature for the month of November 2006 had a decrease compared to the same month in 2005 across the country.

During the month of November 2006 rainfall had considerable increase over the same month in 2005 across the country.

Comparison of snow extent for the period of 17 – 24 November 2006 to the same period in 2005 shows an increase of snow extent for the mentioned period (17-24 November 2006) compared to the same month in 2005 in the snow coverage areas.

Crop Phenological Stages

Central Region:

Due to cold weather and snow cover on the ground in most parts of the central Region the crop is in dormancy stage, for example in Kabul, Seya Gerd District of Perwan Province, the Chak, Gelga, Siakhak and Jaghatoo Districts of Wardak Province and Maidan center of Wardak Province.

In Chaharikar center of Perwan Province the wheat is in the planting and emergence (the highest is less than 10 cm) stages. Reports from Puli Alam center of Logar Province saying that the crop is in the planting stage.

In the Sarobi Distract of Kabul Province and Center of Panjshir Province farmers are busy in preparation of their lands. In some parts of this region crop is in planting stage as in Jabul Saraj center of Perwan Province.

East Central Region:

In most parts of this region the crop is in the dormancy stage, but reports from center of Bamyan Province saying that crop is in the emergence stage and the height of the wheat is less than 10 cm. In some other parts of Bamyan Province the crop is in the planting stage.

South West Region:

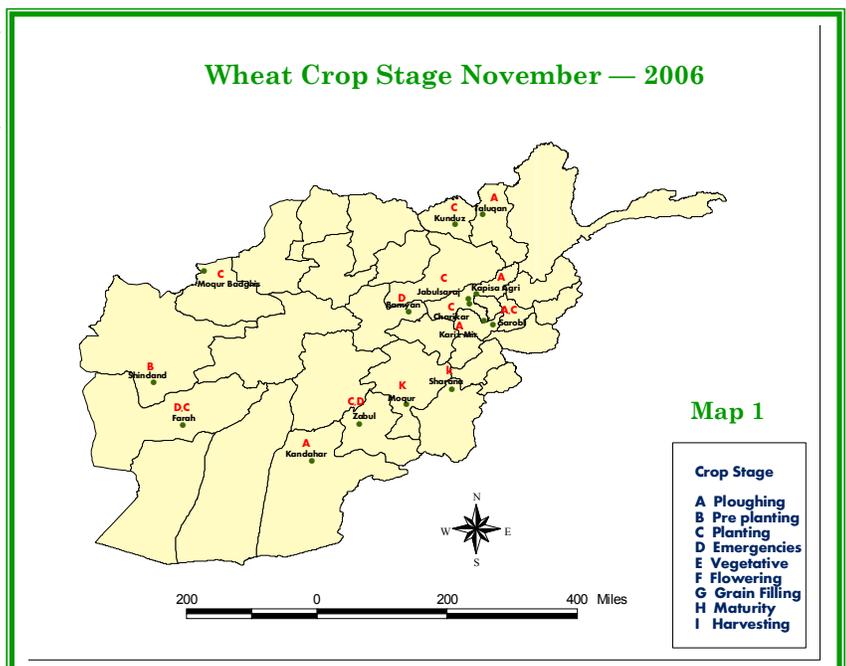
Mostly in this region farmers are busy in preparation of their lands and crop is in pre planting stage as in Kandahar and Faryab Provinces farmers are preparing and ploughing their lands and crop is in pre planting stage. In Zaranj center of Urozghan Province and some other areas the crop is in the pre planting and planting stages.

North East Region:

In this region crops are in different stages. Mostly farmers are busy in preparation of their lands as reported from Qala Zal and Chahardara Districts of Kunduz Province, center of Kunduz Bangi District of Takhar Province and Baghlan Province the farmers are busy in ploughing of their lands and crop is in pre planting and planting stages. In Urgo District of Badakhshan Province the crops are in the dormancy stage but, from Polykhumry center of Baghlan Province and Bangi District of Takhar Province reports are saying that the maize and rice crops are in the harvesting stage.

East Region:

In most parts of this region the crops are in the pre planting stage, the farmers are busy in preparation of their lands for the wheat cultivation, from some other areas of this region reports are saying that the crops are in the pre planting and planting stages.



Crop Phenological Stage

North West Region:

In some parts of this region the crops are in the dormancy stage, for example, in Moqur District of Badghis Province, Maimana center of Faryab Province and Chakhcharan Center of Ghor Province.

South Region:

In the south region, reports from Gardiz center of Paktya Province saying that the crops are in the emergence and dormancy stages, also from Khair Kot, Urgon and Sharana Districts of Paktika Province and

Khost Province reports are saying that the crops are in the dormancy, pre planting and plating stages.

North Region:

In this region the crops are in the different phenological stages as in center of Sari Pul and Jawzjan Provinces the crops are in the pre planting stage and farmers are busy in ploughing of their lands, in some parts of these provinces the crops are in planting and emergence stages. In Sozma Qala District of Saripul Province the crops are in planting stage. In some parts of this region the crops are in the dormancy stage.

Crop Condition

Central Region:

In the central region, as reported from Chak and Jaghatoo Districts of Wardak Province, Seya Gard District of Perwan Province and Mahmood Raqee center of Kapisa Province the crops are in normal condition, from some parts of Jaghatoo District of Wardak Province the crop is in the poor and under the normal condition. From Jabulsaraj center of Perwan Province, Sarobi, and Kariz Mir Districts of Kabul Province the crops are in the normal condition.

East Central Region:

In this region such as Yakawlang, Panjab, Kuhmard, Shash Pul Districts and center of Bamyan Province the crops are in the normal condition, from some areas of this region reports are saying about good crop condition.

North West Region:

In most parts of this region the crops are in the normal condition, such as Shindand District of Herat Province, center of Farah Province and Moqur District of Badghis Province. The crops are in the failure (the crop products are damage) condition as reported from Chekhcharn center of Ghor Province.

South West Region:

In this region as reported from Nimroz and Urozgan Provinces the crop condition is normal, also from above Provinces the rice and maize crops are in the normal condition. Reports are saying from Zabul and Kandahar Provinces that the crops are in the normal condition.

North East Region:

In most parts of this region the crops are in the normal condition for example, in Imam Saheb, Chahardara Districts of Kunduz Province and center of Kunduz Province. Good (the crop is better than normal) condition is reported from Aqtipa District of Kunduz Province. From Polykhomry center of Baghlan Province and Badakhshan Province the crops are in the normal condition.

South Region:

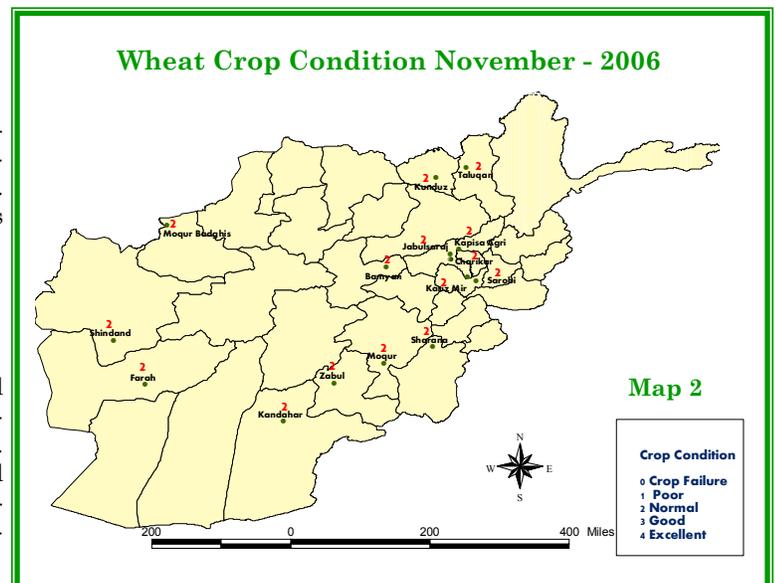
In this region, from the center of Khost Province the crops are in the good condition (the condition of agriculture products are better than normal). Normal crop condition is reported from Urgon and Khairkot of Paktika Province and Gardez center of Paktya Province.

East Region:

In some parts of this region the crops are in normal condition but in some other areas crops are in poor condition, also from Asmar District of Kuner Province the crop condition is better than normal, in Mehterlam center of Laghman Province rice and maize are in normal condition.

North Region:

From Taloqan center of Takhar Province, reports are saying that the crop condition is normal in this area. From Sheberghan center of Jawzjan Province and Mazar-e-Sharif center of Balkh Province reports are saying that the crops are in normal condition.



Adverse Factors

Central Region:

During the month of November 2006 in this region the main adverse factors are pest, diseases, shortage of inputs and much rain. For example in Mahmood Raqee center of Kapisa Province reports are saying about plants pest and diseases, from Charikar center of Perwan Province too much rain reported. Shortage of inputs is reported from Sarobi District of Kabul Province. From most parts of this region reports are saying about shortage of inputs such as Tractor and other tools.

East Central Region:

In this region the main adverse factors are too much cold and lack of agriculture inputs for example in Yakawlang and Panjab Districts and center of Bamyan Province.

Northern Region:

In this region the adverse factors are shortage of inputs such as tractors, seed cleaners, seed sprinkler machine chemical fertilizer and too much weeds, as reported from the Bangi District of Takhar Province and some other parts of this region.

North East Region:

In this region the main adverse factors are too much weeds, Pest, diseases and shortage of inputs as reported too much weeds and shortage of inputs from Baghlan Province, too much weeds, pest and diseases from Chahadara and Qalazal Districts of Kunduz Province. Reports are saying about shortage of inputs in Urgo District of Badakhshan Province.

Eastern Region:

In this region the adverse factors are flooding, too much rainfall and shortage of inputs as reported from Behsod District of Nangarhar Province, flooding which has destroyed 1350 Jerb agriculture land, too much weeds and shortage of inputs. From Mehterlam center of Laghman Province and Kunar Province reports are saying about too much rainfall.

Southern Region:

In this region from Zurmat District of Paktia Province reports are saying about too much rain, frost and storm, from center of Khost Province reports are saying about too much weeds and shortage of inputs and improved seed of Wheat and Maize.

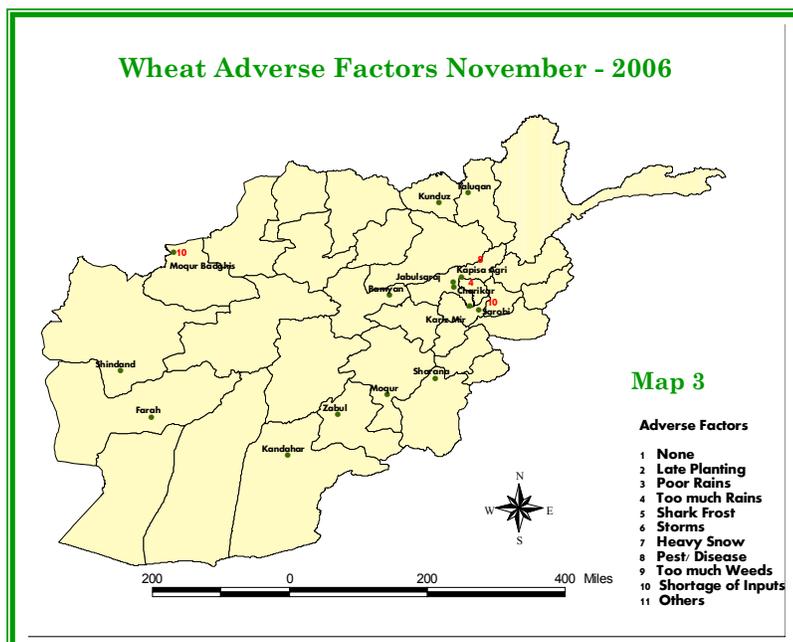
North West Region:

In this region from Bala Morghab and Ghormach Districts of Badghis Province reports are saying about flooding which has destroyed 740 Jerib land in Bala Morghab District and 1600 Jerib land in Ghormach District.

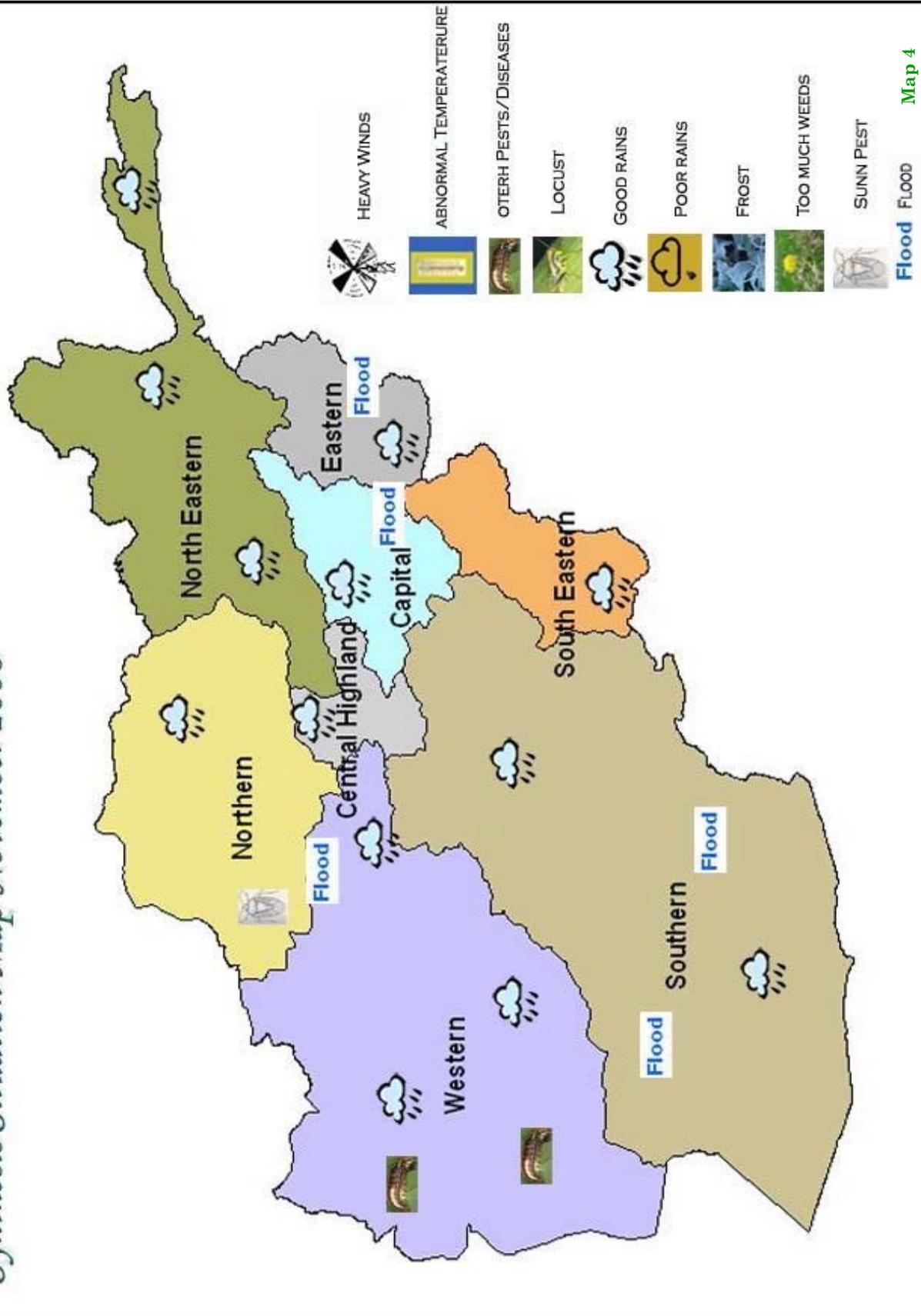
From Cheghcharan center of Ghor Province reports are saying about poor rain and desert mice, shortage of inputs and too much weeds. From Qaisar District of Faryab Province there are complains about lack of pastures for the animals.

South West Region:

In this region main adverse factors are late planting, storm and shortage of inputs as reported from Zarnj center of Nimroz Province late planting and storm from Zabul Province shortage of inputs. From some parts of Herat Province reports are saying about ablate diseases of sheep's and goats which has killed some of the animals.



Synthesis Situation Map November 2006



Rainfall Satiation

During the month of November 2006 rainfall had considerable increase over the same month in 2005 across the country.

Comparison of rainfall data for the month of November 2006 to the same month in 2005 (chart 1) clearly shows considerable increase of rainfall in the month of November 2006 compared to the same month in 2005 and the country experienced significant amount of rainfall during the month of November 2006 except Mazar and Taluqan which the rainfall had decrease. The rainfall and snowfall occurrence in the month of November 2006 has made the farmers optimistic for the agriculture activities during the coming agricultural season.

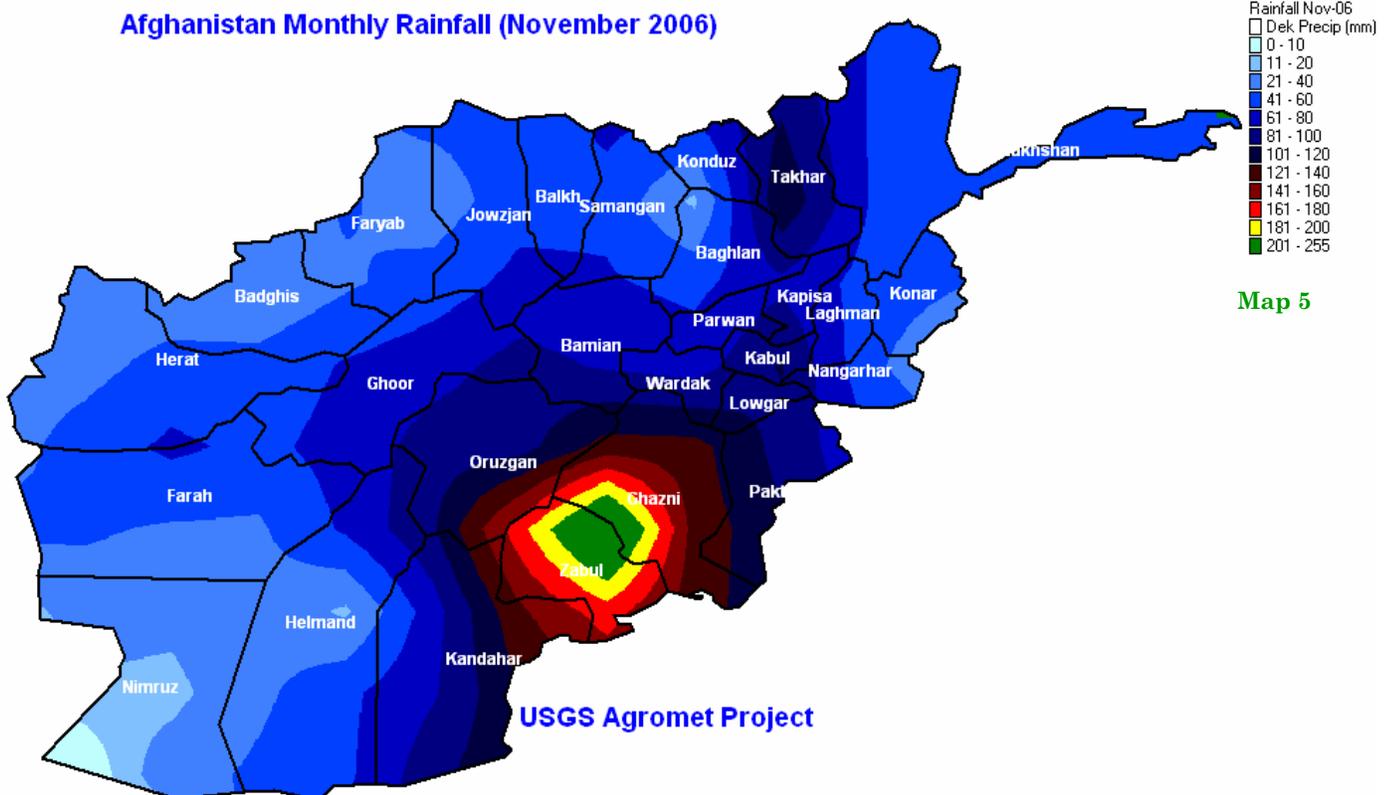
The percentage +/- of rainfall is as follow:

In Naghlan 116 %, Darul Aman 72 %, Faizabad 55 %, Farah 55.8 %, Gardiz 222 %, Ghaziabad 20 %, Jalalabad 2900 %, Herat 244 %, Jabul Seraj 727 %, Kabul 137 %, Kandahar 2580 %, Kariz Mir 28 %, Kunduz 1138 %, Logar 111 %, Maimana 53 %, Mazar – 33 %, Paghman 114 %, Sheberghan 152 %, Sarobi 540 %, Sari Pul 190 %, Taluqan – 63 %.

Comparison of rainfall data for the month of November 2006 to the same month of long term average (chart 2) clearly shows considerable increase of rainfall during the month of November 2006 over the same month of long term average, except Mazr which rainfall had decrease during the month of November 2006 compared to the same month of long term average. The percentage +/- of rainfall is as follow:

In Baghlan 62 %, Darul Aman 3221 %, Faiz abad 92 %, Farah 67 %, Gardiz 515 %, Gazni 296 %, Herat 744 %, Jabul Seraj 182 %, Jalalabad 50 %, Logar 158 %, Kabul 305 %, Kandahar 2133 %, Mazar – 9 %, Paghman 158 %, Sheberghan 48 %.

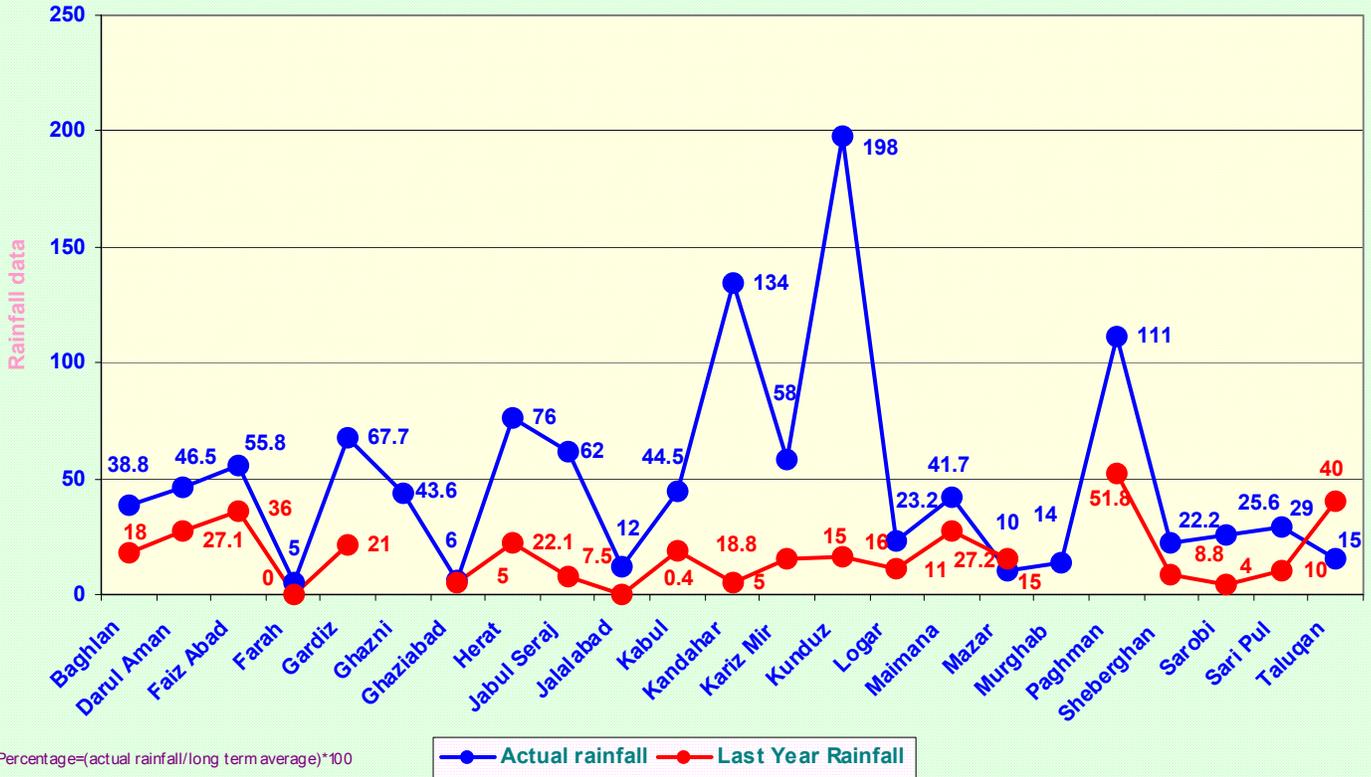
Distribution of rainfall is in variable deferent regions of the country. Map (5) shows that most amount of rainfall occurred in the Southeastern regions, Capital, Central Highlands, some parts in the Northern mountainous areas, some parts of Northeastern, Eastern, the Northern regions, some parts of Western regions and most parts of the Southern regions experienced less amount of rainfall compared than other regions.



Rainfall Graphs for the Month of November 2006

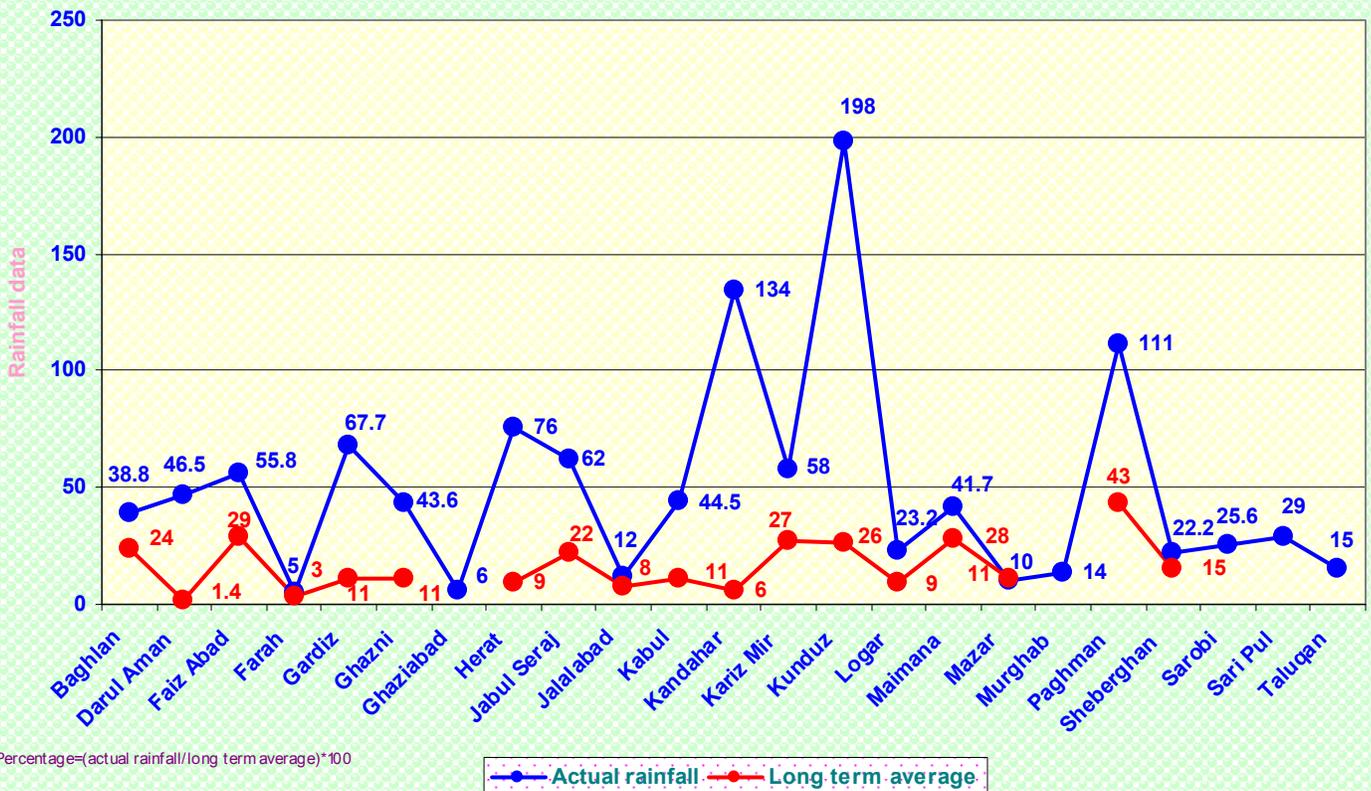
Comparison of actual and Last year Rainfall (November 2006)

Chart 1

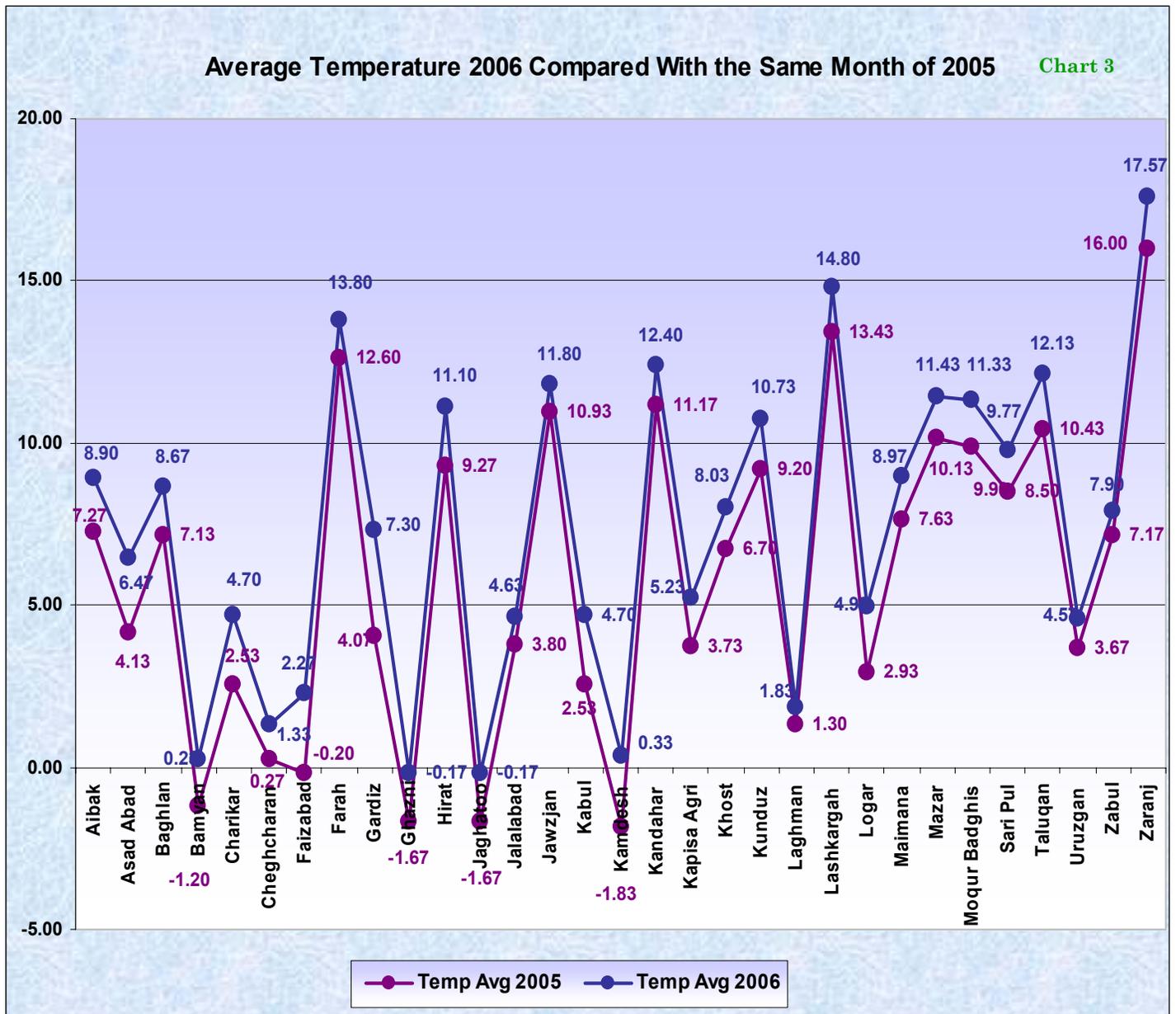


Comparison of actual and long term average accumulated data (November 2006)

Chart 2



Average Temperature for the Month of November 2006

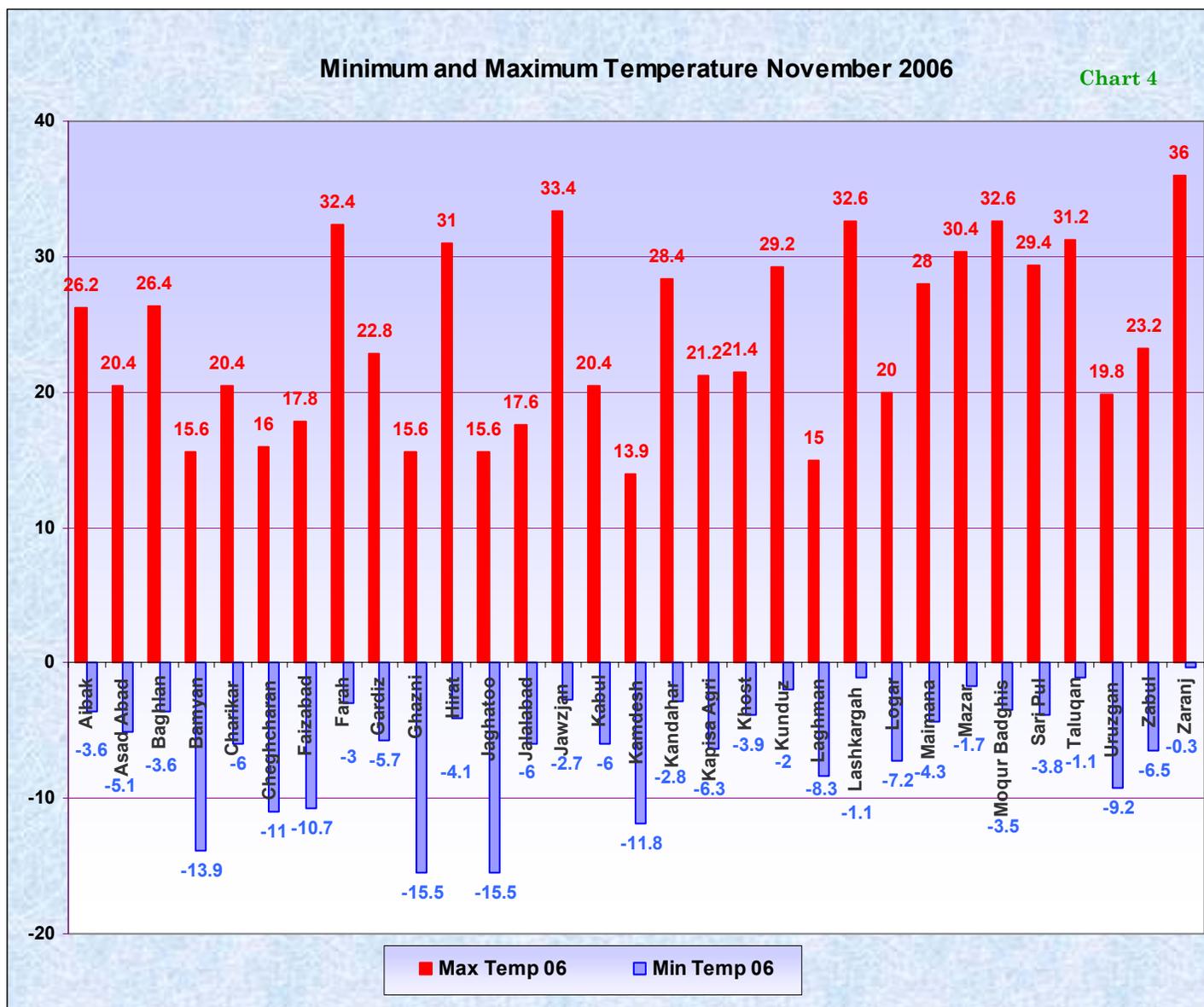


Temperature for the month of November 2006 had a decrease compared to the same month in 2005 across the country.

Temperature for the month of November 2006 had a decrease compared to the same month in 2005 across the country. Comparison of the monthly average temperature of November 2006 to the same month in 2005 (chart 3) shows a decrease of temperature in the month November 2006 over the same month in 2005,

which the whole country experienced cold weather due to rush of cold air mass which resulted decrease of temperature and the minimum temperature was below 0° C across the country. The monthly average temperature departure for the month of November 2006 is 1 – 2 ° C compared to the same month in 2005.

Temperature for the Month of November 2006

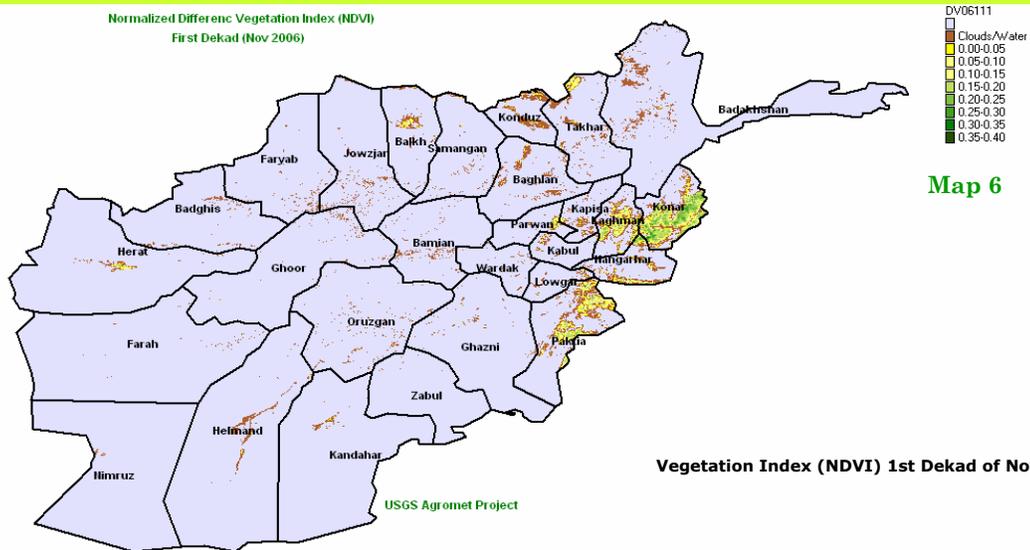


Zaranj with 36 ° C experienced warmest temperature in November 2006

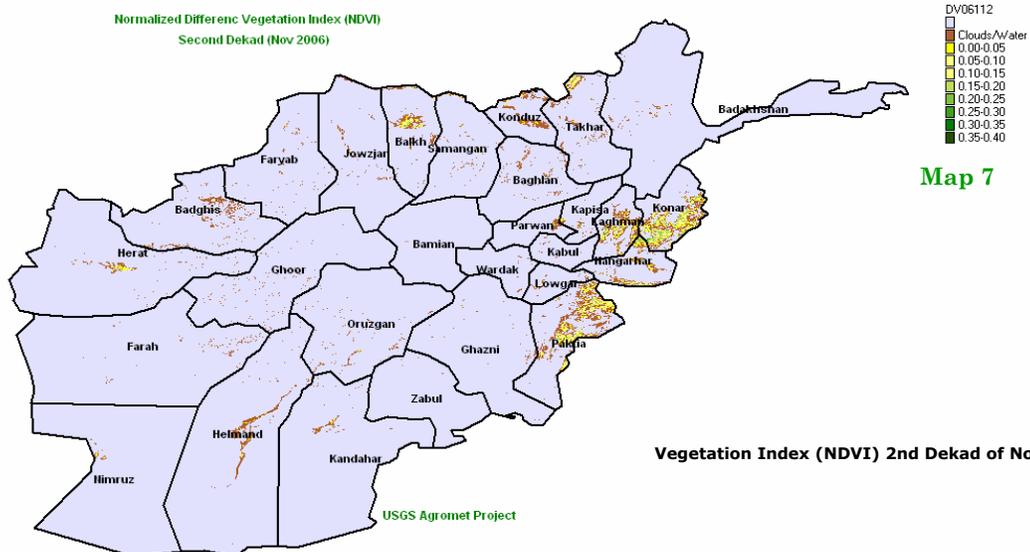
The maximum and minimum temperature for the month of November 2006 (chart 4) shows that frost occurred in the all regions of the country during the month of November 2006 .

The temperature distribution is variable across the county, which Zaranj with 36 ° C experienced warmest temperature in November 2006, Gazni and Jaghatoe with 15.5 ° C was the coldest points .

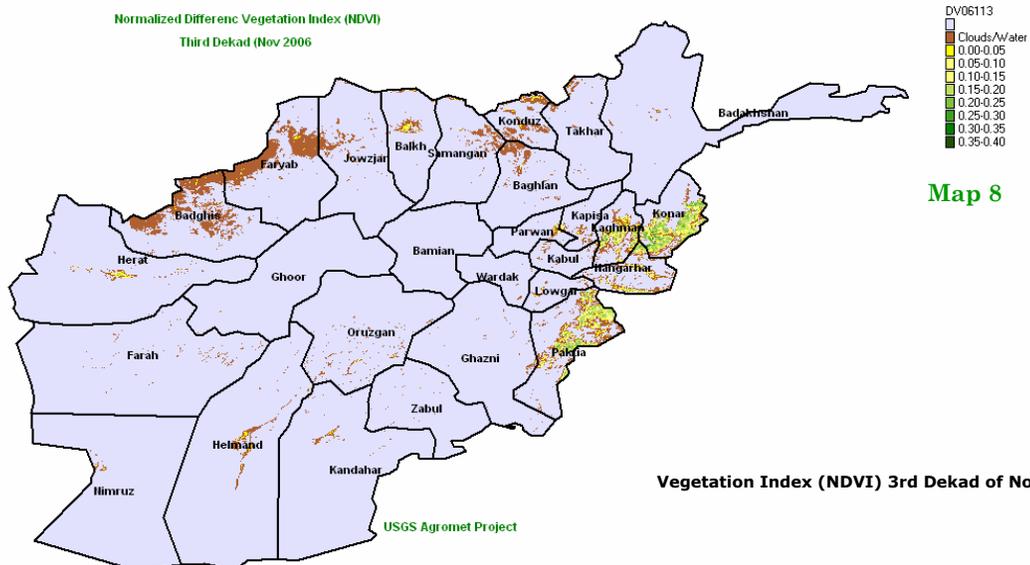
Normalized Difference Vegetation Index (NDVI) (November 2006)



Vegetation Index (NDVI) 1st Dekad of November 2006—Afghanistan

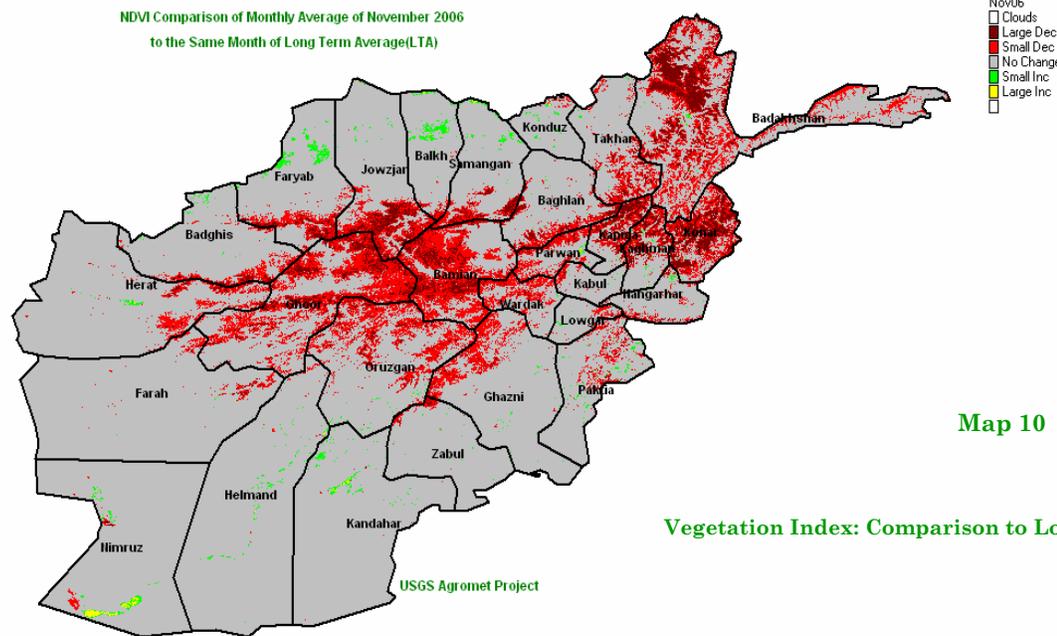
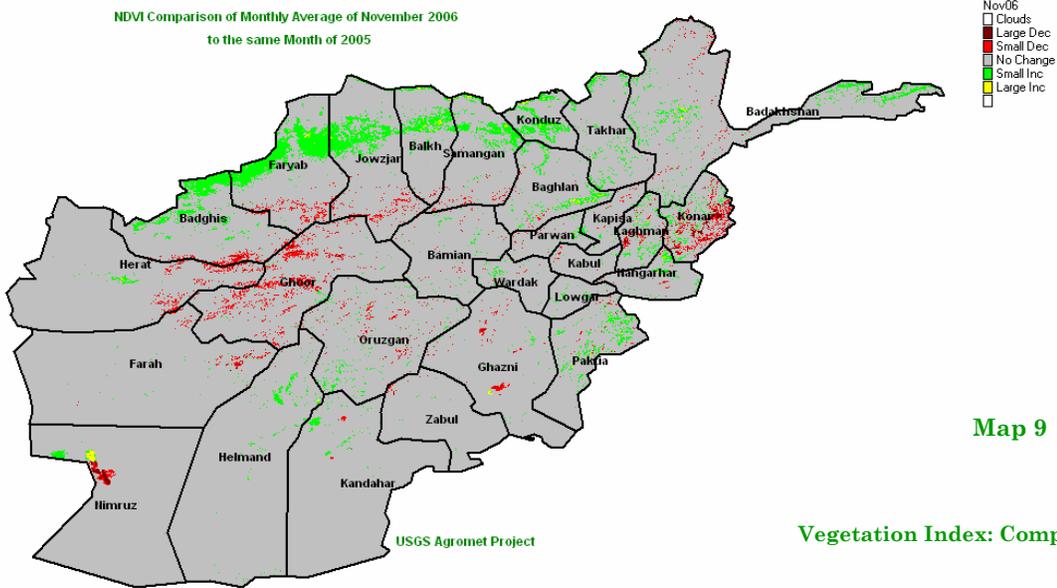


Vegetation Index (NDVI) 2nd Dekad of November 2006—Afghanistan



Vegetation Index (NDVI) 3rd Dekad of November 2006—Afghanistan

Comparison of NDVI November 2006



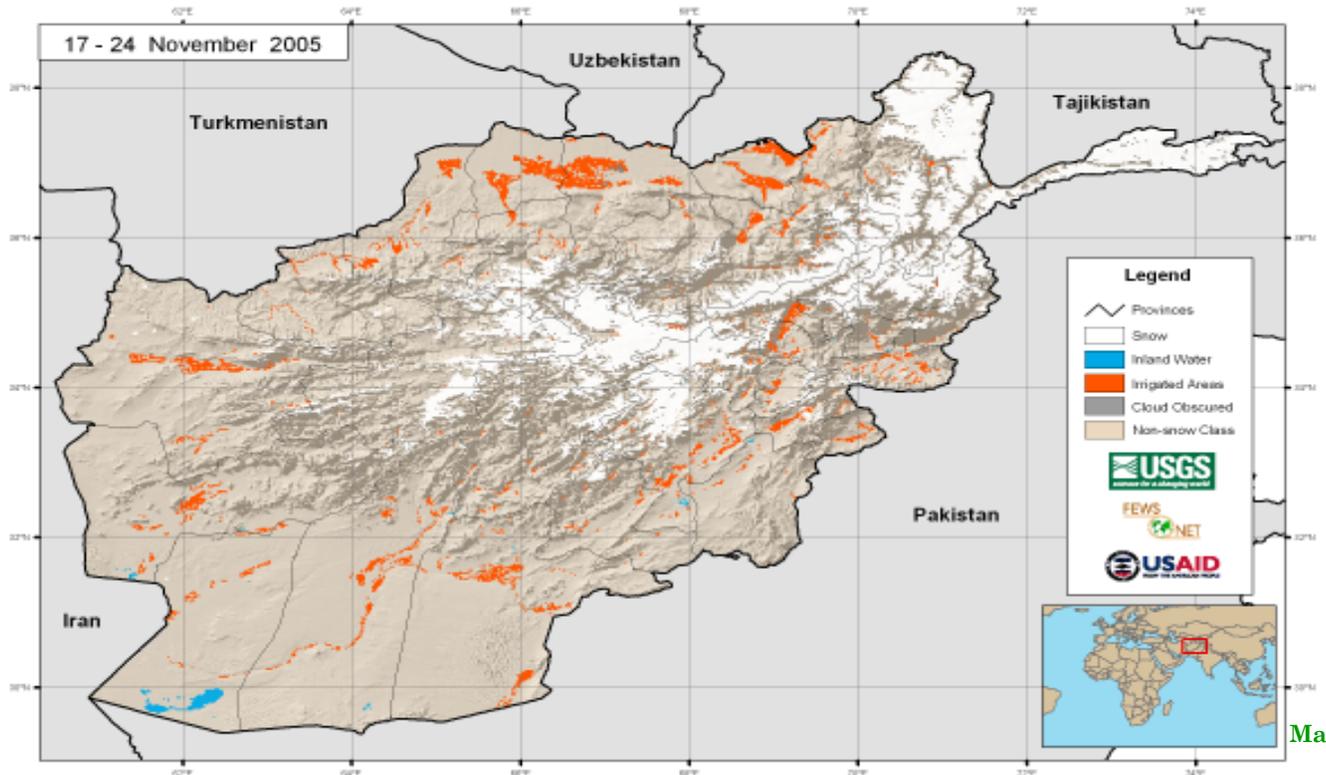
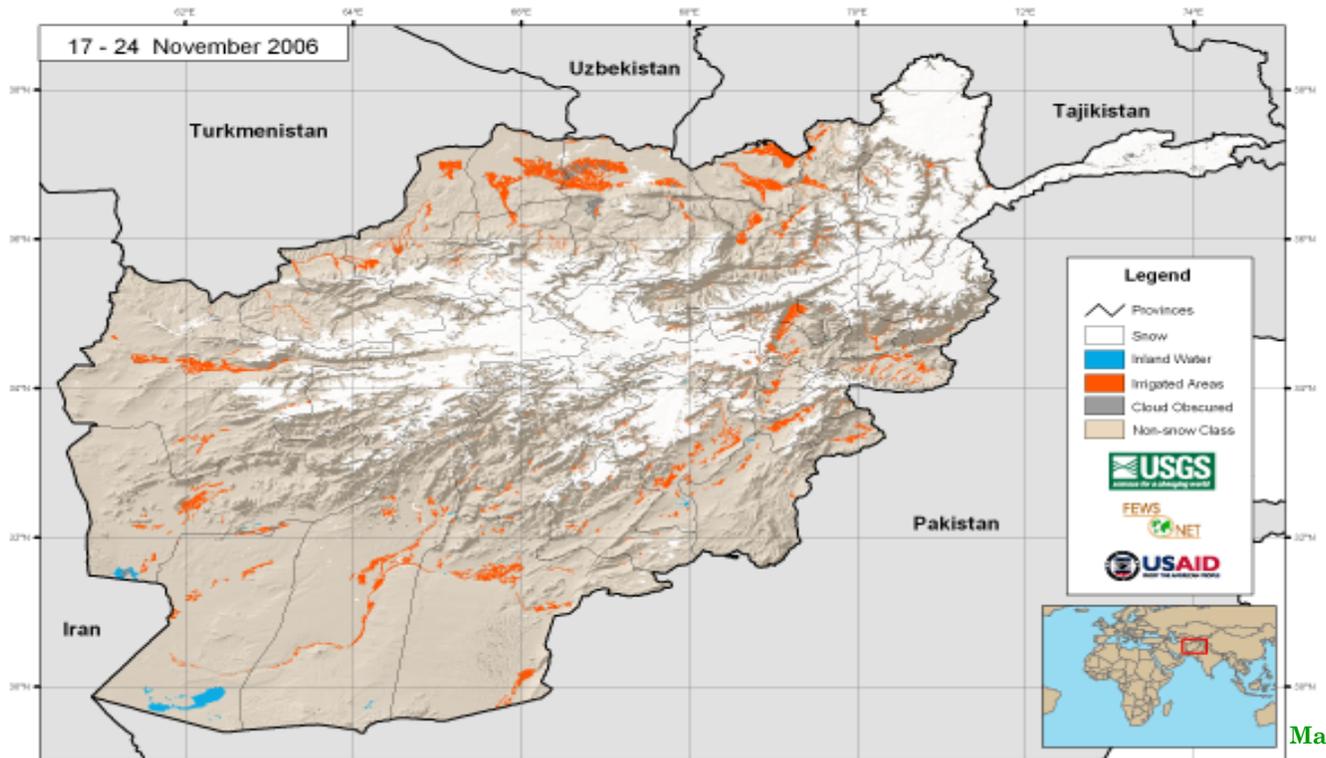
NDVI: November 2006

Comparison of NDVI monthly average for the month of November 2006 to the same month in 2005 (map 9) shows small increase of NDVI in some parts of the Northern regions, some parts in the Southeastern regions and limited areas in the East and Northeastern regions. Comparison also shows small decrease of NDVI in some parts of the western regions, and some parts in the East during the month of November 2006 over the same month in 2005. There is no change of NDVI in the most parts of the Northeastern regions, South and the most parts in the West and Central Highlands.

Comparison of NDVI for the month of November 2006 to the same month of long term average (map 10) shows small decrease of NDVI in the Northeastern regions, Hindokosh areas, some parts in the Eastern region, some parts in the southeastern, most parts of the Central Highlands and some parts in the West during the month of November 2006 over the same month of long term average.

Comparison of snow extent and depth

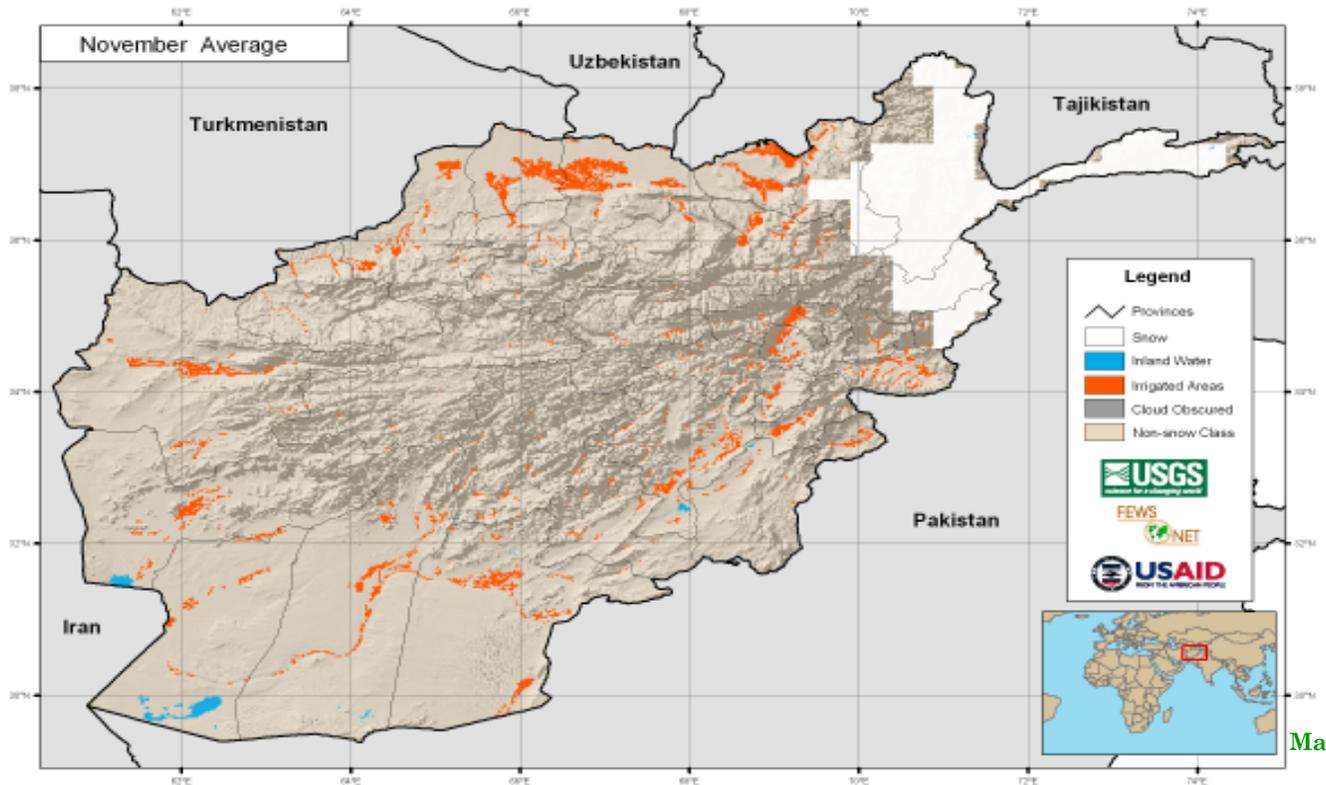
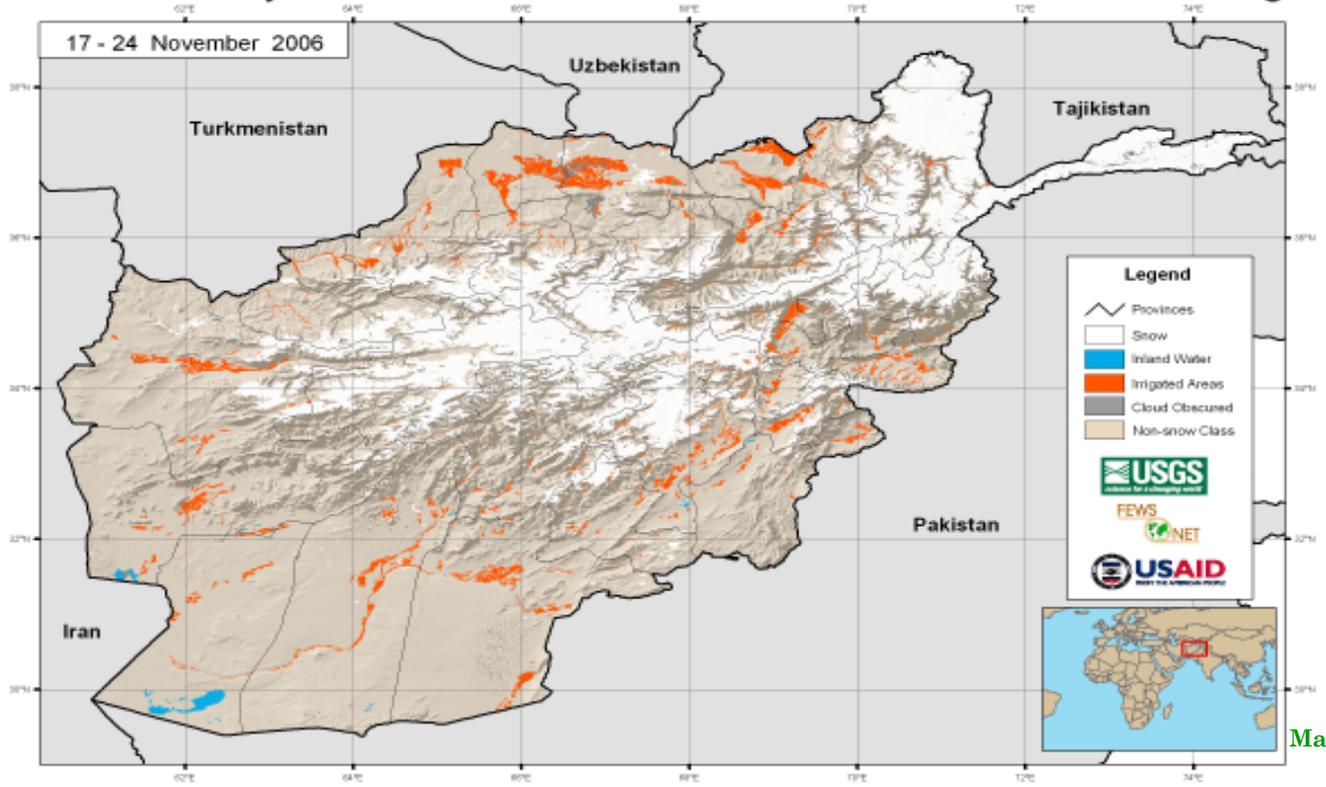
MODIS 8-day Snow Cover Extent - Current Period 2006 vs 2005



Comparison of snow extent for the period 17 – 24 of November 2006 to the same period in 2005 (map 11-12) shows an increase of snow extent for the mentioned period (17-24 November 2006) compared to the same month in 2005 in the snow covered areas.

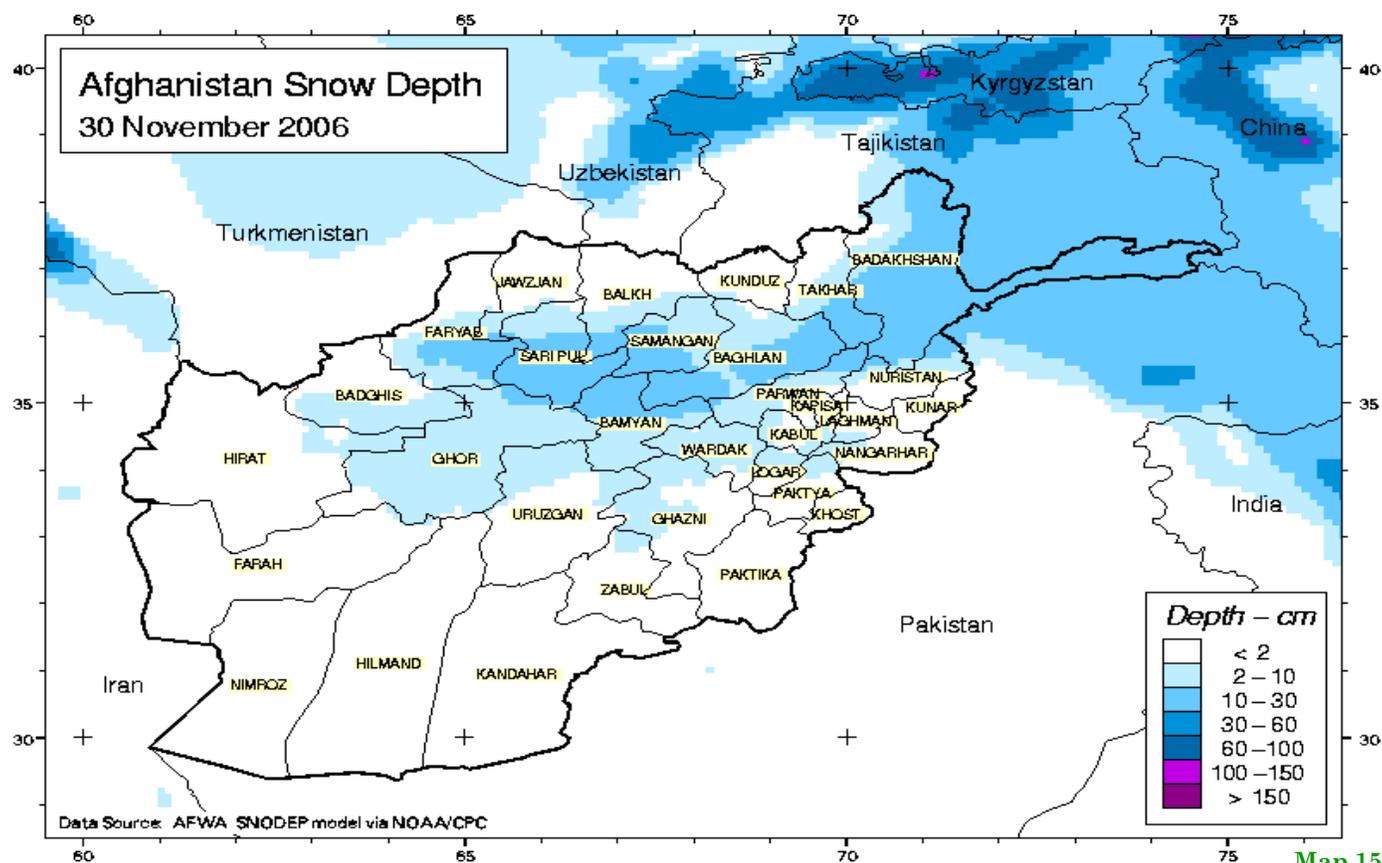
Comparison of snow extent and depth

MODIS 8-day Snow Cover Extent - Current vs. Historical Average



Comparison of snow extent in the month of November 2006 with the same month of long term average (map 13-14) clearly shows considerable increase of snow extent over the same month of long term average in most parts of the snow coverage areas during the month of November 2006 over the same month of long term average.

Afghanistan Snow Depth November 2006



Map 15

Map (15) shows the snow depth in the snow coverage areas, which the snow depth recorded from 30 – 60 cm in the Northeastern, Hindokosh area, Central Highlands and neighboring, from 10 – 30 cm has been recorded for the Capital regions and some parts of the Western regions.

Flooding during the month of November 2006

In the month of November 2006 some floods occurred in some provinces in the country which damaged agricultural lands, houses and has some casualties to the farmers and residential people. The information on damaged items and other casualties are show in the following table:

NO	Province	Type of Disaster	CASUALTIES			Af- fected Fam- ilies	affected Houses			Fruit Tree s	live- stock	Affected Areas			
			killed	Enjur	miss		De- stroy	Dam- age	sho p			Agr.Land Jireb	Roads in k m	W.Maill	Brig- des
1	Nanghrhar	Flood	8	91		192	18	192							
2	Parwan	Flood					3	37							
3	Badghis	Flood	60			30000		4000	4		100	2482	500		
4	Farah	Flood	8		12		192		15		200	300			
5	Kandahar	Flood					3								
6	Logar	Flood	2				3								
7	Faryab	Flood	6				219				786	380			
Total			84	91	12	30192	436	4129	19		1087	3162	500		

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