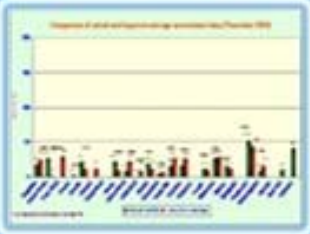
Agrometeorological

Monthly Bulletin

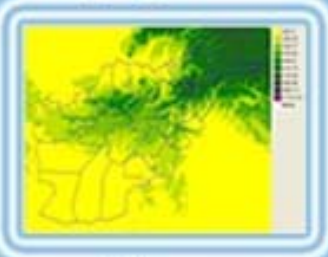
January - 2006

Inside this Issue:



Comparison of Rainfall

Crop Information



Rainfall Situation

Snow Depth

Rainfall vs NDVI

NDVI

Comparison of NDVI

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

Agromet Network

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Summary

In the South Western region most of the wheatfields are in emerging stage (crop has germinated and seedling have emerged with average height dose not exceed 10cm/4') in the Greshk, Nawa, Nadali districts and Lashkargah center of Hilmand province and Farah and Kandahar provinces.

In the East Central region adverse factor is late planting such as in Bamyan Province.

Comparison of January 2006 NDVI to the same month of 2005 shows large increase of NDVI in Southeast region, some parts of Central mountainous areas (Urazgan and Ghor) and small increase of NDVI occurred in some parts of mentioned areas than the month of January 2005.

Temperature was below zero across the country during the month of January 2006 such as Bamyan which had experienced the lowest temperature during this month.

Crop Phenological Stages

In the East Central region the crop stage range (depending of the respective planting dates) is at the emerging stage (crop has germinated and seedling have emerged with average height dose not exceed 10cm/4') as in Yakawlang district and surrounding Bamyan areas for the winter wheat.

In the Eastern region most of the wheat fields are in vegetative stage (Plants are more than 10cm/4 ") as in Laghman province.

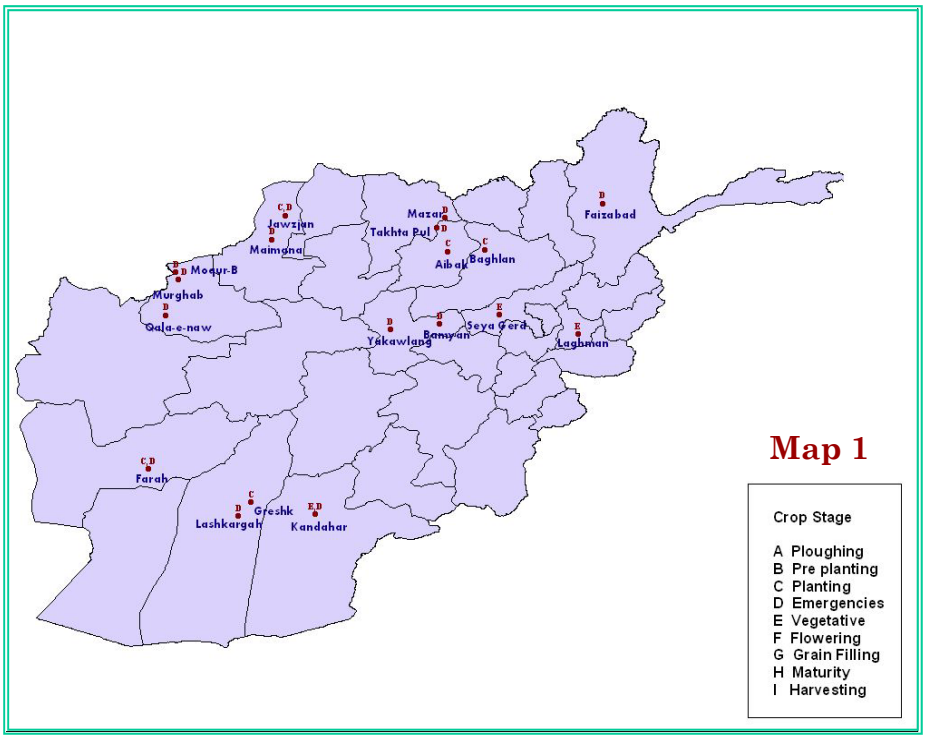
In the North Eastern region most of the wheat fields are in emerging stage (crop has germinated and seedling have emerged but average height dose not exceed 10cm/4') in Faizabad center of Badakhshan province and surrounding wheat fields.

In the North region the crop is in emerging stage (crop has germinated and seedling have emerged but average height dose not exceed 10cm/4') as Jawzjan , Maimana center of Faryab province , Takhtapul areas and surrounding Mazar shrif center of Balkh province.

In the Central region In Sya Gerd area of Parwan province the wheat crop is in vegetative stage (plants are more than 10cm/4 ").

In the Western region most of the wheat fields are in emerging stage (crop has germinated and seedling have emerged with average height dose not exceed 10cm/4') for Qalai-new center of Badghis province, but also for Maqur and Mughab districts of Badghis province the crop stages are in the emerging stage (crop has germinated and seedling have emerged but average height dose not exceed 10cm/4').

In the South Western region most of the wheat fields are in emerging stage (crop has germinated and seedling have emerged with average height dose not exceed 10cm/4') for the Greshk, Nawa, Nadali districts and Lashkargah center of Hilmand province, Farah and Kandahar provinces.



Map 1

Crop Conditions

For the South Western region including Farah , Hilmand , Zabul and Kandahar provinces the crop condition is normal .

In the Western region the crop condition is normal for the Chaghcharan center of Ghor province and Qalai new center of Badghis province but poor crop condition is observed in Maqur areas of Ghor province.

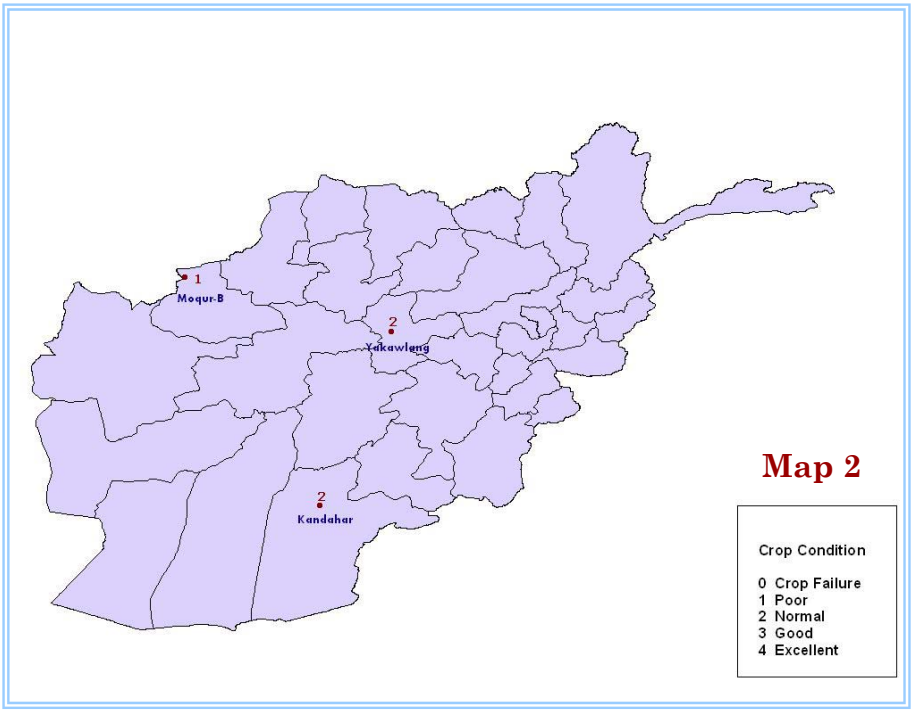
For the Central region the crop condition is normal in Sya Gerd district of Parwan province.

For the east Central region the crop condition is normal in Bamyan province.

For the eastern region the crop condition is normal in Laghman province.

For the northeastern region the crop condition is normal same as Badakhshan province.

For the north region the crop condition is normal same as Faryab, Balkh and Jawzjan provinces.



Map 2

Adverse Factors

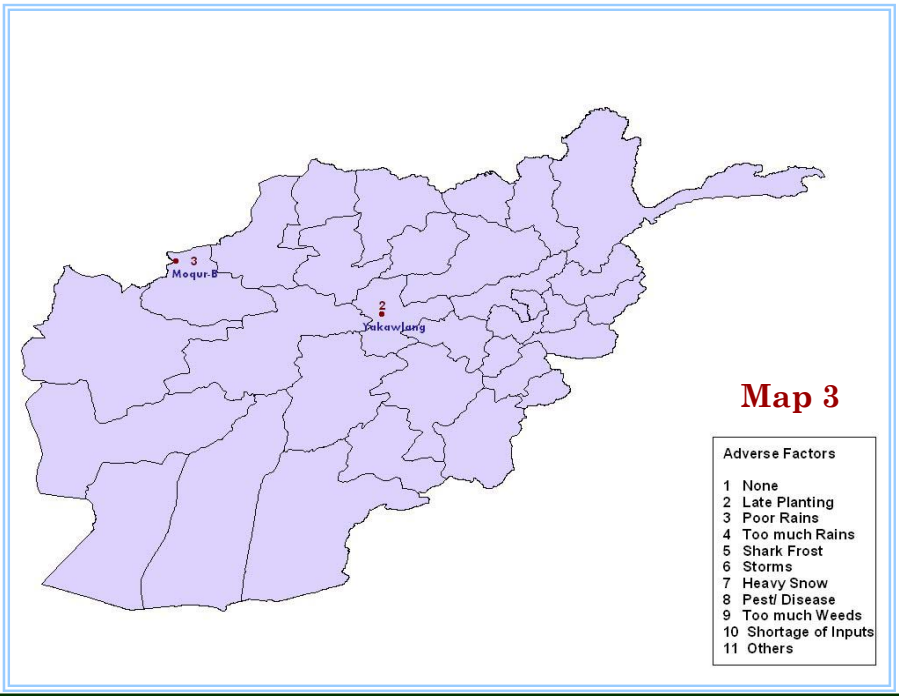
Since we are in early stage of our Agricultural season and most parts of the agricultural lands all over the country is covered by snow so, there is no crop plants on the ground and we can not measure and determine adverse factors in the agricultural lands.

During the month of January 2006 the observed temperature was above normal which might increase the number of adverse factors in the Agricultural lands quickly during the coming season.

In the east central region adverse factor is late planting same as in Bamyan Province.

In the Western region adverse factor is lack of rain or less rain as Maqur district of Badghis province.

This year we are having unexpected and abnormal high temperature



Map 3

Rainfall situation

Comparison of January 2006 rainfall data to the same month of 2005 shows increase of rainfall in most parts of the country in 2006, except Jalalabad, Ghaziabad, Sarobi in the east and Maimana in the Northeast .The percentage of rainfall increase recorded at the in the most of our stations is as follows:

In Kabul +96 %, Darulaman + 37 %, Paghman +113 %, Kariz Mir +14 %, Jabulseraj +258 %,Faizabad +220 %, Taluqan + 12 %, Kunduz +163 %, Mazar + 14 %, Sheberghan + 233 %, Sri Pul + 49 %, Murghab + 715 %, Logar + 54 %, Gardiz + 111 %, Ghazni +442 %, Kandahar + 68 %, Farah + 1075 %, and Herat + 259 %.

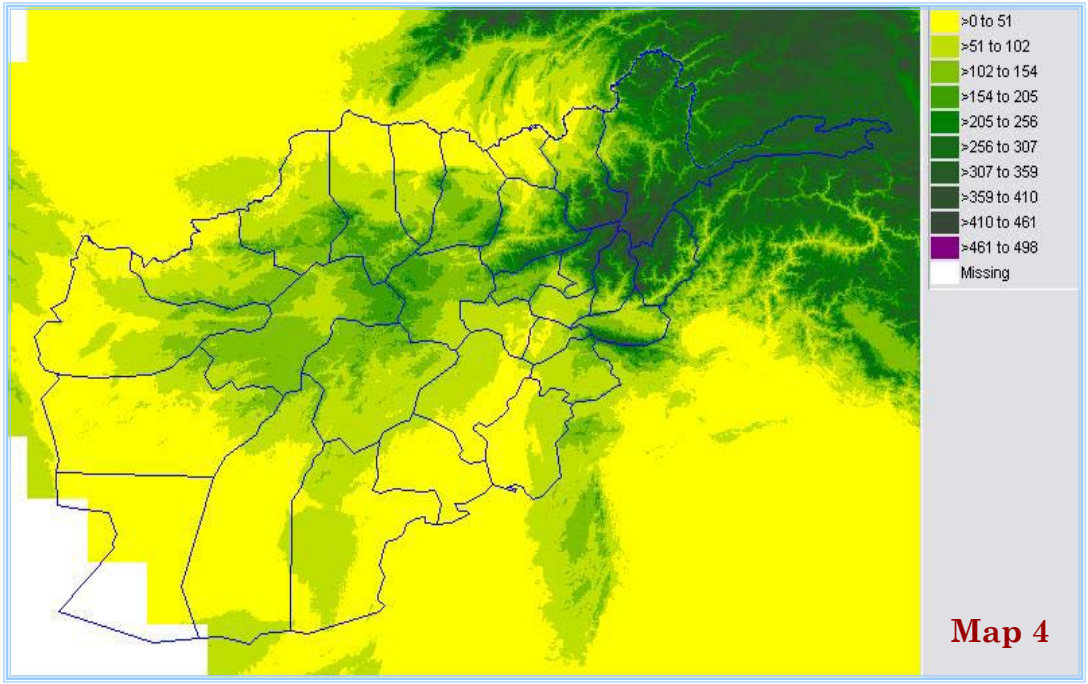
The stations which had experienced decrease in rainfall during the month of January 2006 in comariosn to the same month of 2005 are as follows:

Jalalabad – 59 %, Ghaziabad -65 %, Sarobi – 65 % and Maimana -59 % which Maimana had dramatically decrease than neighboring stations.

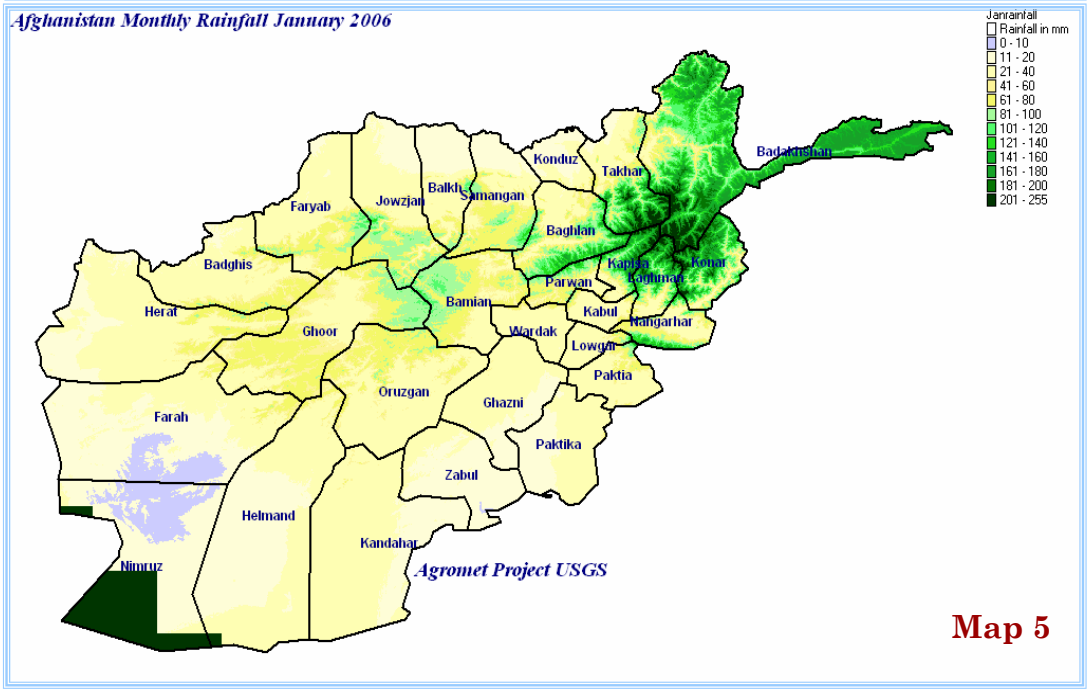
Comparison of January 2006 rainfall data to the same month of long term average shows that the rainfall is above the long term average in January 2006 in most parts of the country. Which the rain fall increase in percentage is as fallows:

In Kabul + 160 %, Darulaman + 1 %, Paghman +77 %, Kariz Mir +60 %, Jabulseraj +4 %, Faizabad +335 %, Kunduz +19 %, Mazar + 353 %, Sheberghan + 76 %, Murghab + 18 %, Jalalabad +64 %, Ghaziabad +102 %, Gardiz + 49 %, Ghazni +30 %, Kandahar + 32 %, Farah + 6 %, Herat + 34 %. In the remaining, stations the rainfall has decreased during the month of January 2006 and felt below average as follows:

In Taluqan -46 %, Sarobi – 8 %, Maimana -53 % and Logar -8 %.



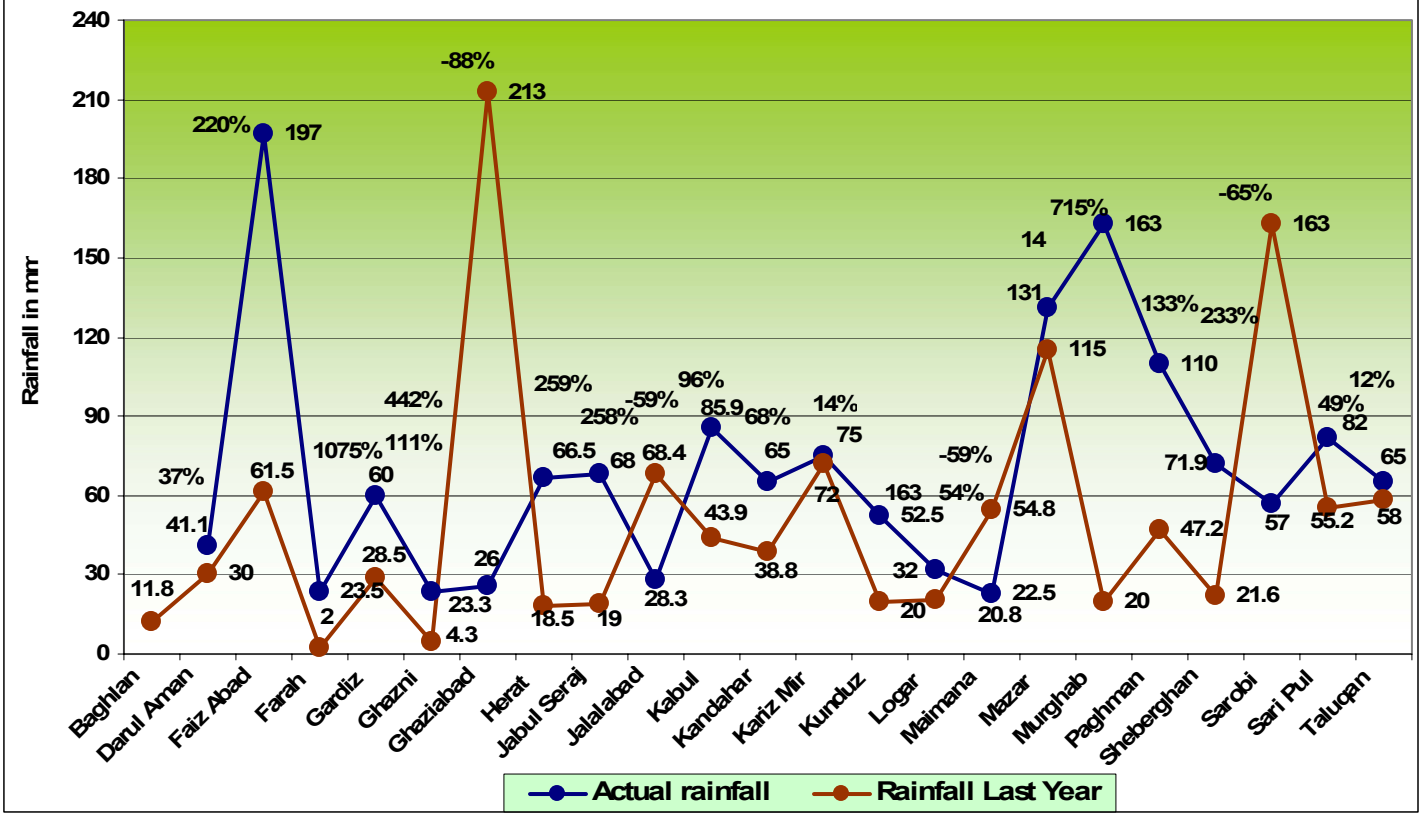
Map 4



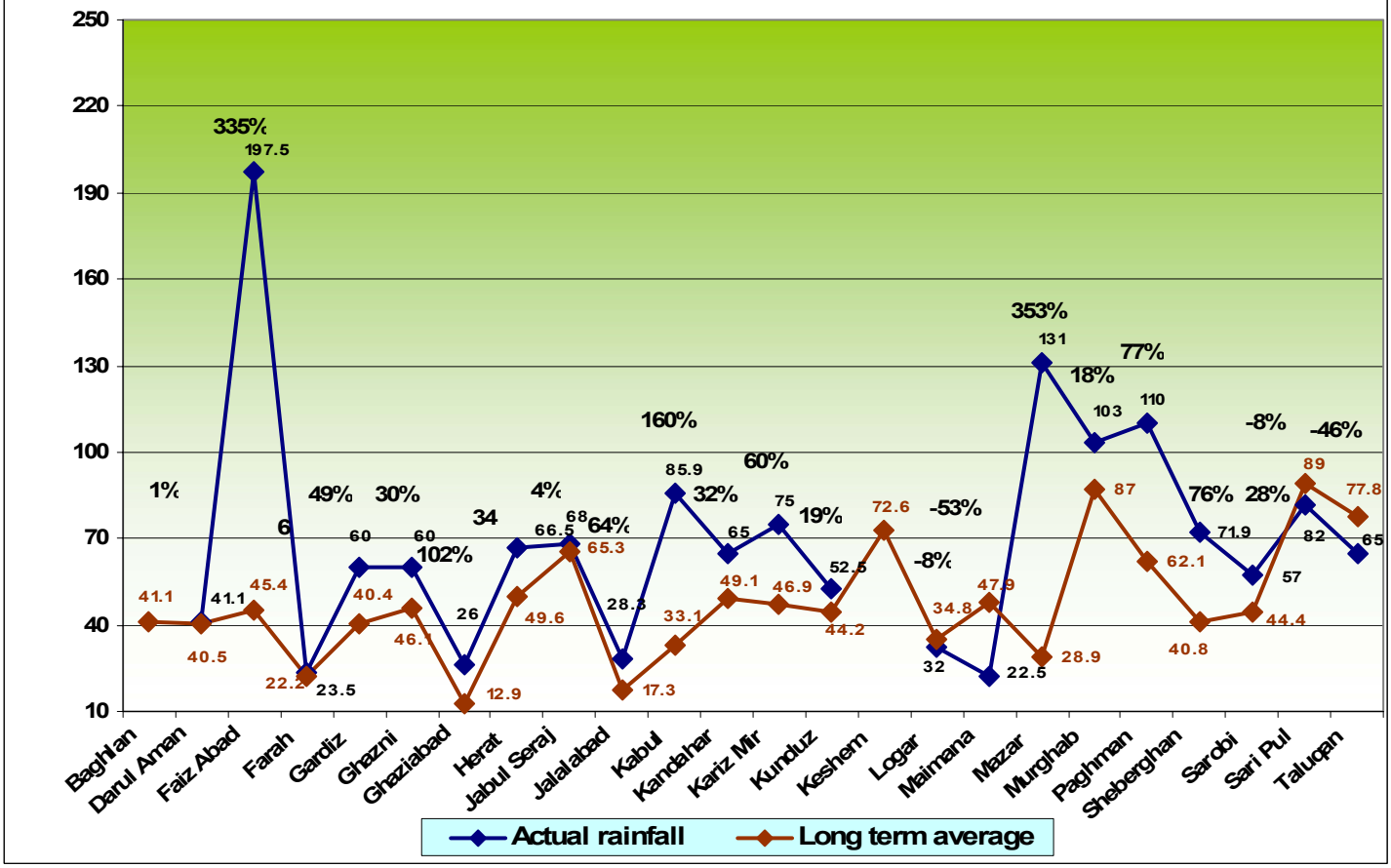
Map 5

Rainfall Graphs

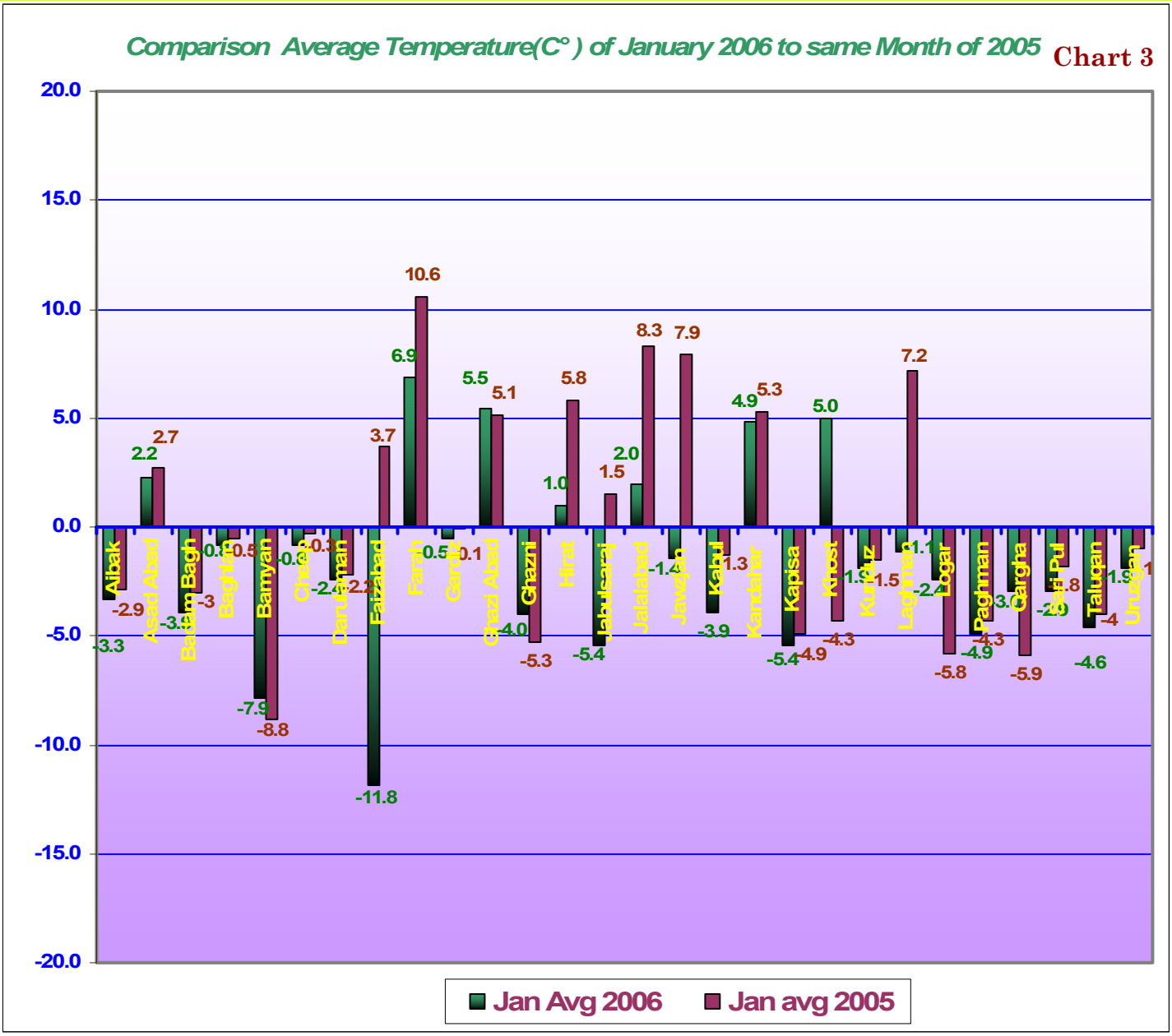
Comparison of Actual and Last year Rainfall (January 2006) Chart 1



Comparison of Actual and long term average Rainfall (January 2006) Chart 2



Temperature for the month of January 2006



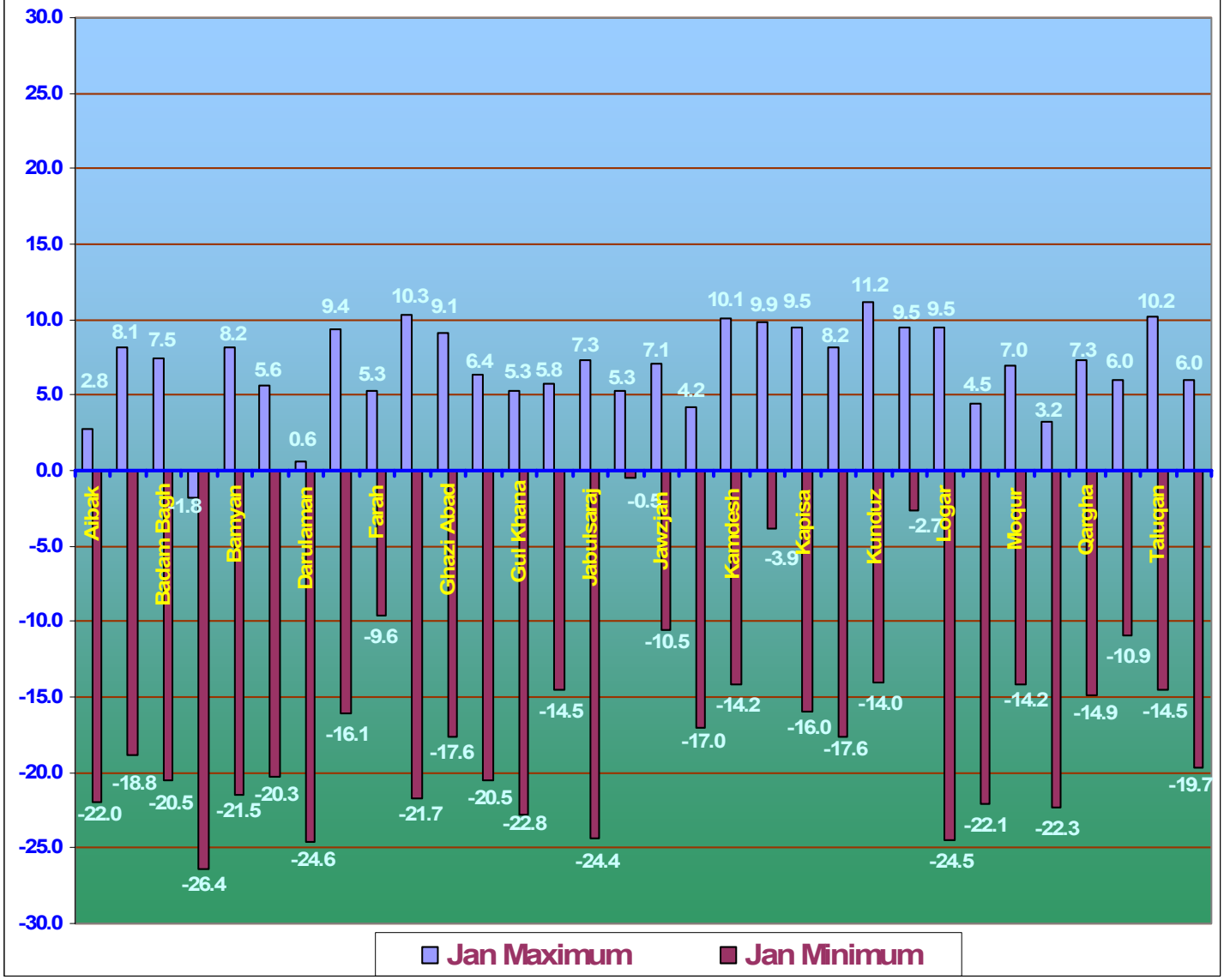
Comparison of monthly average temperature of January 2006 to the same month of 2005 clearly shows the lower temperature during the month of January 2006 than that of 2005

During the month of January 2006 Northeast regions, North, Northwest, Central Highlands and Hindokosh areas experienced cold air mass which is still continuing in some part of the Northeast regions. As well as comparison of monthly average temperature of January 2006 to the same month of 2005 (chart 3) clearly shows lower temperature during the month of January 2006 than that of 2005. The temperature average of Bamyan is – 11 ˚ C during the month of January 2006 while the temperature average of the same month 2005 was + 3.7 which the difference is -7.3 ˚ C .

Temperature for the month of January 2006

Chart 4

Monthly Minimum & Maximum Temperature (°C) of January 2006

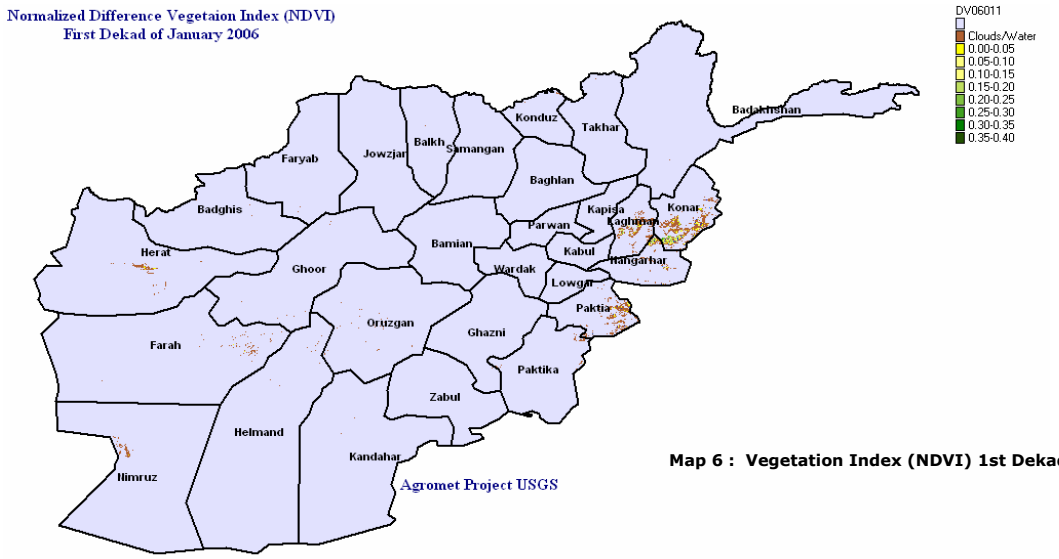


The minimum temperature was below zero across the country during the month of January 2006 .

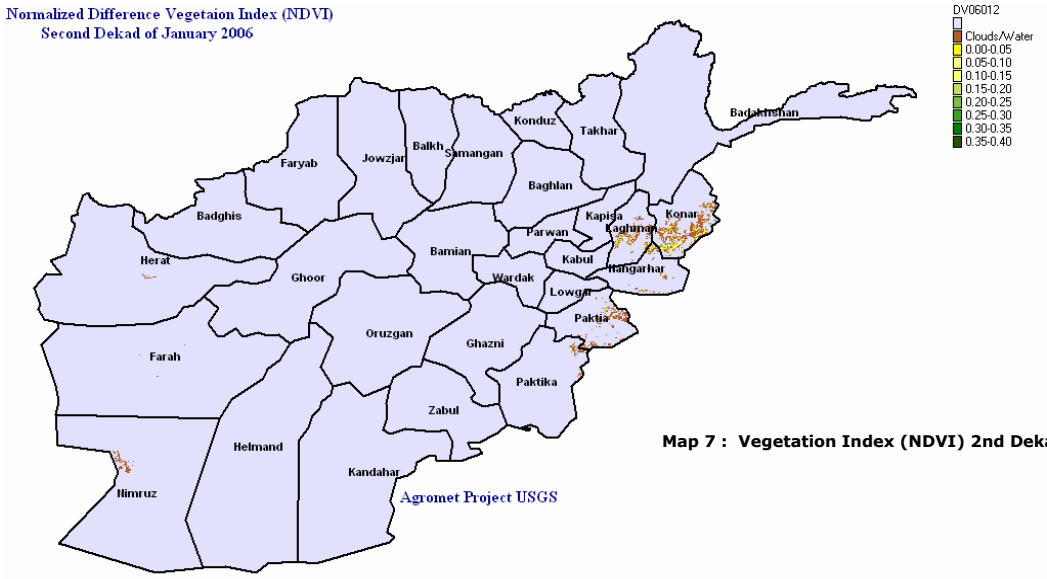
Observed Minimum and Maximum Temperatures data of January 2006 (chart 4) shows that the Minimum Temperature was below zero across the country during the month of January 2006 whith Bamyan experienced the lowest temperature of –26 ° C.

Maximum temperature was above zero across the country except Bamyan with a Maximum temperature was below zero ° .

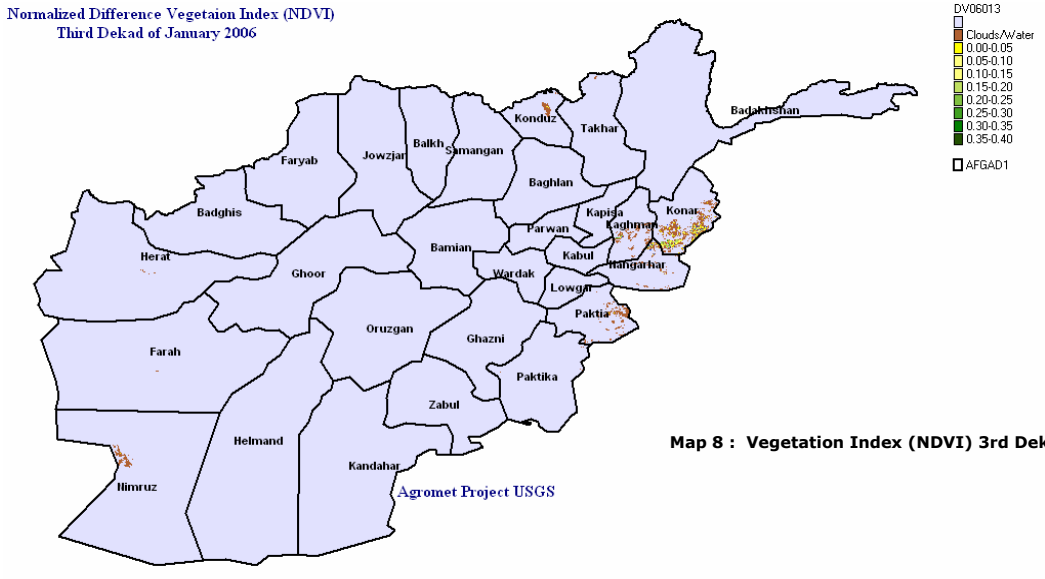
Normalized Difference Vegetation Index (NDVI)/January 2006



Map 6 : Vegetation Index (NDVI) 1st Dekad of January 2006—Afghanistan

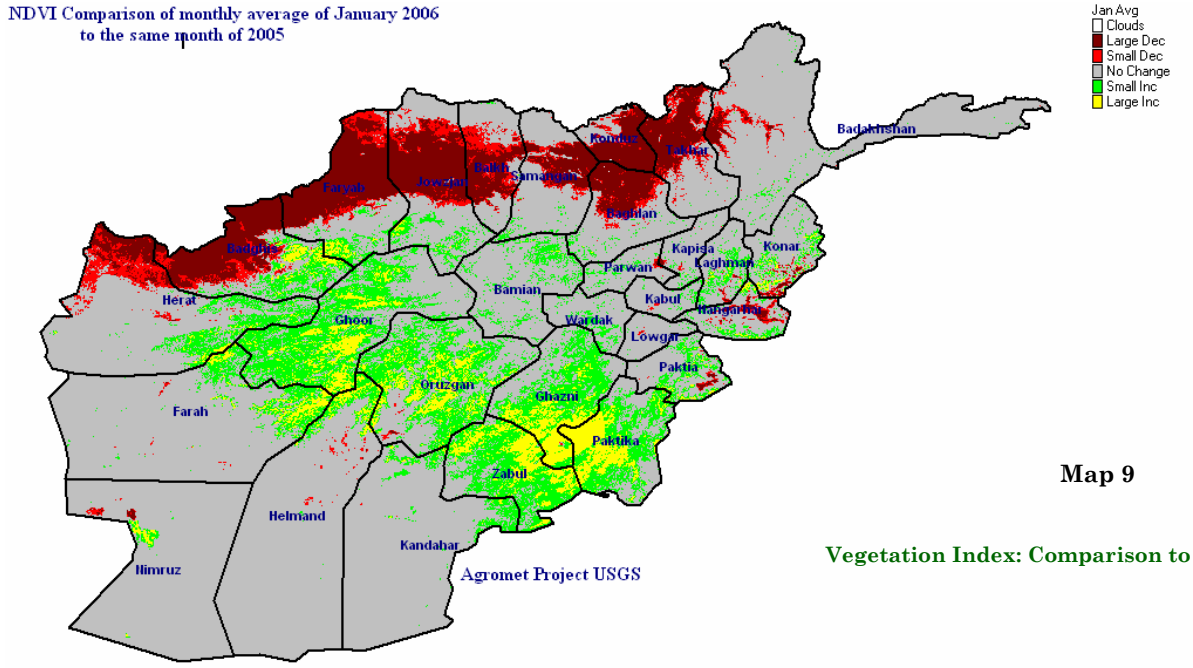


Map 7 : Vegetation Index (NDVI) 2nd Dekad of January 2006—Afghanistan



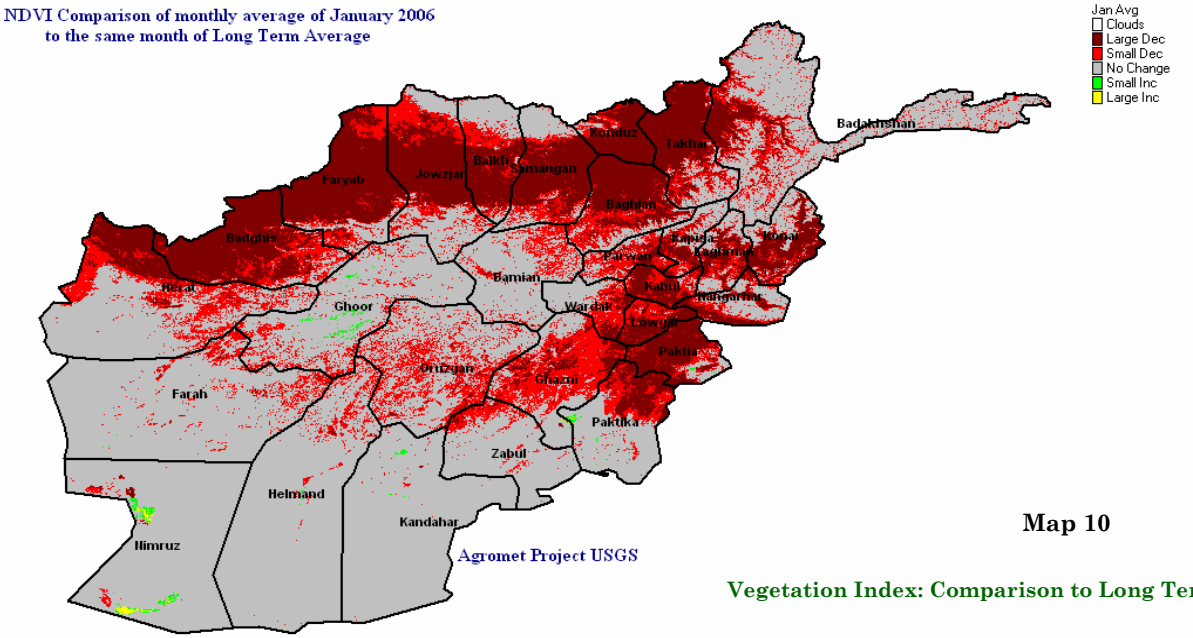
Map 8 : Vegetation Index (NDVI) 3rd Dekad of January 2006—Afghanistan

Comparison of NDVI January 2006



Map 9

Vegetation Index: Comparison to Last Year



Map 10

Vegetation Index: Comparison to Long Term Average

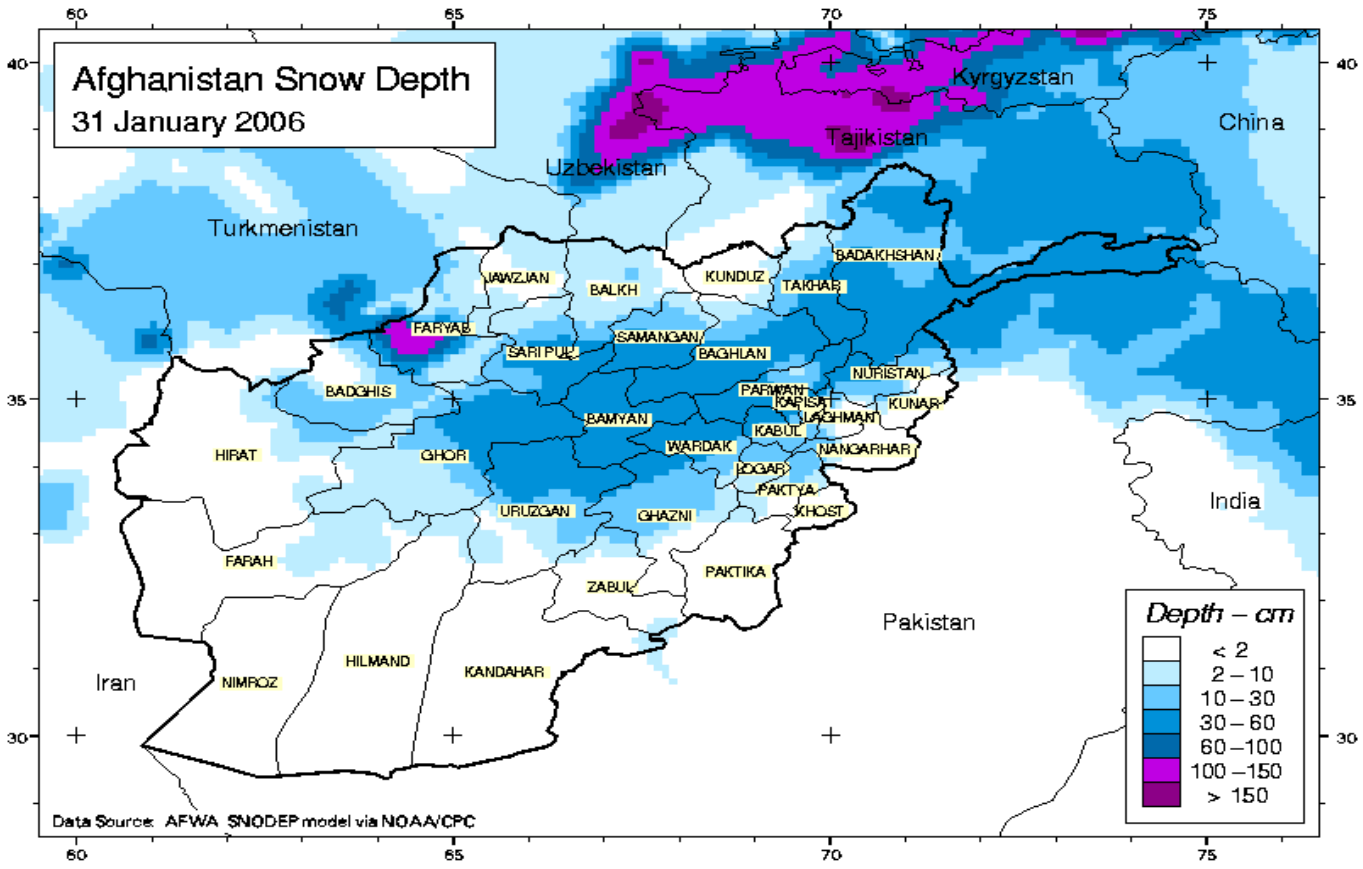
NDVI: January 2006

January 2006 NDVI showed large increase compared to the same period in 205 in Southeast region, some parts of Central mountainous areas (Urazgan and Ghor). The increase has observed in East and some parts of Northeast, small increase observed in most parts of flat areas in Northeast,

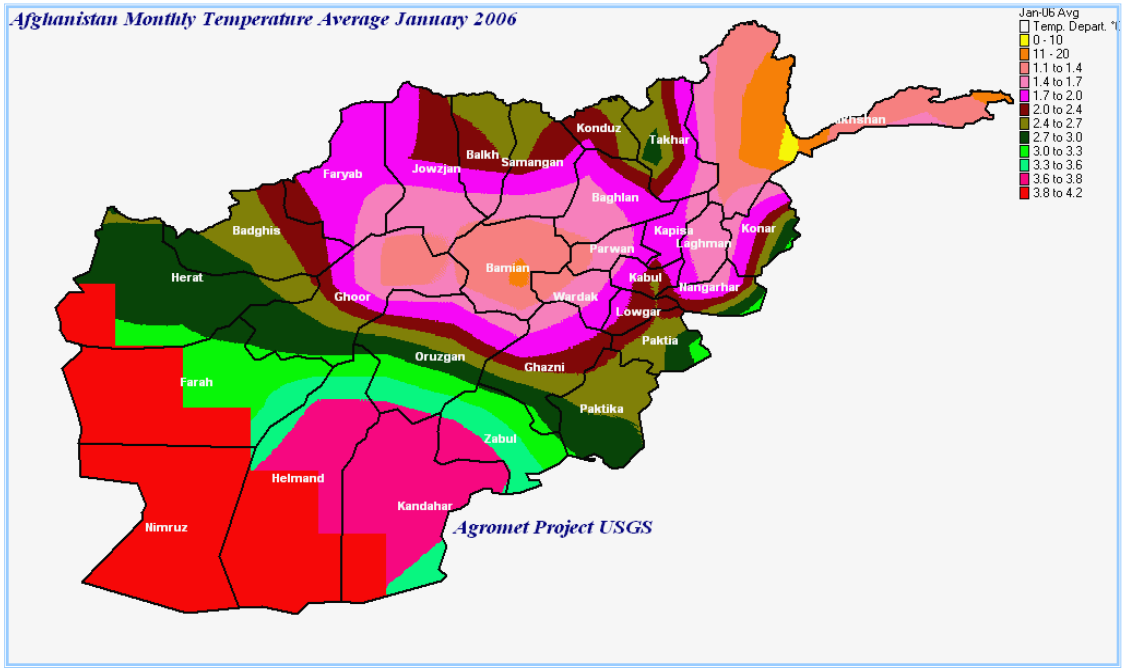
Large decrease in NDVI value observed in North and Northwest.

In other regions there is no change in NDVI during the month of January 2006 in comparison to the same month of January 2005. Comparison of January 2006 NDVI to the same month of Long term average shows large decrease of NDVI in the month of January 2006 than the long term average in East region, South Easet, Northeast, North and Northwest comprehensive flat areas. In other regions there is no change of NDVI in the month of January 2006 and long term average.

Snow Depth 13 January 2006



Map 11



Map 12

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