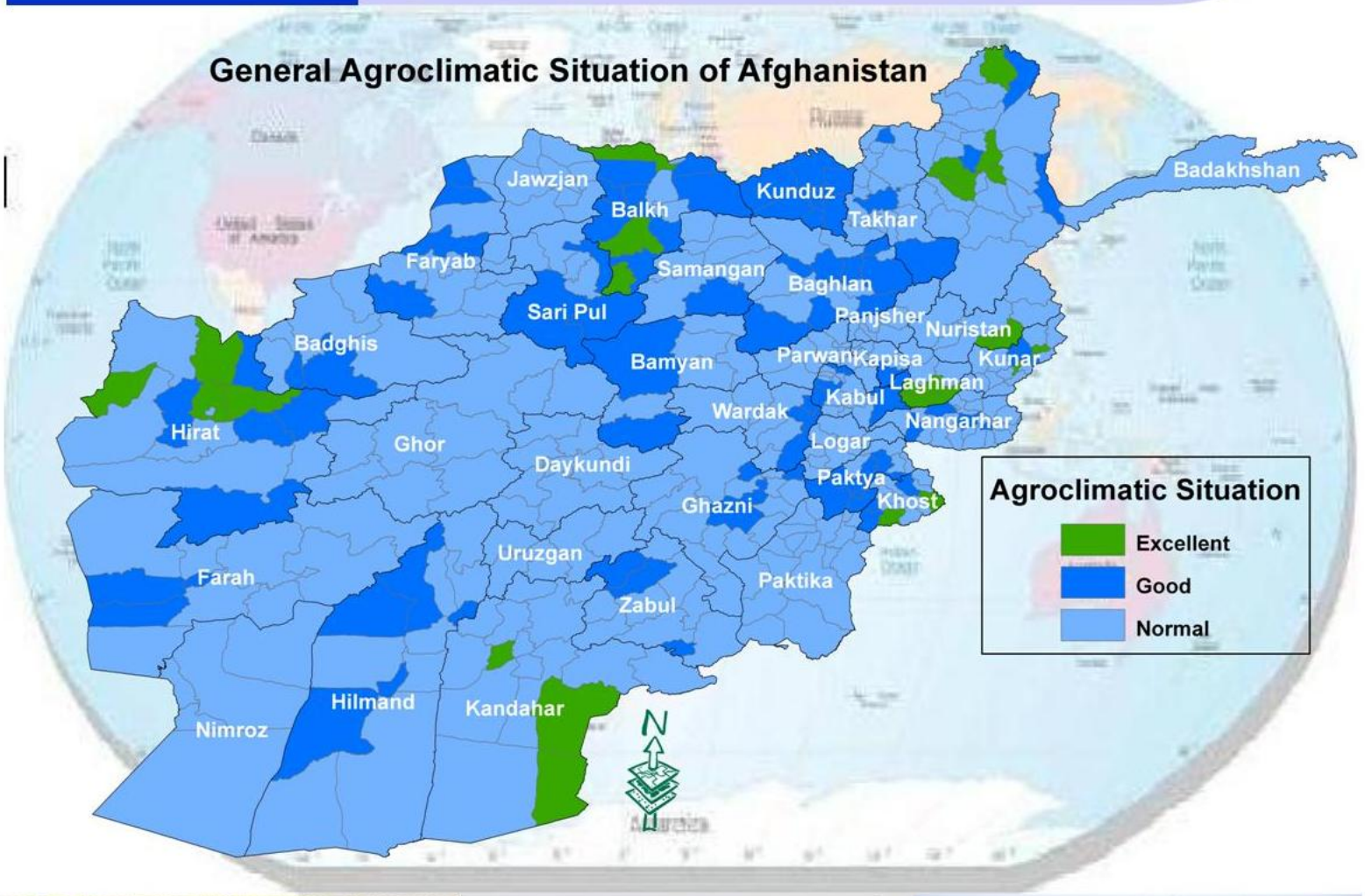
Issue No: 61
March: 2010

The Afghanistan Agrometeorological Monthly Bulletin

Topics Crop Information Precipitation Temperature NDVI



The Agromet Project of USGS, supported by United State Agency for International Development (USAID), is working together with the Ministry of Agriculture, Irrigation and Livestock (MAIL) and the Afghan Meteorological Authority (AMA) of Ministry of Transport (MoT)

BULLETIN

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Crop Information

Rainfall Situation

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Normalized Difference Vegetation Index

Other Information

Data Source:

Ministry of Agriculture , Irrigation and Livestock (MAIL), Agromet Project , Afghan Meteorological Authority (AMA), United States Geological Survey (USGS), Food and Agriculture Organization of United Nation (UNFAO)

Summary

Low pressure systems mostly tracked throw the Northern part of the country during March 2010, which resulted that the Northeastern, Northern, Northwestern and Western regions received high precipitation. However rainfall distribution was variable during the month of March 2010, in general rainfall for the month of March 2010 had a decrease over the same month in 2009 and had significant decrease compared to long term average.

Temperature during the month of March 2010 was high in most parts of the country. However temperature had positive departure in most parts, but in some areas was accompanied with negative departure.

Snow extent had a decrease during the month of March 2010 compared to the same month of last year, and there was significant decrease in snow extent compared to the same month of long term average.

Comparison of monthly average of NDVI for the month of March 2010 with the same month in 2009 shows large increase of NDVI in the Northern flat areas during the month of March 2010 over the same month of last year.

Small decrease occurred in NDVI in the Central Highlands and Northeastern region during the month of March 2010 compared to the same month of long term average.

The crops are in good condition all over the country and still there is no significant problem occurred in the crop fields.

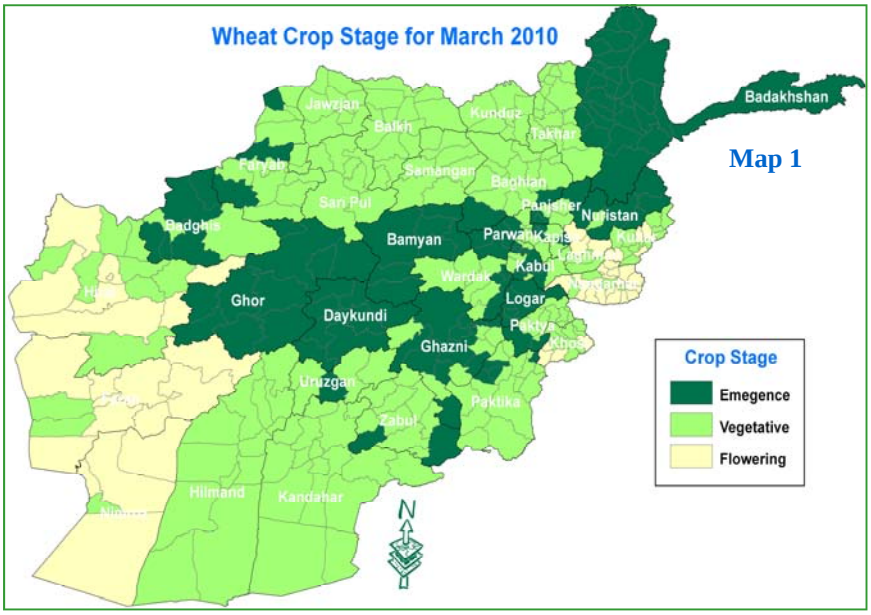
Wheat Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Shakardara	Karizmir	Vegetative	Normal	Not exist
		Paghman	Paghman	Vegetative	Normal	Not exist
		Kabul	Darulaman	Vegetative	Normal	Not exist
		Surubi	Surubi	Flowering	Normal	Not exist
	Panjsher	Dara	Dara	Vegetative	Normal	Not exist
		Dashtak	Dashtak	Vegetative	Normal	Not exist
	Parwan	Syagerd	Syagerd	Vegetative	Normal	Not exist
		Charikar	Charikar	Vegetative	Good	Not exist
	Kapisa	Mahmoodraqi	Mahmoodraqi	Vegetative	Normal	Not exist
		Kohistan	Kohistan	Vegetative	Normal	Not exist
	Wardak	Chak	Chak	Vegetative	Normal	Not exist
		Jaghatoo	Jaghatoo	Vegetative	Not good	Not exist
East Central	Bamyan	Bamyan	Bamyan	Vegetative	Not visible	Not seen
		Yakawlang	Yakawlang	Emergence	Not visible	Not seen
		Panjab	Panjab	Emergence	Not visible	Not seen
Eastern	Noristan	Paroon	Paroon	Emergence	Not visible	Not seen
	Nangarhar	Agam	Agam	Flowering	Normal	Excessive weeds
		Batikot	Ghaziabad	Flowering	Normal	Excessive weeds
		Jalalabad	Sheshembagh	Flowering	Normal	Excessive weeds
		Jalalabad	Farm Jadeed	Flowering	Normal	Excessive weeds and low precipitation
	Kunar	Asmar	Asmar	Emergence	Normal	Excessive weeds and low precipitation
		Asadabad	Asadabad	Vegetative	Normal	Excessive weeds and low precipitation
	Laghman	Mihtarlam	Mihtarlam	Flowering	Normal	Excessive weeds and low precipitation

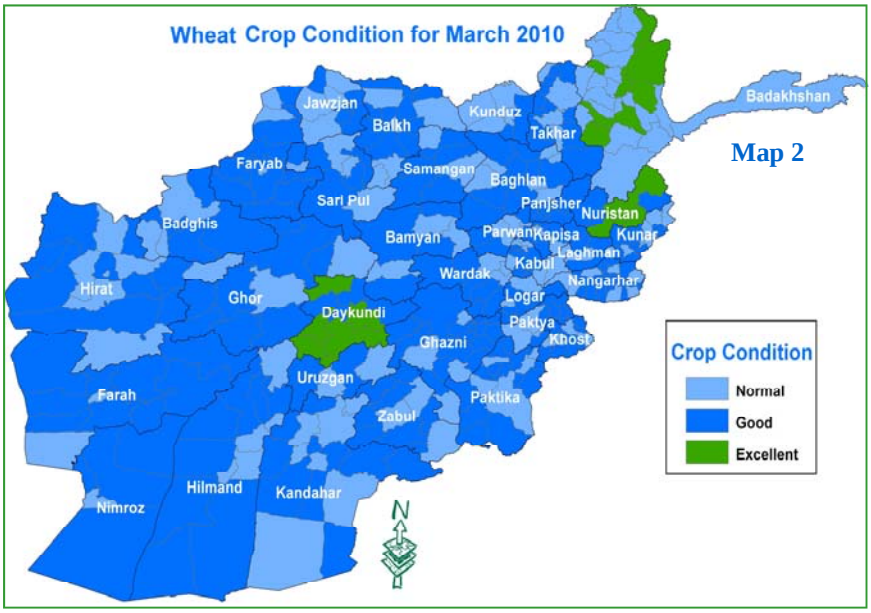
Wheat Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Northeastern	Takhar	Bangi	Bangi	Vegetative	Normal	Pest and Disease
		Taluqan	Taluqan	Vegetative	Normal	Pest and Disease
	Kunduz	Imam Sahib	Imam Sahib	Vegetative	Normal	Not seen
		Qaliazal	Aqtipa	Vegetative	Normal	Not exist
		Chardara	Chardara	Vegetative	Normal	Not exist
		Kunduz	Kunduz	Vegetative	Normal	Not exist
	Baghlan	Pulikhomri	Pozaishan	Vegetative	Normal	Excessive weeds
	Badakhshan	Faizabad	Faizabad	Vegetative	Normal	Not exist
		Baharak	Baharak	Vegetative	Normal	Not exist
South Eastern	Khost	Khost	Khost	Vegetative	Normal	Not exist
		Khost	Shimal	Vegetative	Normal	Not exist
		Ali Sher	Ali Sher	Vegetative	Normal	Not exist
	Paktia	Zormat	Rohani Baba	Vegetative	Normal	Not exist
		Gardiz	Tera	Vegetative	Normal	Not exist
	Paktika	Urgon	Urgon	Vegetative	Normal	Not exist
		Sharana	Sharana	Vegetative	Normal	Not exist
		Khairkot	Khairkot	Vegetative	Normal	Not exist
	Ghazni	Muqur	Muqur	Vegetative	Normal	Not exist
		Andar	Bande Sardi	Vegetative	Normal	Not exist
Southern	Nimroz	Zaranj	Zaranj	Flowering	Normal	Not exist
	Kandahar	Kandahar	Kandahar	Vegetative	Normal	Not exist
	Zabul	Qalat	Qalat	Vegetative	Normal	Not exist
	Urozgan	Tarinkot	Tarinkot	Vegetative	Normal	Not exist
	Hilmand	Nad Ali	Nad Ali	Vegetative	Good	Not exist
		Greshk	Greshk	Vegetative	Good	Not exist
		Nawa	Nawa	Flowering	Good	Not exist
		Lashkargah	Bolan	Flowering	Normal	Not exist
Northern	Balkh	Dihdadi	Dihdadi	Vegetative	Normal	Not exist
		Nahrishahi	Nahrishahi	Vegetative	Normal	Not exist
	Jawzjan	Sheberghan	Sheberghan	Vegetative	Normal	Not exist
		Darzab	Darzab	Vegetative	Normal	Not exist
	Saripul	Saripul	Saripul	Vegetative	Normal	Not exist
		Sozmaqala	Sozmaqala	Vegetative	Normal	Not exist
	Faryab	Maimana	Maimana	Vegetative	Normal	Not exist
	Samangan	Aibak	Aibak	Vegetative	Normal	Not exist
		Dara Souf Bala	Dara Souf Bala	Vegetative	Normal	Not exist
Western	Badghis	Qalainow	Qalainow	Vegetative	Normal	Not exist
		Muqur	Muqur	Vegetative	Normal	Not exist
	Ghor	Chaghcharan	Chaghcharan	Emergence	Not visible	Not seen
	Hirat	Shindand	Shindand	Vegetative	Normal	Not exist
		Zindajan	Zindajan	Vegetative	Normal	Not exist
		Gwazara	Falahat	Vegetative	Normal	Not exist
		Hirat	Farm Urdokhan	Vegetative	Normal	Not exist
	Farah	Farah	Farah	Vegetative	Normal	Not exist

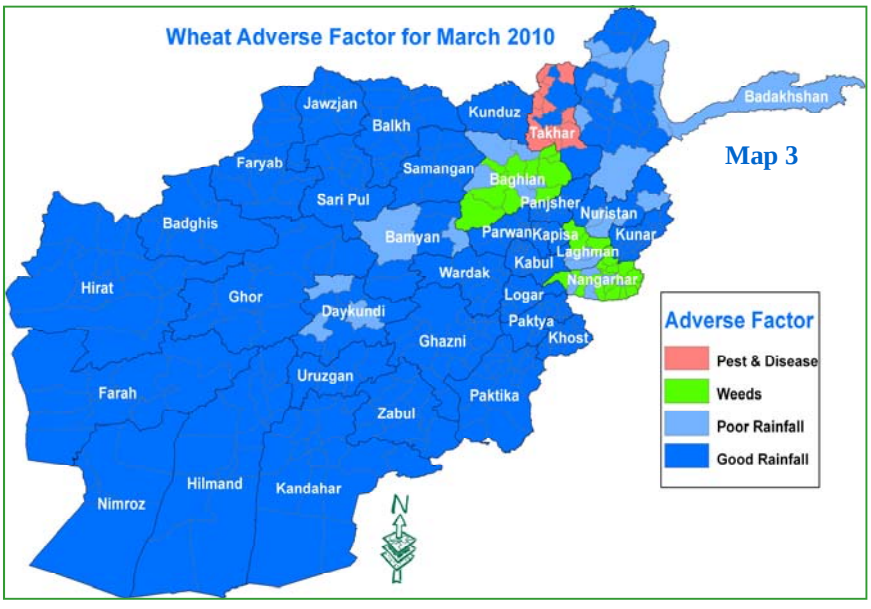
Wheat Crop Stage, Condition and Adverse Factor, Maps



Map 1



Map 2



Map 3

Data Source:Agromet Network

Precipitation

During March 2010 low pressure systems moved into the country and brought precipitation in different parts, and low pressure systems mostly tracked throw the Northern part of the country which resulted that the Northeastern, Northern, Northwestern and Western regions received high precipitation during this month.

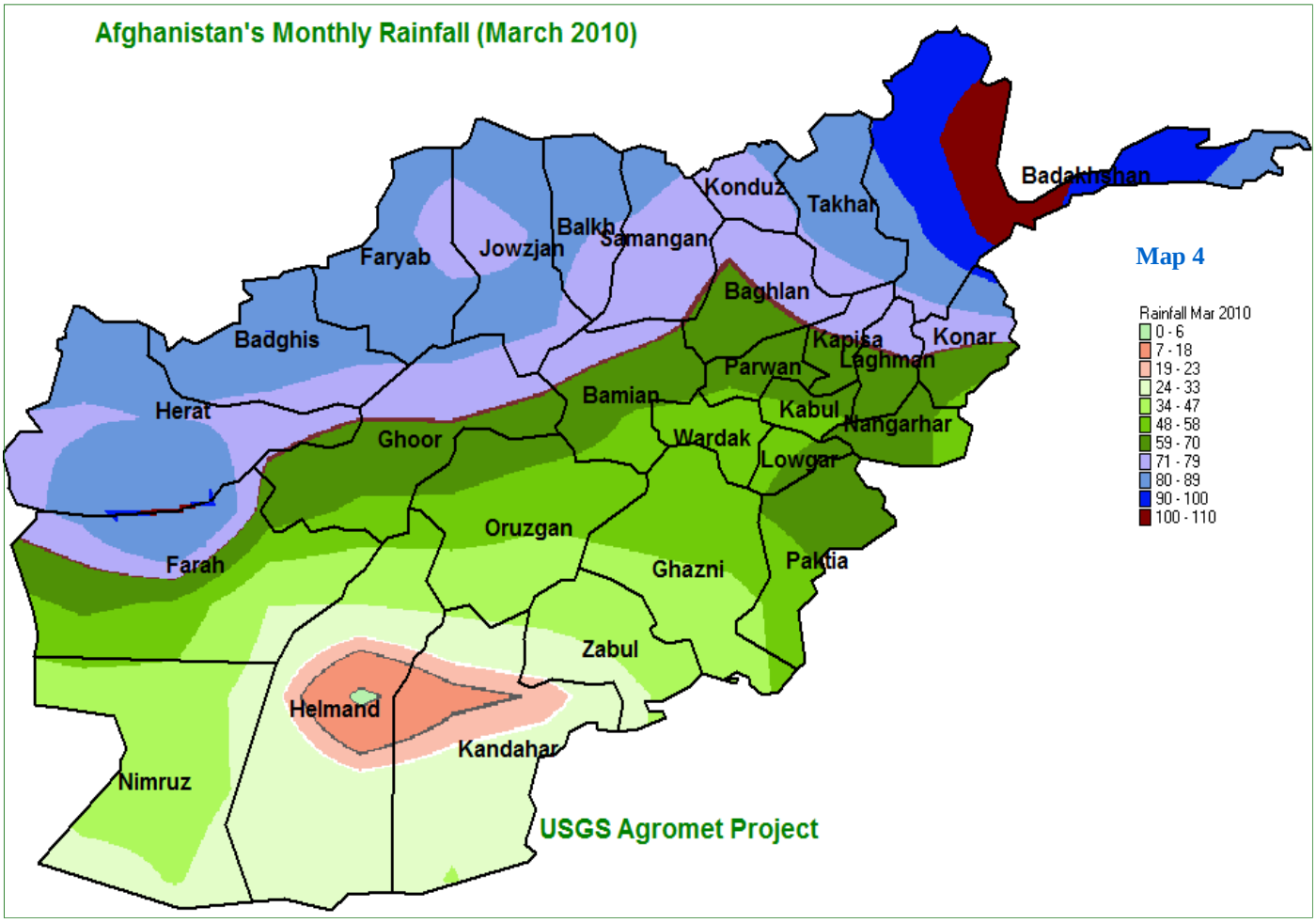
Comparison of rainfall data for the month of March 2010 with the same month in 2009 (chart 1) shows rainfall distribution was variable during the month of March 2010, otherwise rainfall had an increase in some stations while rainfall had a decrease in other stations, but in general monthly total of rainfall for the month of March 2010 had a decrease compared to the same month in 2009 (chart 1) .

Comparison of rainfall data for the month of March 2010 with the same month of long term average (chart 2) shows significant decrease of rainfall during the month of March 2010 compared to the same month of long term average in most parts of the country except Faizabad, Imamsahib, Sari Pul and shindand where the rainfall had an increase during the month of March 2010 over the same month of long term average.

The percentage +/- of rainfall is show in table(1).

Map (4) shows distribution of rainfall for the month of March 2010 across the country.

As Map (4) shows the Northeastern, Northern, Northwestern and Western regions received high rainfall during March 2010, and the Eastern region, Southeastern, Capital region and Central Highlands experienced moderate rainfall, but Southern and Southwestern regions received low rainfall.



Map 4

Rainfall Graphs for the Month of March 2010

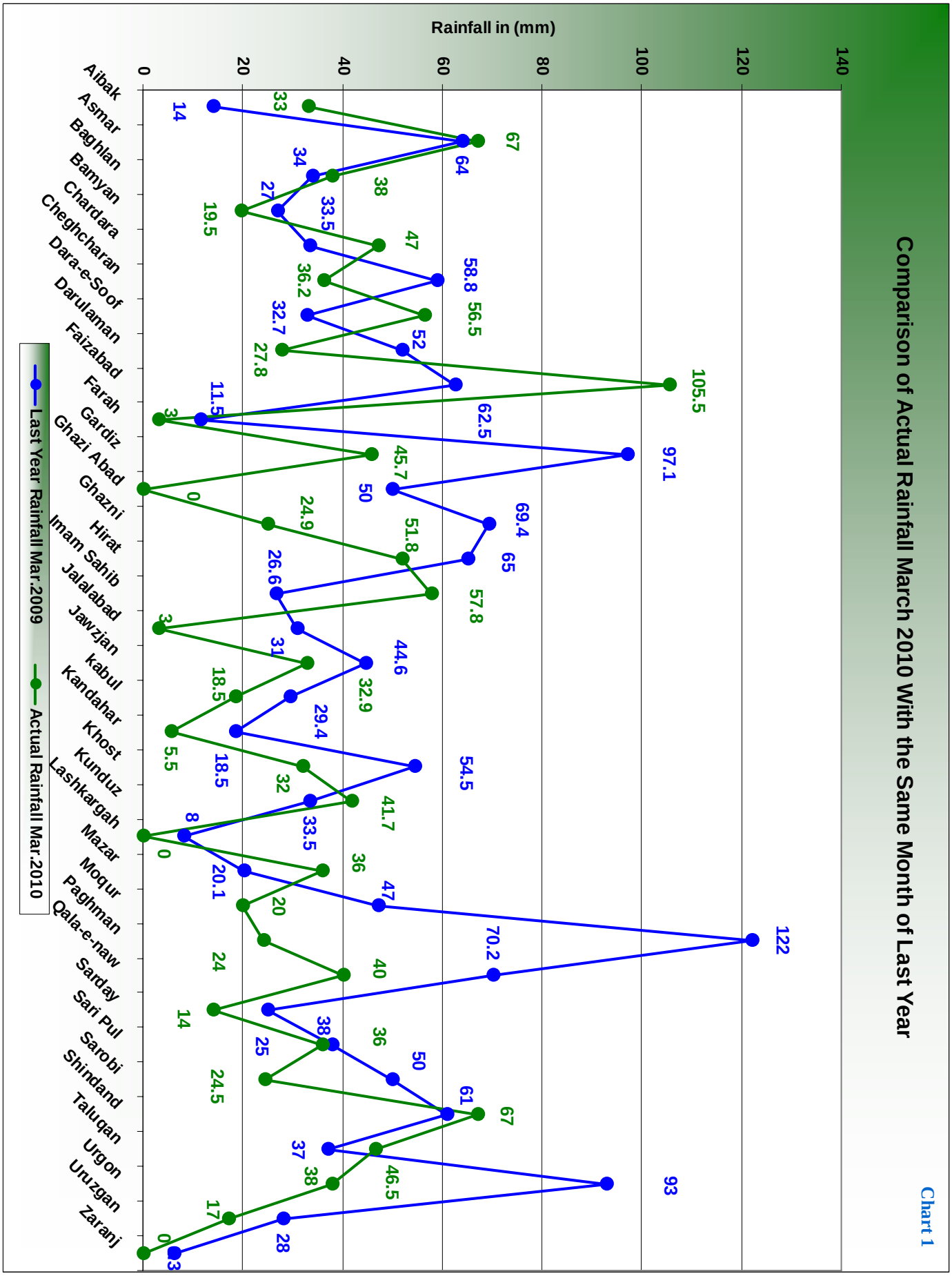


Chart 1

Data Source:Agromet Network

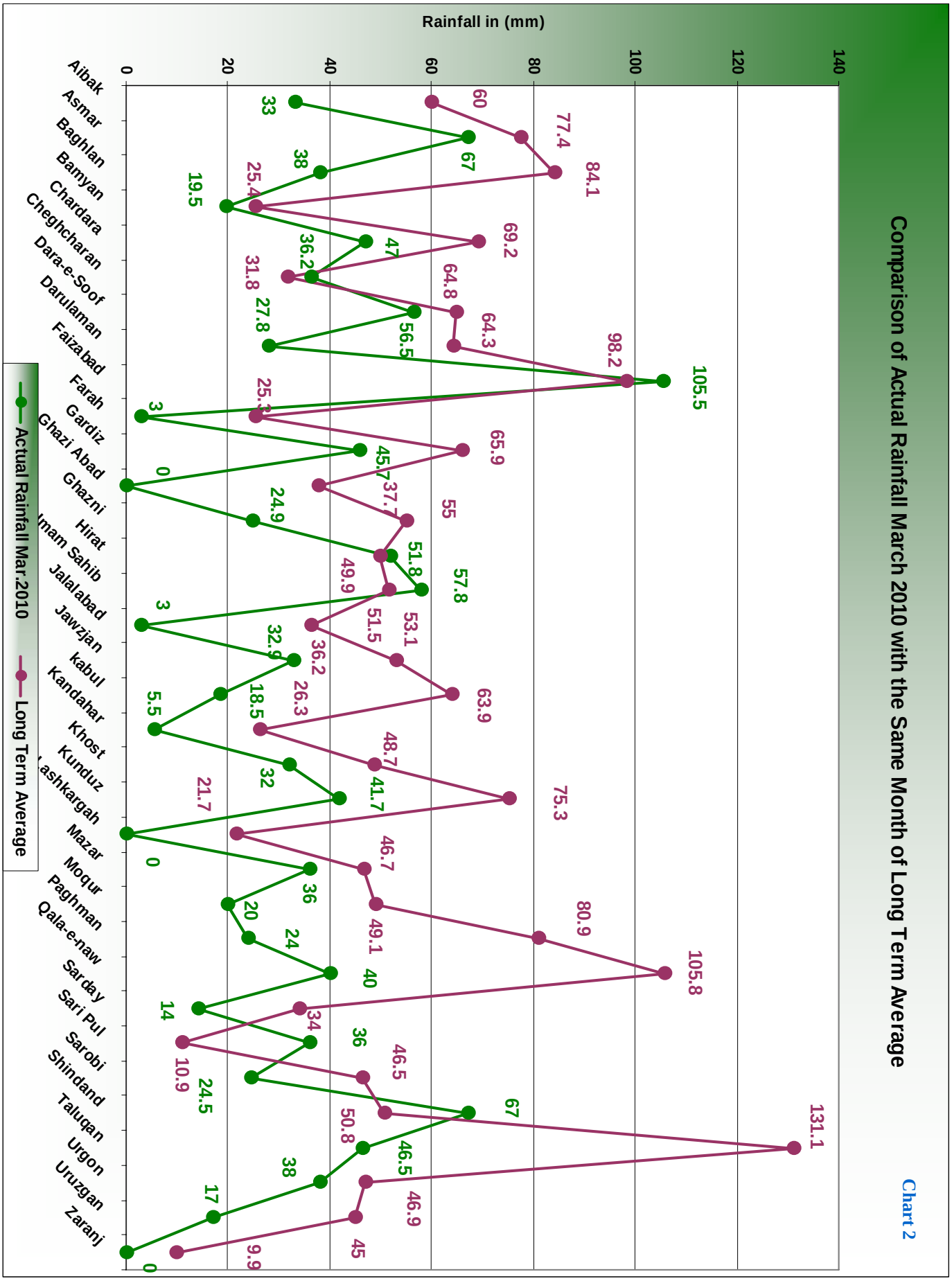

Comparison of Actual Rainfall March 2010 with the Same Month of Long Term Average
Rainfall in (mm)
0
20
40
60
80
100
120
140
Aibak
Asmar
Baghlan
Bamyan
Chardara
Cheghcharan
Dara-e-Soof
Darulaman
Faizabad
Farah
Gardiz
Ghazi Abad
Ghazni
Hirat
Imam Sahib
Jalalabad
Jawzjan
kabul
Kandahar
Khost
Kunduz
Lashkargah
Mazar
Moqur
Paghman
Qala-e-naw
Sarday
Sari Pul
Sarobi
Shindand
Taluqan
Urgon
Uruzgan
Zaranj
Actual Rainfall Mar.2010
Long Term Average

Chart 2

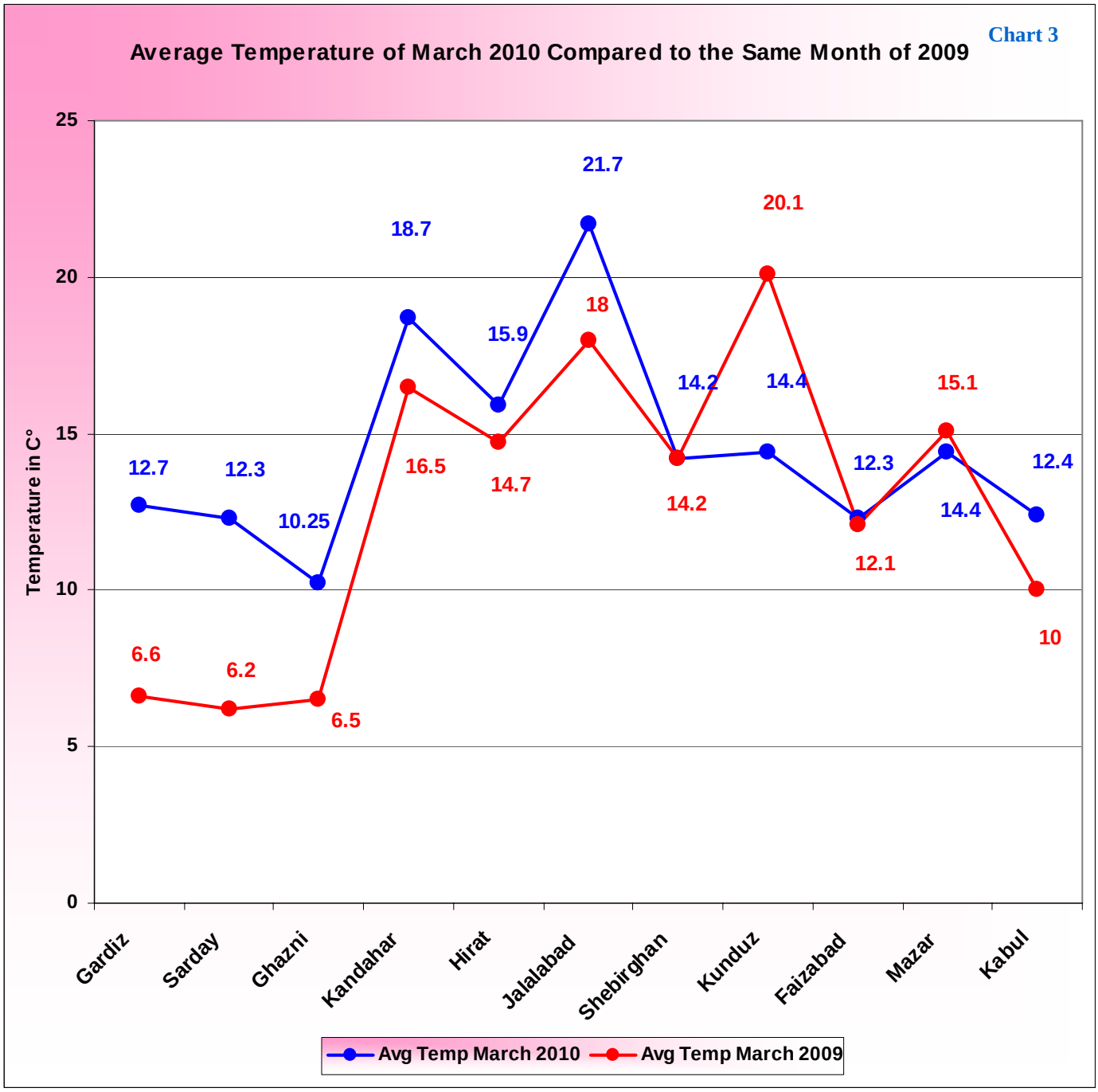
Rainfall for the Month of March 2010

Table 1

Station	Last Year Rainfall Mar.2009	Actual Rainfall Mar.2010	Percentage	Long Term Average for March	Percentage
Aibak	14	33	-57.6	60	-76.7
Asmar	64	67	-4.5	77.4	-17.3
Baghlan	34	38	-10.5	84.1	-59.6
Bamyan	27	19.5	38.5	25.4	6.3
Chardara	33.5	47	-28.7	69.2	-51.6
Cheghcharan	58.8	36.2	62.4	31.8	84.9
Dara-e-Soof	32.7	56.5	-42.1	64.8	-49.5
Darulaman	52	27.8	87.1	64.3	-19.1
Faizabad	62.5	105.5	-40.8	98.2	-36.4
Farah	11.5	3	283.3	25.3	-54.5
Gardiz	97.1	45.7	112.5	65.9	47.3
Ghazi Abad	50	0		37.7	32.6
Ghazni	69.4	24.9	178.7	55	26.2
Hirat	65	51.8	25.5	49.9	30.3
Imam Sahib	26.6	57.8	-54.0	51.5	-48.3
Jalalabad	31	3	933.3	36.2	-14.4
Jawzjan	44.6	32.9	35.6	53.1	-16.0
kabul	29.4	18.5	58.9	63.9	-54.0
Kandahar	18.5	5.5	236.4	26.3	-29.7
Khost	54.5	32	70.3	48.7	11.9
Kunduz	33.5	41.7	-19.7	75.3	-55.5
Lashkargah	8	0		21.7	-63.1
Mazar	20.1	36	-44.2	46.7	-57.0
Moqur	47	20	135.0	49.1	-4.3
Paghman	122	24	408.3	80.9	50.8
Qala-e-naw	70.2	40	75.5	105.8	-33.6
Sarday	25	14	78.6	34	-26.5
Sari Pul	38	36	5.6	10.9	248.6
Sarobi	50	24.5	104.1	46.5	7.5
Shindand	61	67	-9.0	50.8	20.1
Taluqan	37	46.5	-20.4	131.1	-71.8
Urgon	93	38	144.7	46.9	98.3
Uruzgan	28	17	64.7	45	-37.8
Zaranj	6.3	0		9.9	-36.4

Data Source:Agromet Network

Chart 3



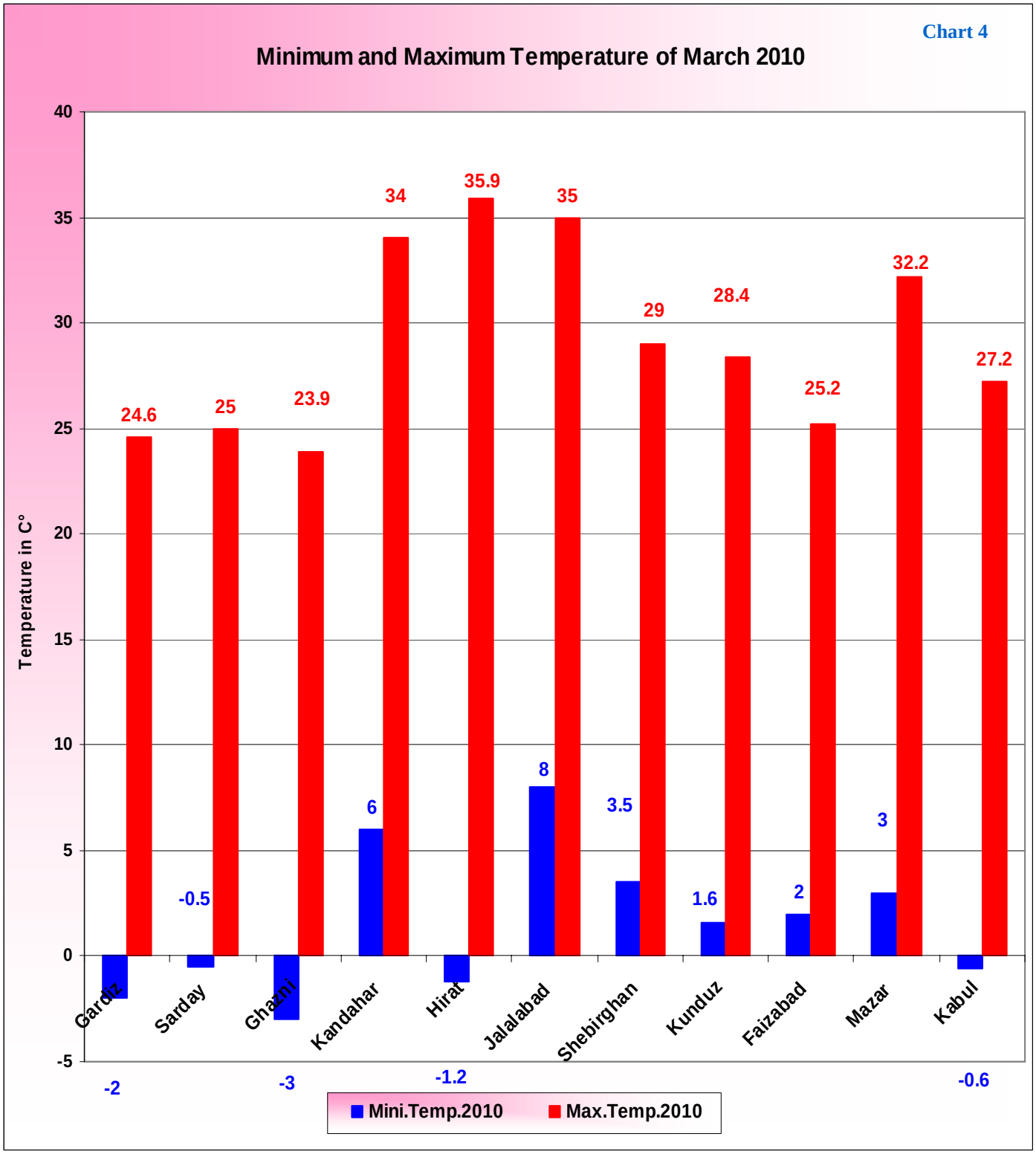
Temperature for the Month of March 2010 was high in most parts of the Country.

Temperature for the month of March 2010 was high in most parts of the country. However temperature had positive departure in most parts, in some stations was accompanied by the negative departure.

Comparison of monthly average of temperature for the month of March 2010 with the same month in 2009 (Chart 3) shows an increase of temperature During the month of March 2010 over the same month of last year in most parts of the country, except Kunduz and Mazar where temperature was lower during March 2010 compared to the same month in 2009.

Data Source:AMA

Chart 4

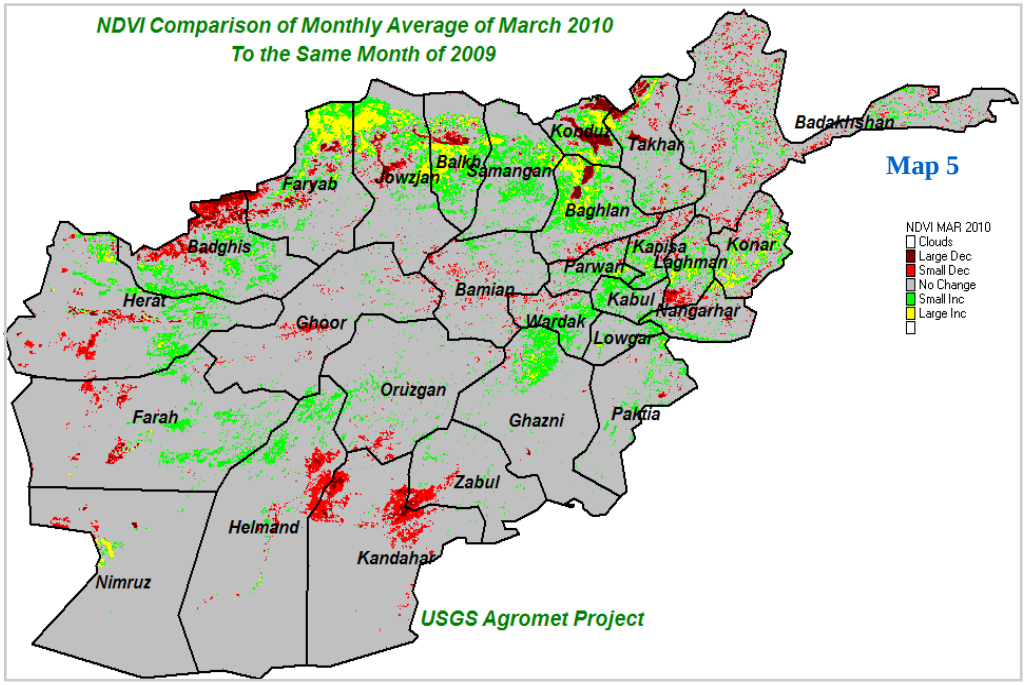


Ghazni with - 3 C° experienced extreme cold weather during the month of March 2010

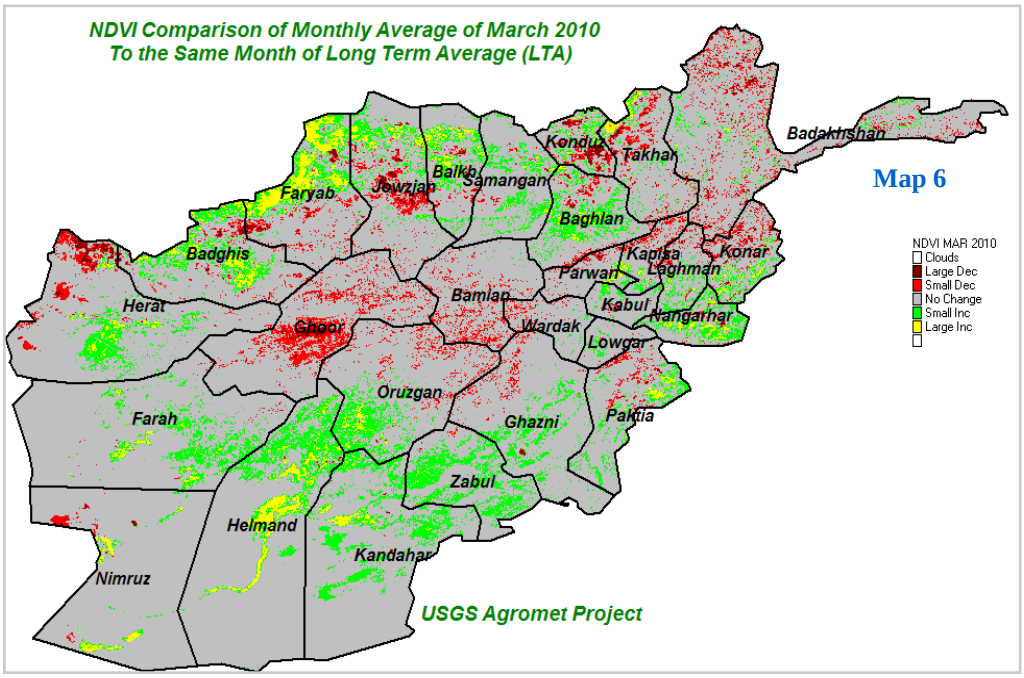
Chart (4) shows maximum and minimum temperature for the month of March 2010 across the country. As chart (4) shows Herat with 35.9 C° was the warmest spot of the country during March 2010 and Ghazni with - 3 C° experienced freezing temperature.

Data Source:AMA

Comparison of (NDVI) March 2010



Map 5



Map 6

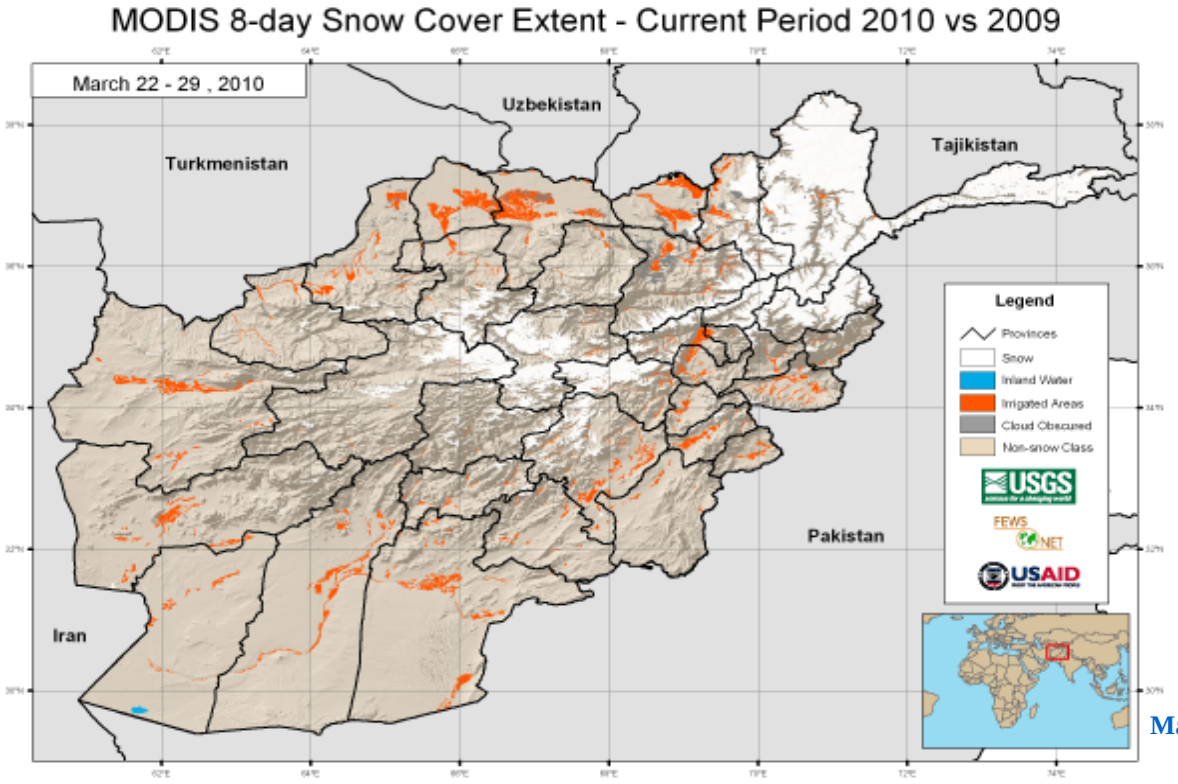
Comparison of monthly average of NDVI for the month of March 2010 with the same month in 2009 (Map 5) shows large increase of NDVI in the Northern flat areas during the month of March 2010 over the same month of last year, small increase occurred in NDVI value in limited areas in the Western region, some parts in the Capital and Eastern region too.

Small decrease occurred in NDVI as separated in the Northeastern region during the month of March 2010 compared to the same month of last year. There is no change of NDVI in the rest of the country during the month of March 2010 over the same month in 2009.

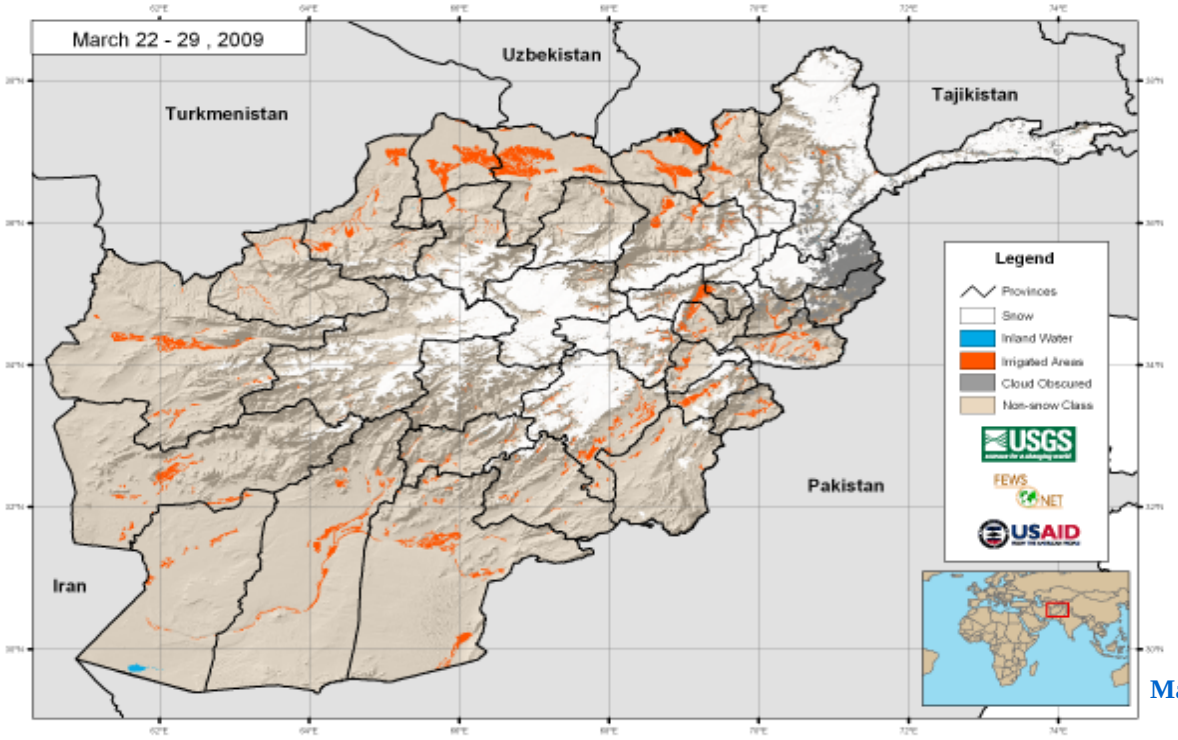
Comparison of monthly avenge of NDVI for the month of March 2010 with the same month of long term average (Map 6) shows large increase of NDVI in the Northwestern region during the month of March 2010 over the same month of long term average, and small increase occurred in NDVI value in some parts of the Northern, Southern and Eastern regions too.

Small decrease occurred in NDVI in the Central Highlands and Northeastern region during the month of March 2010 compared to the same month of long term average.

Data Source:FAO



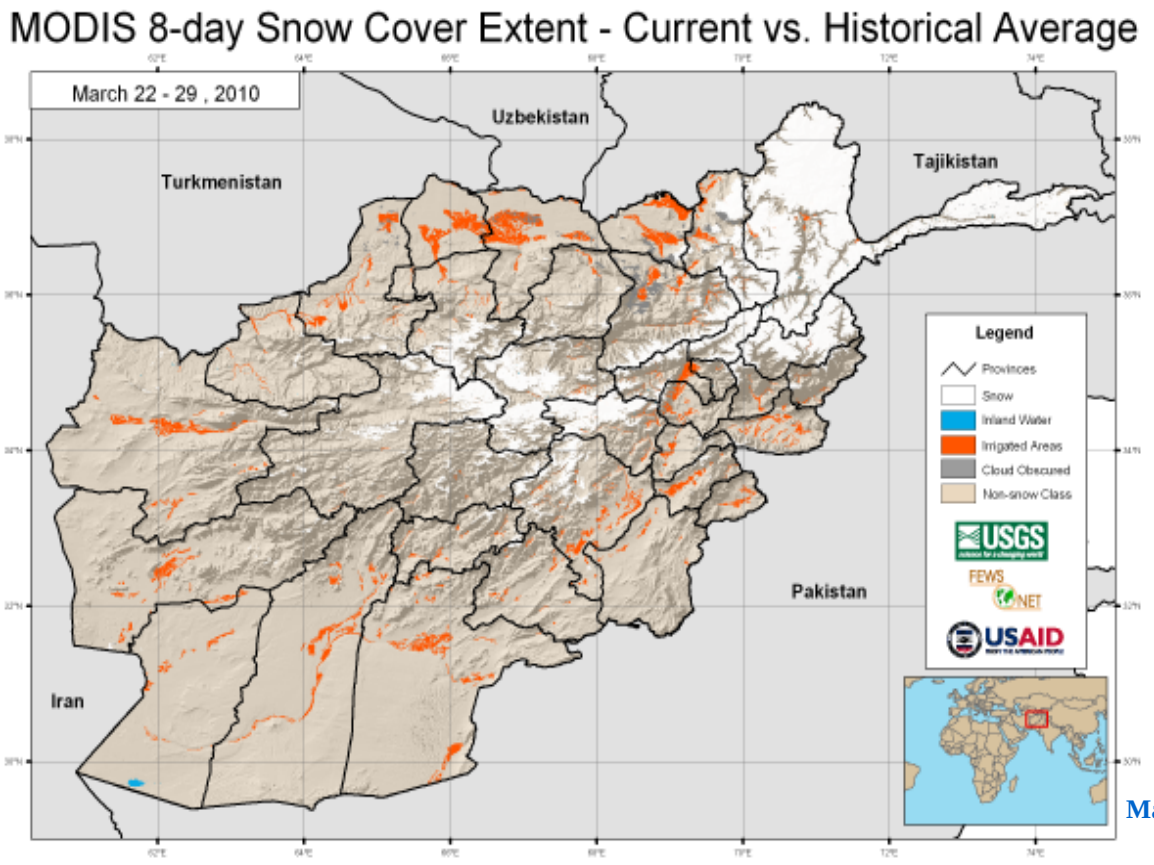
Map 7



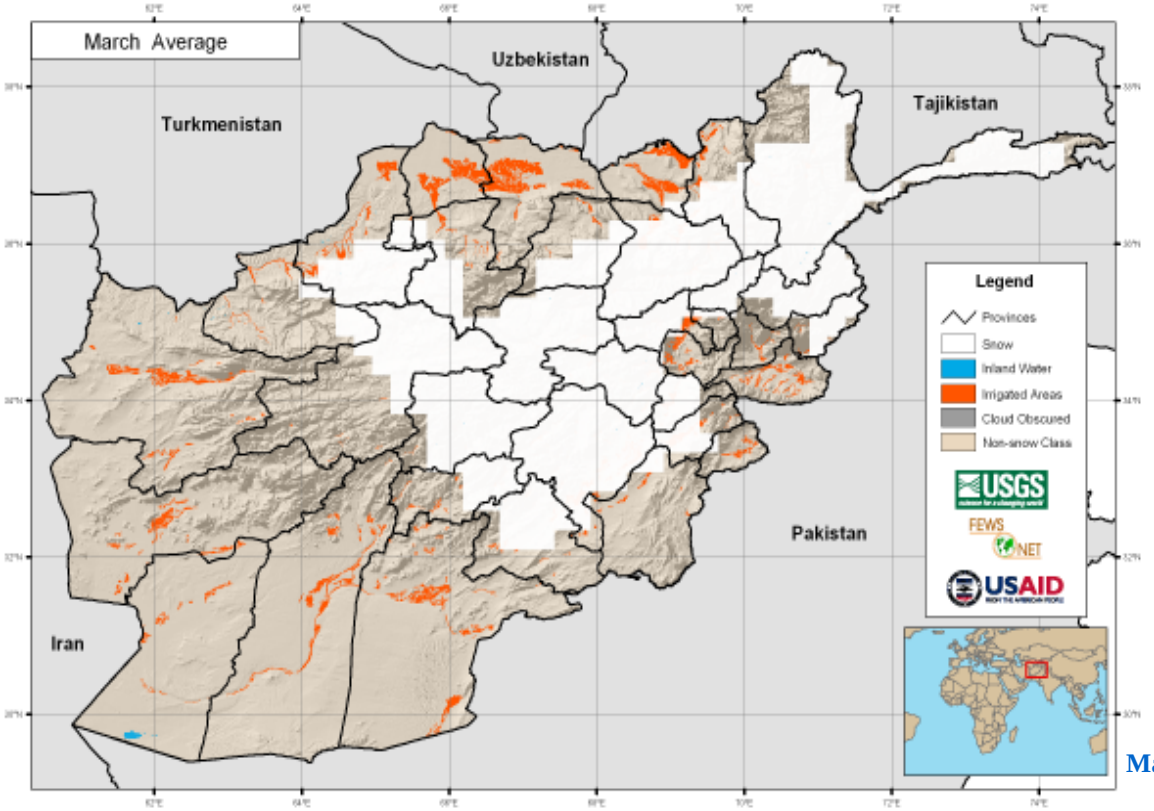
Map 8

During the month of March low pressure system moved into the country and mostly tracked there way to the Northern part of the country, and snow continued up to early March in the Northeastern, Central Highlands and some parts in the Capital regions. Snow relatively was light during March which resulted snow pack in the above mentioned areas. Comparison of snow extent for the period of March (22 – 29) 2010 with the same period in 2009 (Map 7 - 8) shows a decrease of snow extent particularly in the Central Highlands and Capital region during above mentioned period of March 2010 over the same period of last year.

Data Source:USGS



Map 9

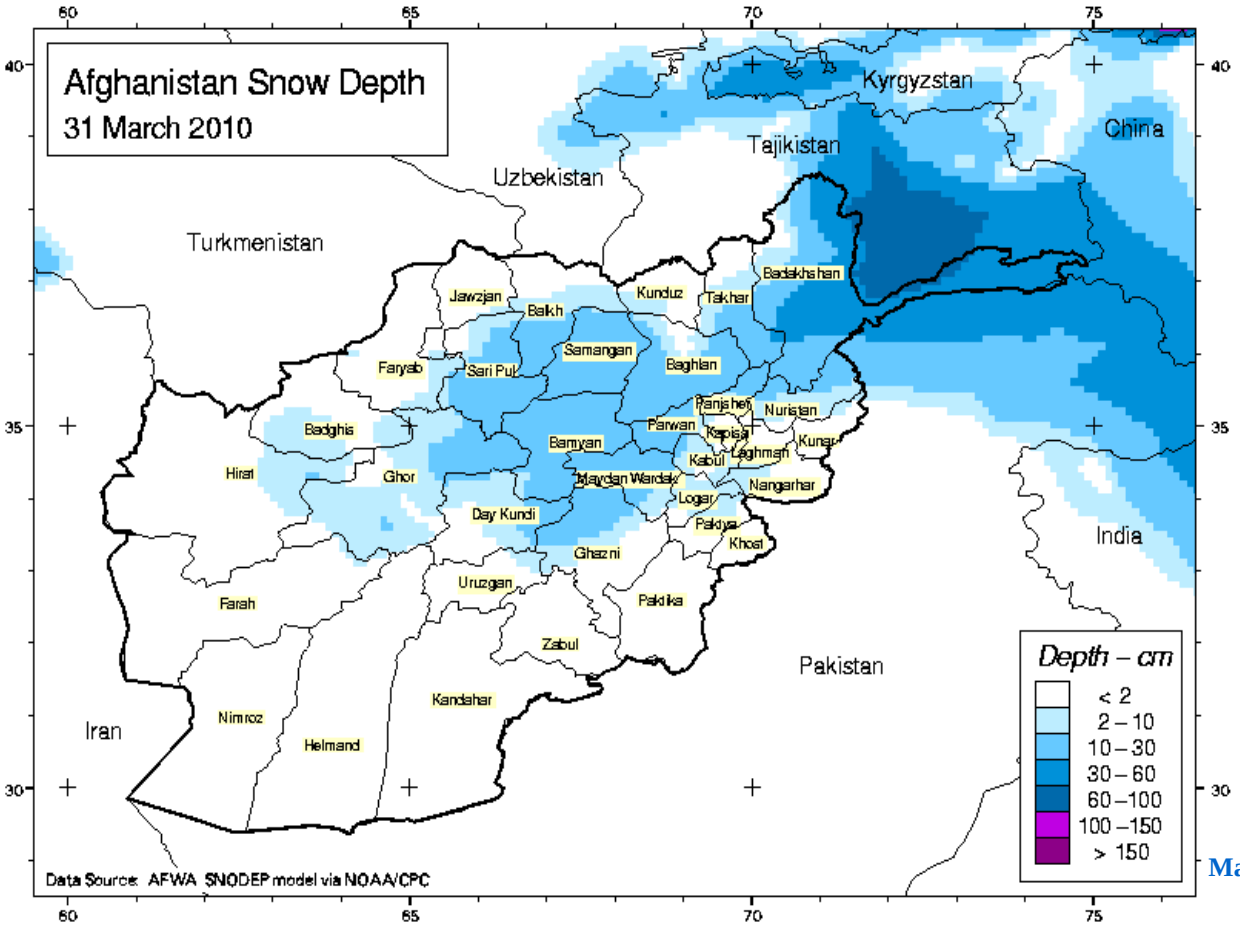


Map 10

Comparison of snow extent for the month of March 2010 with the same month of long term average (Map 9 - 10) shows significant decrease of snow extent during the month of March 2010 over the same month of long term average in snow coverage area.

Data Source:USGS

Afghanistan Snow Depth for the of March 2010



Map 11

Map (11) shows snow depth in the end of March 2010, which the snow depth has been recorded 30 to 60 cm in the Northeastern region and 10 to 30 cm for the Central Highlands and neighboring areas.

For more information please contact:

Name	Position	Cell	Email Address
Abdul Qadir Qadir	**Director of AMA (Ministry of Transportation)**	**0799-315843**	afghanistan_met_authority@hotmail.com
Nasir Ahmad Fayez	**Director of Irrigation (Ministry of Agriculture)**	**0700476311**	Abc.fna.2008@yahoo.com

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