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April: 2010

The Afghanistan Agrometeorological AMonthly Bulletin

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Adverse Factor 1

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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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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 system tracked their way into the country which brought sufficient precipitations during the month of April 2010 in result of which that most parts of the country received much rainfall. Rainfall had significant increase during April 2010 over the same month of last year and long term average all over the country.

Heavy rain during April 2010 resulted flooding in most parts of the country which affected farmers and other people a lot, a big number of agricultural lands, orchards and animals were also affected or damaged due to this flooding.

During the month of April 2010, temperature remained higher compared to the same month of last year, which was accompanied mostly with positive departure and minimum temperature in lowlands accompanied with positive values. Higher temperature during the month April 2010 resulted unexpected rapid snow melt.

Snowfall continued up to the mid of April 2010 in the areas of high elevation in the Northeastern region, Hindokosh areas and some parts in the central regions but the snow was light and no increase in snow pack was made. Snow extent during the month ofApril 2010 remained below the same month of last year and long term average.

All over the country wheat as a dominated cereal crop has been in vegetative, Flowering and in some parts of the country is in Grain filling and Maturity stages as in Jalalabad of eastern region.

Due to lack of rainfall in eastern region the rain fed wheat is badly affected and 30%-40% of irrigated wheat in this area is in failure.

Small increase in NDVI has been occurred in the Northern region and some parts of the Southeastern region during the month of April 2010 over the same month of long term average.

Wheat Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Shakardara	Karizmir	Flowering	Normal	Not existed
		Paghman	Paghman	Flowering	Normal	Not existed
		Kabul	Darulaman	Flowering	Normal	Not existed
		Surubi	Surubi	Harvesting	Normal	1-Shortage of inputs 2-Excessive weeds 3- Pest and Disease
	Panjsher	Dara	Dara	Flowering	Normal	Not existed
		Dashtak	Dashtak	Flowering	Normal	Not existed
	Parwan	Syagerd	Syagerd	Vegetative	Normal	1-Shortage of inputs 2-Low precipitation
		Charikar	Charikar	Flowering	Normal	1-Shortage of inputs
	Kapisa	Mahmoodraqi	Mahmoodraqi	Vegetative	Normal	1-Excessive weeds
		Kohistan	Kohistan	Vegetative	Normal	1-Excessive weeds
	Wardak	Chak	Chak	Vegetative	Normal	Not exist
		Jaghatoo	Jaghatoo	Vegetative	Normal	Not exist
East Central	Bamyan	Bamyan	Bamyan	Vegetative	Normal	1- Low precipitation
		Yakawlang	Yakawlang	Vegetative	Normal	1- Low precipitation
		Panjab	Panjab	Planting of spring wheat		
Eastern	Noristan	Paroon	Paroon			

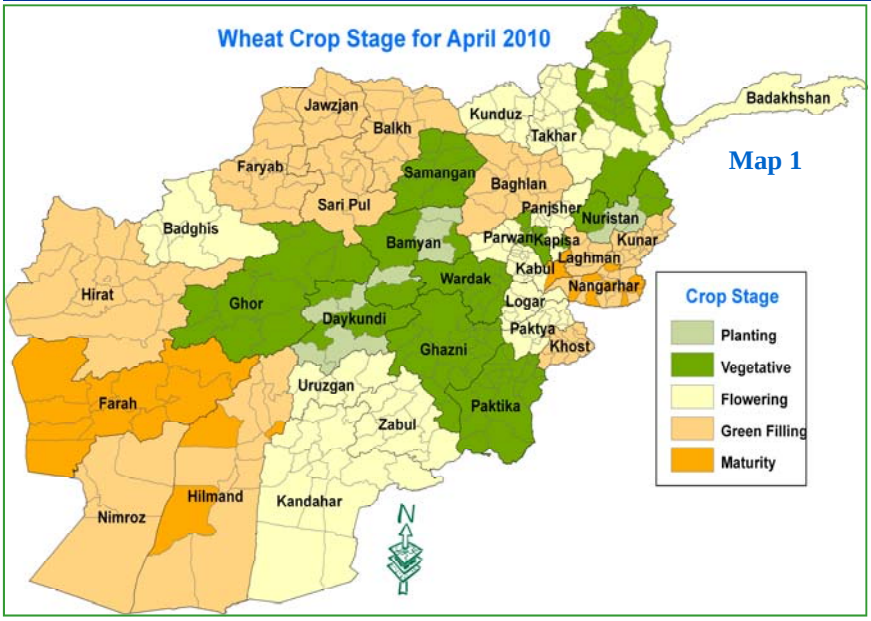
Wheat Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Eastern	Nangarhar	Duab	Duab	Flowering	Normal	1- Low precipitation
		Agam	Agam	Grain filling	Normal	1- Low precipitation
		Batikot	Ghaziabad	Harvesting		
		Jalalabad	Sheshembagh			
		Jalalabad	Farm Jadeed			
	Kunar	Asmar	Asmar	Grain filling	Poor	Due to low precipitation and lack of water for irrigation the Rain fed Wheat is badly affected, 30% - 40% of the irrigated wheat is also affected in these areas.
		Asadabad	Asadabad	Grain filling	Poor	Due to low precipitation and lack of water for irrigation the Rain fed Wheat is badly affected, 30% - 40% of the irrigated wheat is also affected in these areas.
	Laghman	Mihtarlam	Mihtarlam	Grain filling	Normal	1-Pest and Disease 2- Excessive weeds
Northeastern	Takhar	Bangi	Bangi	Flowering	Normal	1- Rust, Aphids, Locust. 2- Excessive weeds. 3-Much rainfall, wheat appending
		Taluqan	Taluqan	Flowering	Normal	1- Rust, Aphids. 2- Excessive weeds. 3-Wheat appending.
	Kunduz	Imam Sahib	Imam Sahib	Flowering	Good (better than normal)	Storm and Excessive weeds
		Qaliazal	Aqtipa	Flowering	Normal	1- Storm 2- Excessive weeds
		Chardara	Chardara	Flowering	Normal	1- Storm 2- Excessive weeds
		Kunduz	Kunduz	Flowering	Good (better than normal)	1- Storm 2- Excessive weeds
	Baghlan	Pulikhomri	Pozaishan	Grain filling	Normal	1- Wheat rust 2- Excessive weeds
	Badakhshan	Faizabad	Faizabad	Flowering	Good (better than normal)	Not existed
		Baharak	Baharak	Vegetative	Normal	Not existed
South Eastern	Khost	Khost	Khost	Grain filling	Normal	Not existed
		Khost	Shimal	Grain filling	Normal	Not existed
		Ali Sher	Ali Sher	Grain filling	Normal	Not existed
	Paktai	Zormat	Rohani Baba	Flowering	Good (better than normal)	Not existed
		Gardiz	Tera	Flowering	Good (better than normal)	Not existed
	Paktika	Urgon	Urgon	Vegetative	Normal	Not existed
		Sharana	Sharana	Vegetative	Normal	Not existed
		Khairkot	Khairkot	Vegetative	Normal	1- Low precipitation
	Ghazni	Muqur	Muqur	Vegetative	Normal	Not existed
		Andar	Bande Sardi	Vegetative	Normal	Not exist

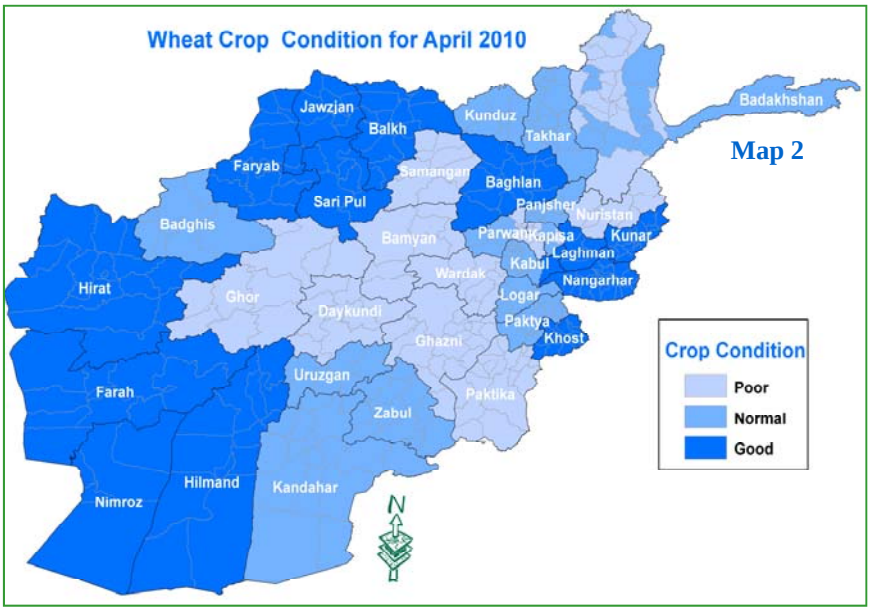
Wheat Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Southern	Nimroz	Zaranj	Zaranj	Grain filling	Normal	Not existED
	Kandahar	Kandahar	Kandahar	Flowering	Normal	1-Shortage of Inputs
	Zabul	Qalat	Qalat	Flowering	Normal	Not existed
	Urozgan	Tarinkot	Tarinkot	Flowering	Normal	1- Pest and Disease
	Hilmand	Nad Ali	Nad Ali	Harvesting		
		Greshk	Greshk			
		Nawa	Nawa			
		Lashkargah	Bolan	Grain filling	Normal	1- Sun pest 2- Pest and Disease
Northern	Balkh	Dihdadi	Dihdadi	Grain filling	Normal	1- Pest and Disease
		Nahrishahi	Nahrishahi	Grain filling	Normal	1- Pest and Disease
	Jawzjan	Sheberghan	Sheberghan	Grain filling	Normal	1- Pest, Disease 2- Excessive weeds
		Darzab	Darzab	Grain filling	Normal	1- Pest, Disease 2- Excessive weeds
	Saripul	Saripul	Saripul	Grain filling	Normal	Not existed
		Sozmaqala	Sozmaqala	Grain filling	Normal	Not seen
	Faryab	Maimana	Maimana	Grain filling	Normal	1– Late Planting 2- Excessive weeds
		Andkhoy	Andkhoy	Grain filling	Normal	1– Late Planting 2- Excessive weeds
	Samangan	Aibak	Aibak	Vegetative	Normal	Not existed
		Dara Souf Bala	Dara Souf Bala	Vegetative	Normal	Not existed
Western	Badghis	Qalainow	Qalainow	Flowering	Normal	1- Low precipitation
		Muqur	Muqur	Flowering	Normal	Not existed
	Ghor	Chaghcharan	Chaghcharan	Vegetative	Good (better than normal)	1– Much precipitation
	Hirat	Shindand	Shindand	Grain filling	Good (better than normal)	Not existed
		Zindajan	Zindajan	Grain filling	Good (better than normal)	Not existed
		Gwazara	Falahat	Grain filling	Good (better than normal)	Not existed
		Hirat	Farm Urdokhan	Grain filling	Good (better than normal)	Not existed
	Farah	Farah	Farah	Harvesting		

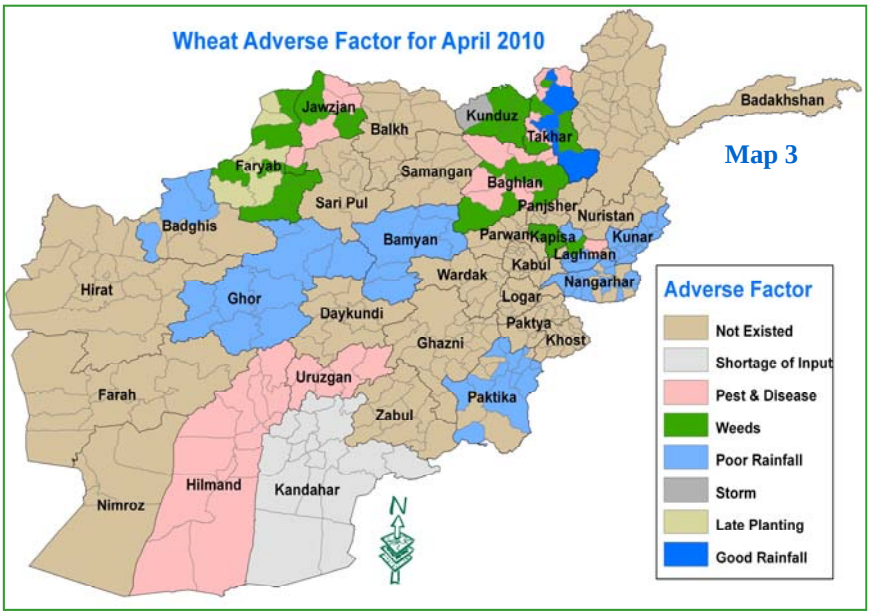
Wheat Crop Stage, Condition and Adverse Factor Maps



Map 1



Map 2



Map 3

Data Source:Agromet Network

Precipitation

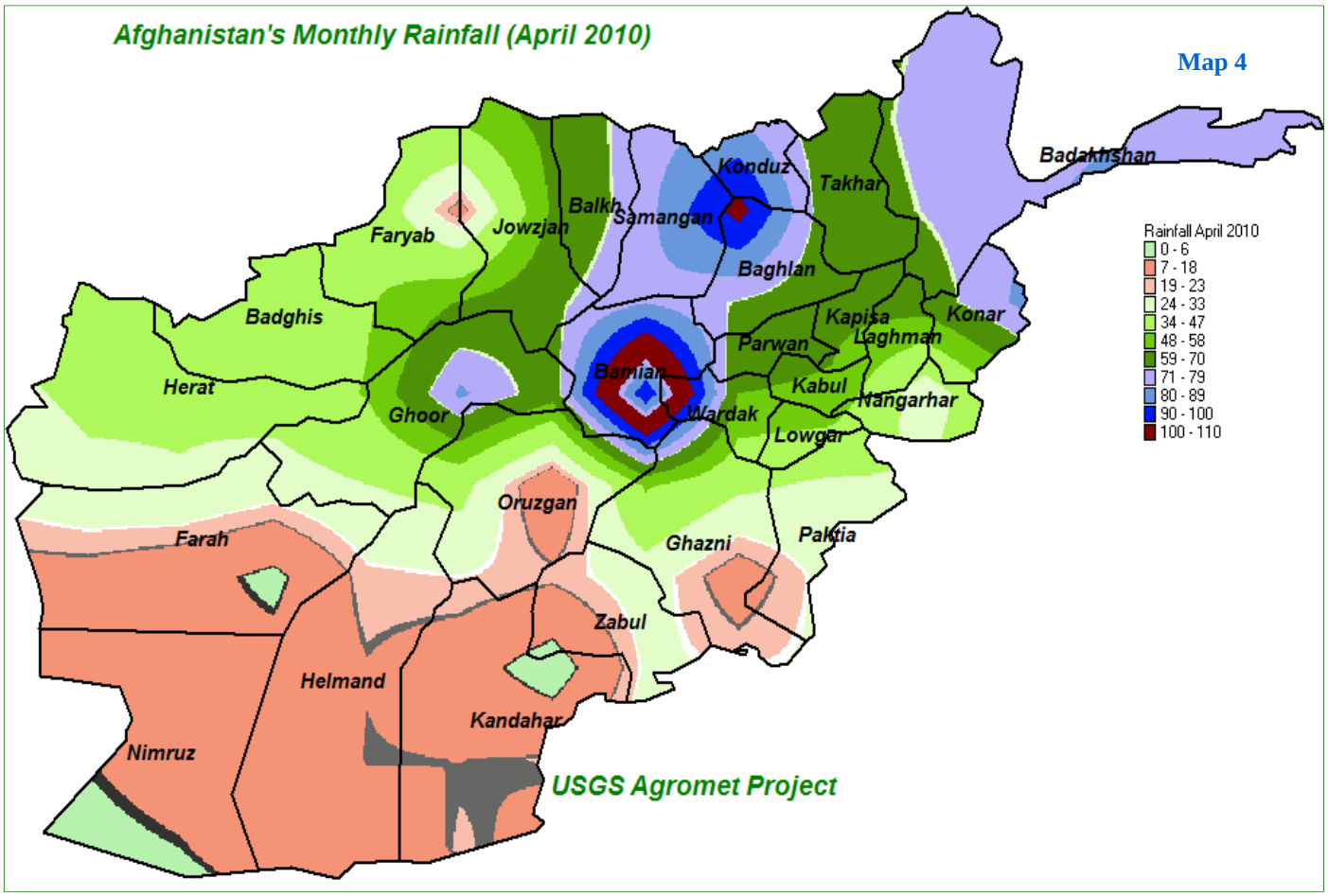
Typically the month of April is very wet, and low pressure system tracked their way into the country which brought sufficient precipitations during the month of April 2010 in result of which that most parts of the country received much rainfall. Rainfall had significant increase during April 2010 over the same month of last year and long term average all over the country.

Heavy rain during April 2010 resulted flooding in most parts of the country which affected farmers and other people a lot, a big number of agricultural lands, orchards and animals were also affected or damaged due to this flooding.

Comparison of rainfall data for the month of April 2010 with the same month in 2009 (chart 1) shows significant increase of rainfall during the month of April 2010 compared to the same month of last year across the country.

Comparison of rainfall data for the month of April 2010 with the same month of long term average (chart 2) also shows significant increase of rainfall during the month of April 2010 over the same month of long term average in most parts of the country, except Asmar, Cheghcheran, Dara-e-Soof, Imam Sahib and Lashkargah where rainfall had small decrease during the month of April 2010 compared to the same month of long term average. The percentage +/- of rainfall shown in table (1).

As usual, distribution of rainfall was variable during the month of April across the country. As map (4) shows big amount of rainfall occurred in the Central Highlands and some parts in the Northeastern, and the Northwestern, Capital and Eastern regions received moderate rainfall. The Southern and southwestern regions experienced light rainfall du ring the month of April 2010.



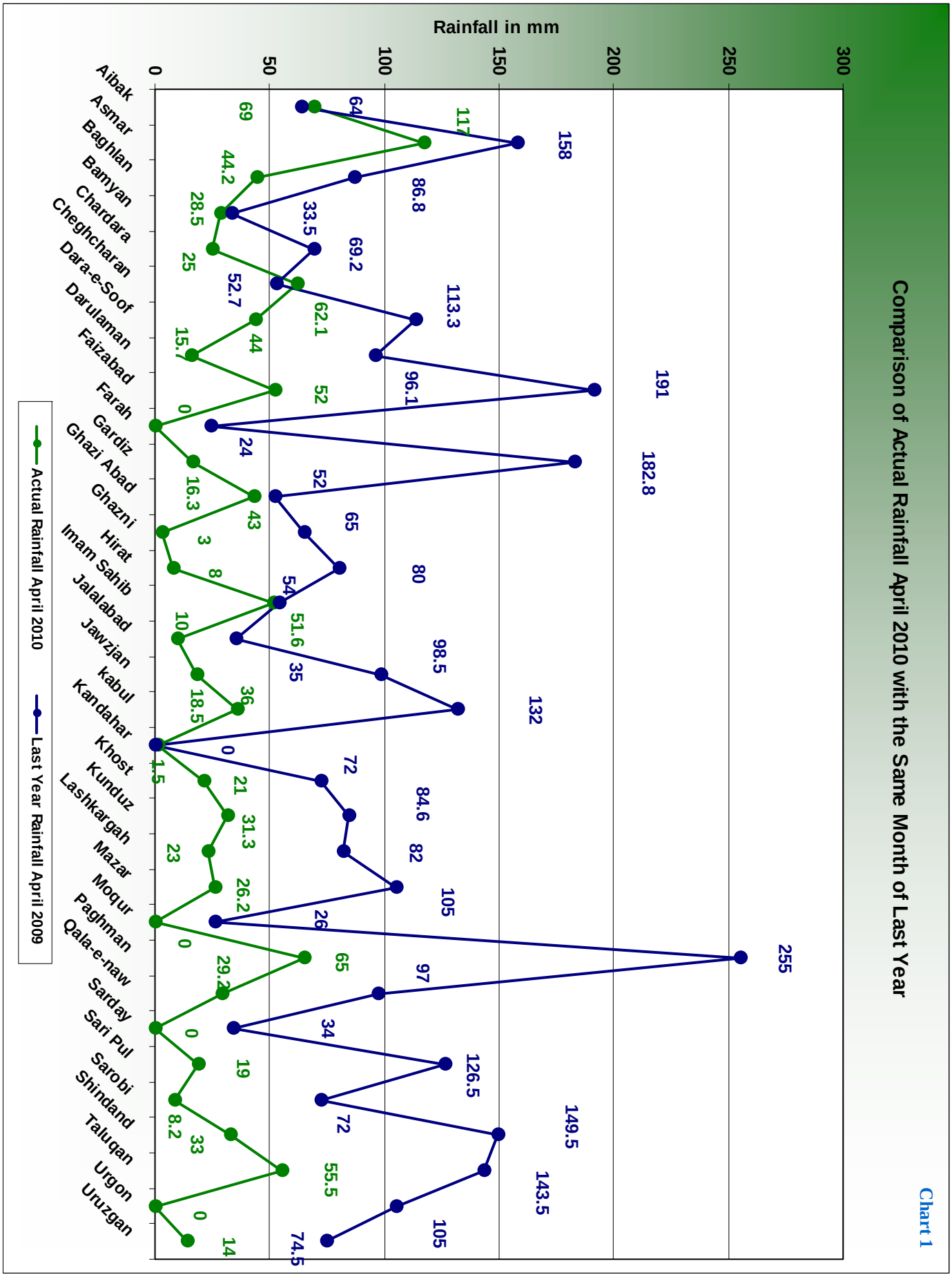

Comparison of Actual Rainfall April 2010 with the Same Month of Last Year
Rainfall in mm
0
50
100
150
200
250
300
Aibak
Asmar
Baghlan
Bamyan
Chardara
Cheghcharan
Dara-e-Soof
Darulaman
Faizabad
Farah
Gardiz
Ghazi Abad
Ghazni
Hirat
Imam Sahib
Jalalabad
Jawzjan
kabul
Kandahar
Khost
Kunduz
Lashkargah
Mazar
Moqur
Paghman
Qala-e-naw
Sarday
Sari Pul
Sarobi
Shindand
Taluqan
Urgon
Uruzgan
64
117
69
44.2
28.5
33.5
25
69.2
52.7
62.1
44
15.7
96.1
52
0
24
16.3
52
43
65
3
8
80
54
51.6
10
98.5
35
18.5
36
0
1.5
72
21
31.3
84.6
23
82
26.2
105
26
0
65
29.2
97
0
34
19
126.5
72
8.2
33
55.5
0
14
158
86.8
113.3
191
182.8
132
255
149.5
143.5
105
74.5
Actual Rainfall April 2010
Last Year Rainfall April 2009

Chart 1

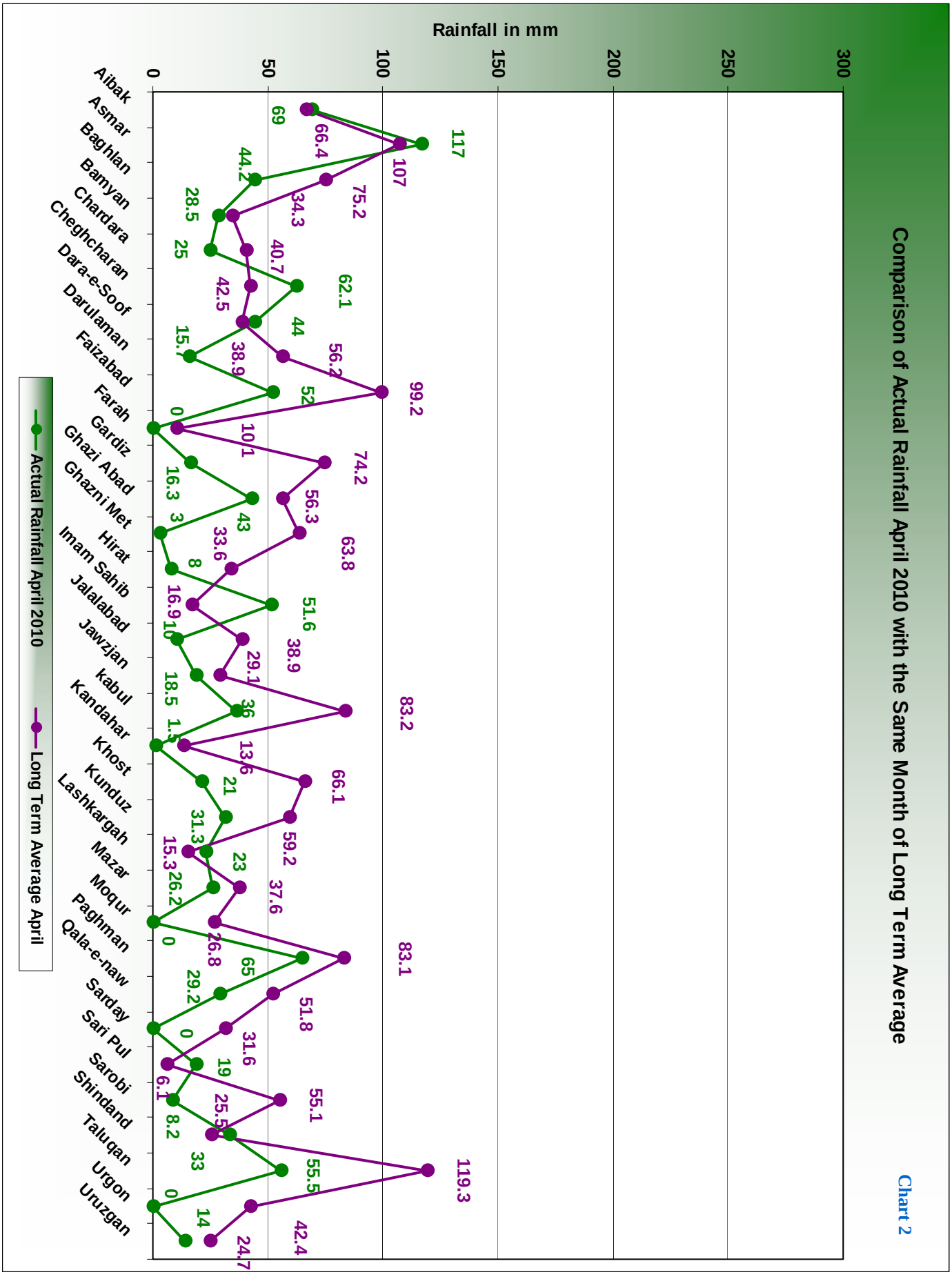


Chart 2

Data Source: Agromet Network

Rainfall for the Month of April 2010

Table 1

Name	Last Year Rainfall April 2009	Actual Rainfall April 2010	Long Term Average April
Aibak	64	69	66.4
Asmar	158	117	107
Baghlan	86.8	44.2	75.2
Bamyan	33.5	28.5	34.3
Chardara	69.2	25	40.7
Cheghcharan	52.7	62.1	42.5
Dara-e-Soof	113.3	44	38.9
Darulaman	96.1	15.7	56.2
Faizabad	191	52	99.2
Farah	24	0	10.1
Gardiz	182.8	16.3	74.2
Ghazi Abad	52	43	56.3
Ghazni	65	3	63.8
Hirat	80	8	33.6
Imam Sahib	54	51.6	16.9
Jalalabad	35	10	38.9
Jawzjan	98.5	18.5	29.1
kabul	132	36	83.2
Kandahar	0	1.5	13.6
Khost	72	21	66.1
Kunduz	84.6	31.3	59.2
Lashkargah	82	23	15.3
Mazar	105	26.2	37.6
Moqur	26	0	26.8
Paghman	255	65	83.1
Qala-e-naw	97	29.2	51.8
Sarday	34	0	31.6
Sari Pul	126.5	19	6.1
Sarobi	72	8.2	55.1
Shindand	149.5	33	25.5
Taluqan	143.5	55.5	119.3
Urgon	105	0	42.4
Uruzgan	74.5	14	24.7

Data Source:Agromet Network

Rainy Days for the Month of April 2010

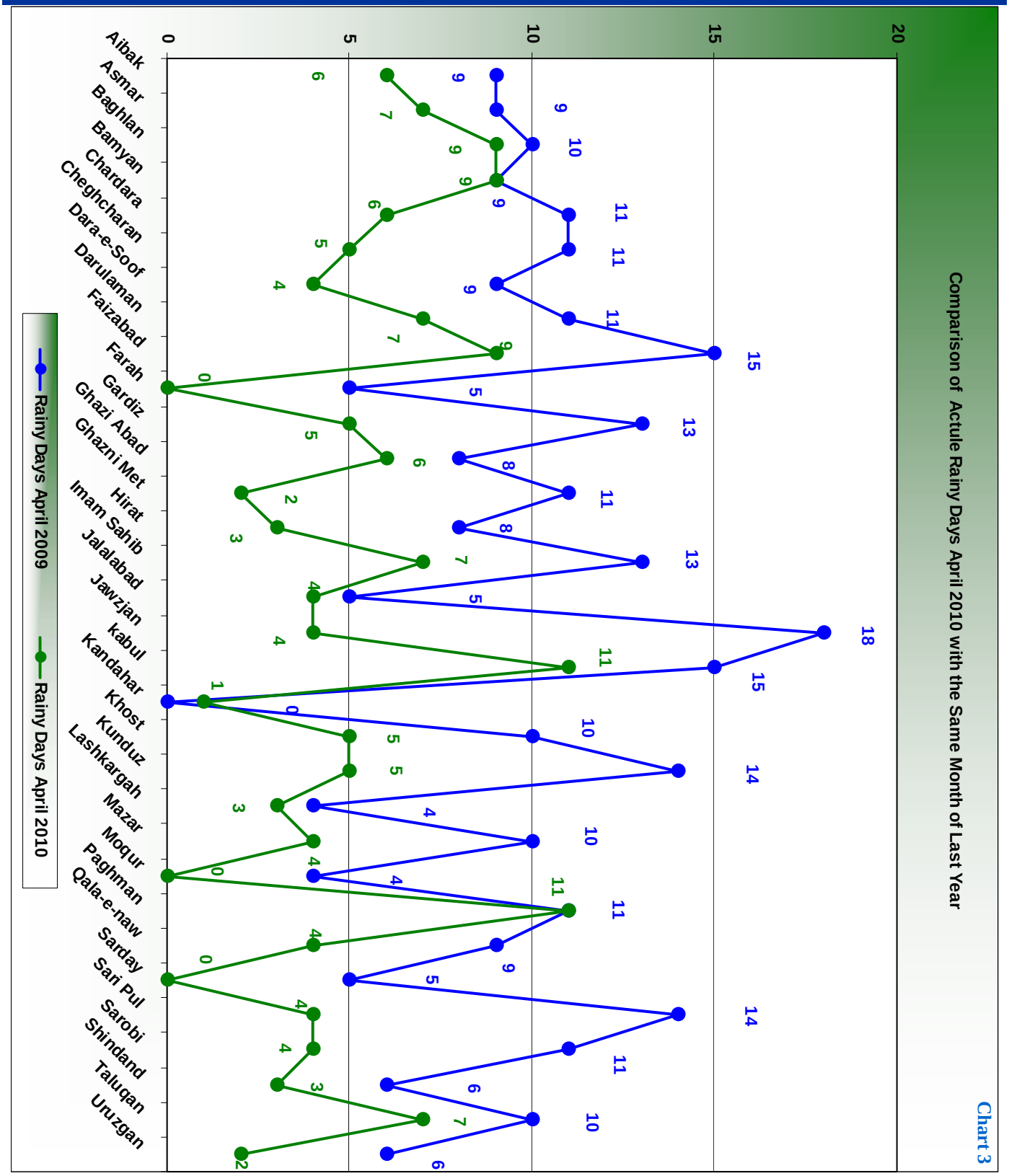


Chart 3

The country experienced less rainy days during April 2010 compared to the same month in 2009 across the country. Comparison of rainy days for the month of April 2010 with the same month in 2009 (chart 3) shows a decrease of rainy days during the month of April 2010 over the same month of last year around the country, but amount of rainfall had significant increase during the month of April 2010 compared to the same month in 2009 across the country.

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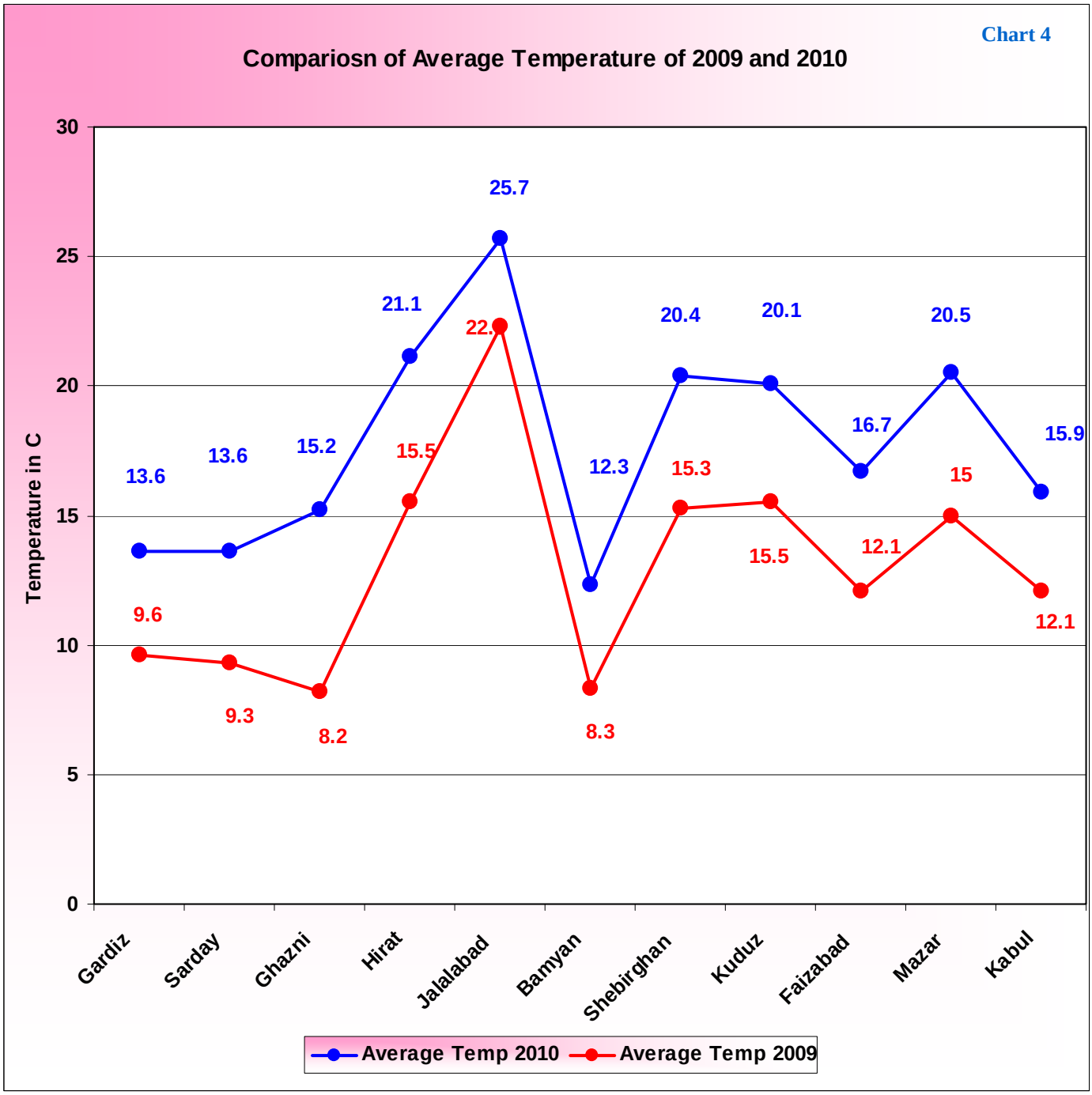
Chart 4

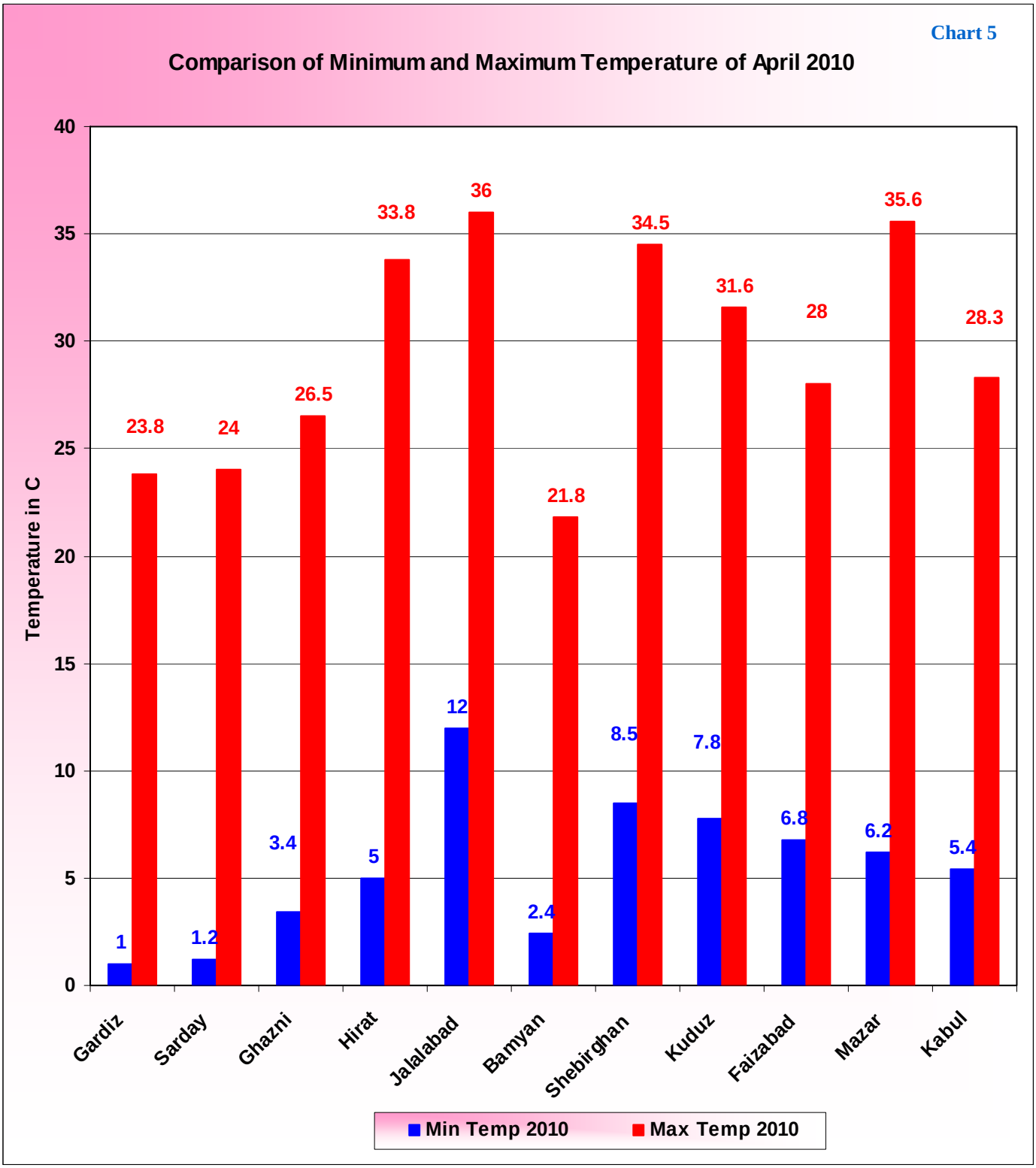


Minimum temperature was at freezing point in very high elevations in the Northeastern region.

Starting January 2010 till April 2010 temperature remained higher compared to the same months of last year, which was accompanied mostly with positive departure. Minimum temperature was at freezing point in very high elevations in the Northeastern region, but minimum temperature in lowlands accompanied with positive values. Higher temperature during April resulted rapid snow melt before the right time. Comparison of monthly average of temperature for the month of April 2010 with the same month in 2009 (chart 4) shows an increase of temperature during the month of April 2010 over the same month of last year across the country, and temperature departure was 3–7 C° in most of the stations in the country..

Data Source:AMA

Chart 5

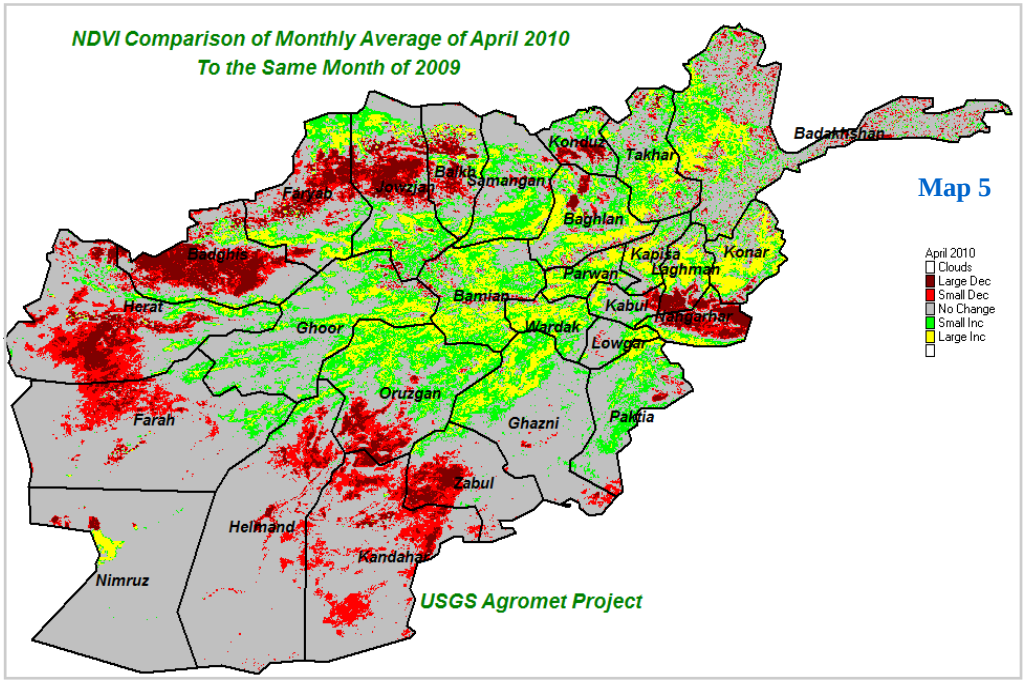


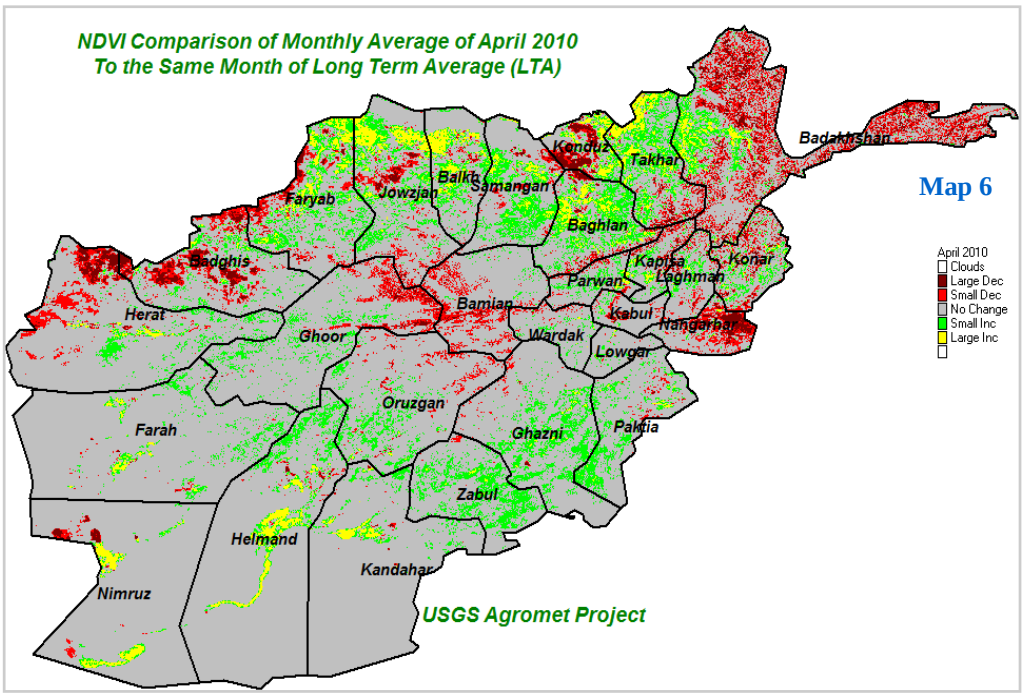
Jalalabad with 36 C° was the warmest spot of the country during the month of April 2010.

Chart (5) shows maximum and minimum temperature for the month of April 2010 all over the country. As chart (5) shows Jalalabad with 36 C° was the warmest spot of the country during the moth of April 2010, but Gardiz with 1 C° experienced the lowest temperature during this month .

Data Source:AMA

Comparison of (NDVI) April 2010

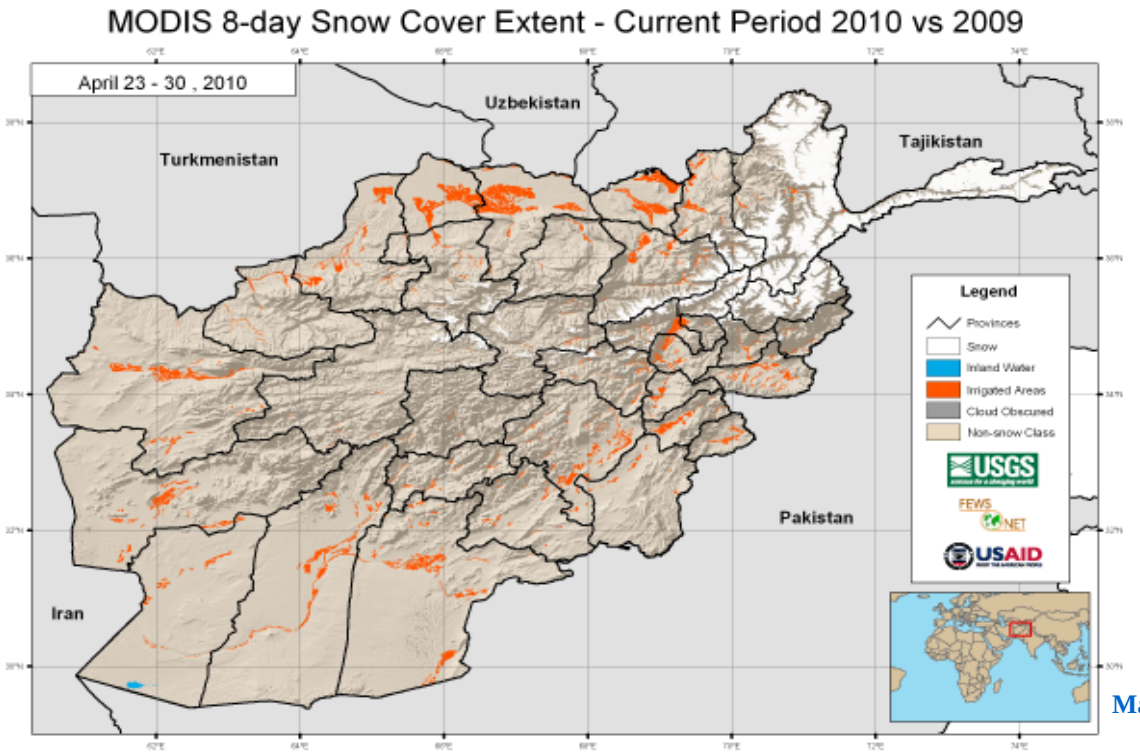




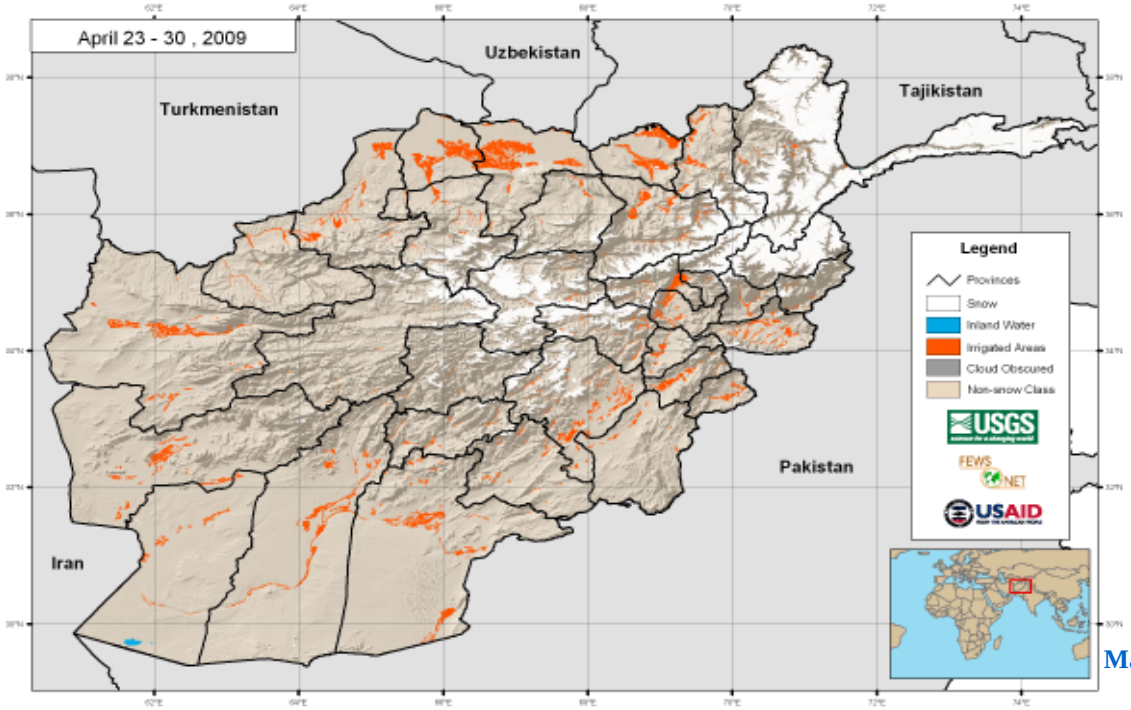
Comparison of monthly average of NDVI for the month of April 2010 with the same month in 2009 (Map 5) shows variable situation of NDVI, large increase occurred in NDVI as separated in the Central Highlands, and neighboring areas, Capital region, some parts in the Eastern and Southern regions, while accompanied with small increase in some parts of above mentioned regions during the month of April 2010 compared to the same month of last year, large decrease occurred in NDVI in the Northwestern and some parts in the Eastern region during the month of April 2010 over the same month in 2009. There is no change of NDVI in the Southwestern region during the month of April 2010 compared to the same month of last year .

Comparison of monthly average of NDVI for the month of April 2010 with the same month of long term average (Map 6) shows small increase of NDVI in the Northern region and some parts of the Southeastern region as well during the month of April 2010 over the same month of long term average. Small decrease occurred in NDVI in the Northeastern region, some parts in the Eastern region, some parts in the Northwestern , some parts in the western and Central Highlands during the month of April 2010 over the same month of long term average. There is no change of NDVI in the rest parts of the country for the month of April 2010 compared to the same month of long term average.

Data Source:FAO



Map 7



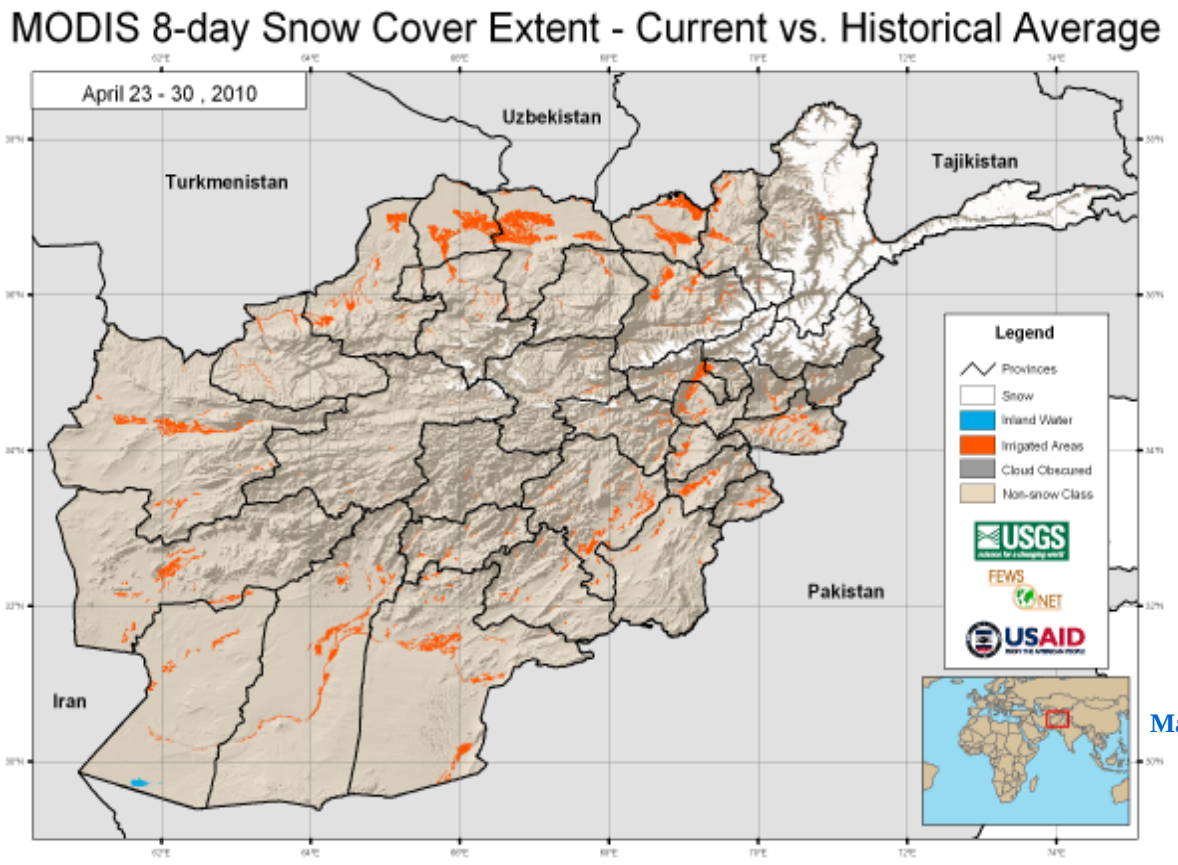
Map 8

The months of winter season typically are the snow months and most parts of the country received much snow in the se months.

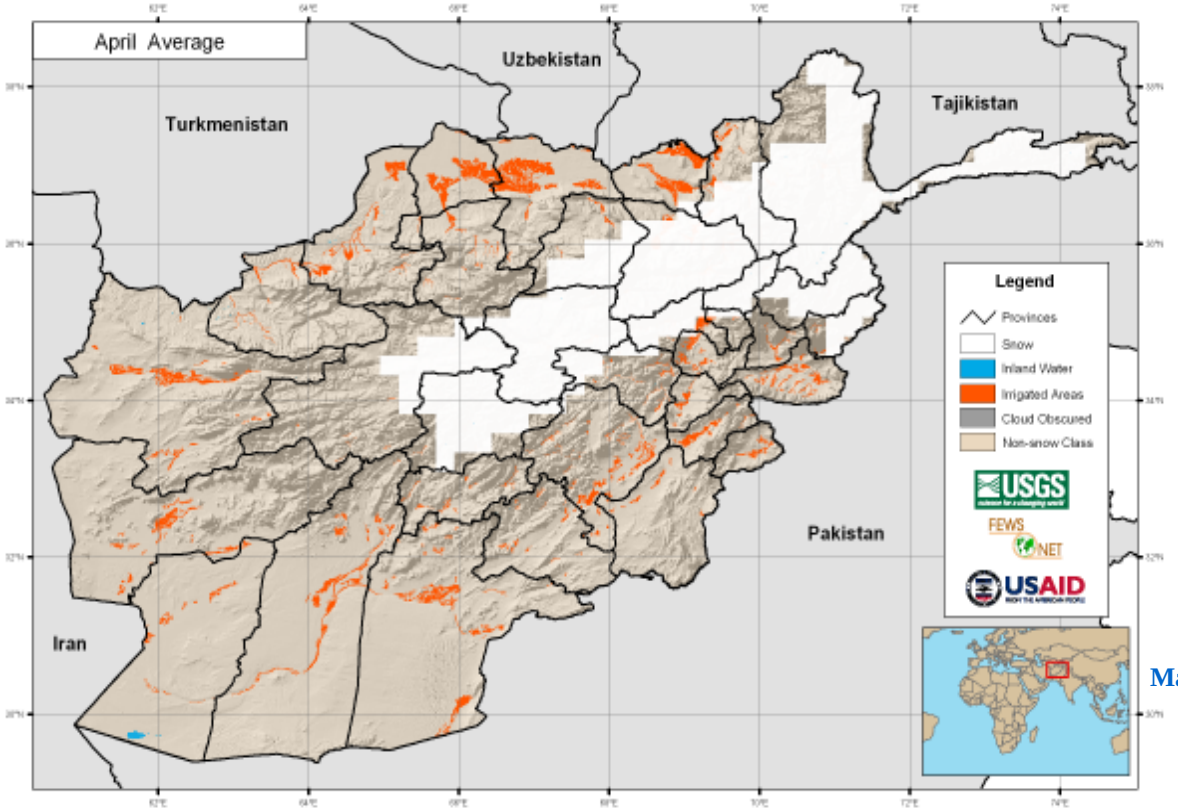
However snowfall continued up to mid of April 2010 in high elevation in the Northeastern region, Hindokosh areas and some parts in the capital region but the snow was light and no increase in snow pack, snow extent during April 2010 remained below as the same month of last year and long term average, in the other side high temperature during April 2010 resulted rapid snow melt which decreased the snow extent in snow coverage areas.

Comparison of snow extent for the period of April (23 – 30) 2010 with the same period in 2009 (Map 7- 8) shows a decrease of snow extent particularly in the Central Highlands and Hindokosh areas during the above mentioned period of April 2010 compared to the same period of last year.

Data Source:USGS



Map 9



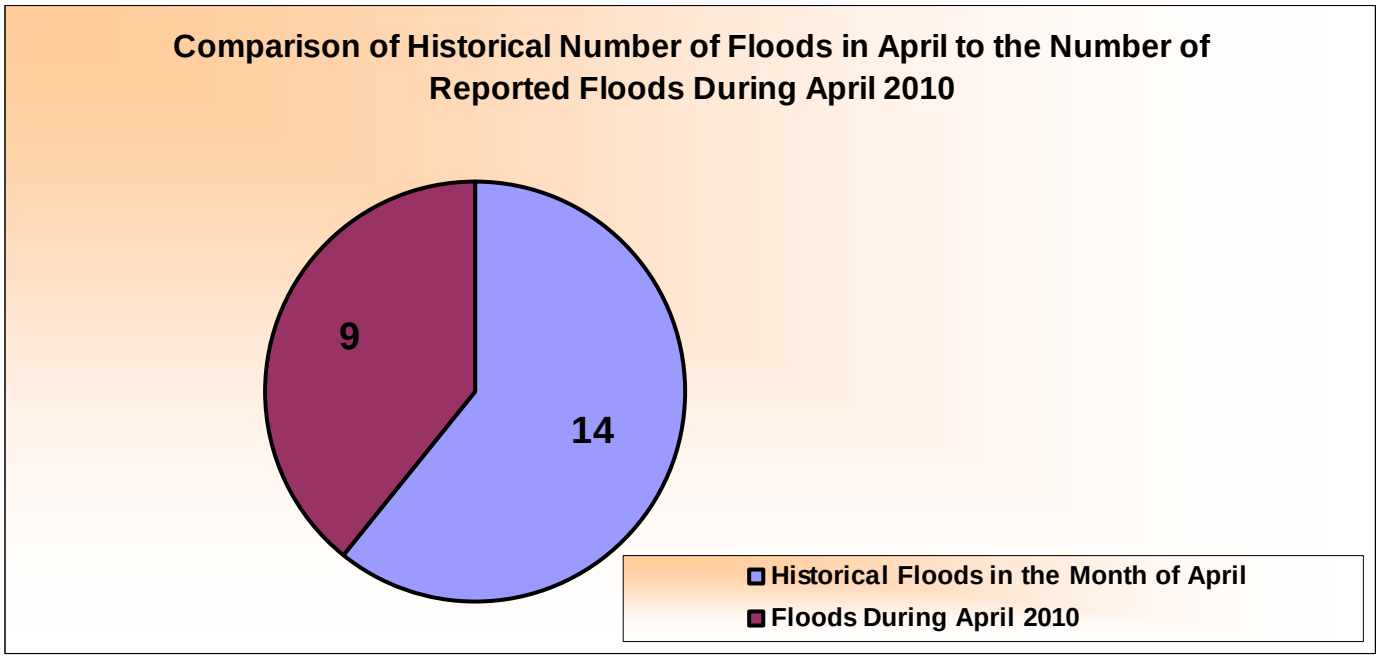
Map 10

Comparison of snow extent for the month of April 2010 with the same month of long term average shows a decrease of snow extent particularly in the Central Highlands and Hindokosh areas and some parts in the Northeastern region during the month of April 2010 over the same month of long term average.

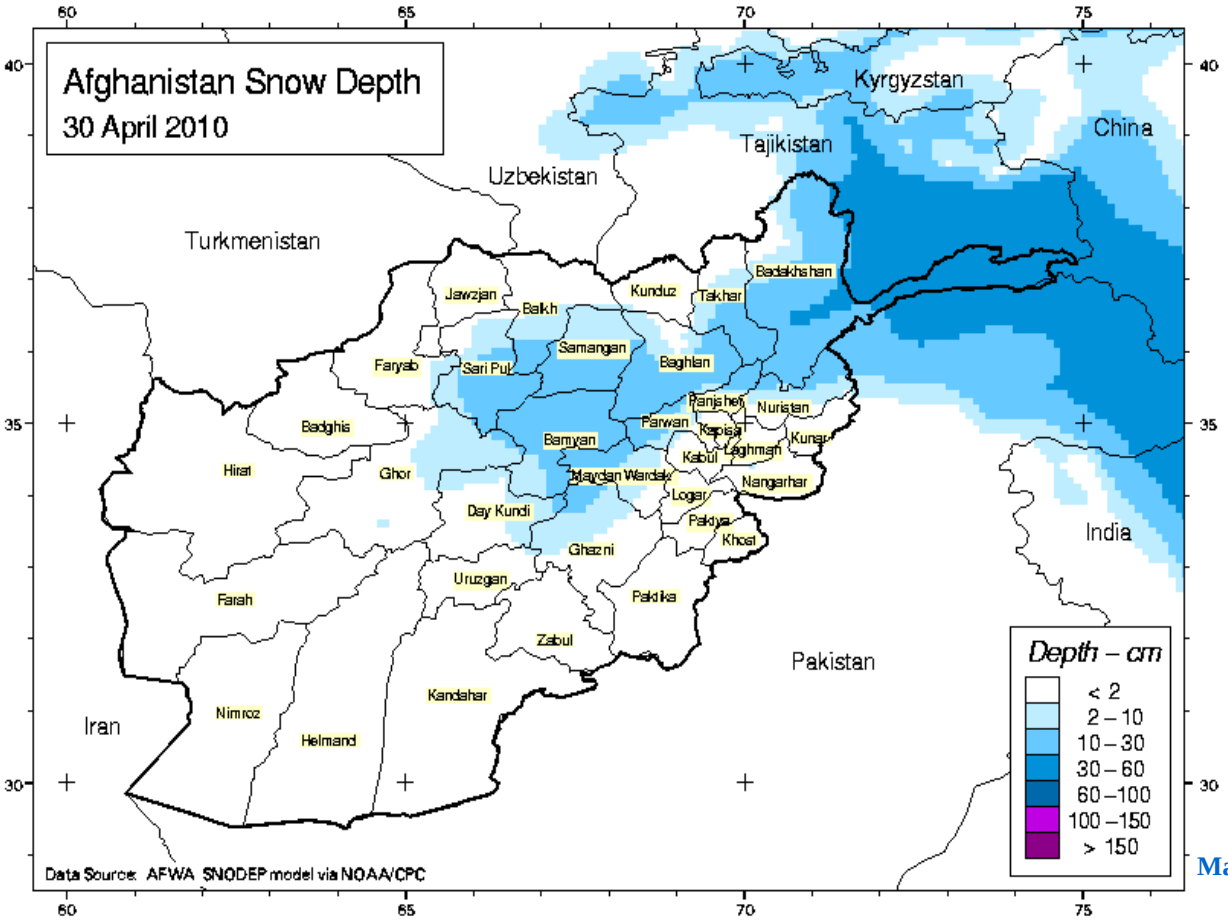
Data Source:USGS

Comparison of Snow Extent

Date	Province	Damaged lands	Animal mortality
8-Apr-10	Kabul	1 Hectare Agricultural land	23
April-10	Jawzjan	8000 Hectares Agricultural land	0
1-Apr-10	Samangan	40 Hectares Agricultural land	0
1-Apr-10	Baghlan	70 Hectares Agricultural lands	7
8-Apr-10	Takhar	20 Hectares Agricultural lands	0
8-Apr-10	Hirat	200 Hectares Agricultural lands	0
8-Apr-10	Ghor	200 Hectares Agricultural lands	0
8-Apr-10	Parwan	172 Hectares Agricultural land, 18840 Fruit tries	131
8-Apr-10	Kunar	54 Hectares Agricultural lands,	160



Afghanistan Snow Depth for the of April 2010



Map 11

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

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