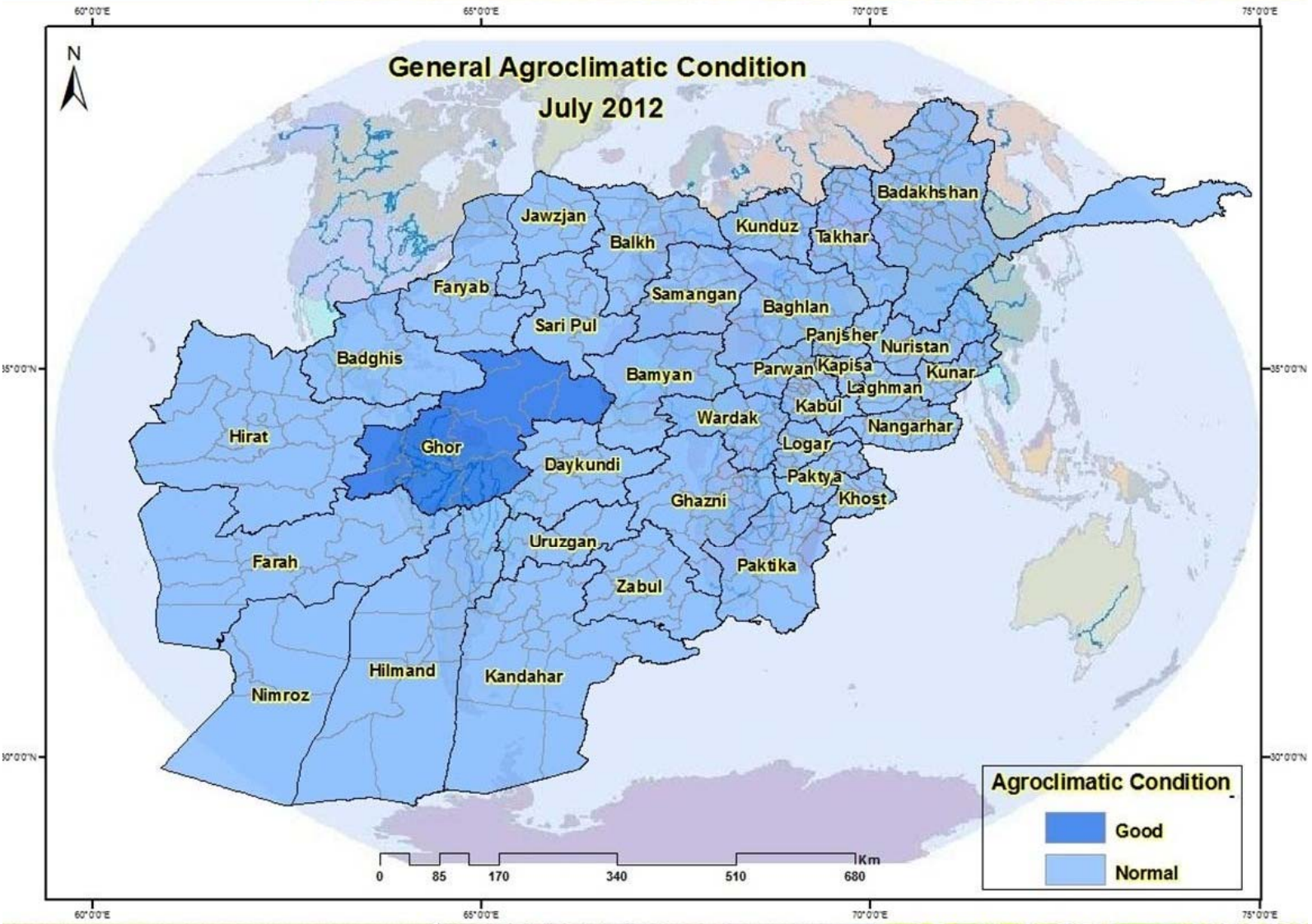
Issue No: 89
July: 2012

The fghanistan grometeorological AAM onthly Bulletin

Topics Crop Information Precipitation Temperature NDVI



Adverse Factor (Bamyan) 1

Crop Condition (Nuristan) 2

Crop Stage (Nuristan) 3

The Agromet Project of USGS, is working together with the Ministry of Agriculture, Irrigation and Livestock (MAIL) and the Afghan Meteorological Authority (AMA) of Ministry of Transport (MoT)

BULLETIN

Issue No: 89
July 2012

The Afghanistan's Agromet Monthly Bulletin is being Published on monthly Bases in Dari and English Languages.

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Crop Information

Rainfall Situation

Snowfall Situation

Temperature

Data Source:

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

Summary

Following an unusual dry condition during the past months, in July 2012 the country received light rainfall and there were scattered showers and in the East, Southeast and Northeastern regions of the country. Less rainfall was associated with the Indian monsoon which typically is not affecting much parts of Afghanistan except the above mentioned regions. We can say that, rainfall had a significant decrease during the month of July 2012.

Surface air temperature is one of the important climatic and meteorological variables, which influences all phonological stages of crop in a particular growing season. shows that there is significant deviation in temperature across the country for the month of July in 2011 and 2012. This deviation in temperature would have adverse impacts on crop production, and thus influences food security in the country.

Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Shakardara	Karizmir	Harvesting		
		Paghman	Paghman			
		Kabul	Darulaman			
		Surubi	Surubi	Harvested		
	Panjsher	Dara	Dara	Maturity	Normal	Not Existed
		Dashtak	Dashtak	Harvesting		
	Parwan	Syagerd	Gorband			
		Charikar	Charikar	Harvested		
	Kapisa	Mahmoodraqi	Mahmoodraqi			
		Kohistan	Kohistan			
	Wardak	Maidan shehr	Maidan shehr	Maturity	Good	Weeds
	Logar	Pole Alam	Pole Alam	Harvesting		
	Bamyan	Bamyan	Bamyan	Maturity	Good	Not Existed
		Yakawlang	Yakawlang	Maturity	Normal	Not Existed
		Panjab	Panjab	Maturity	Good	Not Existed
		Shebar	Shebar	Maturity	Normal	Not Existed
		Kohmard	Kohmard	Harvesting		
	Ghazni	Muqur	Muqur			
		Andar	Bande Sardi			
	Dikondy	Nili	Nili			
		Khideer	Khideer			
East	Nangarhar	Agam	Agam	Harvested		
		Batikot	Ghaziabad			
		Jalalabad	Farm jaded			

Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
East	Kunar	Asmar	Asmar	Harvested		
		Asad Abad	Asad Abad			
		Chawkay	Chawkay			
	Laghman	Mihtarlam	Mihtarlam			
		Qarghay	Qarghay			
		Alengar	Alengar			
	Noristan	Paroon	Paroon	Maturity	Normal	Not Existed
		Do Ab	Do Ab	Grain Filling	Normal	Poor Rainfall
		Norgaram	Norgaram	Harvested		
		Waigal	Waigal			
		Wama	Wama			
North East	Takhar	Taluqan	Taluqan	Harvesting		
		Rostaq	Rostaq			
	Kunduz	Imam Sahib	Imam Sahib	Harvested		
		Qaliazal	Aqtipa			
		Khan Abad	Khan Abad			
		Kunduz	Kunduz			
		Archi	Archi	Harvesting		
		Chardara	Chardara	Harvested		
		Ali Abad	Ali Abad			
	Baghlan	Pulikhomri	Pozaishan			
		Doshy	Doshy			
	Badakhshan	Argo	Argo	Harvesting		
		Baharak	Baharak	Grain Filling	Normal	Poor rainfall
		Ashkashm	Ashkashm	Vegetative	Normal	Poor Rainfall
		Eaftale Sofla	Eaftale Sofla	Vegetative	Normal	Poor Rainfall
		Khash	Khash	Maturity	Good	Not Existed
		Faiz Abad	Faiz Abad	Harvesting		
South East	Khost	Khost	Khost	Harvested		
		Khost	Shimal			
		Ali Sher	Ali Sher			
	Paktia	Zormat	Rohani Baba	Harvesting		
		Gardiz	Tera			
	Paktika	Urgon	Urgon	Harvested		
		Sharana	Sharana			
		Khair kot	Khair Kot			

Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
South	Nimroz	Zaranj	Zaranj	Harvesting		
	Kandahar	Kandahar	Kandahar			
		Kohkaran	Kohkaran			
	Zabul	Qalat	Qalat			
	Urozgan	Tirin Kot	Tirin Kot	Harvested		
	Hilmand	Nad Ali	Nad Ali			
		Greshk	Greshk			
		Nawa	Nawa			
		Lashkargah	Bolan			
North	Balkh	Takhta pol	Dihdadi	Harvesting		
		Mazar shareef	Mazare shareef			
		Nahrishahi	Nahrishahi			
		Dawlat Abad	Dawlat Abad			
	Jawzjan	Sheberghan	Sheberghan			
		Darzab	Darzab			
	Saripul	Saripul	Saripul			
		Sancharak	Sancharak			
		Sozmaqala	Sozmaqala			
	Faryab	Maimana	Maimana			
		Andkhoy	Andkhoy			
		Garzeewan	Garzeewan			
	Samangan	Aibak	Aibak	Maturity	Good	Not Existed
		Dara Souf	Dara Souf	Maturity	Good	Not Existed
		Sar bagh	Sarbagh	Maturity	Normal	Not Existed
North West	Badghis	Qalainow	Qalainow	Harvesting		
		Muqur	Muqur			
	Ghor	Chaghcharan	Chaghcharan	Grain filling	Good	Not Existed
		Dawlat yar	Dawlat yar	Grain filling	Good	Not Existed
	Hirat	Shindand	Shindand	Harvesting		
		Zindajan	Zindajan	Harvested		
		Gwazara	Falahat	Harvesting		
		Hirat	Farm Urdokhan			
	Farah	Farah	Farah	Harvested		

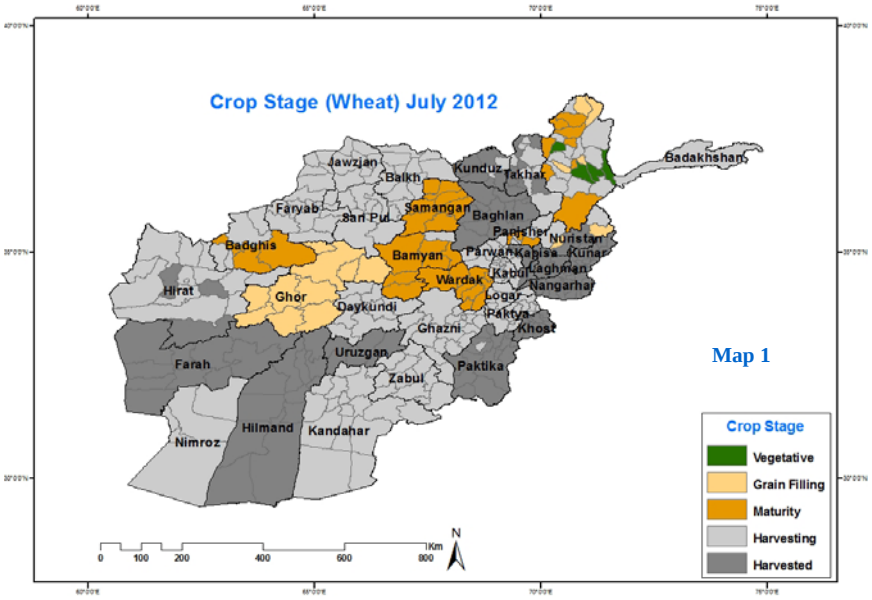
Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Maize		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Surubi	Surubi	Vegetative	Normal	Weeds
	Panjsher	Dashtak	Dashtak	**Ploughing**		
	Parwan	Syagerd	Gorband	Emergence	Normal	Shortage of Input
		Charikar	Charikar	Vegetative	Good	Not existed
	Kapisa	Mahmoodraqi	Mahmoodraqi	Emergence	Normal	Not existed
		Kohistan	Kohistan	Vegetative	Good	Not existed
	Logar	Pole Alam	Pole Alam	Vegetative	Normal	Not existed
	Bamyan	Kohmard	Kohmard	Vegetative	Normal	Not existing
	Ghazni	Muqur	Muqur	Emergence	Normal	Not existing
	Dikondy	Khideer	Khideer	Vegetative	Normal	Not existing
East	Nangarhar	Agam	Agam	Vegetative	Normal	Not existing
		Batikot	Ghaziabad	Vegetative	Normal	Not existing
		Jalalabad	Farm jaded	Flowering	Good	Not existed
	Kunar	Asmar	Asmar	Vegetative	Good	Not Existed
		Asad Abad	Asad Abad	**Planting**		
		Chawkay	Chawkay	Emergence	Normal	Poor rainfall
	Laghman	Qarghay	Qarghay	Flowering	Good	Not existed
		Alengar	Alengar	Emergence	Normal	Not Existed
	Noristan	Paroon	Paroon	Maturity	Normal	Not Existed
		Do Ab	Do Ab	Grain filling	Normal	Poor rainfall
		Norgaram	Norgaram	**Planting**		
		Waigal	Waigal	Emergence	Normal	Poor rainfall
North East	Takhar	Bangi	Bangi	Emergence	Normal	Not Existed
	Kunduz	Qaliazal	Aqtipa	Emergence	Normal	Not existed
		Kunduz	Kunduz	**Planting**		
		Archi	Archi	**Emergence**		
		Ali Abad	Ali Abad	Emergence	Normal	Past and disease
	Baghlan	Pulikhomri	Pozaishan	Vegetative	Good	Not existed
South East	Khost	Khost	Shimal	Emergence	Normal	Not existed
		Ali Sher	Ali Sher	Planting	Normal	Not existed
	Paktia	Zormat	Rohani Baba	Vegetative	Very good	Not existed
		Gardiz	Tera	Vegetative	Very good	Not existed
	Paktika	Urgon	Urgon	**Planting**		
South	Kandahar	Kandahar	Kandahar	Vegetative	Normal	Not existed
		Kohkaran	Kohkaran	Vegetative	Normal	Not existed
	Urozgan	Tirin Kot	Tirin Kot	**Planting**		
	Hilmand	Nad Ali	Nad Ali	Vegetative	Normal	Not existing
		Greshk	Greshk	Vegetative	Normal	Not existing
		Nawa	Nawa	Vegetative	Normal	Not existing
		Lashkargah	Bolan	Vegetative	Normal	Not existing
North	Balkh	Takhta pol	Dihdadi	Vegetative	Normal	Not existed
		Mazar shareef	Mazare shareef	Vegetative	Normal	Not existing
		Nahrishahi	Nahrishahi	**Planting**		
	Saripul	Saripul	Saripul	Flowering	Good	Not existed
	Faryab	Maimana	Maimana	Emergence	Normal	Not existed
	Samangan	Dara Souf	Dara Souf	Vegetative	Normal	Not existed
North West	Hirat	Shindand	Shindand	**Planting**		
		Hirat	Farm Urdokhan	Emergence	Normal	Not existed
	Farah	Farah	Farah	Emergence	Normal	Not existed

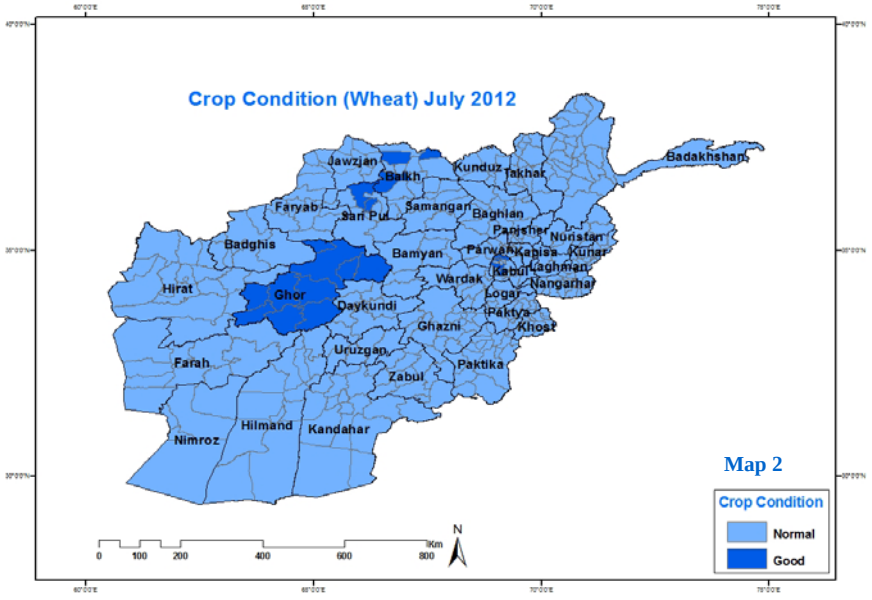
Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Rice		
				Crop Stage	Crop Condition	Adverse Factor
Central	**Kabul**	Surubi	Surubi	Vegetative	Normal	Weeds
East	**Nangarhar**	Agam	Agam	Vegetative	Normal	Not Existed
		Batikot	Ghaziabad	Emergence	Normal	Not Existed
		Jalalabad	Farm jaded	Emergence	Good	Not Existed
		Behsood	Behsood	Emergence	Good	Not Existed
	Kunar	Asmar	Asmar	Vegetative	Normal	Not Existed
		Asad Abad	Asad Abad	Vegetative	Normal	Not Existed
	Laghman	Mihtarlam	Mihtarlam	Vegetative	Normal	Poor Rainfall
		Qarghay	Qarghay	Emergence	Normal	Not Existed
North East	**Takhar**	Bangi	Bangi	**Planting**		
		Taluqan	Taluqan			
	Kunduz	Imam Sahib	Imam Sahib	Emergence	Normal	Not Existed
		Qaliazal	Aqtipa	Emergence	Normal	Not Existed
		Khan Abad	Khan Abad	**Planting**		
		Kunduz	Kunduz			
		Archi	Archi	Flowering	Normal	Not Existed
		Ali Abad	Ali Abad	Emergence	Normal	Not Existed
	Baghlan	Pulikhomri	Pozaishan	Vegetative	Good	Not Existed
		Doshy	Doshy	Vegetative	Good	Not Existed
South East	**Khost**	Khost	Khost	Vegetative	Normal	Not Existed
		Khost	Shimal	Vegetative	Normal	Not Existed
		Ali Sher	Ali Sher	**Planting**		
	Paktia	Zormat	Rohani Baba	Vegetative	Good	Not Existed
South	**Urozgan**	Tirin Kot	Tirin Kot	**Planting**		
North	**Samangan**	Dara Souf	Dara Souf	**Ploughing**		
North West	**Herat**	Hirat	Farm Urdokhan	Maturity	Normal	Not Existed

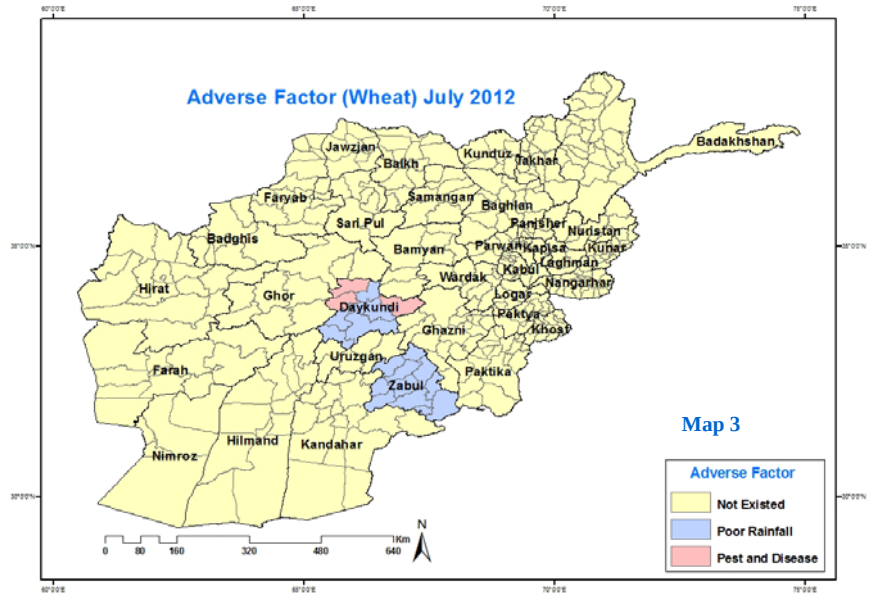
Wheat Crop Stage, Condition and Adverse Factor Maps



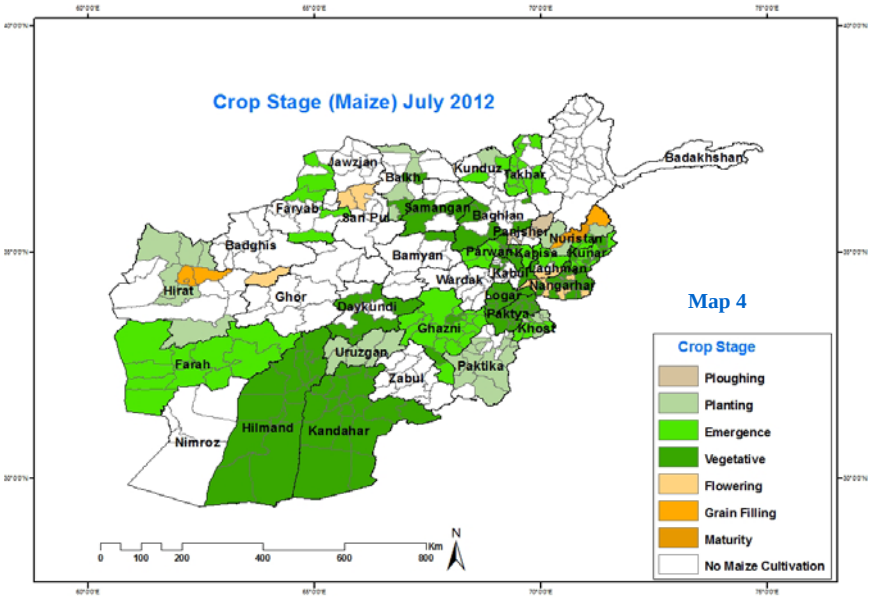
Map 1

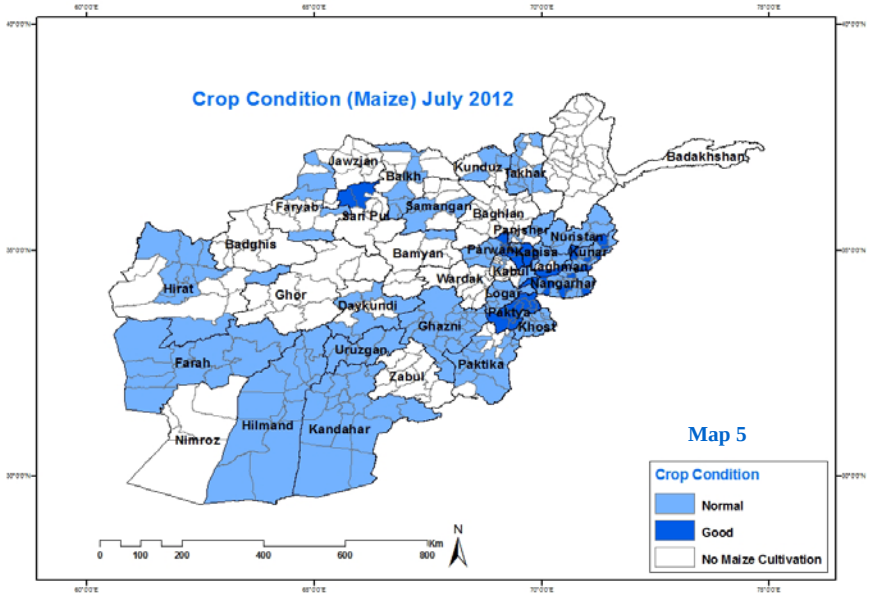


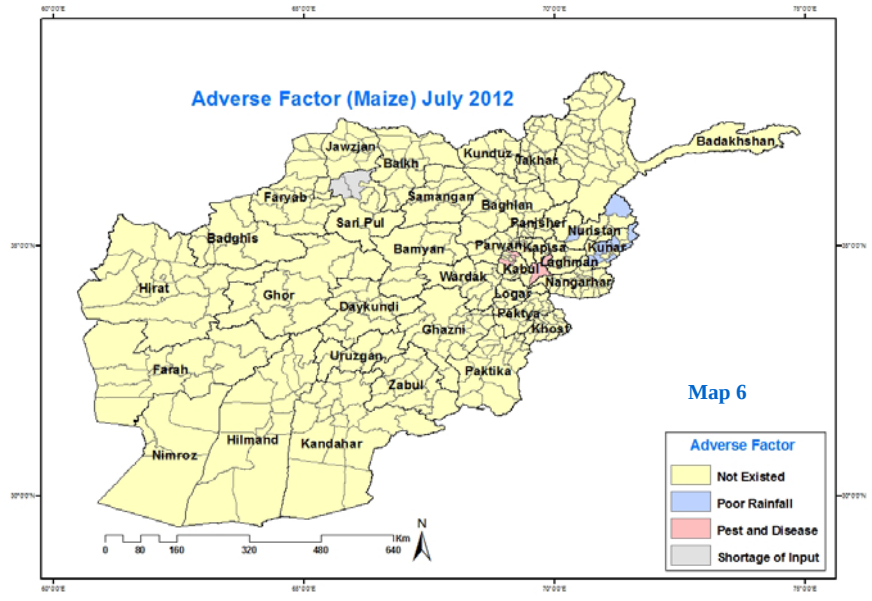
Map 2



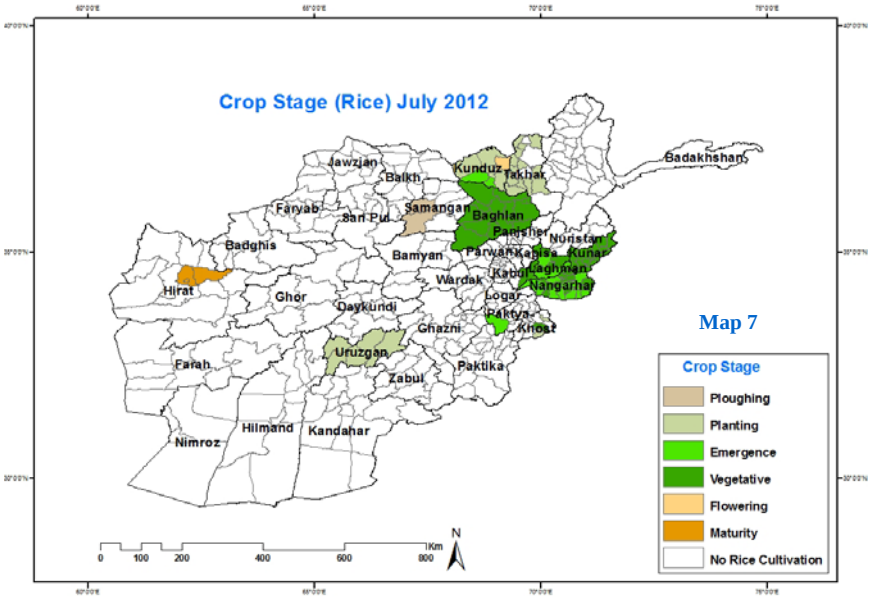
Map 3



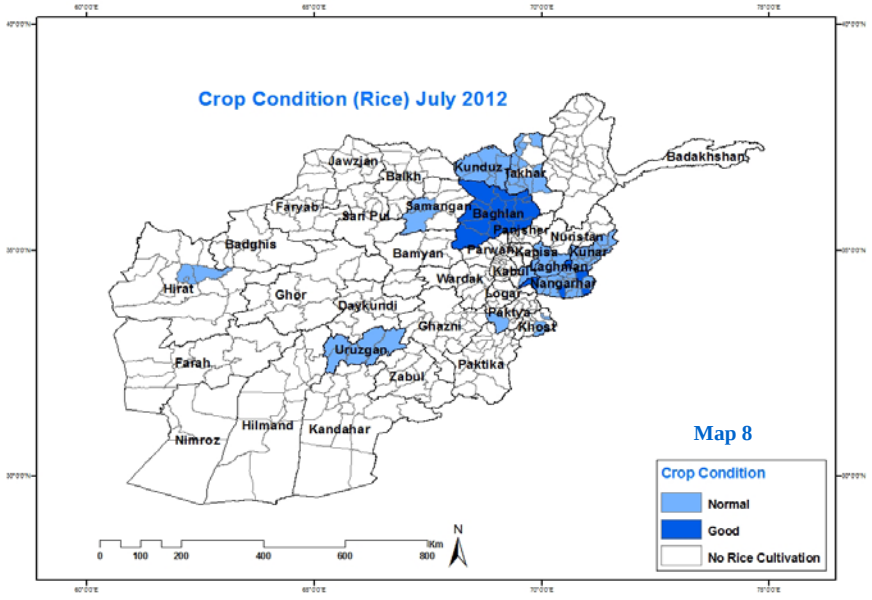




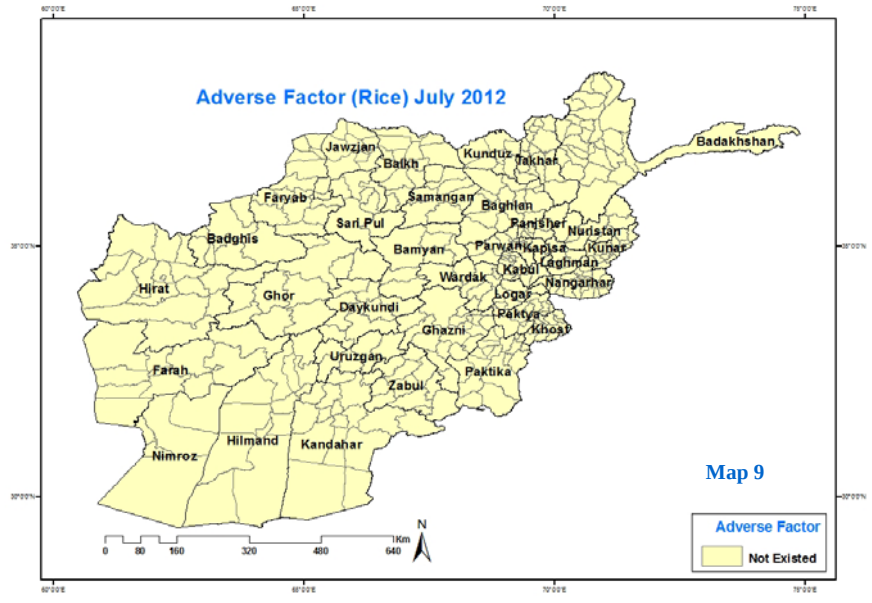
Data Source:Agromet Network



Map 7



Map 8



Map 9

Precipitation

Among the various agro-meteorological parameters, precipitation and temperature are considered more sensitive to climate change than others. At the mean time, agricultural production is very sensitive to variations in precipitation and temperature.

The aerographic effect in Afghanistan adds to the complexity of the spatial distribution of precipitation and temperature. Afghanistan is a mountainous country, thus, From the agricultural point of view, Afghanistan can be divided into several regions: central highland up to Pamir skirts, north-east highland, south- west; steppe; and desert extending to east and west parts of the country.

Most of the country experienced a typical dry July, except for few parts of the country experienced high intensity low duration rain,. Sarobi, received 22mm; Gardiz, received 7.8mm; and Mehterlam, received 43mm, which caused localized flash flood resulted in property damage and agricultural loses .Table 1, shows rainfall comparison for July 2012 compared to the same month of 2011 and long-term average is indicated 15 years, With the exception of few anomalies, discussed above, no significant differences in the amount of rainfalls across the country for the month of July from last year and this year. As it is taken under the consideration the most.

Table 1

Station Name	July			Deviation	Comparison	Prediction
	2011	2012	LTA			
Kabul	**2.7**	**3.2**	**5.2**	**2**	Under normal	Probable drought
Paghman	**0**	**2**	**8.3**	**6.3**	Under normal	Probable drought
Logar	**0**	**0**	**1.5**	**1.5**	Under normal	Probable drought
Ghazni	**0**	**0**	**15.7**	**15.7**	Close to normal	Periodic drought
Sardi	**0**	**0**	**9.7**	**9.7**	Close to normal	Periodic drought
Sarobi	**0**	**22**	**0.5**	**-21.5**	Close to normal	Long drought
Central parts are likely to be under the attack of thermal wave of heath.						
Mazar	**0**	**0**	**0**	**0**	Normal Fit.	No change is seen.
Aybak	**0**	**0**	**1.5**	**1.5**	Under normal	Prolong drought.
Sari-pul	**0**	**0**	**0**	**0**	Normal Fit.	No change is seen.
Baghlan	**0**	**0**	**0**	**0**	Close to Normal	Not significant change.
Kunduz	**0**	**0**	**1.3**	**1.3**	Under Normal	Probable drought
Jawzjan	**0**	**0**	**0**	**0**	Normal Fit.	No change is seen.
Dara-e-Soof.	**0**	**0**	**0**	**0**	Close to Normal.	Not significant change
According to the prediction which was taken place there is no a significant change is predicted.						
Hirat	**0**	**0**	**0**	**0**	Normal Fit.	No change is seen.
Shindand	**0**	**0**	**0**	**0**	Normal Fit.	No change is seen.
Jalalabad	**0**	**2**	**6.9**	**4.9**	Close to normal	No significant change.
Khost	**132**	**95**	**81**	**-14**	Abnormal	Significant change
Gardiz	**4.2**	**7.8**	**14.6**	**6.8**	abnormal	Significant change
Ghaziabad	**20**	**0**	**2**	**2**	Normal Fit.	No change is seen.
Mehterlam	**0**	**43**	**5.4**	**-37.6**	Close to normal	Not significant change.
Farah	**0**	**0**	**0**	**0**	Normal Fit.	No change
Zaranj	**0**	**0**	**0**	**0**	Normal Fit.	No change
Uruzgan	**0**	**0**	**2.2**	**2.2**	Close to normal	No significant change.
Kandahar	**0**	**0**	**3.2**	**3.2**	Normal Fit.	No change
Lashkerga	**0**	**0**	**0.4**	**0.4**	Normal Fit.	No change
Talughan	**0**	**0**	**0.1**	**0.1**	Un known.	Cannot be predicted.
Faizabad	**0**	**0**	**6**	**6**	Extreme of normal	Significant change.
Paroon	**149**	**0**	**51.1**	**51.1**	Extreme of normal	Significant change.

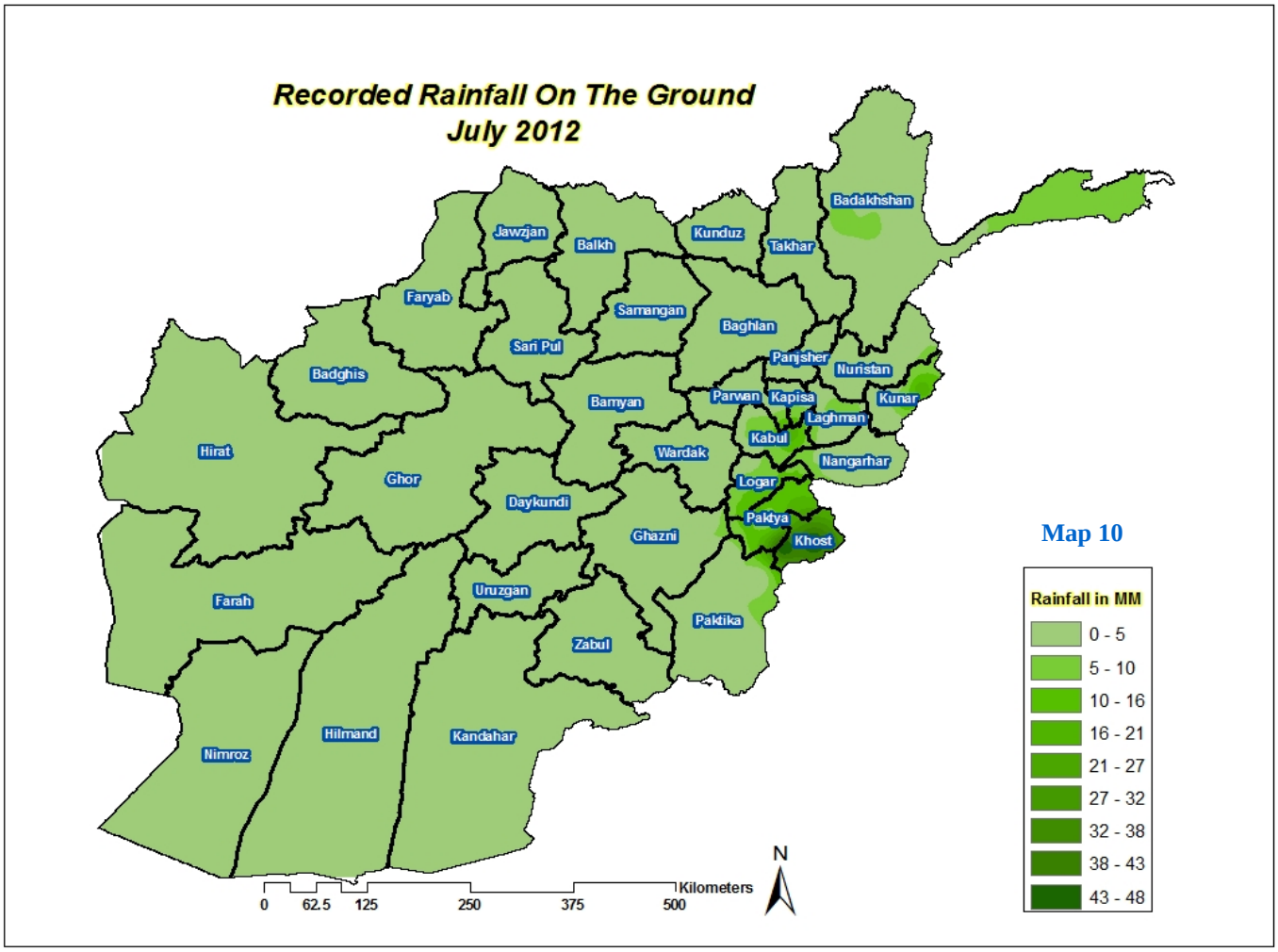
Data Source: Agromet Network

Following an unusual dry condition during the past months, in July 2012 the country received light rainfall and there were scattered showers and in the East, Southeast and Northeastern regions of the country. Less rainfall was associated with the Indian monsoon which typically is not affecting much parts of Afghanistan except the above mentioned regions. We can say that, rainfall had a significant decrease during the month of July 2012.

Comparison of rainfall data for the month of July 2012 with the same month in 2011 (Chart1) shows significant decrease of rainfall during the month of July 2012 over the over the same month of last year around the country.

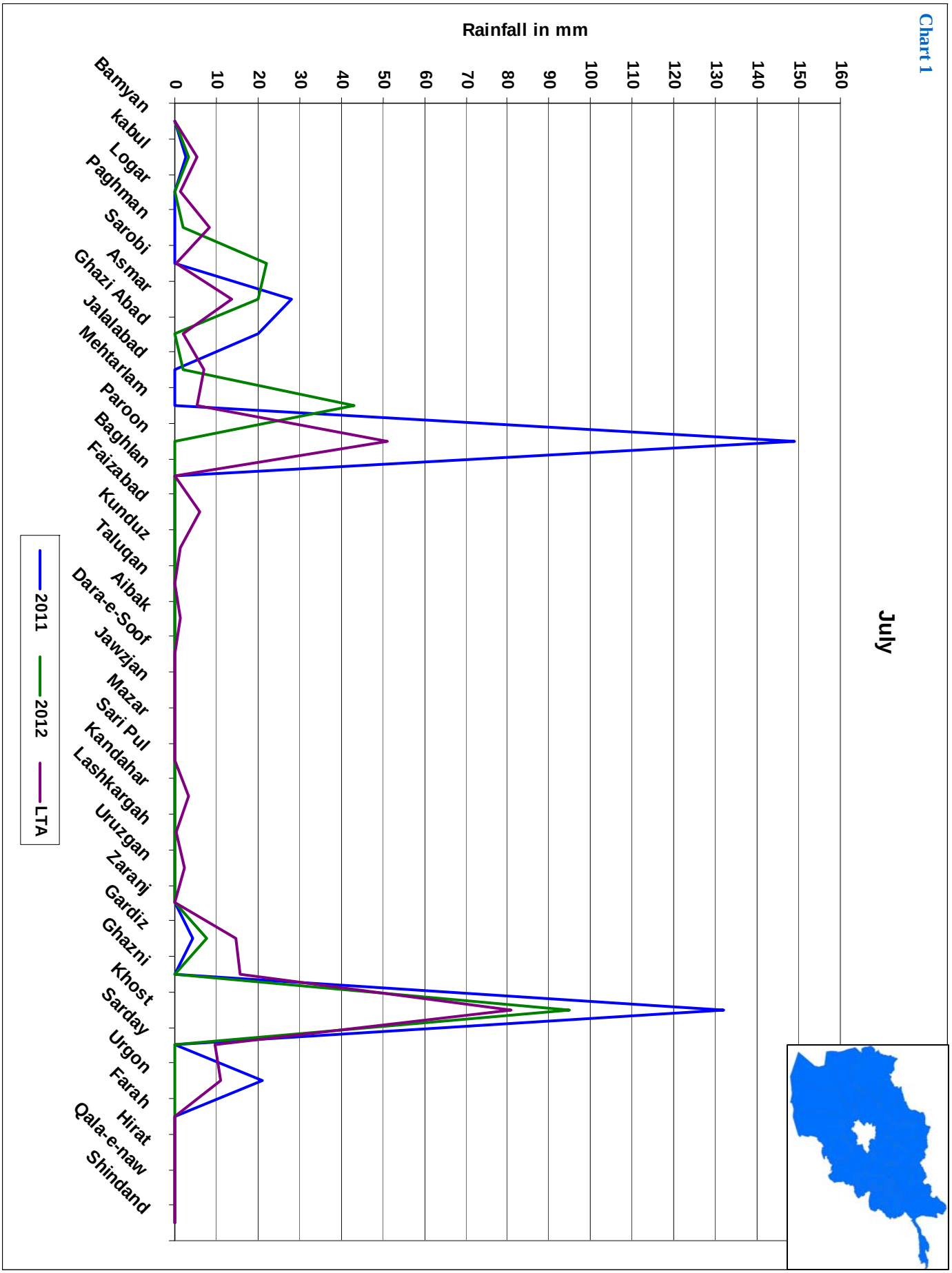
Comparison of rainfall data for the month of July 2012 with the same month of long term average (Chart 1) also shows significant decrease of rainfall during the month of July 2012 over the same month of long term average.

During the month of July this year, most amount of rainfall has been occurred in the Southeastern regions, the Northeastern has received light rainfall during the month of July this year, and the rest of the country has experienced the seasonal dryness.



Map 10

Chart 1



Data Source:Agromet Network

Table 2, shows comparison of rainy days between July of this year and that of last year. Again, no significant differences in the number of rainy days in most parts of the country, except in Khost, Paroon, and Urgon, the number of rainy days is greater to significantly greater in July 2011 compared to July 2012. As it is clear there is observed the least magnitude of precipitations in the month of July that is because the concentrations of temperature is getting high day by day according to the natural weather parametric undergone that is of course it somehow depends to the locations specifications of the weather elements if we comparison rainy days in July 2012 to July 2011 there would be seen some differences for example the regains like Paroon zero days in July 2012 but there are 12 days in July 2011 and there is no significant changes in July of both 2011 and 2012.

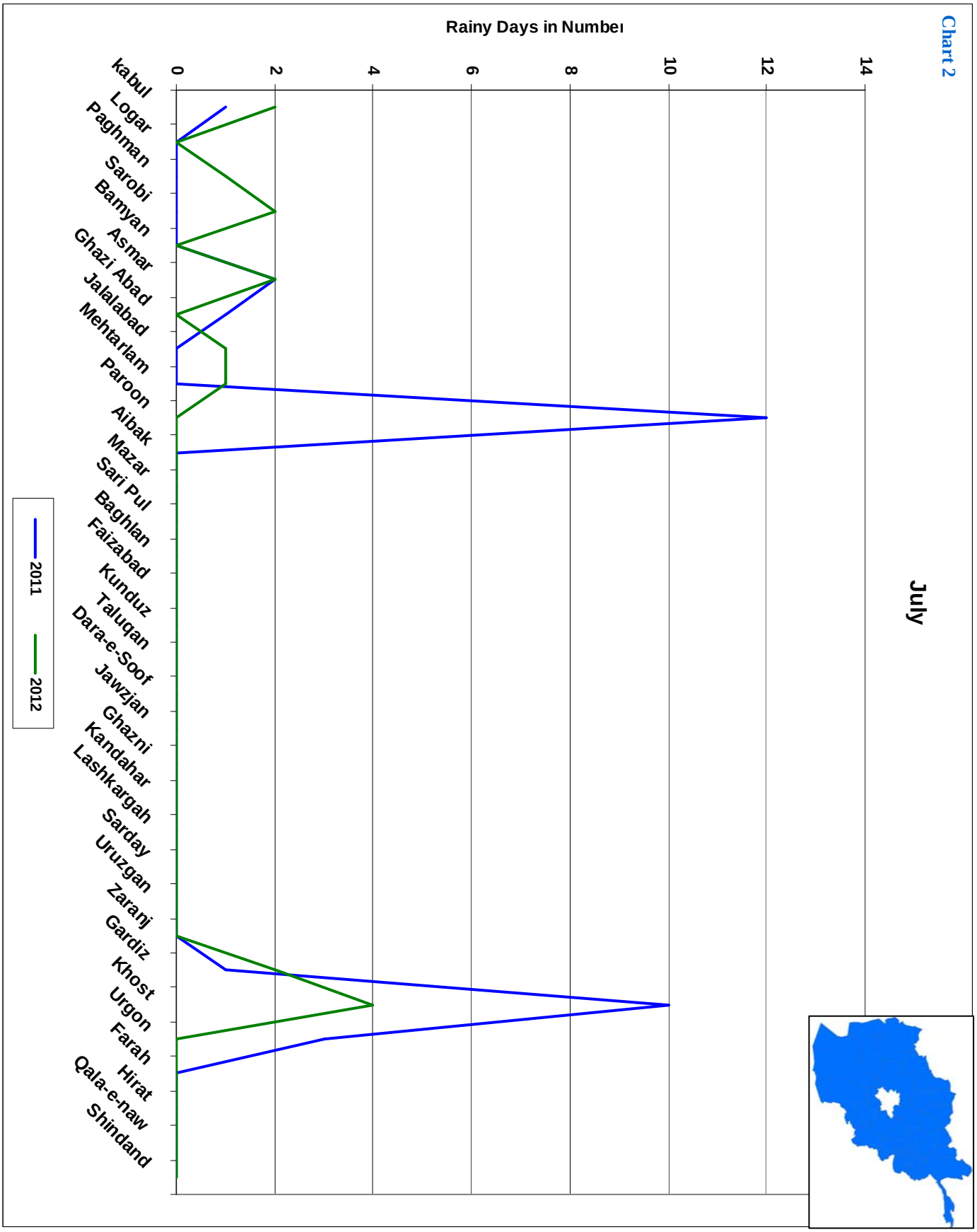
In general the number of rainy days including snow fall and rainfall in July of 2011 is larger than that one of July in 2012.

And if we consider the recorded rainfall on the ground in July 2012 there would be seen not so significant differences among the lots of regions and that is of course due to the thermal effect of the weather. And it can be said that according to the upper air observations soft and light color is the index of least number of rainy days or on the other hand low magnitude of rainfall and heavy green color illustrates the large number of rainy days and indicating the high amount of rainfall on the ground and also in this way the rainfall magnitude between the number of 140 to 170 mm indicating by the color of dark-green on the maps which are prepared by meteorological satellites for example the regions which are covered by different rate of change of precipitations is shown in the area of Pamir – Badukhshan – and Hindukush – and some parts of Takhar.

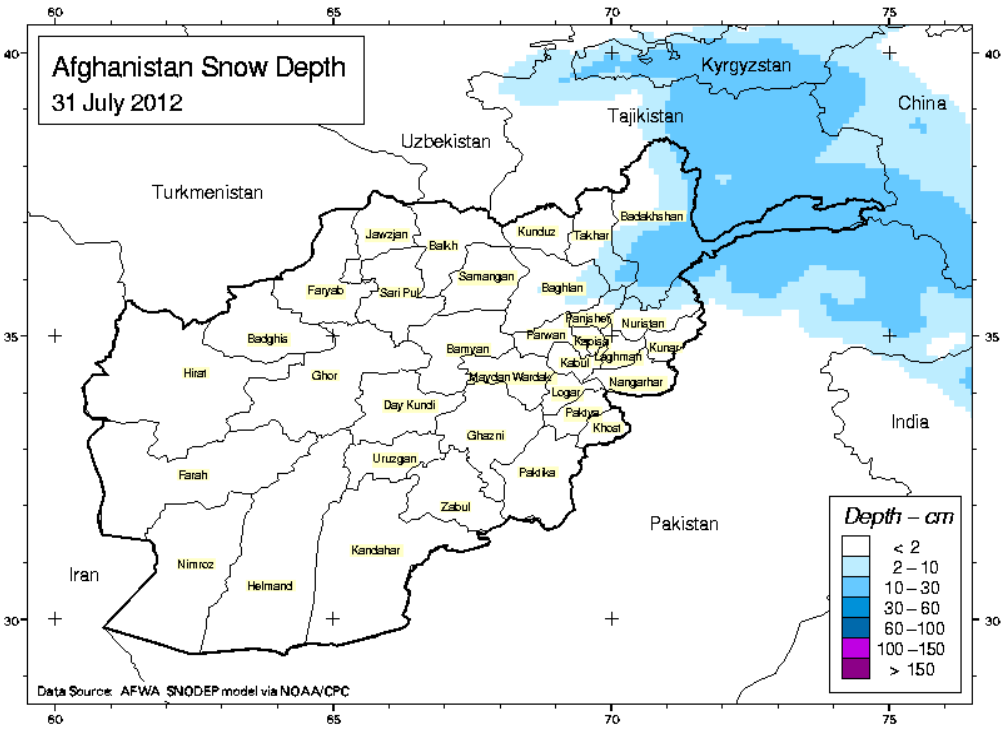
It was the most important marks of the rainy days legend so it is worth mentioning that rainy days are so important for seeds sown and the other parts of agricultural affairs.

Table 2

No	Station Name	July Rainy Days		Comparison Prediction
		2011	2012	
1	Khost	10	4	dry
2	Asmar	2	2	dry
3	Faizabad	0	0	No change
4	Jaghatoo	0	No observation	non
5	Paroon	12	0	No change
6	Gardiz	1	2	Not dry
7	Uruzgan	0	0	dry
8	Dara-e-soof	0	0	No change.
9	Aibak	0	0	No change.
10	Jalalabad	0	1	dry
11	Bamyan	0	0	No change.
12	Kabul	1	2	No change and dry
13	Logar	0	0	No change and dry
14	Paghman	0	1	No change and dry
15	Sarobi	0	2	No change and dry
16	Ghaziabad	1	0	No change and dry
17	Mehterlam	0	1	No change and dry
18	Mazar	0	0	No change and dry
19	Saripul	0	0	No change and dry
20	Baghlan.	0	0	No change and dry
21	Kunduz	0	0	Not dry
22	Taluqan	0	0	No observation
23	Jawzjan	0	0	No change and dry
24	Ghazni	0	0	Not dry.
25	Kandahar	0	0	No change and dry
26	Lashkerga.	0	0	No change and dry
27	Sardi	0	0	No change and dry
28	Zaranj	0	0	No change and dry
29	Urgon	3	0	No change and dry
30	Farah	0	0	No change and dry
31	Hirat	0	0	No change and dry
32	Qala-e-naw	0	0	No change and dry
33	Shindand	0	0	No change and dry



Based on the recorded rainy days for the month of July 2012, it shows that rainy days had significant decrease during the month of July 2012 over the same month of last year Chart (2)



Map 11

The Northeastern region is the only area covered with the snow all the time, , however rising temperature during the month of July 2012 resulted rapid snow melt, but still snow remained in this area . Map (11) shows snow depth for the end of July. As map (11) shows the snow depth has been recorded from 30 to 60 cm in the extreme border in Northeastern.

Data Source:USGS

Average Temperature for the Month of July 2012

Surface air temperature is one of the important climatic and meteorological variables, which influences all phonological stages of crop in a particular growing season. Table 3, shows that there is significant deviation in temperature across the country for the month of July in 2011 and 2012. This deviation in temperature would have adverse impacts on crop production, and thus influences food security in the country. Monitoring meteorological parameters consistently and continuously ensures providing a timely warning regarding food security in the various parts of the country, allowing a more informed decision of getting a timely food assistance to vulnerable areas.

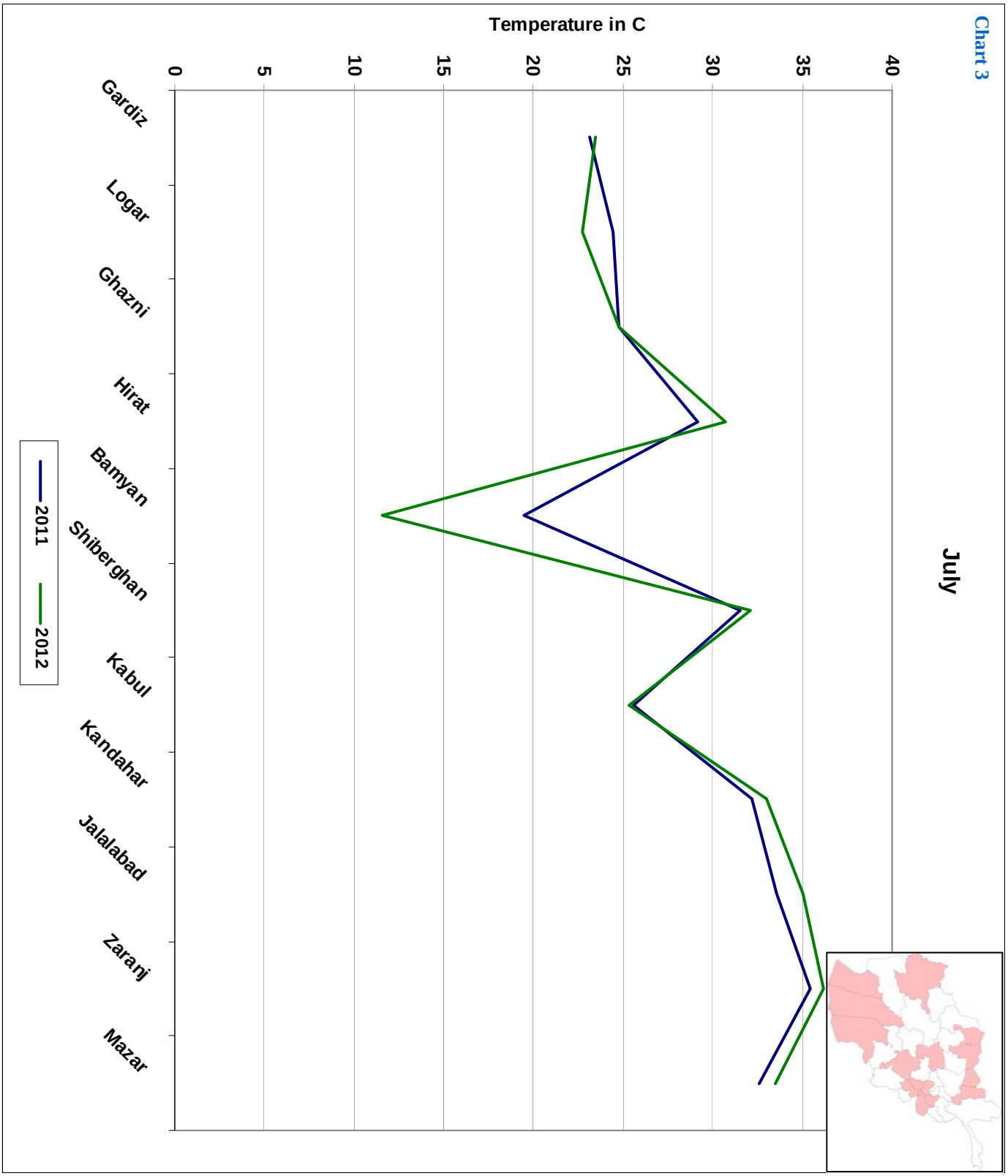
Collecting data over time allows experts in the Agromet project forecast the health of the growing season around the country and give more reliable information to managers and decision-makers of the food needs in the various parts of the country. temperatures factors that is because crop growth and yields is more sensitive to variations of temperatures so according to the above table one can say that Jalalabad. In general, max temperature of July 2012 across the country is higher than that of July 2011, whereas min temp is lower for July 2012 than that of July 2011 for most of the country, please see Table 3.

Table 3

Station	**Max-tem-Celsius degree 2012**	**Average 2011**	Deviation	**Min-Tem-Celsius degree. 2012**	**Average 2011**	Deviation	Virtual Tem2012	**Average 2011**	Deviation
Jalalabad	**45**	**33.6**	**10.4**	**25**	**33.6**	**11.4**	**35.0**	**33.6**	**1.4**
shiberghan	**44.5**	**31.5**	**13.0**	**20**	**31.5**	**-11.5**	**32.1**	**31.5**	**1.6**
Mazar	**43.6**	**32.6**	**11.0**	**21.6**	**32.6**	**-11.0**	**33.5**	**32.6**	**0.9**
kandahar	**44**	**32.2**	**11.8**	**21**	**32.2**	**11.2**	**33**	**32.2**	**0.8**
zaranj	**47**	**35.4**	**11.6**	**25**	**35.4**	**10.4**	**36.2**	**35.4**	**0.8**
Hirat	**41.8**	**29.2**	**12.6**	**19.6**	**29.2**	**-9.6**	**30.7**	**29.2**	**1.5**
Logar	**36**	**24.4**	**11.6**	**10**	**24.4**	**-14.4**	**22.7**	**24.4**	**-1.7**
Kabul	**37.1**	**25.6**	**11.5**	**13.1**	**25.6**	**-12.5**	**25.3**	**25.6**	**-0.3**
Gardiz	**33.4**	**23.1**	**10.3**	**14**	**23.1**	**-9.1**	**23.5**	**23.1**	**0.4**
Bamyan	**30.2**	**19.5**	**10.7**	**8.6**	**19.5**	**-10.9**	**11.6**	**19.5**	**-7.9**

Data Source:AMA

Chart 3

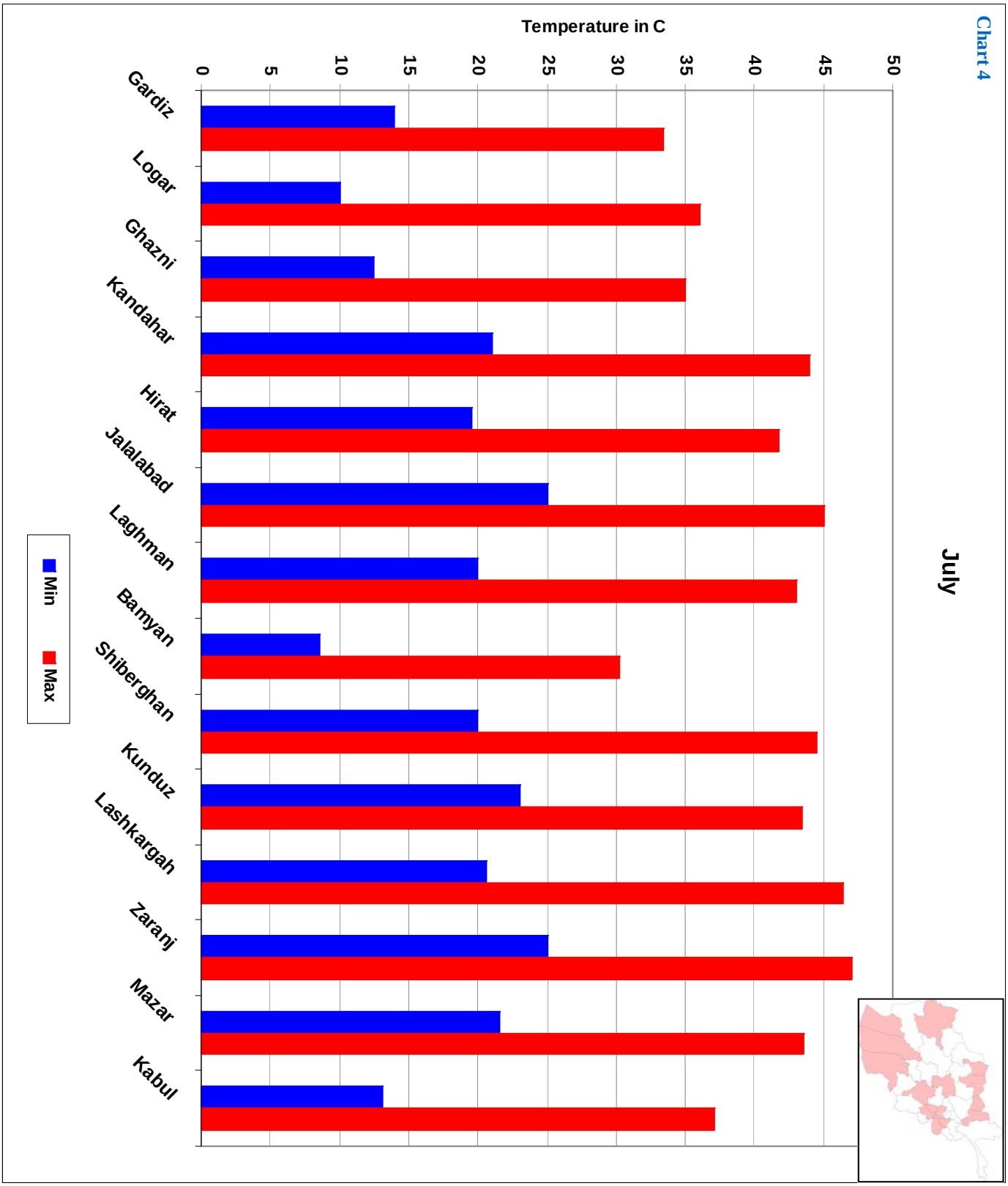


During the recent months temperature was accompanied with large negative anomaly 2 to 4˚ C in most parts of the country, but during the month of July 2012 temperature had different situations, in some parts of the country temperature had a decrease compared to the same month of last year in but, the other parts experienced higher temperature.

Comparison of monthly average of temperature for the month of July 2012 with the same month in 2011 (Chart3) shows different situation of temperature during the month of July this year, temperature had an increase in some parts during July 2012 over the same month of last year and some parts temperature had decreased.

Data Source:AMA

Chart 4



Zaranj with 47 C° was the warmest spot of the country during the month of July 2012

Chart (4) shows maximum and minimum temperature for the month of July 2012. As chart shows Zaranj with 47 ° C was the warmest spot of the country, and Bamyan with 8.6 ° C experienced lower temperature.

Data Source:AMA

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