Monthly Agromet Bulletin
National Agromet Centre (NAMC)
Pakistan Meteorological Department
Islamabad

Highlights…

• Above normal rains with heavy rainfall/snowfall were reported in most of the agricultural plains during the month. These heavy rains/snowfall and hail damaged/affected crops, livestock and infrastructure in some areas of KP and Punjab.
• Normal to slightly warmer temperature trend was observed in most of the agricultural plains of the country.
• Evaprotranspiration (ETo) remained normal to below normal whereas Relative Humidity (R.H) was recorded above normal in most of the agricultural plains of the country.
• Agricultural soils observed cooler than normal in upper half and slightly warmer in lower half of the country
• Keeping the present soil moisture and dry weather prevailing over most of the agricultural plains, farmers should free the crops from weeds and complete sowing of summer vegetables on time to fully utilize the present soil moisture.

Contents

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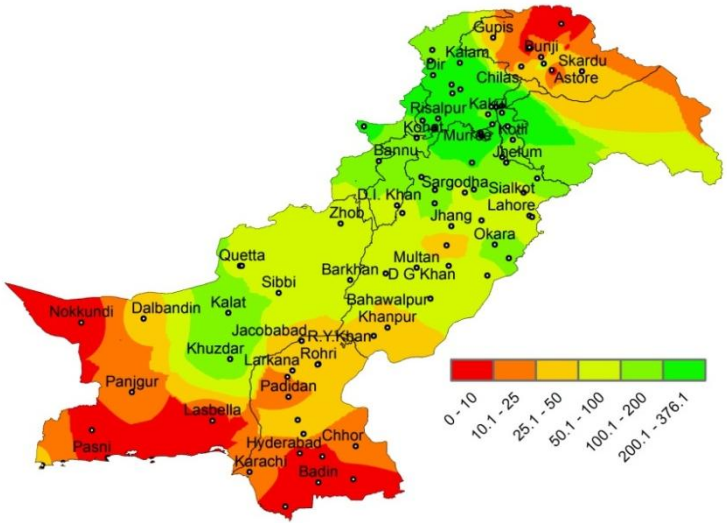
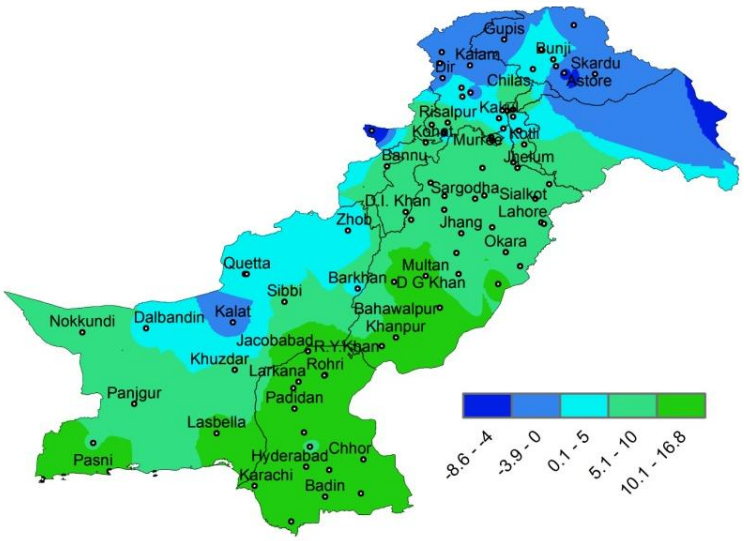
Explanatory Note

1. This Agrometeorological bulletin is prepared on the basis of data from 15 stations of Pakistan Meteorological Department (PMD). These stations, selected in consultation with the agricultural authorities, represent major agricultural areas of the country. There are still important agricultural areas which are not represented by the stations included in the bulletin. This may be (a) because there are no PMD stations in these areas and /or (b) the fact that we had to limit the number of stations due to the requirement of speedy data communication and processing (both of which are important for producing and dispatching timely Agrometeorological bulletins).
2. Due to the above, all inferences and conclusions hold true primarily for the above areas and not for Pakistan territory which include areas that may not be very important from the agricultural point of view and the climate of which may not bear directly on agriculture in the major producing areas.
3. The precipitation probability graphs at the end of the bulletin are computed using the long term records of these stations. The precipitations of the current season are plotted in this probability back ground. The use and interpretation of these graphs is clarified by an example. If the precipitation of a month in a station talley to an 80% probability, this means that 80% of the years (or on average 8 out of 10 years or 4 out of 5 years) the precipitation is equal to or less than the amount which was received during this month. One can also conclude that in 20% (100% - 80%=20%) of the years (or on the average 2 out of 10 years or one out of 5 years) the precipitations during this month exceeds the present level.
4. The evapotranspiration graphs at the end of the bulletin are based on computations using long term records of these stations. The evapotranspiration of the current season are plotted against this background. The reference crop evapotranspiration (ETo) is indicative of the evaporative demand of the prevailing atmospheric condition. It shows the rate of evapotranspiration from an extended surface of 8-15cm tall green grass cover of uniform height, actively growing. Evapotranspiration is, very roughly, 70% to 80% of ETo. However, it ranges from below 10% for a crop just emerging from the soil to over 100% for well watered densely planted tall crops under windy condition.
5. The normally expected weather of next month is prepared on the basis of premise of normal or near normal weather prevailing during the coming month. As such it should not be confused with synoptic weather of the next month.
6. In the tables, the values in the parentheses are based on 1961 to 1990 normal. Normal values (in parenthesis) of Soil Temperatures are based upon 10 years data. Dotted line **(---)** means missing data. Solar radiation intensities are computed from sunshine duration using co-efficients developed by Dr. Qamar-uz-Zaman Chaudhry of Pakistan Meteorological Department.

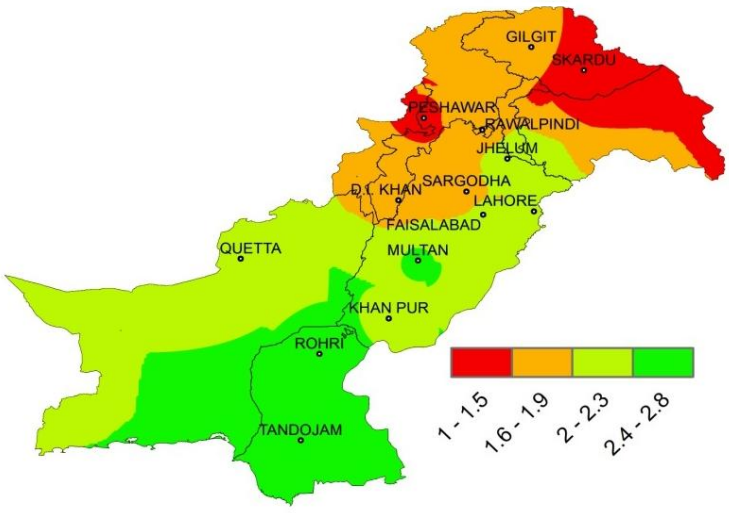
Rainfall distribution (mm) during the month of February, 2013



Minimum Temperature (°C) during the month of February, 2013



ETo (mm/day) during the month of February, 2013



Crop Report during February, 2013

Spraying/manual Weedicides operations on wheat and other Rabi crops and preparation of land/transplantation of summer vegetables nursery were the major field activities in most of the agricultural plains of the country during the month. Operations of chemical spraying against pest attacks on fruit orchards due to cloudy/moist atmosphere during the month were also in progress. Pace of growth and development of the crops both in irrigated and rainfed areas remained satisfactory due to continuous rains in the agricultural plains of the country in this month.

In **Punjab:** Growth of wheat crop is reported satisfactory both in rainfed and irrigated areas due to good rainfall throughout the month. The crop is reported at shooting/heading stage in most of the agricultural plains of the province. The hails reported in parts of district Bahawalnagar has caused some damage to the crop. Growth of oilseed is reported satisfactory and the crop is at grain formation stage. Growth of gram and lentil has also been reported satisfactory and the crops are at flowering/pod formation stage. Harvesting of oilseed crop has been started at Bahawalpur division. No serious pest attack has been reported on these crops. Harvesting/crushing of sugarcane has almost been completed and good yield is reported. Sowing/land preparation for summer vegetables is in progress.

In **Sindh:** Growth and development of wheat crop in the province is reported satisfactory. The crop is at wax/milk/full maturity stage and its harvesting has started in some areas of Sindh. No pest attack has been reported on the crop. Castor oil is growing satisfactory and its first picking is in progress. Safflower is at vegetative stage and growth has reported good. However a minor attack of black aphids has been reported on the crop due to persistent cloudy/ moist atmosphere during the month. Growth of linseed has been reported well and the crop is at capsule formation stage. Mangoes are at flowering stage and Hopper attack has been reported in some areas of lower Sindh. The growth of other seasonal fruits like guava, banana, Cheeko is in good condition.

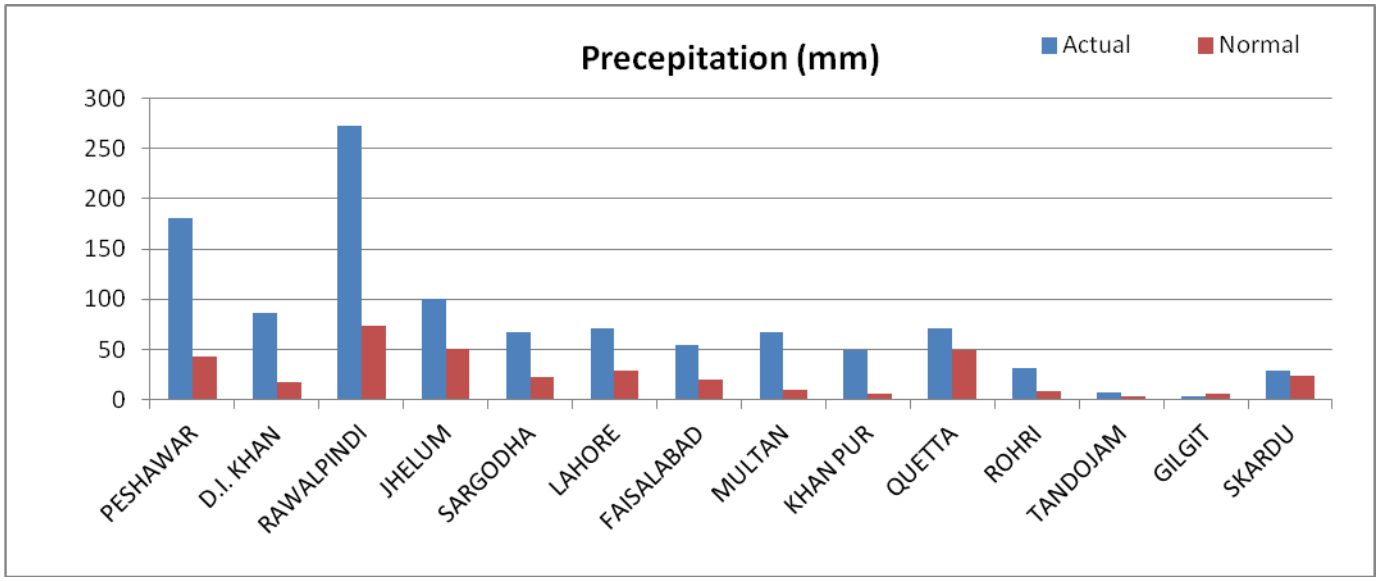
In **Khyber Pakhtoonkhawa:** Overall growth and development of wheat crop in the province is reported satisfactory. However, above normal rains/snow occurring during the month may affect the crop growth to some extent in hilly areas. The crop is at shooting/heading/flowering stage. No pest attack has been reported on the crop. Harvesting/crushing of sugarcane has almost completed and good yield has been reported. Sowing/land preparation for summer vegetables has started but farmers are facing problems in transplantation and sowing of vegetables nursery in the fields due to heavy rains reported in this February.

In **Balochistan:** Condition of standing crops like wheat, maize and canola has been reported satisfactory. All these crops are at their early growing stage. Growth of fruit orchards and that of seasonal vegetables is satisfactory and harvesting/picking is in progress.

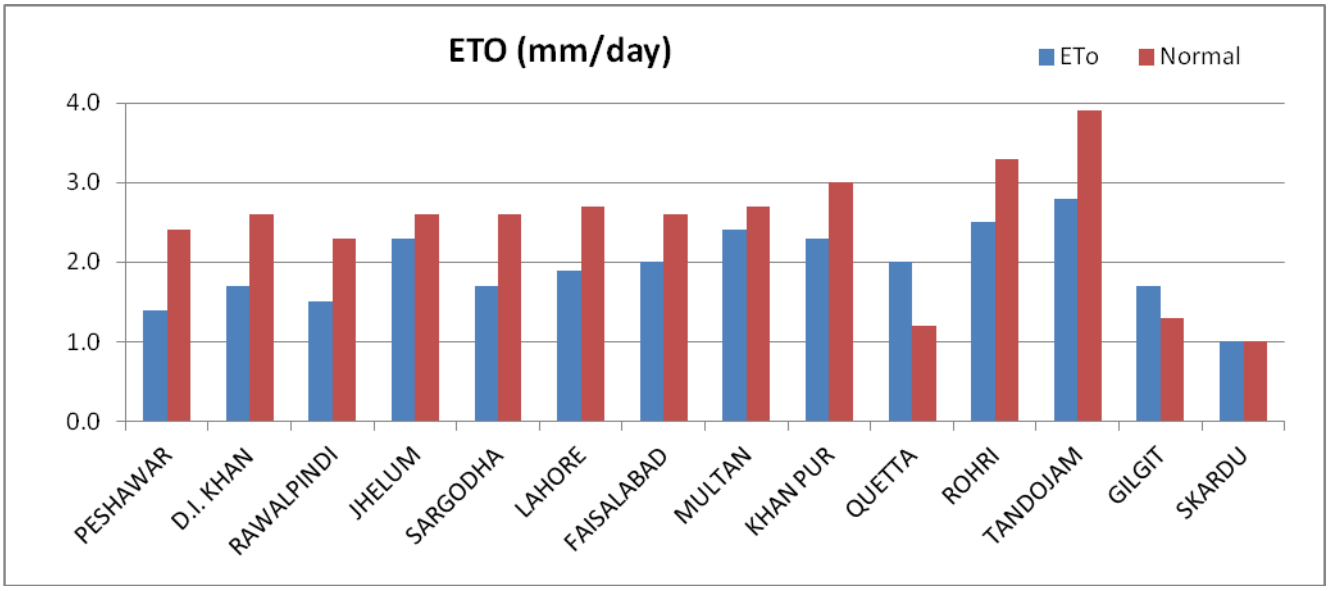
In **Gilgit Baltistan**: Most of the agricultural activities stop during the winter season in the area.

Moisture Regime during February, 2013

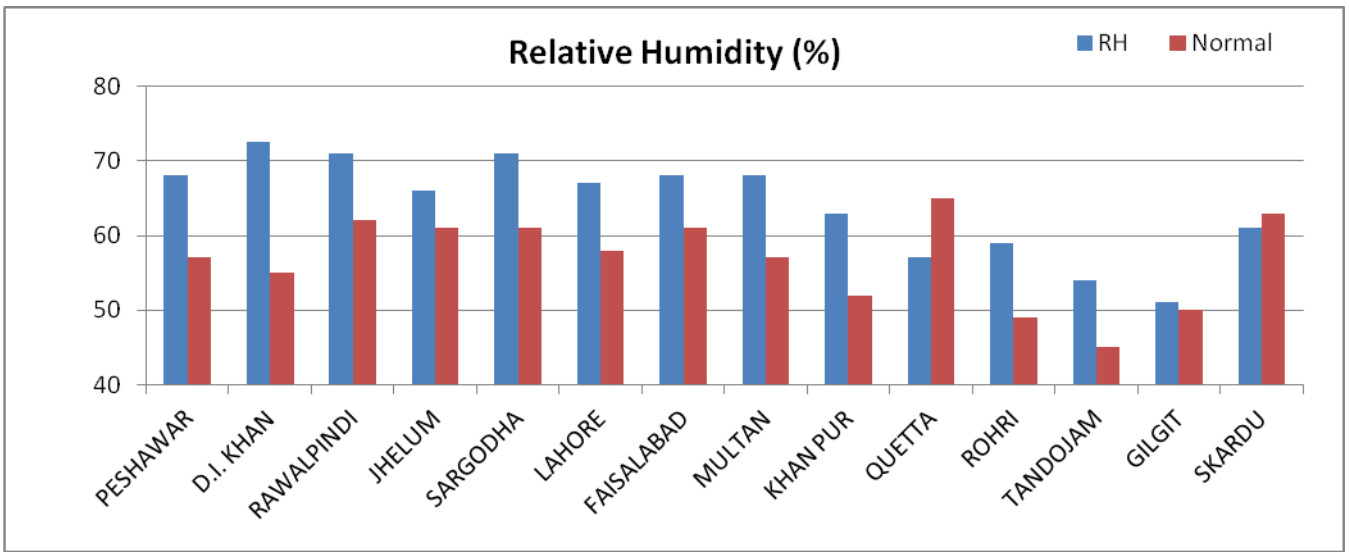
Winter rains generally continue from December to March in Pakistan. During this winter below normal rains reported from December to January in most of the agricultural plains of the country. However, in February above normal rain along with heavy spells and heavy snowfall were reported. Hail was also reported in some areas of Punjab and KP. These heavy rains/snowfall and hail damaged crops and badly affected livestock and infrastructure in areas of KP and Punjab.



The evaporative demand of the atmosphere represented by reference crop evapotranspiration (ETo) remained below normal in most of the agricultural plains of the country due to cloudy/rainy conditions prevailing in the country. It remained above normal at high elevated Quetta valley and Gilgit.



The mean daily Relative Humidity (R.H) remained normal to above normal in most of the agricultural plains of the country except high elevated plains of Quetta valley and Skardu where it remained slightly below normal. Maximum value of mean Relative humidity was observed 73% at D.I.Khan followed by 71% at Rawalpindi and Sargodha. The minimum value was observed at Gilgit as 51 %.



From overall analysis, it is evident that wet atmospheric and soil conditions observed in this month. Due to which the moisture stress condition which prevailed over most of the agricultural plains for the last three to four months have finished. Therefore rains occurred in this month have produced good atmospheric conditions for the development and growth of the crops. However wet conditions sometime favor pests attack on standing crops. Therefore farmers must be careful about timely and proper use of pesticides to avoid/minimize losses caused by such attacks. Heavy rains also speeds up weeds growth especially in wheat crop. Farmers should remove weeds through chemical spraying at heading/flowering stages in Punjab and KP.

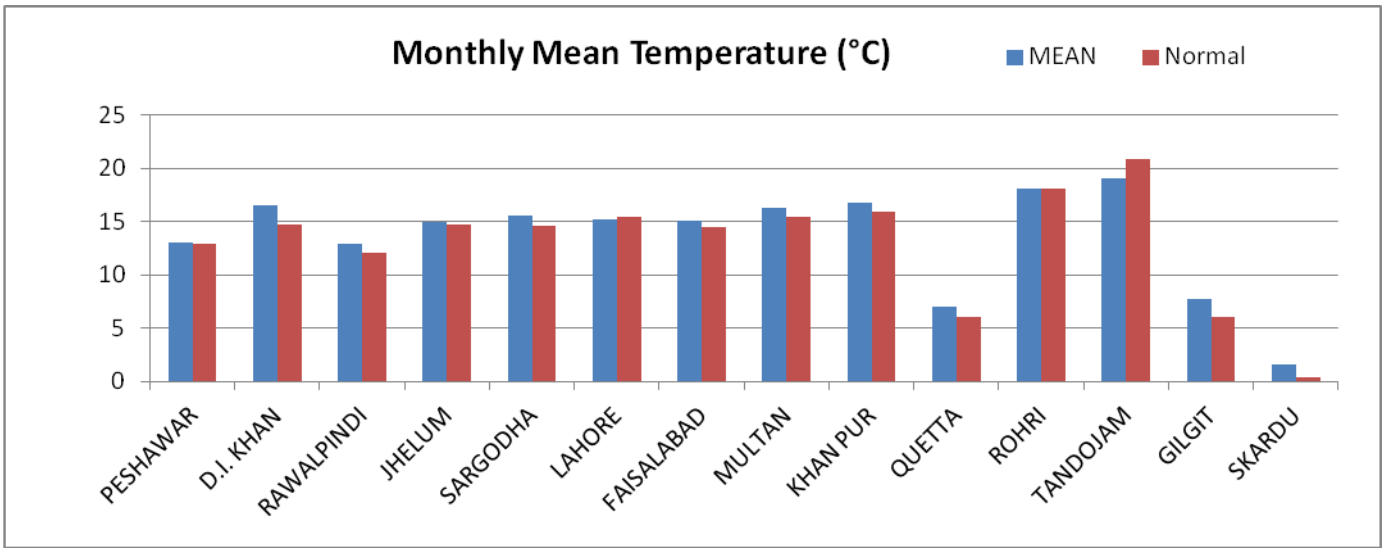
Temperature Regime during February, 2013

Temperature plays vital role in the growth and development of crops. Thermal regime in this month remained normal or slightly above normal in most agricultural plains of the country.

Mean daily temperature remained normal to slightly above normal (by 1°C) in most of the agricultural plains of the country. Mean daily temperature ranged 13 - 17°C in Khyber Pakhtoonkhawa, 13 to 15°C in Potohar plateau, in remaining parts of Punjab it ranged 15-17°C, in Sindh it ranged 18-19°C, in Gilgit Baltistan region it ranged 2 to 8°C and was observed 7°C in the high elevated agricultural plains of Balochistan represented by Quetta valley.

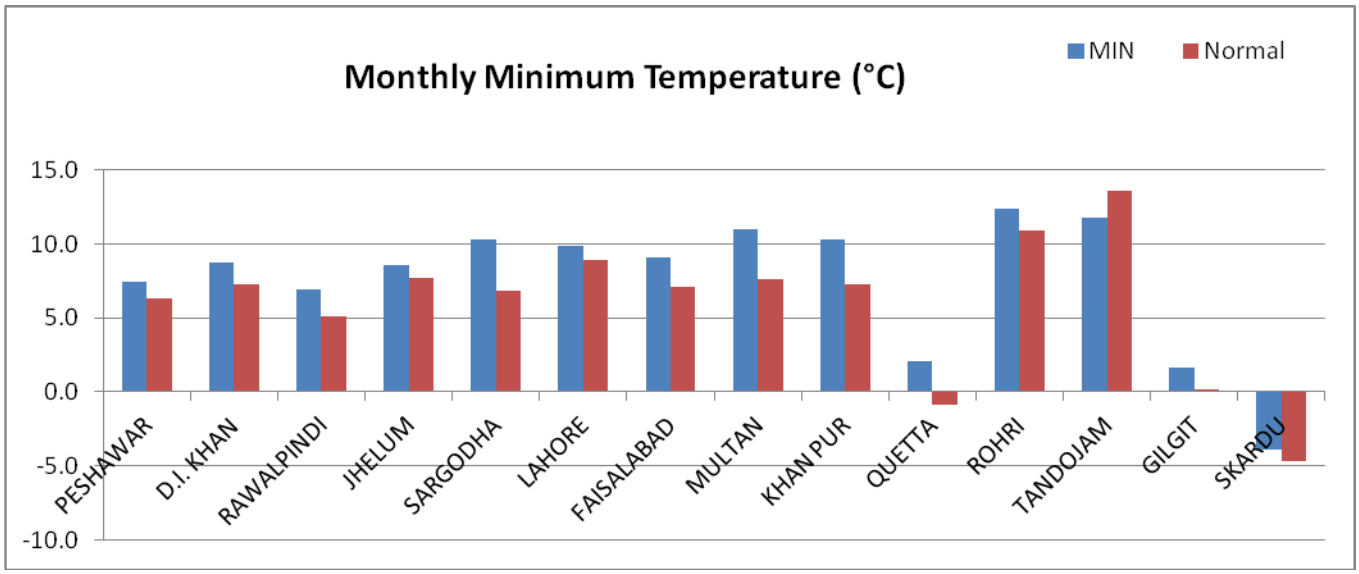
The day time temperature represented by mean maximum remained normal to below normal by 1-2°C in most of the agricultural plains except Skardu region where it remained above normal by 1°C. The highest maximum temperature in the agricultural plains of the country was recorded 31.5°C at Tandojam. The night time temperature represented by mean minimum remained above normal by 1 to 3°C in most of the agricultural plains of the country except Tandojam region of lower Sindh, where it remained slightly below normal (by 1°C). The lowest minimum temperature was recorded –10.5°C at Skardu.

Maximum number of stress days with minimum temperature less than or equal to 0°C was observed for 27days in Skardu, followed by 9 days in Quetta valley and 8 days in Gilgit. Number of stress days with maximum temperature greater or equal to 30°C or 40°C and R.H. less than or equal to 30% was nil in all agricultural plains of the country .

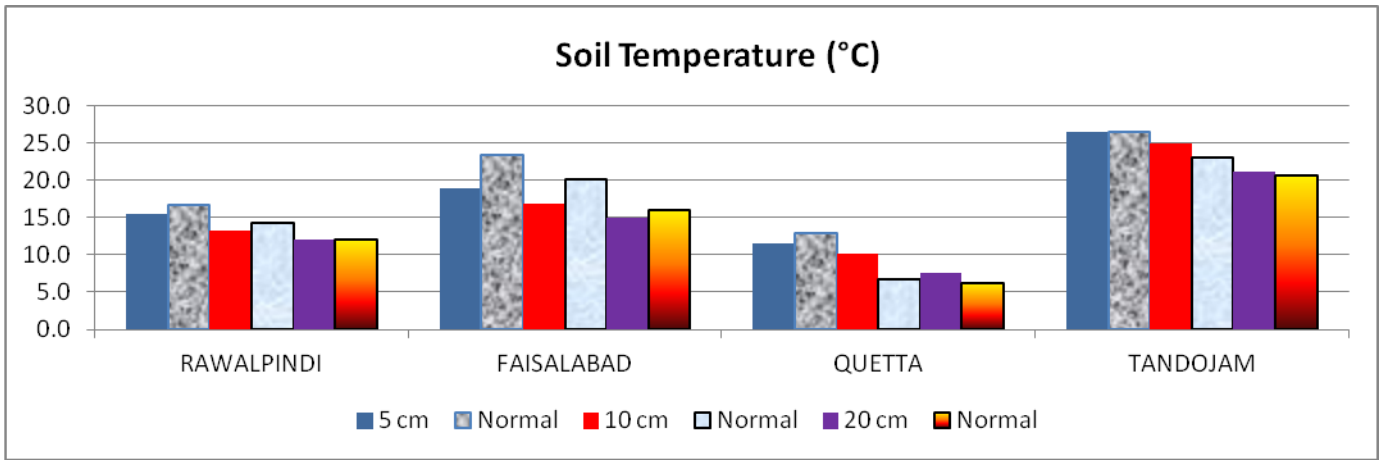


The night time temperature represented by mean minimum remained normal to above normal by 1 to 3°C in most of the agricultural plains of the country. However, in Lahore and Sargodha, the night time temperature remained above normal by 1-2°C. The lowest minimum temperature was recorded –

11.7°C at Skardu and extreme maximum temperature during the month was recorded 30°C at Tandojam.



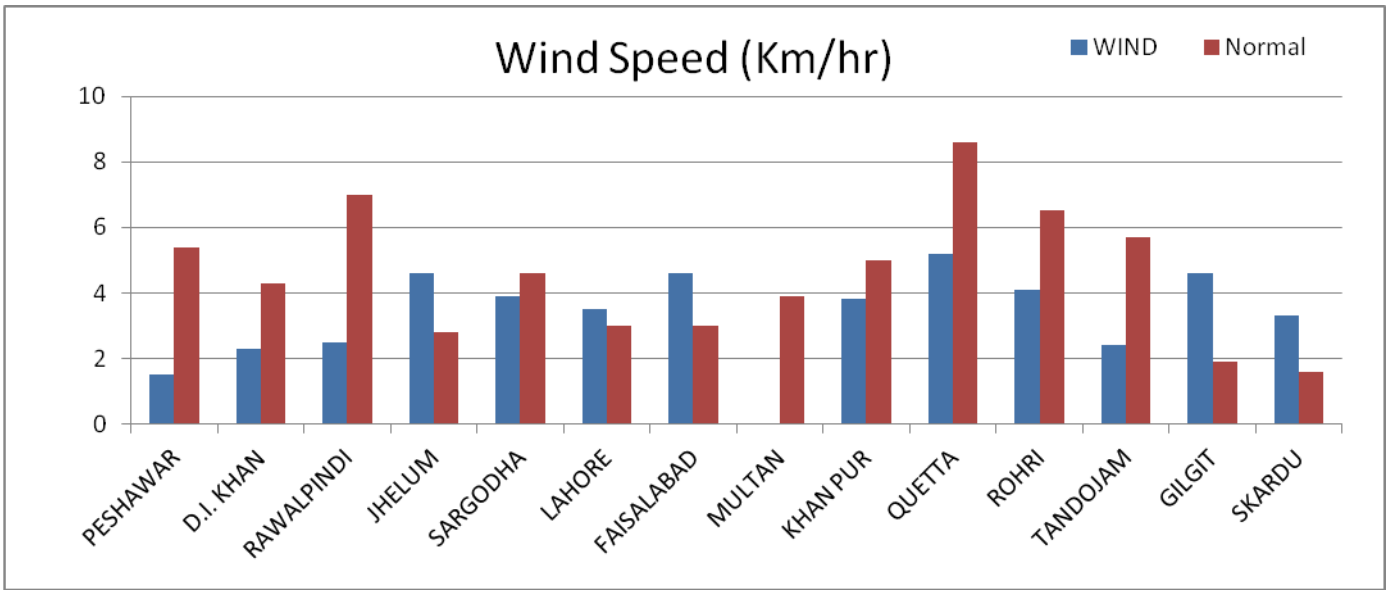
Agricultural soils showed mostly normal or cooler trend in most agricultural areas in upper half the country. However, normal to slightly warmer trend in lower half of the country. In Rawalpindi and Faisalabad divisions soil moisture was observed fairly below normal at shallow as well as at major root zones. Soil temperature was observed slightly above normal at major root zone at Quetta division and Tandojam region.

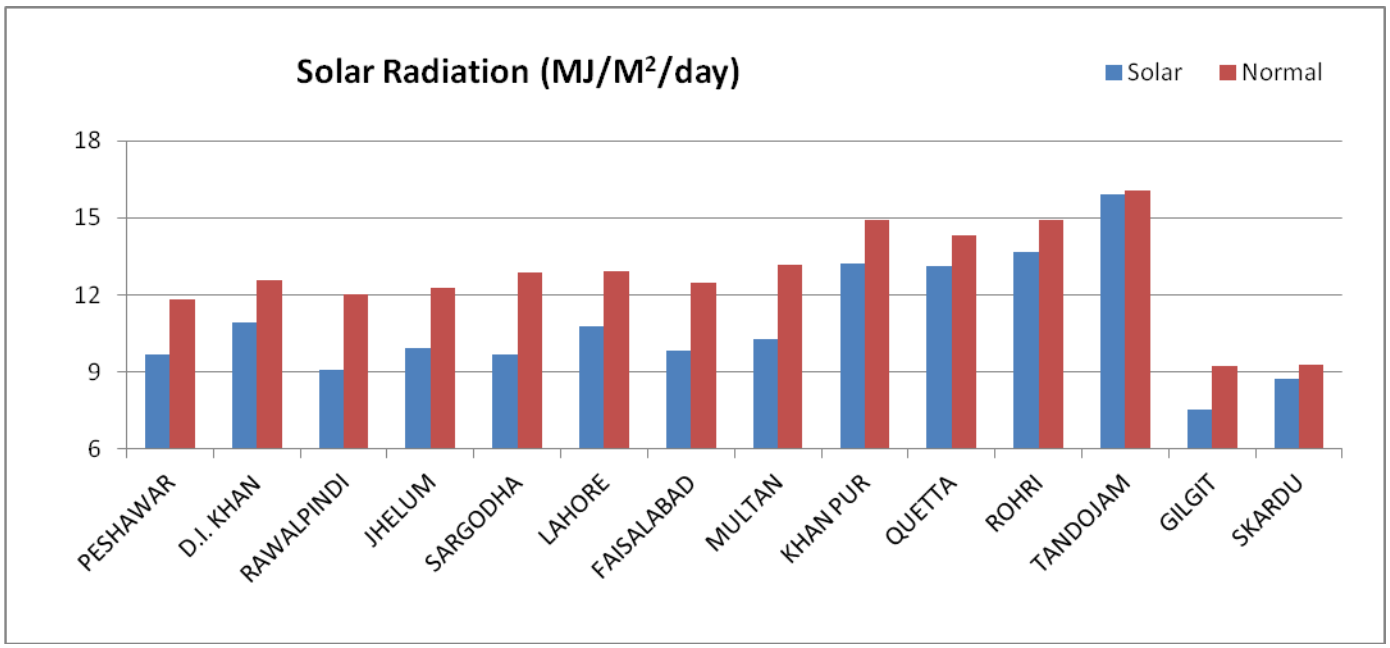


From the general analysis of soil behavior in this month, it is concluded that crop growth and development are free from moisture stress due to above normal rains in most of the agricultural plains during the month, especially in rainfed areas of upper half of the country, which is an indicator of normal yield of Rabi crops.

Solar Radiation and Wind Regime during February, 2013

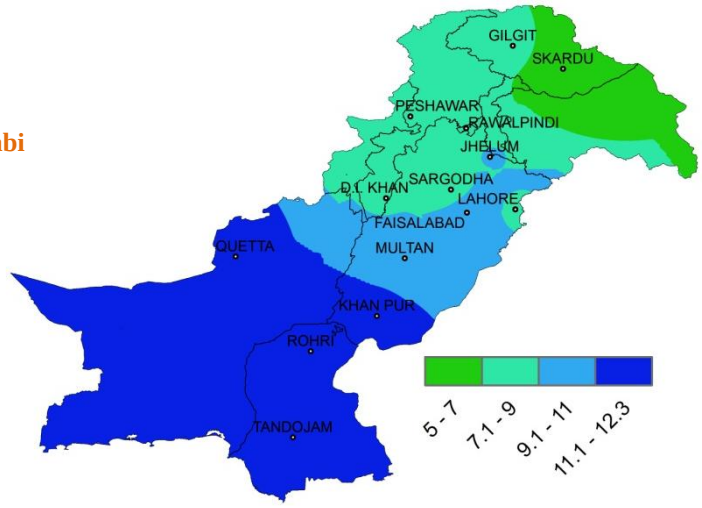
Total bright sunshine hours and solar radiation intensity showed falling trend in most of the agriculture plains in this month. Mean wind speed throughout agricultural plains of the country reached up to 5 km/h with North to North-West trend.



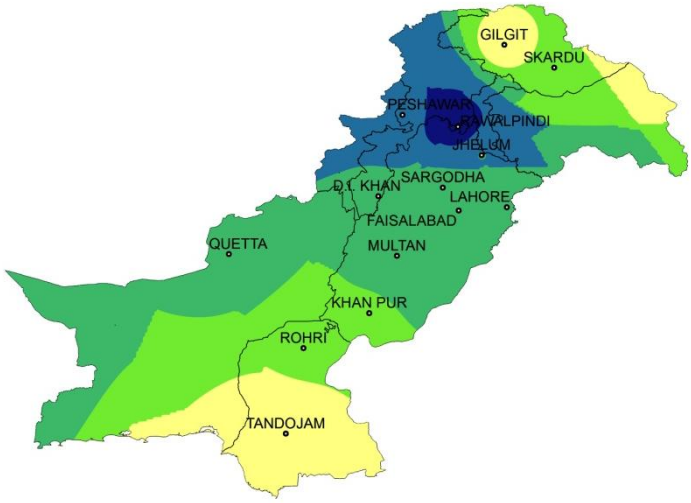


Comulative Rainfall, ETo and water stress for Rabi Season (Oct to April)

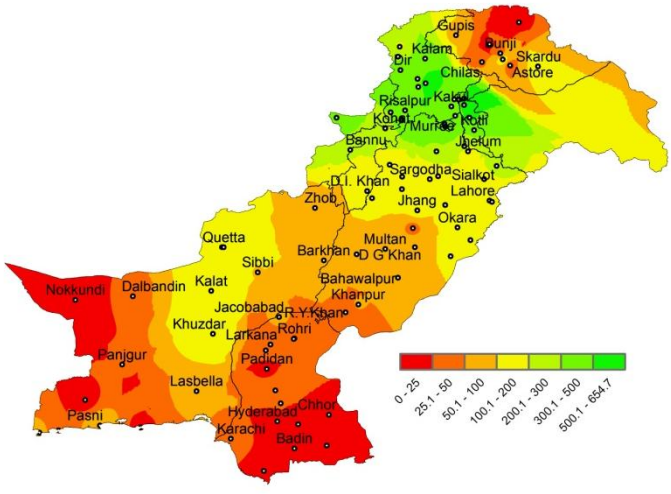
Cumulative ETo (mm) during Rabi Season up to February, 2013



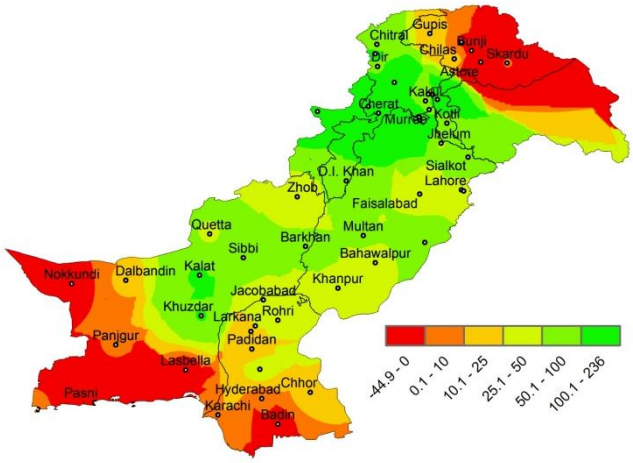
Water Stress (Rain-ETo) during Rabi Season up to January, 2013



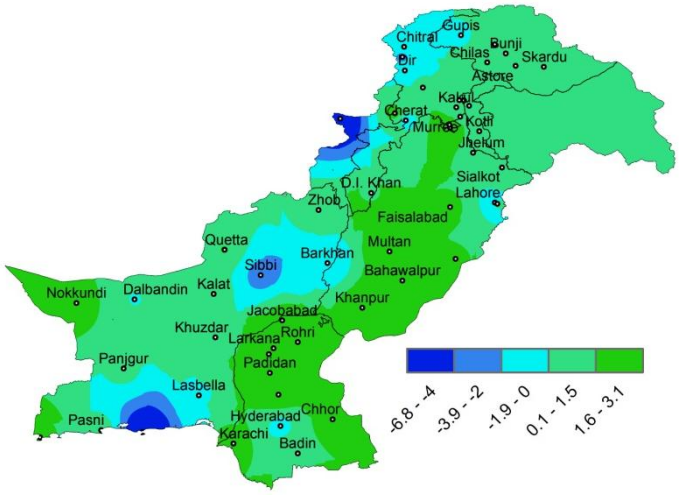
Cumulative rainfall (mm) during Rabi Season up to February, 2013



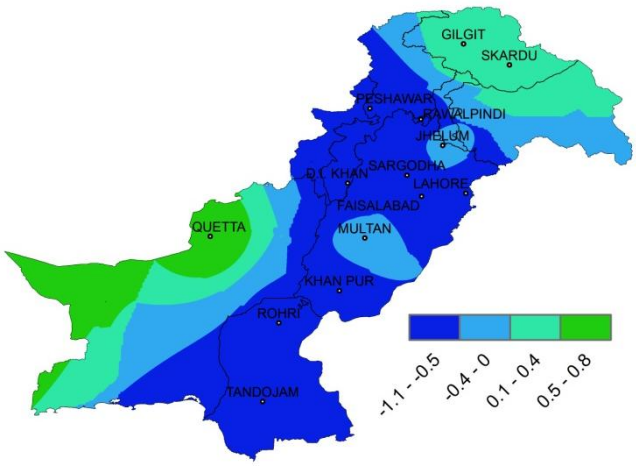
Rainfall Departure from Normal (mm) during the month of February, 2013



Minimum Temperature Departure from Normal (°C) during the month of February, 2013



ETo Departure from Normal (mm/day) during the month of February, 2013



Normally Expected Weather during March, 2013

March is normally the wettest month of winter season. Heating starts over the subcontinent due to increasing solar angle and the sun shine over the equator during last decade of the month. Heating trend triggers energetic weather systems, which resulted in increasing number of dust / wind storms and precipitation. March marks substantial addition to Rabi season precipitation and rising temperatures contribute significantly in photosynthesis process. The probability of occurrence of rainfall during March over Potohar plains is given below:-

Amounts/ Dates	Percentage Probability of Occurrence of different Amounts of Rainfall in March					
	1-5	6-10	11-16	17-20	21-25	26-31
10 mm	26	30	29	51	43	40
15 mm	22	23	21	36	35	23
25 mm	13	18	16	21	22	14

Potohar plateau and northern KPK may receive precipitation ranging from 160mm to 190mm depending upon location. However, remaining parts of Punjab, KPK and high agricultural plains of Balochistan are likely to experience precipitation between 125mm and 150mm. The rainfall amounts in rest parts of the country would also be significant.

The level of mean daily relative humidity is expected to drop as compared to January/February and would range between 45% and 60%. The daily evaporative demand of the atmosphere will increase with increasing temperature trend and mean daily values averaged over the month would vary from 3mm to 4mm in KPK, Punjab and high plains of Balochistan. However, ETo values would rise to 5mm/day in Southern Sindh and lower Balochistan.

The mean daily temperature would follow an increasing trend from north towards south and will vary between 17°C and 26°C whereas in Quetta valley it would be around 11°C. The daily maximum is likely to make monthly average as 24 to 34°C and minimum as 10 to 18°C from north towards south. The occurrence of freezing temperature is likely in Quetta valley, whereas daytime temperature may approach to 40°C in lower Sindh.

The mean daily duration of bright sunshine is likely to range from 7 to 9 hours following an increasing trend from north towards south. The mean daily wind speed may vary between 4 to 10 km/hr and would prevail mainly from north and west direction.

Wheat is the major Rabi crop in the agricultural plains of the country growing at different phonological phases e.g. at shooting in high agricultural plains of the country and heading to grain formation in low elevation plains during March. The crop water requirement of wheat in different regions is given as under:

S.No	Region	Water Requirement	
		(mm)	Cubic Meter/Hectare
1	Northern KPK and adjoining Punjab and high pl of Balochistan.	90-110	900-1100
2	Most of Punjab and Southern KPK.	120-140	1200-1400
3	Sindh and lower Balochistan.	140-150	1400-1500

Seasonal Weather Update

Introduction:

Regional weather (precipitation and temperature) outlook is predicted from different global climate models by using persisted sea surface temperature on 0000 Mar 01, 2013. That might be somewhat different from actual weather because of time to time variation in Sea Surface Temperature (SST) during the season. Accuracy of Outlook seasonal weather mainly depend upon SST used in global climate models. Even with use of accurate SST, still be uncertainty in the climate forecast due to chaotic internal variability of the atmosphere.

Synoptic situation:

- Jet stream (Zonal wind at 200 hPa) is expected to be stronger over west of the country from normal in March and tilted toward central parts of the country. Expected jet stream speed over central parts of the country will be 45 m/sec which is about 5 m/sec higher than normal (1982-2012) during March. Maximum convergence area over the west of the country will be expanded from normal during current month.
- Current synoptic situation shows the development of low pressure trough at the height of 500 hPa over central parts of the country. Trough over west becomes deeper during March.
- Surface temperature pattern is expected same as normal (1982-2012) values during March 13 over the country.
- North Atlantic Oscillation (NAO) is in slightly negative phase (nearly zero) and may effect on normal western disturbances track in the region. Horrell pc-based monthly calculation of NAO).
- Most of the set of dynamical and statistical model predictions weak La Nina conditions for the February-April. In the most recent week, the SST anomaly in the Nino3.4 regions was -0.3°C.
- Arabian Sea Surface Temperature is lightly above normal.
- Caspian Sea surface temperature is lightly above normal.
- Mediterranean Sea surface temperature is 0.5^{o}C higher from normal.

Seasonal Weather Outlook (Mar-May, 2013)

Precipitation:

Normal pattern and track of weather systems will be expected during whole spring season. As considering all present synoptic situation and variation in climatic indices it is observed that coming spring season will be slightly wet during last two months i.e. April and May. However average rainfall is likely to occur during March, 2013.

- Above normal rainfall over FATA, and Gilgit Baltistan.
- Below normal precipitation over Kashmir.
- Normal to slightly above normal over Punjab, Sindh Baluchistan and KP.

Temperature:

As per persisting synoptic situation, as a whole, no remarkable variation in expected temperature will be observed in all parts of the country. Slightly below than normal temperature will be expected during March over central parts of the country whereas slightly higher than normal during April.

Monthly Quantitative Weather Forecast

Precipitation is in mm/month

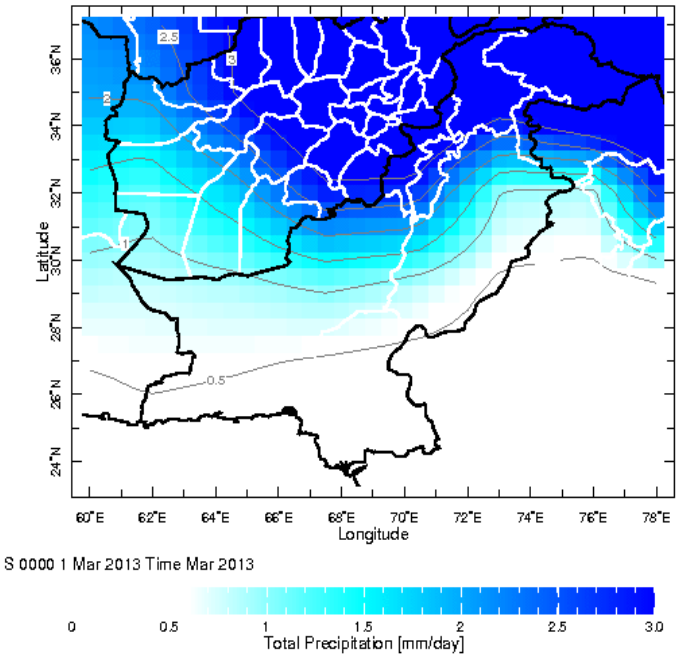
Mar-2013		
Province	Average	Expected
GB	34.6	Above Average
KP	92.5	Average
AJK	127.5	Below Average
FATA	67.4	Above Average
PUNJAB	30.9	Average
BALUCHISTAN	23.3	Average
SIND	4.7	Average
Pakistan	**27.17**	**Average**

Below Average > -10 %,
Average precipitation range = -10 to +10 %,
Above Average > +10%

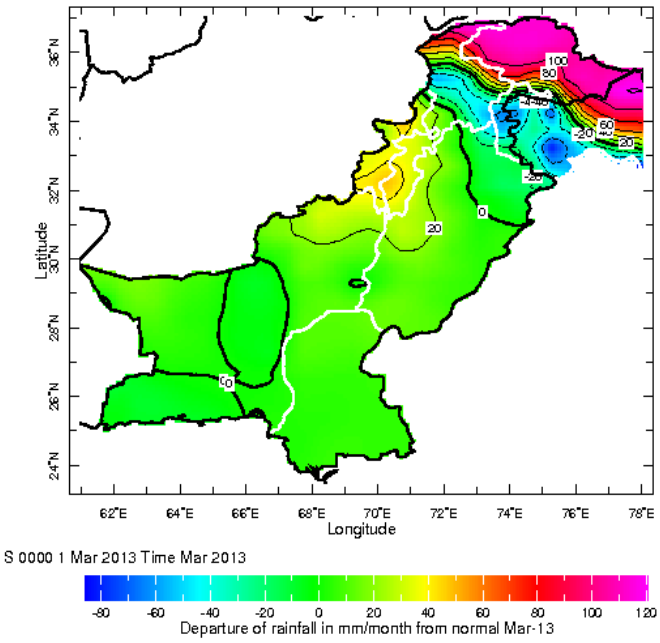
Note: Average precipitation is computed by using Global Precipitation Climate Center (GPCC) gridded data by resolution (0.5°x0.5°) latitude by longitude. Ensembles of different climate models are used for computation of expected precipitation over the region.

Spatial distribution of expected & departure rainfall during March, 2013

Excepted rainfall during March 2013

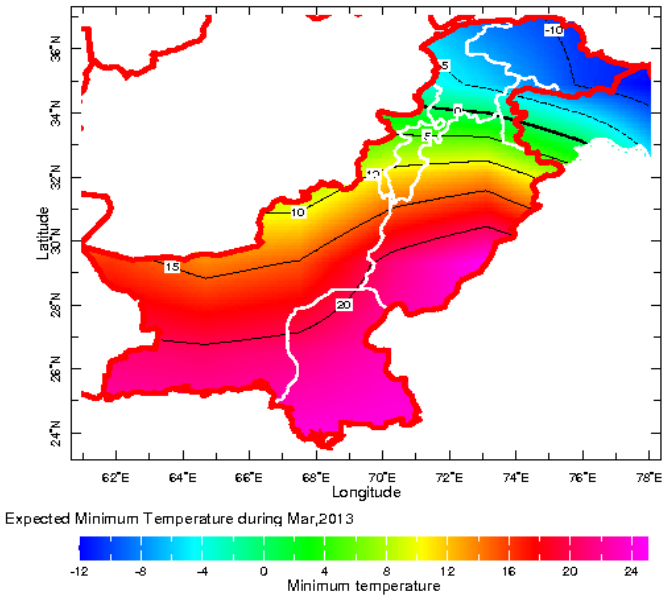


Departure from normal rainfall during March 2013

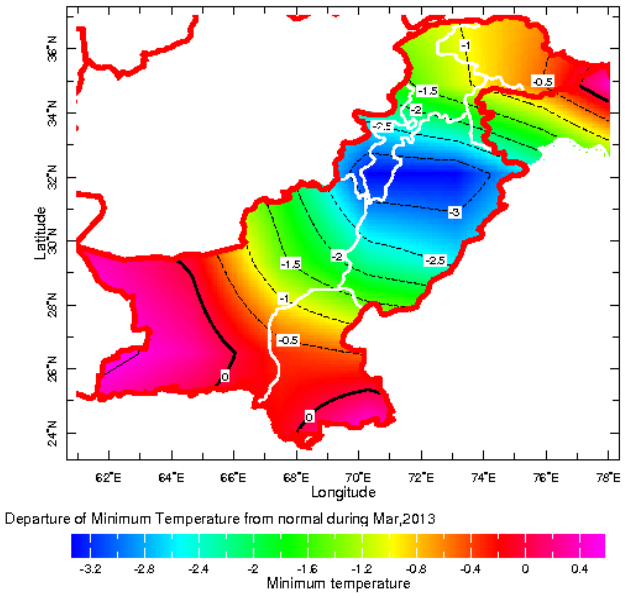


Spatial distribution of expected & departure minimum temperature during March 2013

Excepted min temperature during March 2013



Departure of min from normal during March 2013



مارچ 2013ء میں کاشتکاروں کے لیے زرعی موسمیاتی مشورے

ماہ فروری میں پورے ملک کے زیادہ تر زرعی میدانوں میں معمول سے زیادہ بارشیں ہوئیں۔ جس سے کھیتوں میں نمی کی کمی پوری ہوگئی ہے۔ مارچ کے مہینے میں بھی معمول کے مطابق بارشیں متوقع ہیں۔ اس لیے نہری علاقوں کے ساتھ ساتھ بارانی علاقوں میں بھی گندم اور دوسری فصلوں کی نشوونما میں کافی بہتری آجائے گی اور گندم کی اچھی پیداوار متوقع ہے۔

۱۔ مسلسل بارشوں اور مطلع ابر آلود رہنے سے ہوا میں نمی بڑھ جاتی ہے۔ جس کی وجہ سے فصلوں پر بیماریوں یا مضر کیڑوں کے حملوں کا خطرہ بڑھ جاتا ہے۔ کسی بھی بیماری یا زہریلے کیڑوں کے حملے کی صورت میں کسان حضرات کو تاکید کی جاتی ہے کہ بروقت محکمہ زراعت کے منظور کردہ کیڑے مار اسپرے کر کے فصل کو نقصان سے بچائیں۔

۲۔ مارچ کے مہینے میں درجہ حرارت فروری کی نسبت کافی بڑھ جائیں گے اور درجہ حرارت کے بڑھنے سے فصل کی نشوونما بھی بڑھ جاتی ہے۔ پہاڑی علاقوں میں شدید سردی کی وجہ سے گندم کی فصل کی نشوونما سست ہو رہی تھی جو اب بہتر ہو جائے گی۔ کوئٹہ جیسے بلند زرعی میدانوں میں گندم فروری کے مہینے میں بوٹا کرنے کے مرحلے میں تھی جو کہ مارچ کے مہینے میں تناباننے کے مرحلے میں داخل ہو جائے گی۔ بوٹا کرنے کے مرحلے میں درجہ حرارت کم سے کم مطلوب ہوتے ہیں اس لحاظ سے پہاڑی علاقوں کے زرعی میدانوں میں فروری کے درجہ حرارت نہایت سازگار رہے اور گندم کی فصل نے بوٹا کرنے کا مرحلہ بخوبی طے کر لیا ہے۔

۳۔ ماہرین زراعت اگر کھاد کے استعمال کا مشورہ دیں تو بارانی علاقوں کے کاشتکار بارش کی پیشگوئی سے ایک دن قبل کھیتوں میں کھاد ڈال دیں۔ مگر اس سے قبل ابھی وقت ہے کہ کھیتوں کو جڑی بوٹیوں سے بالکل صاف کر دیا جائے تاکہ کھاد کا فائدہ صرف اور صرف فصل کے پودوں کو ہو ورنہ جڑی بوٹیاں کھاد سے استفادہ کر کے فصل پر چھا جائیں گی اور فصل کی پیداوار بری طرح متاثر ہوگی۔ جڑی بوٹیاں فصل کے پودوں سے عموماً زیادہ پانی استعمال کرتی ہیں اس لئے جڑی بوٹیوں کا کھیت سے خاتمہ اشد ضروری ہے۔ جڑی بوٹیوں کی تلفی کے لئے محکمہ زراعت کی سفارش کردہ مختلف کیمیائی ادویات استعمال کی جا سکتی ہیں۔ اگر کیمیائی طریقے سے ممکن نہ ہو تو ہاتھ سے جڑی بوٹیاں تلف کریں۔

۴۔ زراعت کی کامیابی میں موسمی حالات کا بہت عمل دخل ہے اور بہتر حکمت عملی سے غیر موزوں موسمی حالات سے بھی استفادہ کیا جا سکتا ہے۔ محکمہ موسمیات کی پیشگوئی کو ملحوظ خاطر رکھ کر محکمہ زراعت کے ماہرین کی مشاورت سے اپنے معمولات طے کریں تو پیداوار میں خاطر خواہ اضافہ ممکن ہے۔ موسمی حالات سے متعلق مزید معلومات کیلئے محکمہ موسمیات کے قریبی دفتر سے رابطہ کیا جا سکتا ہے۔ جن کا پتہ درج ذیل ہے۔

۱۔ نیشنل اگرومیٹ سینٹر، پی۔او بکس نمبر ۱۲۱۴، سیکٹر ایچ ایٹ ٹو، اسلام آباد۔ فون نمبر:- 051-9250299
۲۔ نیشنل فورکاسٹنگ سینٹر برائے زراعت، پی۔او۔ بکس، ۱۲۱۴، سیکٹر ایچ ایٹ ٹو، اسلام آباد۔ فون نمبر:- 051-9250363-4
۳۔ ریجنل اگرومیٹ سینٹر، نزد بارانی یونیورسٹی، مری روڈ، راولپنڈی۔ فون نمبر:- 051-9290635
۴۔ ریجنل اگرومیٹ سینٹر، ایوب ریسرچ انسٹیٹیوٹ، جھنگ روڈ، فیصل آباد۔ فون نمبر:- 041-2657047
۵۔ ریجنل اگرومیٹ سینٹر، ایگریکلچر ریسرچ انسٹیٹیوٹ، ٹنڈو جام۔ فون نمبر:- 0222-766583
۶۔ ریجنل اگرومیٹ سینٹر، ایگریکلچر ریسرچ انسٹیٹیوٹ، سریاب روڈ کوئٹہ۔ فون نمبر:- 081-9211211

تفصیلی موسمی معلومات کیلئے محکمہ موسمیات کی ویب www.pmd.gov.pk ملاحظہ کریں۔

پیداواری ٹیکنالوجی دالیں (مونگ، ماش)

مونگ اور ماش کا شمار خریف کی اہم فصلوں میں ہوتا ہے۔ان میں تقریباً 20 سے 40 فیصد پروٹین ہوتی ہے۔جو کہ انسانی غذا کا اہم جزو ہے۔مونگ کی دال زود ہضم ہونے کی وجہ سے مریضوں اور بچوں کی صحت کے لئے بہت مفید ہے۔ماش کی دال ذائقہ کے اعتبار سے لوگوں میں بہت مقبول ہے۔مونگ اور ماش کے پودوں کی جڑوں میں جراثیم ہوتے ہیں۔جو کہ ناڈیول (منکے) بنا کر ہوا سے نائٹروجن حاصل کر کے پودوں کو خوراک مہیا کرتے ہیں۔مزید یہ کہ جڑیں گلنے سڑنے کے بعد زمین کی زرخیزی میں اضافہ کرتی ہیں۔مونگ اور ماش دالوں کی نہری اور بارانی علاقوں میں یکساں طور پر کامیابی کے ساتھ کاشت کیا جا سکتا ہے۔یہ دونوں فصلیں کافی حد تک پانی کی کمی اور زیادہ درجہ حرارت کو برداشت کر سکتے ہیں۔ان کی کاشت اُن علاقوں میں بغیر آبپاشی کے بآسانی ہو سکتی ہے جہاں پر سالانہ بارش 500 ملی میٹر سے 700 ملی میٹر تک ہو۔یہ فصلیں 2000 میٹر کی بلندی تک بآسانی کاشت کئے جا سکتے ہیں۔

تجربات سے ثابت ہوا ہے۔کہ ایک سال میں مونگ کی دو فصلیں ایک موسم بہار میں اور دوسری موسم گرما میں بڑی آسانی سے کاشت کی جا سکتی ہیں۔بہاریہ فصل پر خریف کی نسبت کیڑوں اور بیماریوں کا حملہ کم ہوتا ہے۔مونگ کی فصل کماد کی بہاریہ کاشت اور مونڈھی فصل کے ساتھ مخلوط کاشت بھی کی جا سکتی ہے۔چاول والے علاقوں میں جہاں گندم یا ربیع کی کوئی دوسری فصل کاشت نہ ہو سکتی ہو اس رقبے پر بہاریہ مونگ کی کاشت زمین کی زرخیزی کو بحال کرنے میں اہم کردار ادا کرتی ہے۔

زمین :

کاشت کے لئے میرا زمین موزوں ہے جبکہ کلراٹھی اور سیم زدہ زمین غیر موزوں ہے۔اس کی کاشت اُس مٹی میں زیادہ فائدہ مند ہے جس کی PH سکیل 6.2 سے 7.2 تک ہو مٹی کے اُوپر والی سطح پر بارش وغیرہ کا پانی مستقل نہ کھڑا ہو سکے۔مونگ اور ماش کی فصل کم زرخیز زمین پر مناسب پیداوار دے سکتے ہیں۔

وقت کاشت :

موسم بہار میں مونگ کی کاشت مارچ کے پہلے ہفتہ سے آخر مارچ تک کی جا سکتی ہے۔البتہ مارچ کا پہلا نصف اس کی کاشت کے لئے زیادہ موزوں ثابت ہوا ہے۔مونگ کی خریف کاشت آبپاش علاقوں میں 25 مئی تا 15 جون جبکہ بارانی علاقوں میں مون سون کی بارشیں شروع ہونے پر جولائی کے دوسرے ہفتے تک مکمل کر لیں۔اور اسطرح ماش کی فصل کے لئے جولائی کا پورا مہینہ کاشت کے لئے موزوں ہے۔بارانی علاقوں میں کاشت جون کے آخری ہفتہ سے جولائی کے دوسرے ہفتے تک مکمل کریں۔البتہ جولائی کا پہلا ہفتہ کاشت کیلئے زیادہ موزوں ہے۔

جڑی بوٹیوں کی تلفی :

جڑی بوٹیاں ہوا، جگہ، پانی اور غذائی اجزاء کے حصول کے لئے اصل فصل سے مقابلہ کرتی ہیں اس لیے یہ جڑی بوٹیاں کسی بھی فصل کی پیداوار کو متاثر کرنے میں بنیادی عنصر ہیں۔ماش اور مونگ چونکہ درمیانی جسامت کی فصلیں ہیں اس لئے ان کو جڑی بوٹیا کافی نقصان پہنچاتی ہیں۔لہٰذا ماش اور مونگ کی اچھی پیداوار حاصل کرنے کے لئے جڑی بوٹیوں کی وجہ سے ان فصلوں کی پیداوار میں 25 سے 55 فیصد تک کمی ہو سکتی ہیں۔بارش کے بعد چونکہ جڑی بوٹیوں کی بڑھوتری بڑھ جاتی ہے اس لئے بارش کے بعد ان کی روک تھام پر خصوصی توجہ ضروری ہے۔

آبپاشی :

بہاریہ مونگ کو تین چار دفعہ آبپاشی درکار ہوتی ہے۔پہلا پانی اگاؤ کے تین چار ہفتہ بعد۔دوسرا پانی پھول نکلنے پر اور پھر ایک یا دو بار پانی حسب ضرورت دو ہفتے کے وقفے سے پھلیاں بننے اور پھلیوں میں دانہ بننے پر دیں۔خریف مونگ کو دو تین دفعہ آبپاشی درکار ہوتی ہے۔پہلا پانی اگاؤ کے تین چار ہفتہ بعد۔دوسرا پانی پھول نکلنے پر اور پھر ایک بار پانی حسب ضرورت دیں۔اس دوران بارش ہونے کی صورت میں آبپاشی دھیان سے کریں۔بارش کی کمی کی صورت میں اگر صرف ایک آبپاشی میسر ہو تو پھول اور پھلیاں بنتے وقت آبپاشی ضرور کریں۔زیادہ بارش کی صورت میں زائد پانی کے نکاس کا مناسب بندوبست کریں۔

ماش کی فصل کو تین بار پانی درکار ہوتا ہے۔پہلا پانی اگاؤ کے تین ہفتہ بعد دوسرا پھول نکلنے پر اور تیسرا دانہ پھلیاں بننے پر لگایا جاتا ہے۔اگر اس دوران بارش ہو جائے تو آبپاشی حسب ضرورت کریں۔زیادہ بارش کی صورت میں زائد پانی کے نکاس کا مناسب بندوبست کریں۔

تحریر۔محمد ایاز ،میٹرولوجسٹ
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1.Agripunjab.com.pk
2.www.growerspulses.com