

Monthly Agromet Bulletin

National Agromet Centre

Pakistan Meteorological Department

Vol: 03-2024

March 2024

Highlights...

- ❖ During this month of March, near normal to slightly above normal rains were reported from most parts of the country particularly Central/Northern parts of Khyber Pakhtunkhwa. However, below normal rainfall reported from an isolated location of northwestern Khyber Pakhtunkhwa, central/southeastern Punjab and Lasbella in southeastern Balochistan
- ❖ Thermal regime particularly the night time temperatures remained mostly normal to slightly below normal over the most parts of the country particularly eastern/southeastern belt of Balochistan and some parts of eastern Khyber Pakhtunkhwa along the adjoining areas of Gilgit Baltistan and Potohar region
- ❖ The mean Relative Humidity (RH) remained nearly normal to below normal over most parts (Selected locations) of the country particularly the Potohar region, Sargodha, and Faisalabad in Central Punjab, Southern Punjab, and Gilgit Baltistan.
- ❖ The evaporative demand of the atmosphere represented by reference crop evapotranspiration (ET_o) remained mostly below normal (selected locations) of the country particularly in lower Khyber Pakhtunkhwa, Potohar region, Central & Southern Punjab, and Gilgit Baltistan. However, above-normal values were recorded in Quetta Valley and Sindh Province.
- ❖ During April 2024, normal to above normal precipitation is likely over most parts of the country, particularly in Khyber Pakhtunkhwa, Azad Kashmir, and Potohar region.
- ❖ During the months of April 2024, slightly above-normal mean temperature is likely over most of the upper parts of the country particularly northern belt of Khyber Pakhtunkhwa, Gilgit-Baltistan and Azad Kashmir. However, nearly normal mean temperatures are expected over the central and lower half of the country.
- ❖ Farmers are advised to take precautionary measures to protect their crops, vegetables, orchids, and livestock from the harmful impacts of expected variable weather conditions during the month of April.

Contents

Explanatory Note	Pg. 2
Moisture Regime	Pg. 3
Temperature Regime	Pg. 5
Relative humidity	Pg. 7
Wind and Solar radiation	Pg. 7
Ref. ET _o and water stress	Pg. 8
Soil Temperature Regime	Pg. 11
Crop Report	Pg. 12
Expected Weather	Pg. 13
Farmer's advisory In Urdu	Pg. 15
Cotton Crop And weather (Urdu)	Pg.16

Patron-in-Chief: **Mahr Sahibzad Khan**, Director General

Editor-in-Chief: **Asma Jawad Hashmi**, Director

Editor: **Muhammad Ayaz**, Meteorologist

Published by: National Agromet Centre (NAMC)

P.O. Box:1214, Sector: H-8/2, Islamabad, Pakistan

Tel: +92-51-9250592, **Fax:** +92-51-9250368 **Email:** dirnamc@yahoo.com

Website: www.pmd.gov.pk

EXPLANATORY NOTE

1. This Agrometeorological bulletin is prepared based on data from 14 stations of the 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 that 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 primarily for the above areas and not for Pakistan territory which includes areas that may not be very important from the agricultural point of view and the climate which may not bear directly on agriculture in the major producing areas.
3. The normally expected weather of next month is prepared based on the premise of normal or near normal weather prevailing during the coming month. As such it should not be confused with the synoptic weather of the next month.
4. Summer Season/ Kharif remains from April/May to October/November and the Rabi season from November to April. Mean Monthly Maximum Temperature images are included in summer and Mean Monthly Minimum Temperature images are included in winter in the Bulletin.
5. In the tables, the values in the parentheses are based on the 1991 to 2020 climate normal. Normal values (in parenthesis) of Soil Temperatures are based on 10-year data. The dotted line (---) means missing data. Solar radiation intensities are computed from sunshine duration using coefficients developed by **Dr. Qamar-Uz-Zaman Chaudhry** of the Pakistan Meteorological Department.

Moisture Regime during March 2024

During this month of March, near normal to slightly above-normal rains were reported from most parts of the country particularly in Central to Northern parts of Khyber Pakhtunkhwa. However, below normal rainfall reported from an isolated location of northwestern Khyber Pakhtunkhwa, central/southeastern Punjab and Lasbella in southeastern Balochistan (Fig.1b).

A considerable amount of rainfall was reported from most of the upper half of the country particularly Khyber Pakhtunkhwa, Gilgit Baltistan, Kashmir, Potohar region along the northwestern parts of Balochistan. While light rainfall was observed in the rest of the country. (Fig.1a). Maximum number of rainy days were recorded 09 at Joharabad, Garhi Dopatta, Rawalakot, Dir, Kalam, Mirkhani, Pattan, Quetta (Samungli) each.

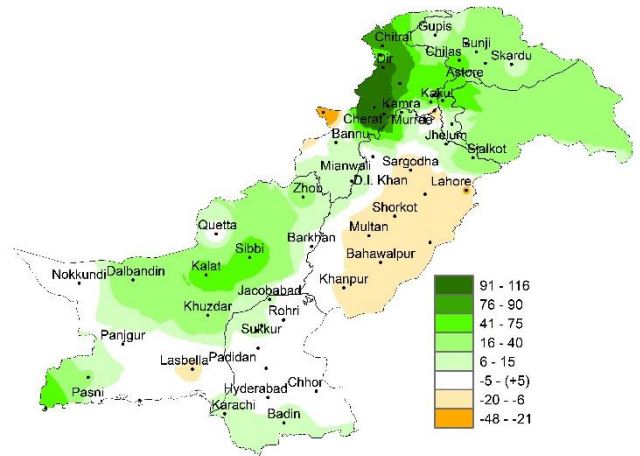
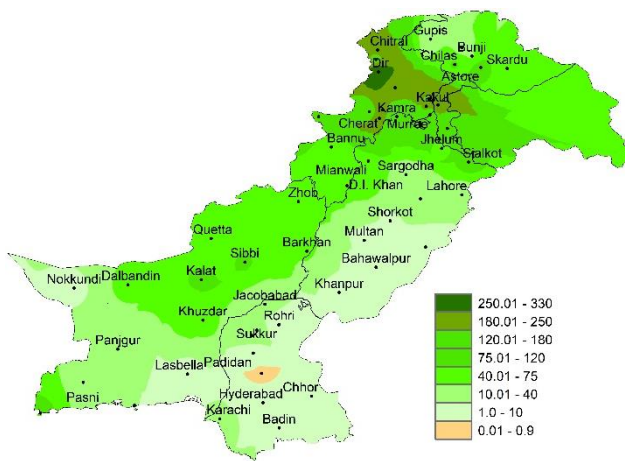


Figure 1(a): Actual Rainfall (mm) during March 2024

Figure 1(b): Departure of Rainfall (mm) during March 2024

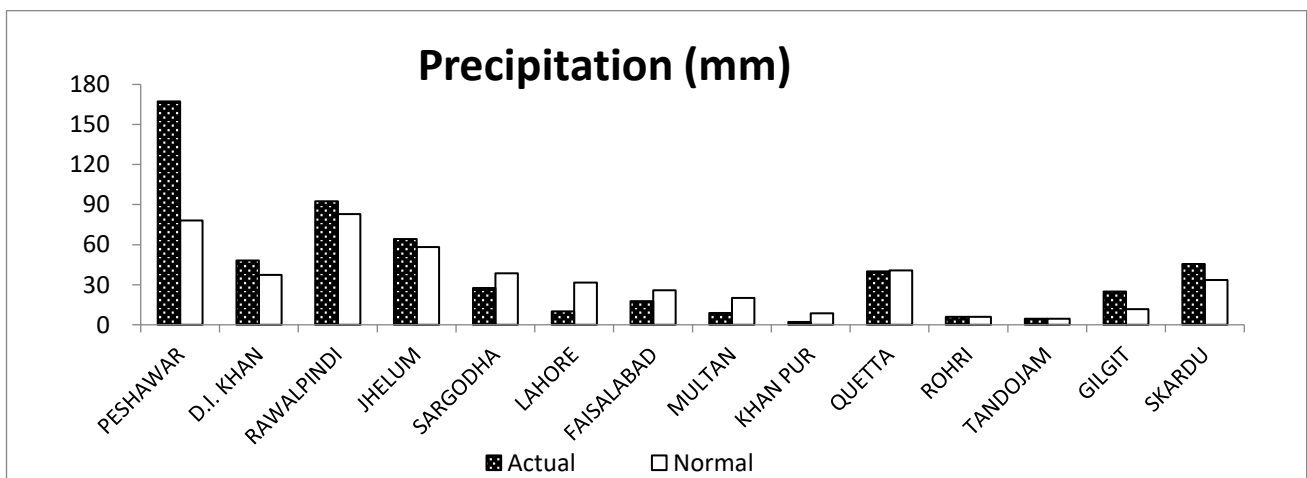


Figure 1(c): Comparison of Actual Precipitation (mm) with Normal values (1991-2020) for selected locations (March 2024)

S.No	Station	Total Rainfall (mm)
1.	Dir	331
2.	Malam Jabba	296
3.	Muzaffarabad Airport	272
4.	Pattan	268
5.	Lower Dir	260
6.	Rawalakot	250
7.	Saidu Sharif	212
8.	Kalam	211
9.	Garhi Dopatta	208
10.	Risalpur	197

Table 1(a): Monthly Total Rainfall Recorded during March 2024

Moisture Regime during the current months of Rabi Season (October 2023 – March 2024)

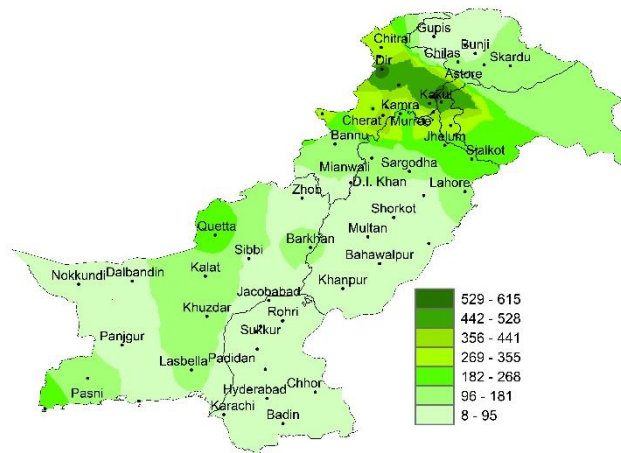


Figure 1(d): Actual Cumulative Rainfall (mm)

March is considered to be the ending month of Rabi season as seasonal crops for lower half of the country. Most of the seasonal crops including wheat, mustard, grams etc. and vegetables are sown till the mid of December. At present, the major agricultural soils (particularly in the upper half) hold a considerable moisture based on the recently prevailed weather conditions. (Fig.1d).

*** Cumulative Rainfall = Sum of all the rainfall events recorded during the current months of Rabi Season

Temperature Regime during March 2024

Temperature plays a vital role in the growth and development of crops. Thermal regime particularly the nighttime temperatures remained mostly normal to slightly below normal over the most parts of the country particularly eastern/southeastern belt of Balochistan and some parts of eastern Khyber Pakhtunkhwa along the adjoining areas of Gilgit Baltistan and Potohar region (Fig.2b).

The lowest temperatures were observed over the upper parts including Northern Khyber Pakhtunkhwa, Gilgit Baltistan and Kashmir (Fig.2a).

The night-time temperature at selected locations remained normal to below normal with the departure of -0.8°C at Peshawar in Khyber Pakhtunkhwa, -1.4°C in Potohar region, -0.7°C , at Lahore in Central Punjab, and -1.1°C at Tandojam in Sindh. Whereas the rest of Punjab (Selected locations) observed nearly normal temperatures. Moreover, above-normal temperature was observed with a departure of 1.0°C at Quetta Valley and 3.5°C at Skardu in Gilgit Baltistan (Fig.2c).

Mean monthly temperature (at selected locations) ranged between 18 to 21°C in Khyber Pakhtunkhwa, 17 to 20°C in Potohar plateau, 20 to 23°C in remaining parts of Punjab, 23 to 24°C in agricultural plains of Sindh, 9 to 13°C in Gilgit-Baltistan region and it was observed 11.4°C in the high elevated agricultural plains of Balochistan represented by Quetta valley (Fig.2d).

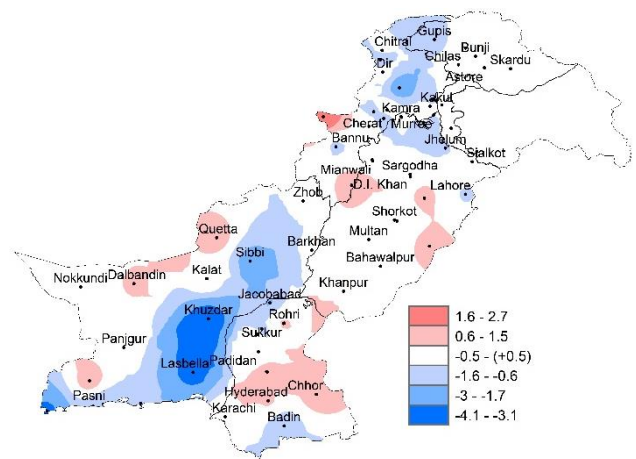
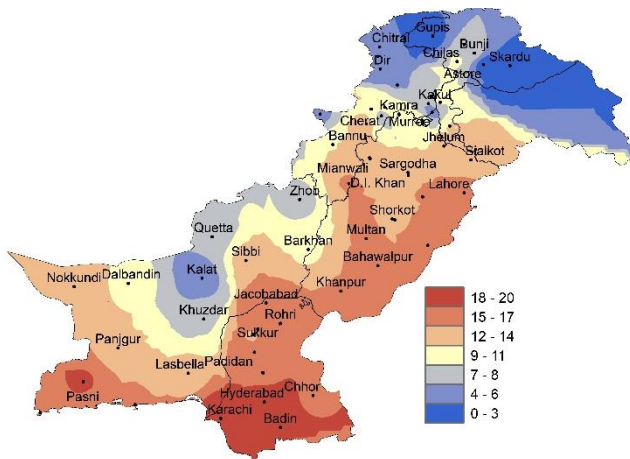


Figure 2(a): Minimum Temperature ($^{\circ}\text{C}$) during March 2024

Figure 2(b): Departure of Minimum Temperature ($^{\circ}\text{C}$) during March 2024

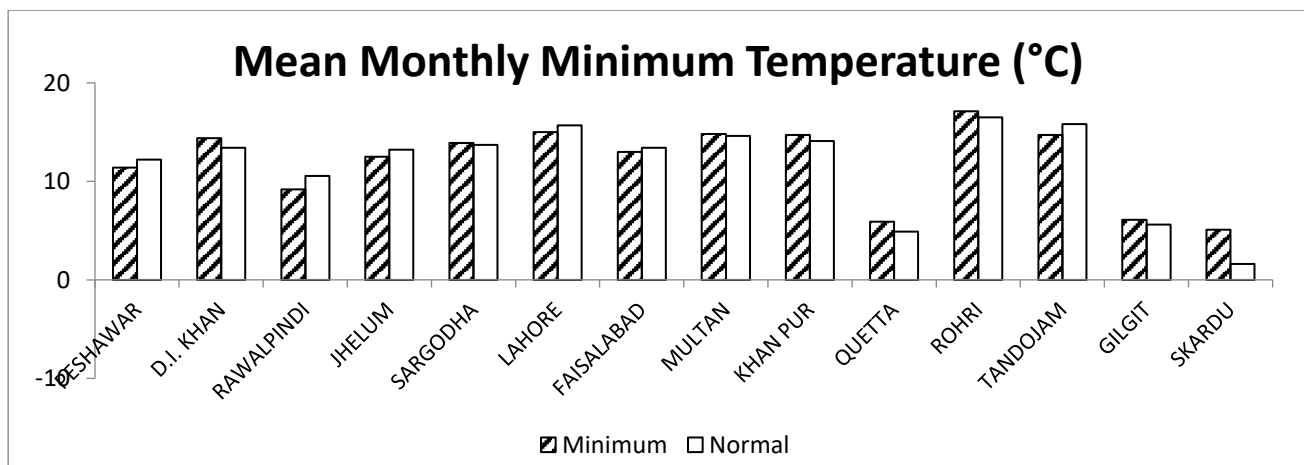


Figure 2(c): Comparison of Actual Minimum Temperature (°C) with Normal values (1991-2020) for selected location (March 2024)

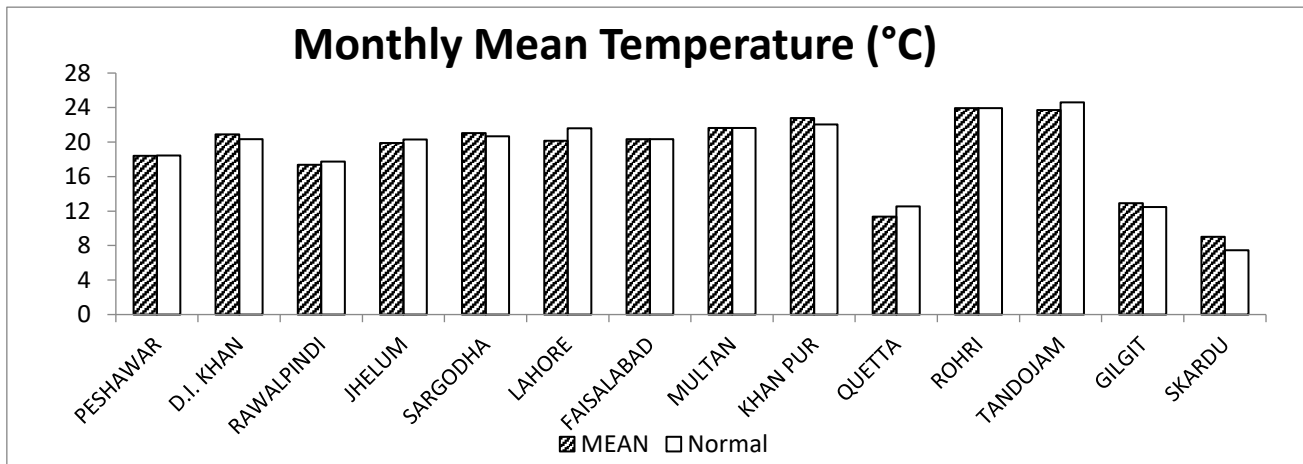


Figure 2(d): Comparison of Monthly mean Temperature (°C) with Normal values (1991-2020) for selected locations (March 2024)

Mean Monthly Minimum Temperature (°C) during Rabi Season (Oct 2023 – April 2024)

Dotted Curve: Current months (Oct, 2023 - Mar, 2024)

Plain Curve: Normal values

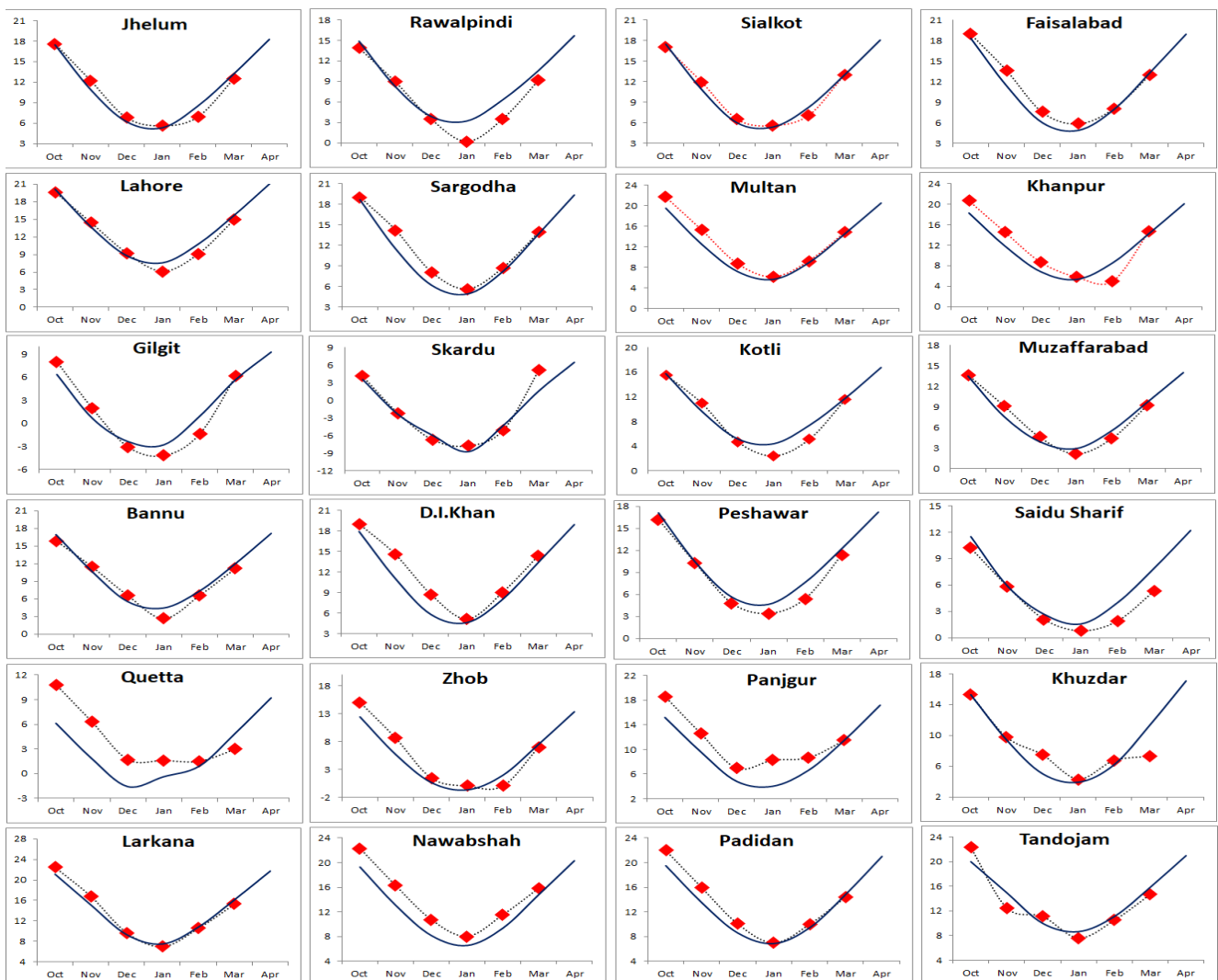


Figure 2(e): Comparison of mean monthly Temperature (°C) with Normal values (1991-2020) for selected locations.

Relative Humidity Regime during March 2024

The mean Relative Humidity (RH) remained nearly normal to below normal over most parts (Selected locations) of the country particularly the Potohar region, Sargodha, and Faisalabad in Central Punjab, Southern Punjab, and Gilgit Baltistan. The maximum value of mean RH was observed as 58% at Rawalpindi, 57% at Jhelum, 56% at D. I. Khan, 55% at Peshawar and Faisalabad each (Fig.3a). None of the station observed mean RH greater than or equal to 80%.

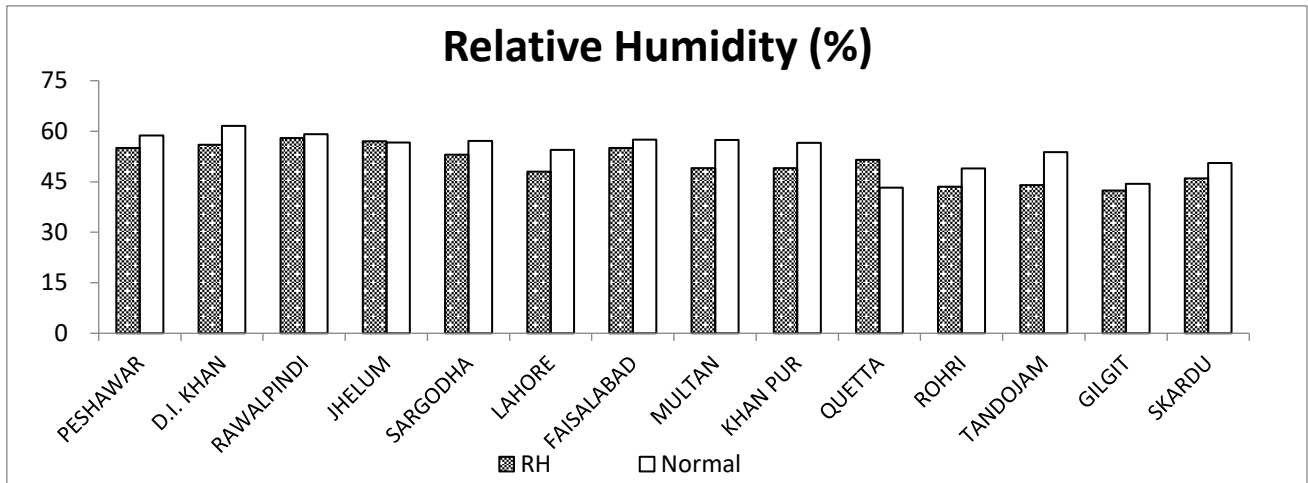


Figure 3(a): Comparison of Actual Relative Humidity (%) with Normal values (1991-2020) for selected locations (March 2024)

Wind Regime and Solar Radiation during March 2024

Mean wind speed at selected locations of the country ranged between 0.9 – 9.9 Km/h with a northwest trend. Maximum wind speed recorded as 9.9 km/h at Rohri (Fig.4a). Total bright sunshine hours and solar radiation intensity remained below normal over the selected locations of lower Khyber Pakhtunkhwa, Potohar region, central & southern Punjab, Quetta Valley Gilgit Baltistan, and Sindh (Fig.4b).

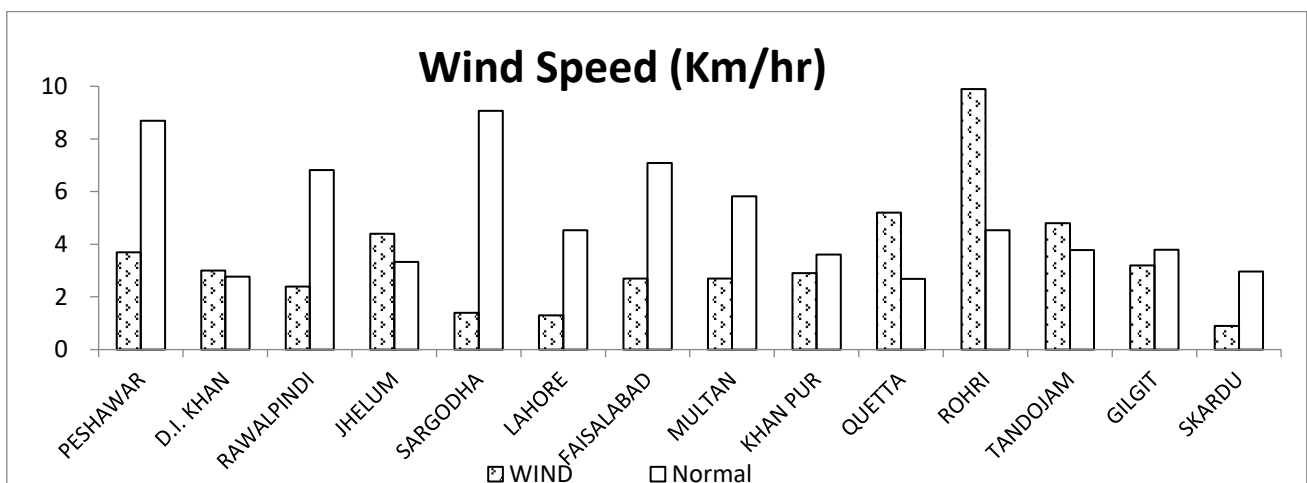


Figure 4(a): Comparison of Mean Wind speed (Km/hrs.) with Normal values (1991-2020) for selected locations (March 2024)

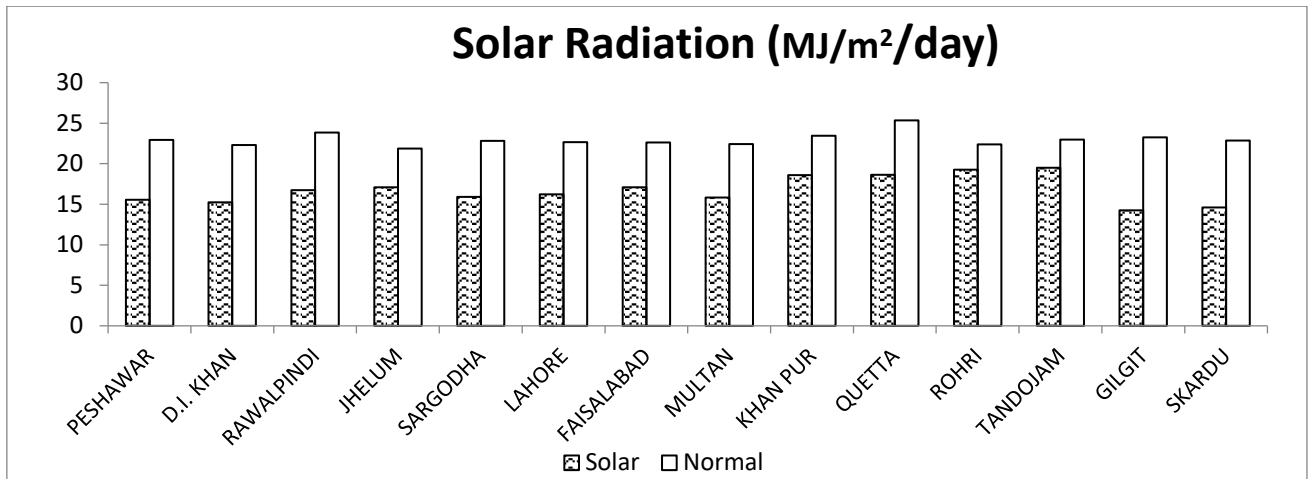


Figure 4(b): Comparison of Sunshine hours with Normal values for selected locations (March 2024)

Reference Evapotranspiration Regime during March 2024

The evaporative demand of the atmosphere represented by reference crop evapotranspiration (ET_o) remained mostly below normal (selected locations) of the country particularly in lower Khyber Pakhtunkhwa, Potohar region, Central & Southern Punjab, and Gilgit Baltistan. However, above-normal values were recorded in Quetta Valley and Sindh Province. Mixed trend was observed in Potohar region and Gilgit Baltistan (Fig.5b). The highest value of daily based ET_o (5.9 mm/day) has been estimated in Rohri.

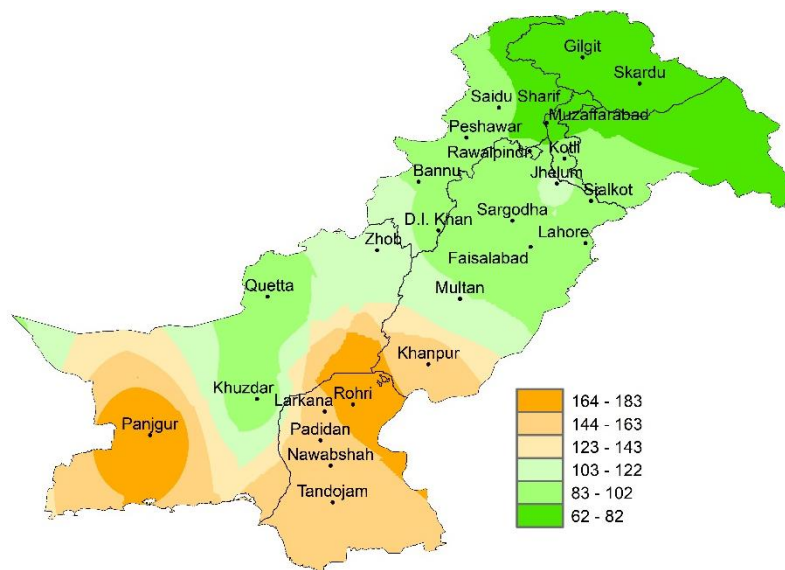


Figure 5(a): Reference ET_o (mm) during March 2024

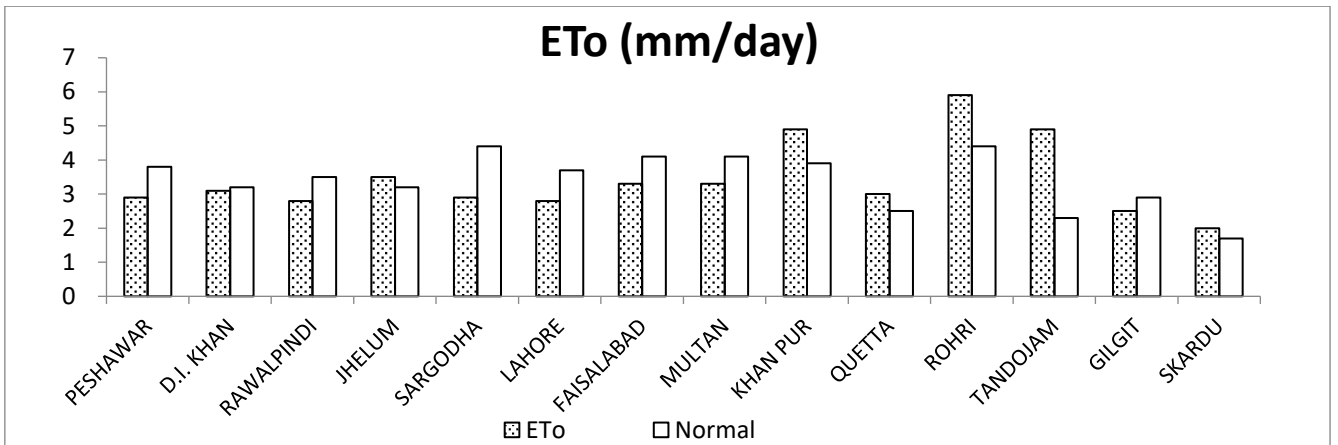


Figure 5(b): Comparison of Actual ETo (mm/day) with Normal values (1991-2020) for selected locations (March 2024)

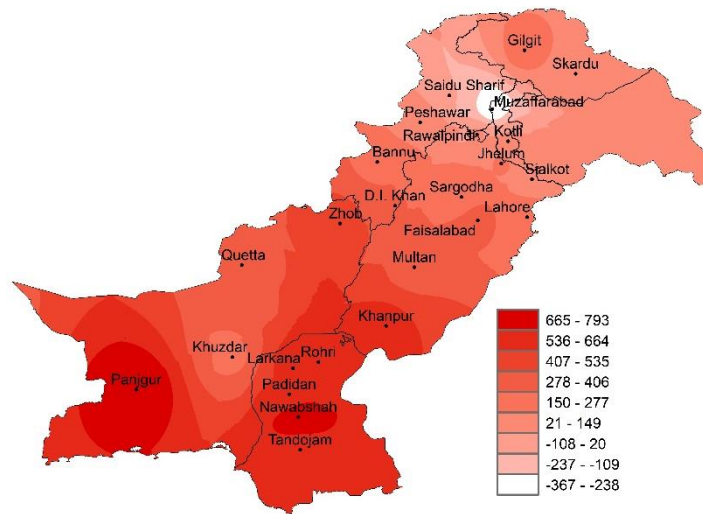


Figure 5(c): Cumulative Water Stress (ETo - Rain) during (Oct 2023- March 2024)

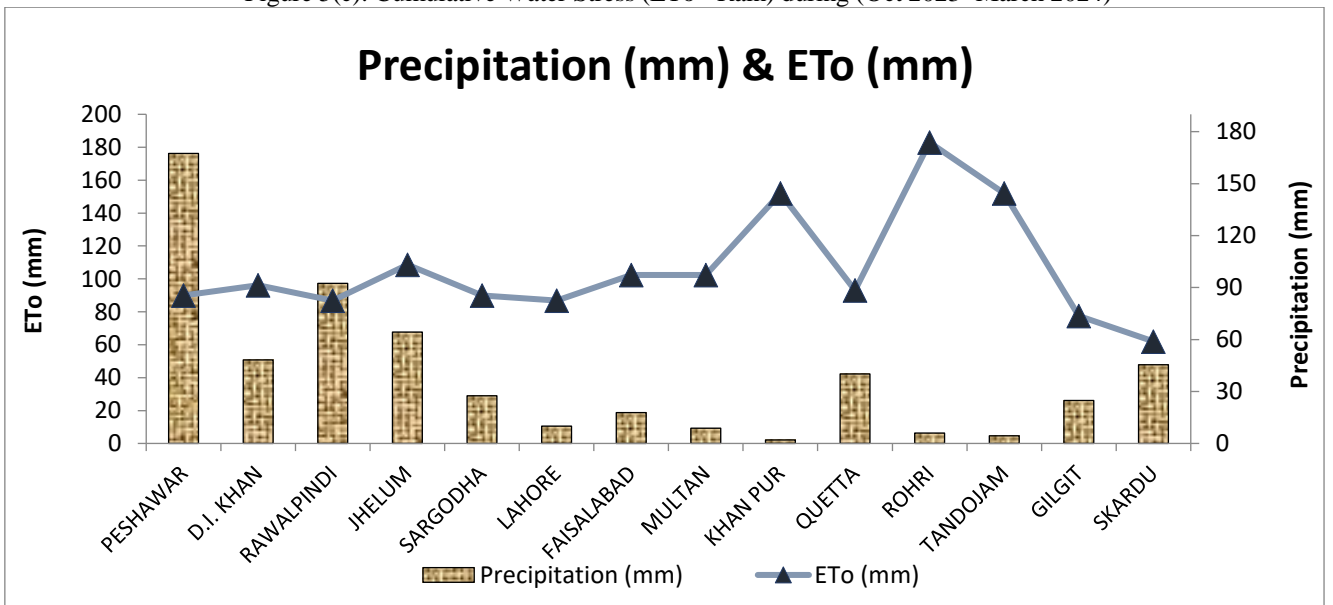


Figure 5(d): Precipitation (mm) & ETo (mm) during the month of March 2024

It has been observed that water demand through evapotranspiration exceeds the available water supply from precipitation due to which most parts (selected locations) of the country may experience a water deficit for the month of March except at some particular locations of Peshawar in Lower Khyber Pakhtunkhwa and Rawalpindi in Potohar region observed a considerable amount of precipitation than

evapotranspiration which indicates a surplus of water in these regions. This means that more water is available than what is being used or lost, leading to an increase in soil moisture, potential groundwater recharge, and the filling of water bodies like lakes and reservoirs. (Fig.5d).

Cumulative water stress has been observed over most of the lower parts (selected locations) of the country during the current months (Oct-23 to March-24) of Rabi season particularly Sindh, Southern western Balochistan and South Punjab recorded maximum values of stress whereas upper half the country showed minimum stress due to the valuable amount of rainfall and minimum values of ETo. (Fig.5c).

A water deficit can have significant implications for these regions, including challenges for agriculture, decreased water availability for ecosystems, and potential impacts on water resources for human consumption and industrial use. Additionally, appropriate water management practices should be followed to ensure the efficient use and conservation of water resources during such limited water supply conditions. However, it's essential to consider long-term trends and fluctuations to understand the region's overall water balance and potential impacts on the local ecosystem.

Reference Crop Evapotranspiration (mm/day) during Rabi Season (Oct 2023 – April 2024)

Dotted Curve: Current months (Oct, 2023 - Mar, 2024)

Plain Curve: Normal values

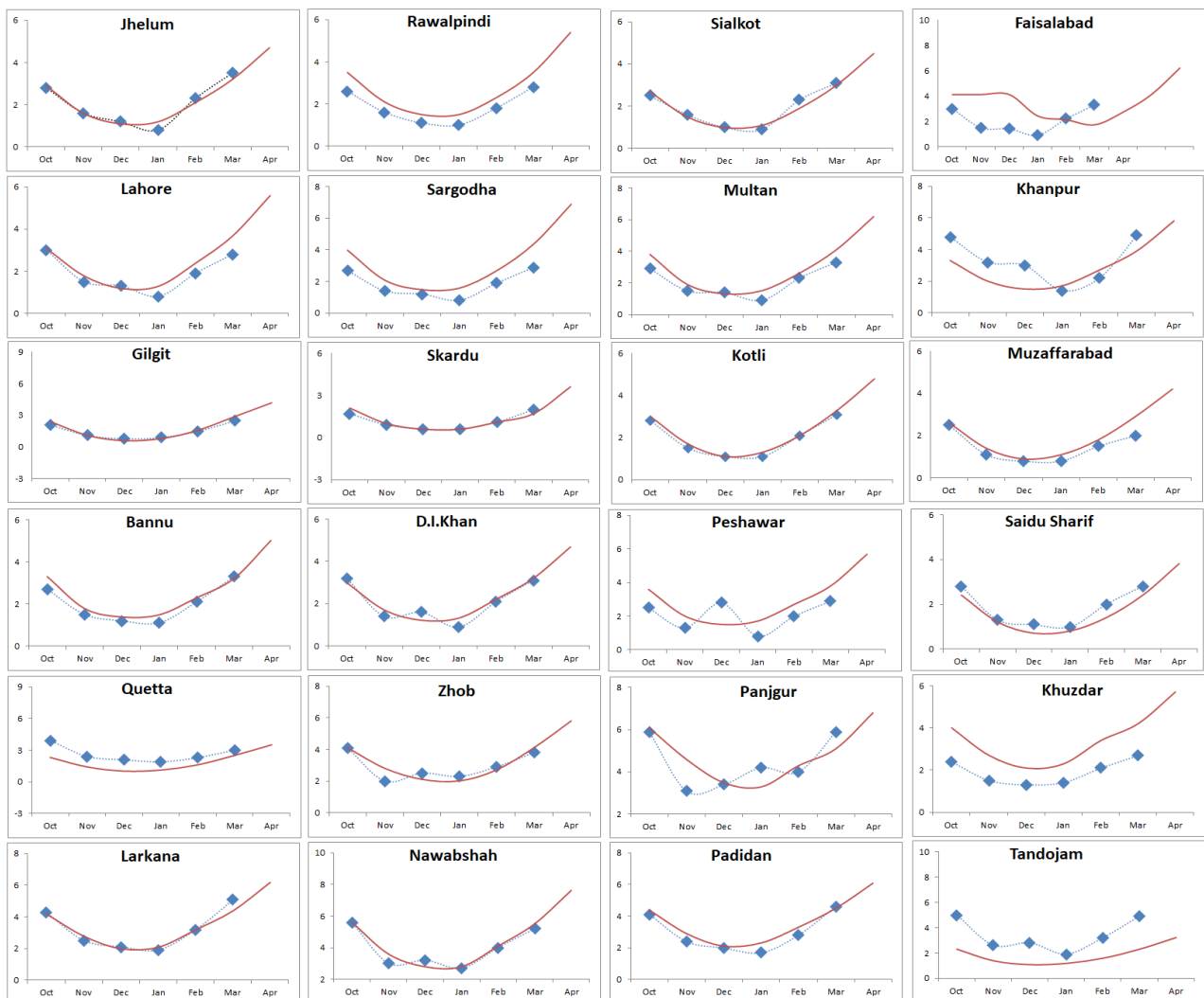


Figure 5(e): Comparison of Actual ETo (mm/day) with Normal values (1991-2020) for selected locations.

Soil Temperatures during March 2024

Soil temperature plays a crucial role in agriculture as it directly influences various plant and crop processes, soil health, and overall agricultural productivity including seed germination, root development, nutrient availability, water use efficiency, growth and development of plant, pest, and disease management, crop selection, planting timing, and climate resilience.

Generally, agricultural soils have shown near normal to below normal patterns in terms of temperatures in most parts (selected locations) of the country. Both shallow and deep layers at some particular locations of Tandojam, Khanpur & Quetta along the shallow layers at Faisalabad & Peshawar recorded below normal soil temperatures (Fig.6a & 6b).

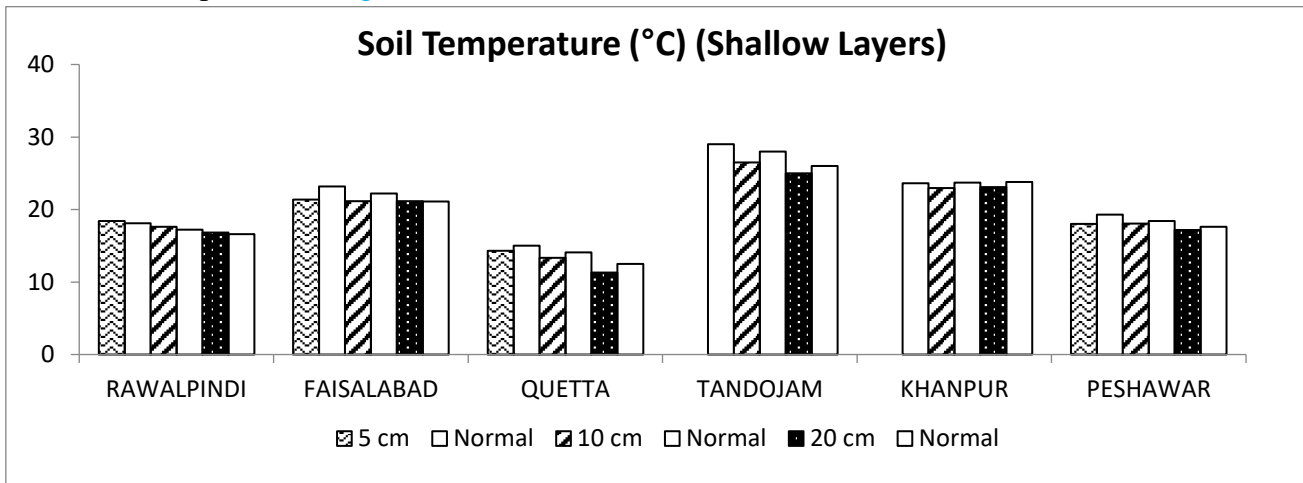


Figure 6(a): Comparison of Actual Soil Temperature (°C) with Normal values (2011-2020) for selected locations (March 2024)

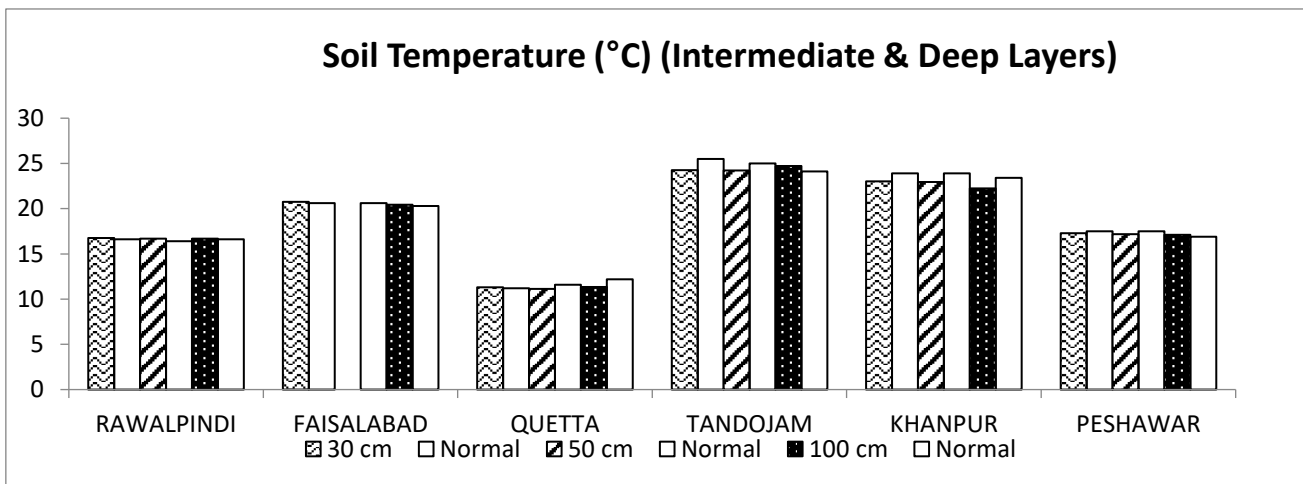


Figure 6(b): Comparison of Actual Soil Temperature (°C) with Normal values (2011-2020) for selected locations (March 2024)

From the general analysis of soil behavior in this month, it is concluded that most of the agricultural soils (selected locations) have shown normal to below normal trends in recorded soil temperatures. Accordingly, the standing crops and vegetable/orchards have been growing with almost satisfactory pace in most parts of the country. However, isolated wind/thunder/hailstorm along with light to moderate precipitation particularly in the upper half has affected the seasonal crops, vegetables and orchard.

Crops Condition during March 2024

Harvesting of Rabi crops and picking of seasonal vegetables, fruit remained the major field activities over most of the agricultural plains in the lower half of the country during the month. Also, land preparation for sowing of Kharif crops / vegetables remained in progress in the southern parts. On the other hand, Rabi crops including wheat etc have reached their maturity stages in the central parts.

In **Punjab**: The growth and development of Rabi crops has been reported satisfactory. Also, recent rains have improved the moisture conditions for crops especially wheat in the rainfed belt. However, damages caused at particular locations due to hails/gusty winds. Overall, wheat crop is reported at maturity stage in most parts. Harvesting of grams, chickpea and mustard remained in progress in particular regions. Pulses including masoor has been growing with normal pace. Harvesting/picking of winter vegetables and fruit is in progress and good yield has been obtained this year.

In **Sindh**: Wheat crop has been harvested in most parts and good yield has been reported so far. Condition of oil seed crops is reported as satisfactory. Rape mustard has also been harvested in most parts. Safflower and linseed etc have approaching their maturity, while sunflower is near vegetative stage. Growth and production of seasonal fruits like guava, banana, cheeko and apple stone (Bare) is reported satisfactory. Sowing of spring/summer vegetables is in progress in most parts.

In **Khyber Pakhtunkhwa**: Recent rains have improved the moisture conditions for the crops, vegetables and orchards over most parts especially in upper half. Moreover, the situation was already better in rest parts blessed with irrigation facility. The condition of wheat crop is reported satisfactory and its approaching maturity stage. The growth of oil seed crops including newly introduced biofuel crop *Jatropha* is reported satisfactory. Picking and marketing of winter vegetables remained in progress. Growth of orchid remained satisfactory and good yield of citrus has been reported.

In **Balochistan**: Condition of standing crops and orchards is reported satisfactory. Most varieties of apples have completed their maturity stages and picking of the fruit is in progress. Yield of winter vegetables are reported well and these are available in the market.

In **Gilgit-Baltistan**: The agricultural activities remained suspended due to extreme cold conditions in most parts of the region. However, in the lower belt including the Gilgit region, the farmers have been resuming their activities in terms of vegetables and seasonal fruits.

Normally Expected Weather during April

April is normally the wettest month of the winter season. Heating starts over the subcontinent due to increasing solar angle and the sunshine over the equator during the last decade of the month. The heating trend triggers energetic weather systems, which resulted in an increasing number of dust/windstorms and precipitation. March marks a substantial addition to Rabi season precipitation and rising temperatures contribute significantly to the photosynthesis process.

Accordingly, rainfall along with snow over the high mountains occur during this month.

The areas of Northern-central Khyber Pakhtunkhwa along the adjoining areas of northern Punjab and the western belt of Kashmir would receive a considerable amount of precipitation. However, fewer rains occur over the central to lower parts including central-southern Punjab, Balochistan and Sindh (Fig.7a).

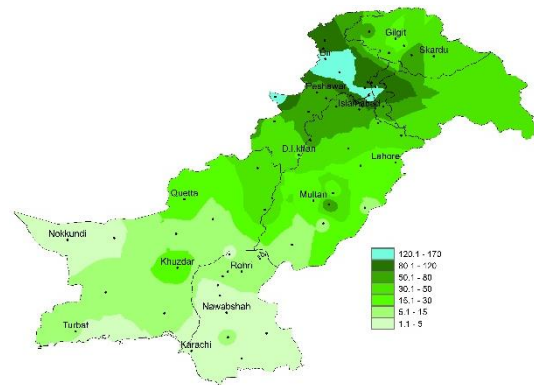


Figure 7(a): Climatic Normal of Rainfall (mm) for April

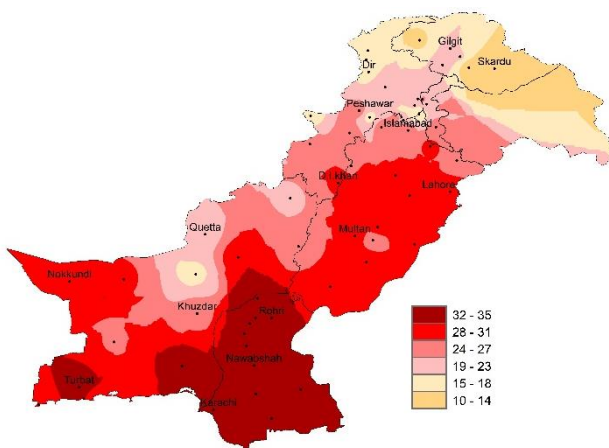


Figure 7(b): Climatic Normal of Maximum Temperature (°C) for April

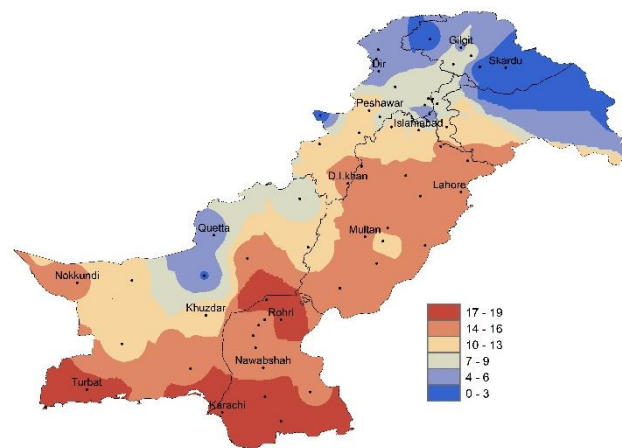


Figure 7(c): Climatic Normal of Minimum Temperature (°C) for April

The air temperature increases in April over the whole country following the seasonal pattern. Both the day and night temperatures (Maximum and Minimum values) increase in this month. The lowest temperatures are expected particularly over the northern areas like Gilgit Baltistan, northern belt of Kashmir, upper-western Khyber Pakhtunkhwa etc. and the northwestern belt of Balochistan covering Kalat valley (Fig.7c). On the other hand, the highest temperatures are generally recorded in Sindh Province and coastal areas of Balochistan (Fig.7b). However, the expected situation may be different as per the prevailing atmospheric conditions and is discussed in the following pages.

*** Climatic Normal = Average value of 30-years data (1991-2020).

Weather Forecast for April 2024

During April 2024, normal to above normal precipitation is likely over most parts of the country, particularly in Khyber Pakhtunkhwa, Azad Kashmir and Potohar region (Fig.8a).

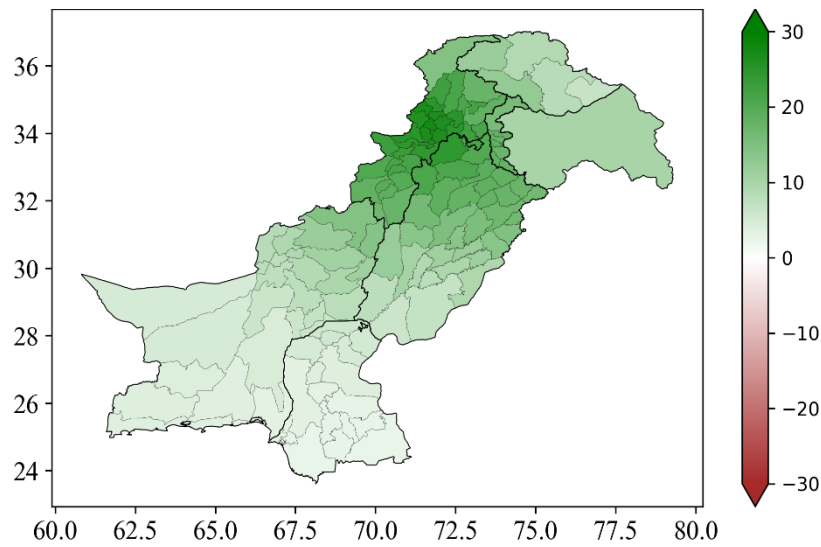


Figure 8(a): Rainfall(mm) Anomaly Outlook April 2024

During the months of April 2024, slightly above-normal mean temperature is likely over most of the upper parts of the country particularly northern belt of Khyber Pakhtunkhwa, Gilgit-Baltistan and Azad Kashmir. However, nearly normal mean temperatures are expected over the central and lower half of the country. (Fig.8b).

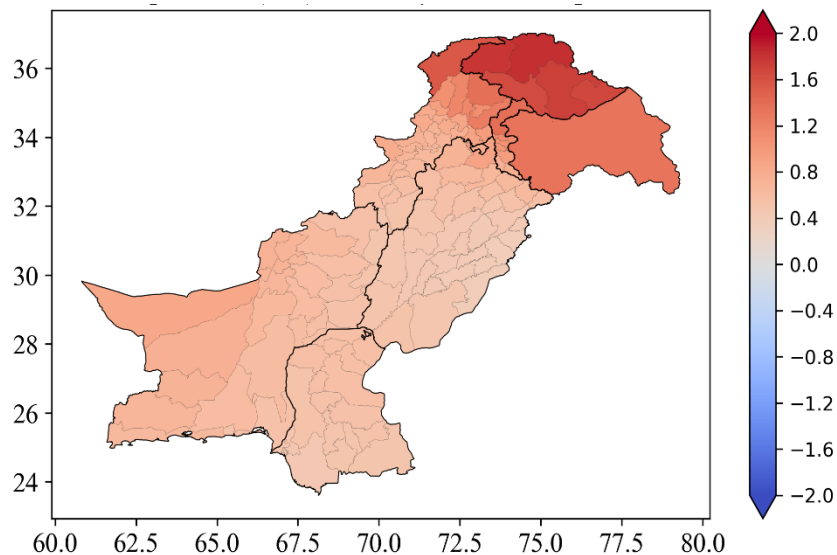


Figure 8(b): Mean Temperature (°C) Anomaly Outlook April -2024

اپریل 2024ء میں کاشتکاروں کے لئے زرعی موسمیاتی مشورے

ماہ مارچ میں ملک بھر کے بیشتر علاقوں (ماسوائے پنجاب کے) میں بارشیں معمول سے زیادہ ہوئیں جبکہ درجہ حرارت کے معمول کے مطابق رہے۔ ان بارشوں نے وہاں کی زرعی زمینوں کو کافی حد تک فائدہ پہنچایا کیونکہ اس دوران ملک بھر میں فصل ربیع بالخصوص گندم بیج کی بڑھوتری کے مراحل سے گزر رہی تھی۔ اپریل کے مہینے میں درجہ حرارت بتدریج بڑھتے ہیں۔ اس ماہ میں معمول کے مطابق یا اس سے قدرے زیادہ بارشیں ہونے کا امکان ہے۔ جبکہ درجہ حرارت بھی معمول سے قدرے زیادہ رہنے کی توقع ہے۔

اپریل کے دوران کسانوں سے مندرجہ ذیل گزارشات ملحوظ خاطر رکھنے کی گزارش ہے۔

۱۔ اپریل کا مہینہ عموماً غیر یقینی موسم کا حامل ہوتا ہے۔ اس دوران ملک کے اکثر زرعی میدانوں میں شام / رات کے وقت تیز ہواؤں کے ساتھ آندھی / جھکڑ چلنے کا امکان رہتا ہے۔ کسان حضرات سے گزارش کی جاتی ہے کہ موسم کیوجہ سے ضابطہ خواہ نقصان سے بچنے کی کوشش کریں۔

۲۔ کسان بھائیوں سے گزارش ہے کہ موسمی حالات کو دیکھ کر جلد از جلد گندم کی کٹائی کر کے کھیتوں کو کپاس کیلئے تیار کیا جائے۔ ہمارے ملک میں کپاس کی فی ایکڑ کم پیداوار کی ایک بڑی وجہ فصل کو دیر سے کاشت کرنا بھی ہے جس کیوجہ سے فصل کو موافق موسمی حالات نہیں مل پاتے۔

۳۔ کسان حضرات محکمہ موسمیات کی پیشگوئی کو ملحوظ خاطر رکھ کر محکمہ زراعت کے ماہرین کی مشاورت سے اپنے معمولات طے کریں۔ اس سلسلے میں ریڈیو، ٹیلی ویژن اور اخبارات میں نشر اور شائع ہونے والی پیشگوئی کے علاوہ محکمہ موسمیات کے قریبی دفتر سے بھی رجوع کیا جاسکتا ہے۔ اگر کوئی زرعی موسمیاتی مسئلہ درپیش ہو تو ہمارے مندرجہ ذیل دفاتر آپ کی بخوبی مدد کر سکتے ہیں۔

۱۔ نیشنل ایگرومیٹ سنٹر پی۔ او۔ بکس نمبر 1214، سیکٹر ایچ ایٹ ٹو، اسلام آباد۔ فون نمبر: 051-9250299

۲۔ نیشنل فور کاسٹنگ سنٹر برائے زراعت، پی۔ او۔ بکس، 1214، سیکٹر ایچ ایٹ ٹو، اسلام آباد۔ فون نمبر: 051-9250363-4

۳۔ ریجنل ایگرومیٹ سنٹر، نزد بارانی یونیورسٹی، مری روڈ، راولپنڈی۔ فون نمبر: 051-9292149

۴۔ ریجنل ایگرومیٹ سنٹر، ایوب ریسرچ انسٹیٹیوٹ، جھنگ روڈ، فیصل آباد۔ فون نمبر: 041-9201803

۵۔ ریجنل ایگرومیٹ سنٹر، ایگریکلچر ریسرچ انسٹیٹیوٹ، ٹنڈو جام۔ فون نمبر: 022-9250558

۶۔ ریجنل ایگرومیٹ سنٹر، ایگریکلچر ریسرچ انسٹیٹیوٹ، سریاب روڈ، کوئٹہ۔ فون نمبر: 081-9211211

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

کپاس کی کاشت پر موسمی اثرات

پاکستان ایک زرعی ملک ہے اور ملکی ترقی کا اٹھارہ زرعی پیداوار پر ہے مگلی آبادی کا اکثریتی حصہ زراعت اور اس سے متعلقہ صنعتوں سے منسلک ہے۔

کپاس پاکستان کی اہم نقد اور فصل ہے۔ جس کی پنجاب اور سندھ کے نہری علاقوں میں کاشت ہوتی ہے۔ گل پیداوار کے لحاظ سے پاکستان کپاس پیدا کرنے والے ممالک میں چوتھے نمبر پر ہے جبکہ فی ایکڑ پیداوار کے لحاظ سے پاکستان کا شمار عام طور پر آخر میں ہوتا ہے۔ پاکستان کے زیادہ تر آمدات اور صنعت سے متعلق لیبر کی ایک بڑی تعداد کے روزگار اور گزر بسر کا اٹھارہ کپاس کے اچھی پیداوار پر ہے۔ کپاس کی مجموعی پیداوار میں پنجاب کا حصہ تقریباً 80 فیصد اور سندھ کا تقریباً 15 فیصد ہے جبکہ بلوچستان کے کچھ نہری علاقوں اور خیبر پختونخوا کے جنوبی علاقوں میں بھی کپاس کی کچھ کاشت ہوتی ہے۔ پاکستان میں کپاس کی نشوونما اور پیداوار میں رودول کا اٹھارہ فیصد دی طور پر اچھے بیج کی بروقت فراہمی، بروقت کاشت، بروقت کھادوں کی فراہمی، مضر کیڑوں کے تدارک کیلئے بروقت اسپرے، مناسب مقدار میں پانی کی فراہمی اور برسات کے دوران بارشوں پر ہے سندھ اور پنجاب کے کسانوں کیلئے جو کپاس کاشت کرتے ہیں درجہ ذیل موسمی مشورے پیش نظر ہیں

1- یہ موسم گرما (ربیع) کا اہم فصل ہے جس کی کاشت پنجاب میں اپریل اسی جون اور سندھ میں اپریل اسی میں ہوتی ہے۔ پاکستان میں کپاس کے فصل کیلئے پانی کی ضرورت تقریباً 550 سے 700 ملی میٹر تک ہے۔ درجہ حرارت اور ہوا میں نمی کے فرق کی وجہ سے سندھ میں پانی کی ضرورت مون سون سے پہلے پنجاب کے مقابلے میں سب سے زیادہ ہوتی ہے۔ جبکہ مون سون کے دوران جنوبی پنجاب میں کپاس کے فصل کیلئے پانی کی ضرورت سندھ سے بڑھ جاتی ہے۔ سندھ کے بالائی علاقوں میں پانی کی طلب زیریں سندھ سے زیادہ ہے اس طرح وسطی پنجاب کے زرعی میدانوں کے مقابلے میں گرم اور نسبتاً خشک جنوبی علاقوں میں پانی کی طلب زیادہ ہوتی ہے۔

2- کسان عام طور پر ربیع کے فصلوں کی دیر سے کٹائی کی وجہ سے زمین کی تیاری میں تاخیر کرتے ہیں جس کی وجہ سے کپاس کی کاشت میں بھی تاخیر ہو جاتی ہے۔ جس کی وجہ سے کپاس کا پودا ابتدائی نشوونما کے دوران جب پودا انتہائی کمزور اور نازک ہوتا ہے۔ سورج کے تیز شعاعوں اور انتہائی زیادہ درجہ حرارت کا سامنا کرتا ہے پودے کیلئے پانی کی ضرورت بڑھ جاتی ہے جس کی وجہ سے فصل کی ابتدائی نشوونما متاثر ہو جاتی ہے۔ فصل کیلئے پانی کی ضرورت کو سامنے رکھ کر کپاس کی کاشت سندھ میں 15 اپریل سے 15 مئی اور پنجاب میں مئی کے مہینے میں مکمل ہونی چاہئے۔ وقت پر کاشت نہ ہونے والی فصل پر مضر کیڑوں خصوصاً جڑوں پر فجائی کا حملہ بھی زیادہ ہوتا ہے۔ کپاس کے پودے کی بہترین نشوونما کے لئے ضروری ہے کہ شروع کے اگاؤ (Germination) کے دوران درجہ حرارت 18°C سے 30°C، غیر جنسی نشوونما (Vegetative growth) کے دوران 20 سے 40 دن کے وقت جبکہ رات کو 12°C-27°C ہو جبکہ شروع کے پھول بننے سے لیکر ٹینڈے بننے تک درجہ حرارت 27 سے 32 ڈگری سینٹی گریڈ ہونا چاہئے اور یہ تب تک ممکن ہے جب فصل کی کاشت بروقت ہو۔

3- فصل کی کاشت کیلئے پانی کی ضرورت کو سامنے رکھ کر کپاس کی کاشت سندھ میں 15 اپریل سے 15 مئی اور پنجاب میں مئی کے مہینے میں مکمل ہونی چاہئے۔ وقت پر کاشت نہ ہونے والی فصل پر مضر کیڑوں خصوصاً جڑوں پر فجائی کا حملہ بھی زیادہ ہوتا ہے۔ کپاس کے پودے کی بہترین نشوونما کے لئے ضروری ہے کہ شروع کے اگاؤ (Germination) کے دوران درجہ حرارت 18°C سے 30°C، غیر جنسی نشوونما (Vegetative growth) کے دوران 20 سے 40 دن کے وقت جبکہ رات کو 12°C-27°C ہو جبکہ شروع کے پھول بننے سے لیکر ٹینڈے بننے تک درجہ حرارت 27 سے 32 ڈگری سینٹی گریڈ ہونا چاہئے اور یہ تب تک ممکن ہے جب فصل کی کاشت بروقت ہو۔

3- فصل کی کاشت کیلئے پانی کی ضرورت کو سامنے رکھ کر کپاس کی کاشت سندھ میں 15 اپریل سے 15 مئی اور پنجاب میں مئی کے مہینے میں مکمل ہونی چاہئے۔ وقت پر کاشت نہ ہونے والی فصل پر مضر کیڑوں خصوصاً جڑوں پر فجائی کا حملہ بھی زیادہ ہوتا ہے۔ کپاس کے پودے کی بہترین نشوونما کے لئے ضروری ہے کہ شروع کے اگاؤ (Germination) کے دوران درجہ حرارت 18°C سے 30°C، غیر جنسی نشوونما (Vegetative growth) کے دوران 20 سے 40 دن کے وقت جبکہ رات کو 12°C-27°C ہو جبکہ شروع کے پھول بننے سے لیکر ٹینڈے بننے تک درجہ حرارت 27 سے 32 ڈگری سینٹی گریڈ ہونا چاہئے اور یہ تب تک ممکن ہے جب فصل کی کاشت بروقت ہو۔

تحریر: محمد ایاز میٹروولوجسٹ نیشنل ایگری میٹ سنٹر اسلام آباد
کیچڈ کیوزیشن: علی مان شاہ میٹروولوجیکل اسٹیشن نیشنل ایگری میٹ سنٹر اسلام آباد