Fifth Session of the Third Pole Climate Forum (TPCF-5) Consensus Statement

Online, 1-3 June 2026

State of the Climate for December 2025 to April 2026 and the Seasonal Outlook for June to September 2026

Background and Contributing Institutions

The Third Pole Regional Climate Centre Network (TPRCC-Network), focusing on the unique climate and cryosphere challenges of the High Mountain Asia region, was established to deliver tailored regional climate services and is currently in the process of applying for becoming a World Meteorological Organization (WMO)-designated Regional Climate Centre (RCC) under the WMO Integrated Processing and Prediction System (WIPPS). The TPRCC-Network consists of three Nodes: the Northern Node (led by China), the Southern Node (led by India), and the Western Node (led by Pakistan), with China taking the overall coordinating role, geographically and functionally taking and sharing responsibilities of WMO RCC mandatory functions (*Annex-I*). Extensive collaborations have been established with international organizations or programmes, such as the Global Energy and Water Exchanges (GEWEX) Programme, International Centre for Integrated Mountain Development (ICIMOD), Mountain Research Initiative (MRI), Third Pole Environment (TPE), and the United Nations (UN) Economic and Social Commission for Asia and the Pacific (ESCAP) as technical partners, as well as WMO programmes or entities such as the Global Cryosphere Watch (GCW), GPCs-SP, LC-SPMME, and neighbouring RCCs, to enhance the Network's effectiveness. The TPRCC-Network plays a pivotal role in promoting regional cooperation on climate services, supporting stakeholders in climate change adaptation, and facilitating decision-making across the region. Products and services are developed and disseminated through the dedicated web portal of the TPRCC-Network (https://www.rccra2.org/tp-rcc/), ensuring seamless access to climate information. Regular updates of products and the Seasonal Climate Bulletins, and the Consensus Statements released during biannual climate forums, maintain a steady flow of information and engagement.

This Consensus Statement includes the State of the Climate for December 2025 to April 2026 and the Seasonal Outlook for June to September 2026. By leveraging regional expertise, it synthesizes observational data, historical trends, current climate conditions, and seasonal predictions. The Statement provides a comprehensive overview of surface air temperature (SAT), precipitation, snow cover, and high-impact climate events observed during the preceding season, while presenting an outlook for SAT and precipitation for the upcoming summer season. To facilitate understanding of this Statement, details of the developing approach are provided in *Annex-II*.

This Consensus Statement was produced and mutually agreed upon during the Fifth Session of the Third Pole Climate Forum (TPCF-5), held virtually on 1–3 June 2026, co-organized by the Pakistan Meteorological Department (PMD) and the TPRCC-Network and co-hosted by PMD and WMO. The content and graphics were prepared collaboratively by the National Climate Centre of the China Meteorological Administration (NCC/CMA), the India Meteorological Department (IMD), and PMD, with support from the TPRCC Technical Team on Climate Prediction (TT-CP) in developing methodologies for objective climate prediction. Guidance from the WMO Secretariat and contributions from all the node leads, partners, and the concerned countries is gratefully acknowledged.

Highlights

- From December 2025 to April 2026, most of the Third Pole (TP) region experienced persistently warmer-than-normal conditions. During the boreal winter 2025/2026, widespread above-normal surface air temperatures (SAT) were observed, particularly over the Third Pole Core Region (TPCR[1]). This warming tendency persisted into spring, with pronounced positive anomalies over the TPCR in March and significantly warmer over the northwestern TP region in April.

- The distribution pattern of precipitation anomaly percentage over the TP region changed substantially from winter to spring. During winter, the TP region experienced above-normal precipitation in the north and below-normal precipitation in the south. After winter, this pattern shifted, with above-normal precipitation becoming dominant in the south, particularly over the southwestern TP region, while below normal precipitation in the north, northeast of the region.

- From late November 2025 to mid-March 2026, daily snow cover extent (SCE) over the TP region was almost continuously below the median, with several days in January and February breaking the historical record for the lowest. As a result, the mean SCE over the TP region in winter of 2025/2026 ranked the lowest since 2005.

- Several high-impact events affected the region during the reporting period. In February, severe snowstorms affected multiple provinces of Mongolia while moderate to severe meteorological drought persisted over western southwest China. During winter and early spring, sand and dust storms affected Mongolia and the northern China, with three episodes in winter and one in spring. From late March to early April, heavy rainfall and flooding affected Afghanistan and Pakistan, while India experienced extreme heat in late April.

- Above normal SAT for June, July, August, September (JJAS) 2026 is expected across most of the TP region with highest probability over the southern parts. However, some regions in the central to western parts of TP may experience near to below normal SAT, though with limited likelihood.

- The precipitation outlook for JJAS 2026 indicates notable spatial variability across the TP region. Below-normal precipitation is predicted over the southwestern and northeastern parts of TP region. Whereas above-normal precipitation is predicted across parts of the southeastern and northwestern TP region during the season, with higher probability over the eastern Tianshan and surrounding areas.

[1] TPCR refers to the region with elevation above 2000 m within the TPRCC-Network service domain, i.e. the region within black contour in Figures 1-8 in the Consensus Statement.

Climate Summary for December 2025 – April 2026

Temperature

In the boreal winter 2025/2026, most areas of the TP region experienced above-normal SAT relative to the 1991–2020 average. Pronounced positive anomalies were observed over the TPCR, with SAT exceeding the normal by more than 4°C in some areas. In contrast, parts of the northeastern and southwestern TP region recorded below-normal SAT (Figure 1).

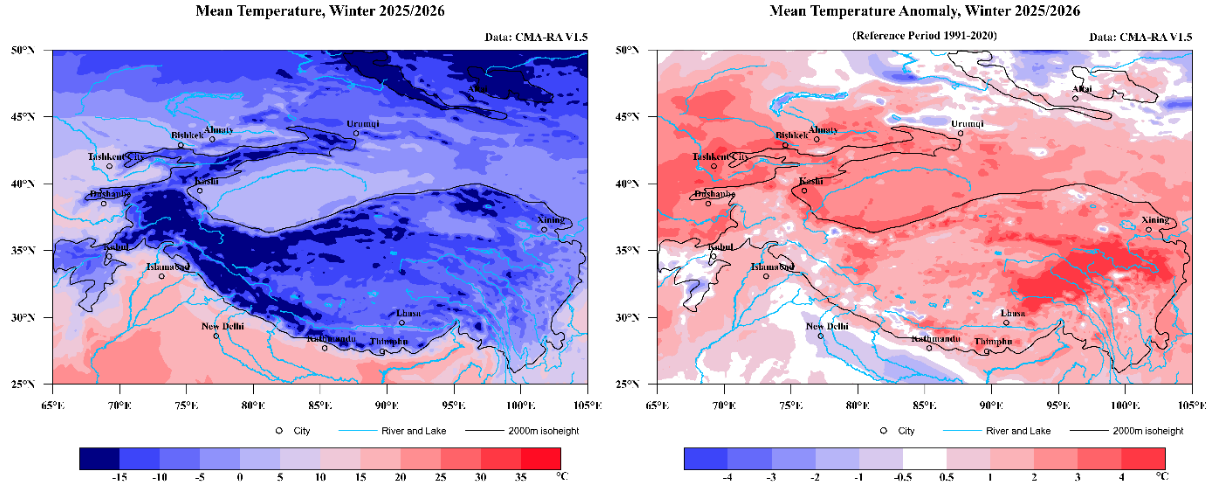

Figure 1 Seasonal mean surface air temperature (left) and anomalies (right, relative to 1991-2020) in winter (DJF) 2025/2026
Data source: CRA1.5

In March, most of the TPCR region experienced obvious warmer-than-normal conditions. Notably, positive anomalies of 3–4°C were recorded over the northwestern TP region and the vast areas from the central to the western TPCR, with several local areas exceeding 4°C. In April, temperatures across the vast majority of the TP region were above normal, except for the region south to TPCR. Temperature anomalies over the northwestern TP region were more than 3°C, while most areas west of Lake Balkhash exceeded 4°C (Figure 2).

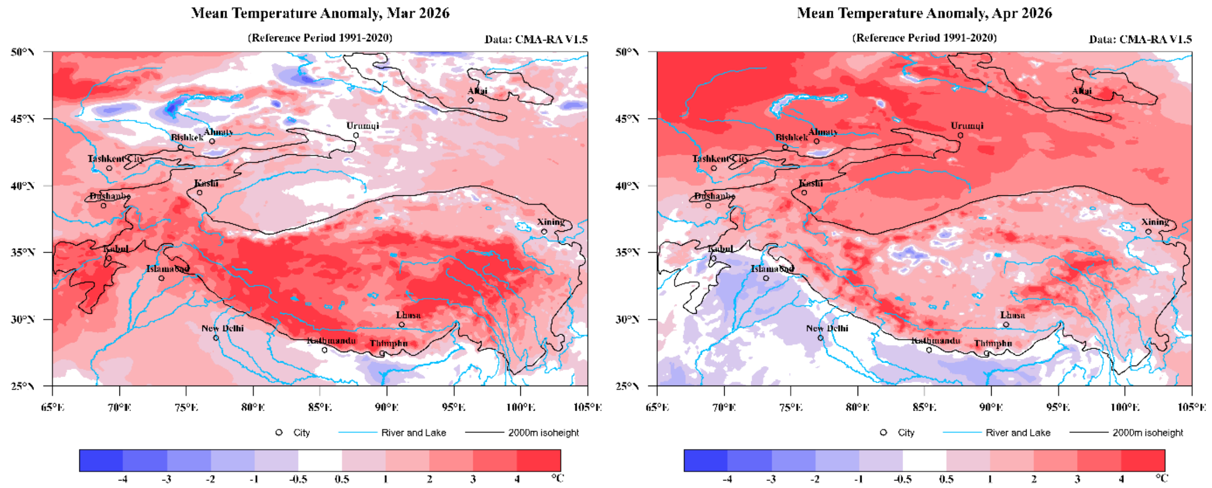

Figure 2 Monthly mean surface air temperature anomalies (relative to 1991-2020) in March (left) and April (right) of 2026
Data source: CRA1.5

Precipitation

During the boreal winter of 2025/2026, precipitation anomalies over the TP region exhibited a dominantly positive pattern in the north and negative pattern in the south. Most of the southern TP region experienced a precipitation deficit of 20%-50%, while severe precipitation deficits of over 80% were observed over the southern edge and parts of the eastern TP region (Figure 3).

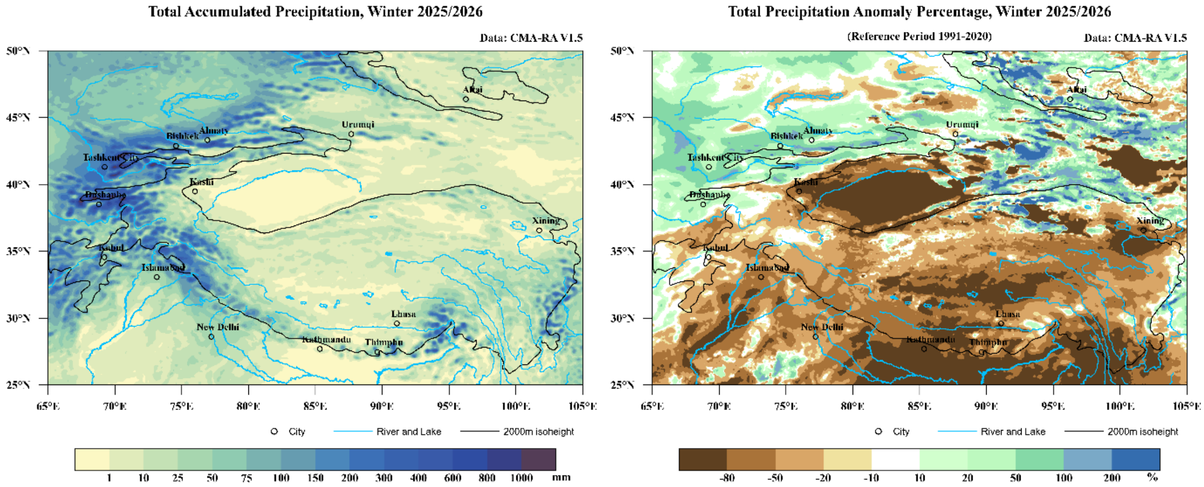

Figure 3 Seasonal precipitation totals (left) and anomalies by percentage (right, relative to 1991–2020) in winter (DJF) 2025/2026

Data source: CRA1.5

In March, the precipitation pattern was almost opposite of that in winter. Specifically, precipitation over the southern and southwestern regions as well as the Tarim Basin was more than 80% above normal, whereas most northern areas of the TP region received 20% to 80% less precipitation than normal, with localized deficits exceeding 80%. In April, precipitation across most of the TP region was above normal, with anomalies exceeding 80% in parts of the southwestern TP region and the eastern Tarim Basin. Notable precipitation deficits of more than 80% confined mainly in the northeastern TP and the western Tarim Basin (Figure 4).

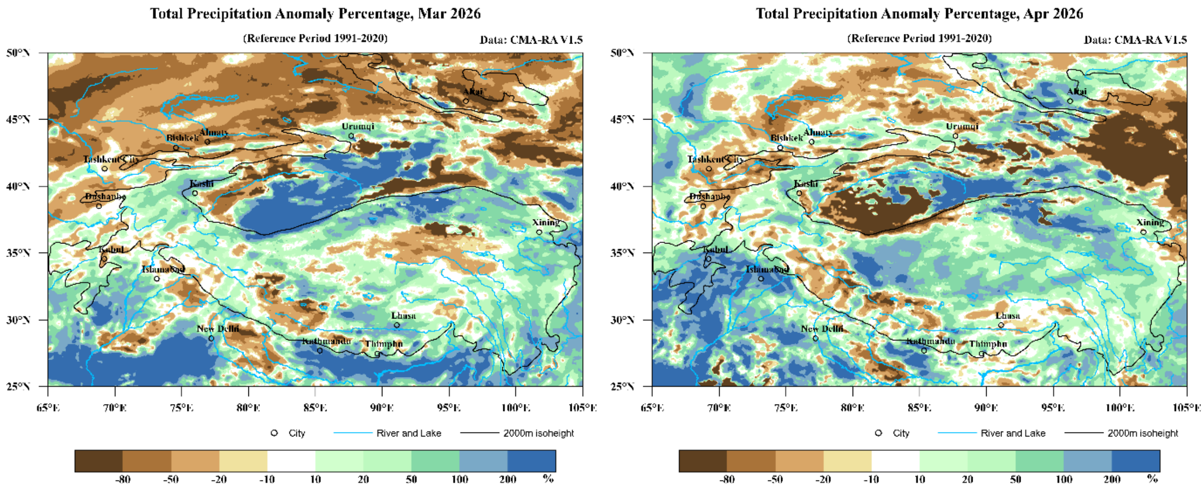

Figure 4 Monthly precipitation anomalies by percentage (relative to 1991–2020) in March (left) and April (right) of 2026

Data source: CRA1.5

Snow Cover

Over the past 22 cold seasons (December to April), there is no significant linear trend for mean snow cover extent (SCE) in the TP region, though with obvious inter-annual fluctuation. Daily SCE in the region remained almost consistently lower than the median from late November 2025 to middle March 2026, with some days in January and February breaking the historical record for the lowest (Figure 5). This resulted in the mean SCE of 3.43×10^6 km^2 in the cold season of 2025-2026, around 9.3% lower than the 2005-2020 average, ranking the fourth lowest. For the winter of 2025/2026, the mean SCE was 16.5% lower than the 2005-2020 average, ranking the lowest since 2005, while it exhibited a 7.7% decrease and a 5.1% increase from the multi-year average, respectively, for March and April 2026.

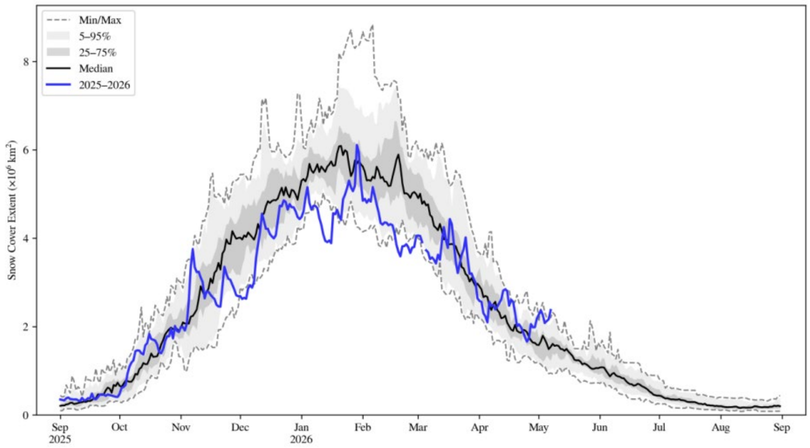

Figure 5 The daily snow cover extent over the TP region since September 1st 2025
Data source: 4km IMS/NSIDC

Spatially, the number of snow cover days (NSCD) in the past winter was much lower than the 2005-2020 average across most areas of the TP region, with over 20 days less than normal in part of the eastern TPCR and in the middle of the western TP region. In contrast, positive anomalies were only observed in limited areas of the northeastern and southern TPCR. Compared with the winter, the negative anomalies of NSCD in March were discontinuously distributed across the region, with a decrease of 5 to 15 days from the multi-year average. However, the pattern in April was completely different. Positive anomalies dominated most areas of the TPCR, except for the western Himalayas and the southeastern TPCR. On the contrary, negative anomalies dominated most areas of the northern TP region (Figure 6).

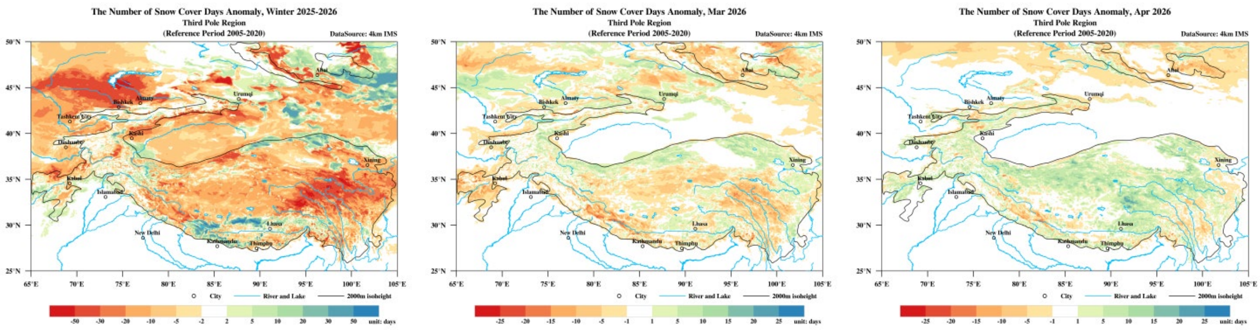

Figure 6 The Number of Snow Cover Days anomalies (relative to 2005-2020) in DJF 2025/2026 (left), March 2026 (middle) and April 2026 (right)
Data source: 4 km IMS/NSIDC

High-impact Climate Events

Snowstorm

A series of eight snowstorms affected Mongolia during the winter of 2025–2026, beginning on 21 February. The storms primarily impacted eastern, northern, and western provinces, bringing heavy snowfall, blowing and drifting snow, wind speeds of up to 31 m/s, and temperatures as low as –48°C. These conditions caused road closures, transportation disruptions, and significant risks to human safety. By 24 February, 56 people had been injured, while direct livestock losses exceeded 4,900 head.

Dzud

Dzud, a severe winter hazard characterized by extreme cold and/or deep snow that restricts livestock access to pasture, remained a major concern during the winter of 2025–2026. Following unusually dry summer conditions, approximately 60% of Mongolia's territory was assessed as being at risk of dzud. Snow cover expanded to nearly 80% of the country between December 2025 and February 2026, resulting in dzud conditions across almost half of Mongolia. According to the State Emergency Commission of Mongolia, livestock losses attributed to dzud reached 114,035 head by 23 March 2026, representing about 0.2% of the national livestock population.

Drought

In February 2026, moderate to severe meteorological drought occurred over the western part of Southwest China, with exceptional severe drought observed in northwestern Yunnan Province and adjacent areas.

December 2025–February 2026 was exceptionally dry across India, with seasonal rainfall remaining well below normal.

Sand and dust storm

Six sand and dust storm events affected Mongolia and northern China during the winter of 2025–2026, including three severe sandstorms (17–19 January, 20–23 February, and 24–26 February). Northern China experienced one dust event in March and four in April. The most severe event, from 17–20 April, reached sandstorm intensity and affected a wide area, including Xinjiang, Inner Mongolia, Ningxia, and Gansu.

Heavy rainfall and Flooding

Between 26 March and 6 April 2026, heavy rainfall and flash floods affected all eight regions of Afghanistan. As of 13 April, 161 fatalities, 230 injuries, and eight missing persons had been reported, with more than 74,200 people affected.

In Pakistan, heavy rainfall between 25 March and 5 April caused flash floods and landslides across Khyber Pakhtunkhwa Province, resulting in at least 45 fatalities, 105 injuries, and damage to 442 houses.

Extreme high temperatures

Heat wave conditions prevailed over parts of western and east-central India during March and intensified during April.

Seasonal outlook for JJAS 2026

Temperature

The surface air temperature (SAT) for JJAS 2026 is likely to remain above normal across most of the Third Pole (TP) region. The probability outlook shows a pronounced warm anomaly over the southern TP region. A few regions in the central to western areas may experience near to below normal SAT, although with limited likelihood. Across the remaining parts of the TP, including the Tibetan Plateau and adjoining high-elevation zones, temperatures are generally expected to stay above the seasonal average.

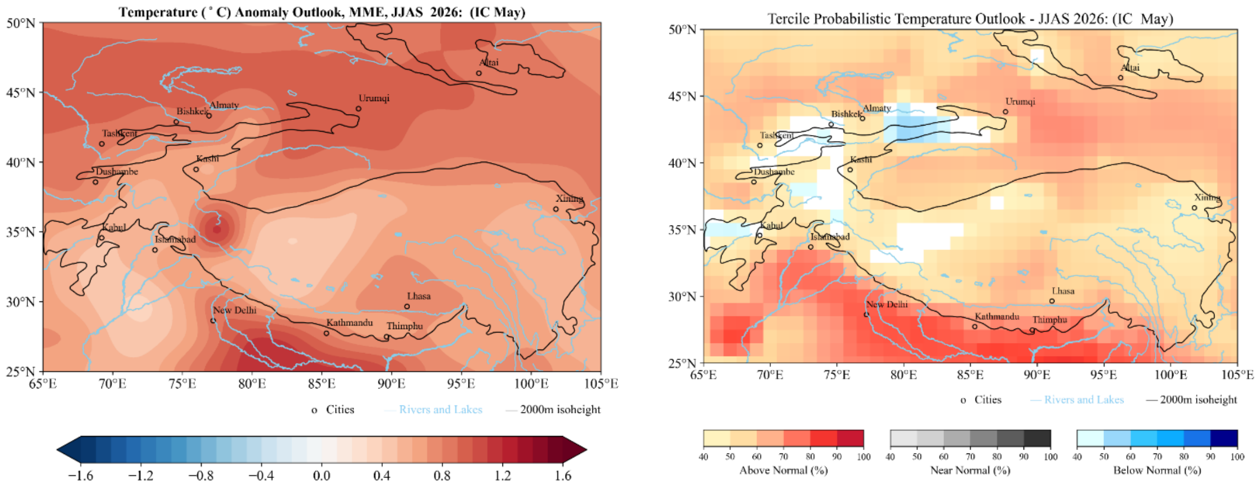

Figure 7 Surface Air Temperature anomaly (left) and probabilistic outlook (right), JJAS 2026 for the TP region (Reference period: 1993–2016)

Precipitation

The precipitation anomaly outlook for June, July, August, September (JJAS) 2026 over the TP region indicates notable spatial variability across the TP region. Below-normal precipitation is predicted over the southwestern and the northeastern parts of the TP region. These patterns are consistently highlighted in both the deterministic and tercile probabilistic forecasts (Figures 8). In contrast, above-normal precipitation is anticipated over parts of the southeastern and northwestern TP region, with higher probability in the eastern Tianshan and surrounding areas during the forecast season.

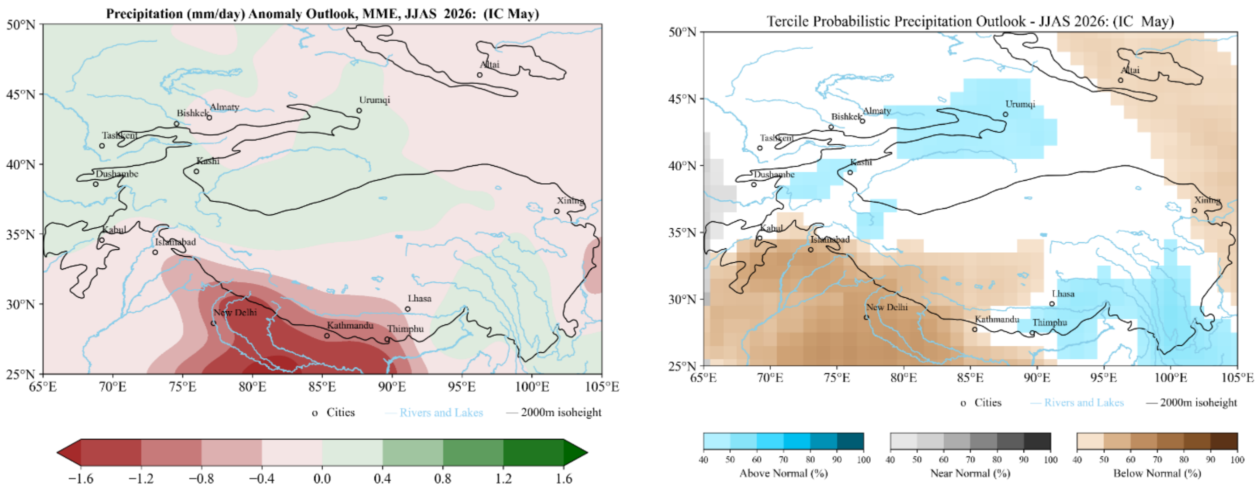

Figure 8 Precipitation anomaly (left) and probabilistic outlook (right), JJAS 2026 for the TP region (Reference period: 1993–2016)

Annex-I

Third Pole Regional Climate Centre Network (TPRCC-Network) Overview

A World Meteorological Organization (WMO) Regional Climate Centre (RCC) Network comprises a group of specialized centres (including NHMSs) collectively fulfilling all mandatory functions required of an RCC. Each centre in the network is referred to as a "Node", with specific responsibilities aligned to its geographical and functional domain. The details of the Third Pole Regional Climate Centre Network (TPRCC-Network), which is currently in the process of applying for becoming a WMO designated centre of the WMO Integrated Processing and Prediction System (WIPPS), are as follows:

The Northern Node

Geographical/Functional Responsibility: All RCC mandatory functions for the Northern part of the Third Pole (TP) region and Climate Monitoring function for the entire TP region; shared Training function
Lead: China, with the National Climate Centre of the China Meteorological Administration (NCC/CMA) as the leading institute
Consortium Members: Bhutan, Kazakhstan, Mongolia, Nepal, Pakistan

The Southern Node

Geographical/Functional Responsibility: All RCC mandatory functions for the Southern part of TP region and Operational Data Services function for the entire TP region; shared Training function
Lead: India, with the India Meteorological Department (IMD) as the leading institute
Consortium Members: Bangladesh, Bhutan, Myanmar, Nepal

The Western Node

Geographical/Functional Responsibility: All RCC mandatory functions for the Western part of TP region and Climate Prediction function for the entire TP region; shared Training function
Lead: Pakistan, with the Pakistan Meteorological Department (PMD) as the leading institute
Consortium Members: Afghanistan, China, Tajikistan, Uzbekistan

Annex-II

Explanatory Notes on the Consensus Statement

Temperature and precipitation monitoring products were generated using 0.1°×0.1° daily reanalysis data of the China Meteorological Administration (CMA) Global Atmospheric Reanalysis Version 1.5 (CRA1.5), available through the China Meteorological Data Service Centre (http://data.cma.cn/en/#/home). CRA1.5 is the latest global atmospheric reanalysis product developed by CMA, providing notable improvements over its predecessor CRA-40.

Snow cover products were produced using 4-km daily data of the IMS released by the National Snow and Ice Data Center (NSIDC, https://nsidc.org/home). The number of snow cover days within a specific period was determined by counting the days with recorded snow cover. To calculate the Snow Cover Extent (SCE) for each grid cell in a certain period, the following two-step methodology was employed: (1) calculate the snow cover fraction for each grid cell by dividing the number of days with snow cover by the total number of days in the period, and (2) multiply the snow cover fraction by grid cell area (16 km^2) to obtain SCE for individual grid cells. The regional SCE for the period was determined by summing the SCEs of all grid cells within the domain of the Third Pole Regional Climate Centre (TPRCC)-Network.

The section on *High-Impact Events* was initially compiled and organized based on information on weather and climate related disasters that occurred across the Third Pole (TP) region between December 2025 and April 2026, released on ReliefWeb maintained by the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) (https://reliefweb.int/) and the International Disaster Database (EM-DAT, https://www.emdat.be). Following subsequent review, supplementation, and confirmation by WMO Member countries within the service domain of the TPRCC-Network, together with the Network's technical partners, the information was finalized. This coordination process helped ensure the authoritativeness and consistency of the relevant disaster records.

The probabilistic and deterministic outlooks of surface air temperature and precipitation for the TP region are based on the outputs of eight and ten global seasonal prediction models, respectively, with optimal skill over the region. These models are combined using the multi-model ensemble (MME) technique to generate operational predictions. The probabilistic outlook is based on the combined ensembles from all participating models and represents a consensus prediction across the entire ensemble system.

The reliability of seasonal climate outlooks relies on the skillfulness (i.e., the ability of a climate model to predict seasonal climate) of models used for MME, which emphasize the importance of models evaluation before performing ensembles. Models selection for the TP region is guided by statistical performance metrics: correlation, Index of Agreement (IOA), and Root Mean Square Error (RMSE), to evaluate accuracy against observations. These metrics provide a quantitative evaluation of each model's forecasting skill relative to observations. The models are ranked according to their respective metric values. A total rank is then computed for each model by assigning equal weight to all metrics. The models are then sorted according to their total rank values, with lower values reflecting better overall performance. This approach facilitates the identification of models with optimal skill scores.

An MME approach is a well-recognized methodology for providing the most reliable objective forecasts. The basic idea of MME is to avoid inherent model errors and minimize uncertainties by using independent and skillful models. Therefore, MME was applied to merge information from all individual models identified from above-mentioned approach, which provides a forecast with higher confidence in regions where different model outputs are consistent, and lower confidence where models show less agreement. Ensemble means are calculated from the outputs of the individual models using a simple composite method (SCM). The ensemble mean anomaly forecasts for each individual model is calculated using their own climatology obtained from the hindcast. The anomaly for each model is based on the reference period (1993–2016) of the model's climatology. Ensemble mean anomaly is calculated from those of the individual models using SCM.

The probabilistic rainfall and temperature outlooks are based on a consensus assessment derived from the combined ensemble forecasts of all participating Global Climate Models (GCMs). Ensemble members from each model are pooled to estimate the relative probabilities of below-normal (BN), near-normal (NN), and above-normal (AN) rainfall/temperature categories with respect to the climatological distribution. Tercile probabilities are computed using a Gaussian fitting approach, while individual model contributions are weighted according to the square root of their ensemble size, thereby accounting for the reduction of random forecast errors associated with larger ensembles. The resulting weighted multi-model ensemble forecast incorporates both ensemble strength and model uncertainty, providing a statistically robust and consistent representation of seasonal rainfall and temperature predictability.

Acronyms

1. CMA – China Meteorological Administration
2. DJF – December, January, February
3. EM-DAT – International Disaster Database
4. GCW – Global Cryosphere Watch
5. GEWEX – Global Energy and Water EXchanges
6. ICIMOD – International Centre for Integrated Mountain Development
7. IMD – India Meteorological Department
8. IMS – Interactive Multisensor Snow and Ice Mapping System
9. JJAS – June, July, August, September
10. MME – Multi-Model Ensemble
11. MRI – Mountain Research Initiative
12. NCC–National Climate Centre
13. NSCD – Number of Snow Cover Days
14. NSIDC – National Snow and Ice Data Center
15. PMD – Pakistan Meteorological Department
16. RCC – Regional Climate Centre
17. SAT – Surface Air Temperature
18. SCE – Snow Cover Extent
19. SCM – Simple Composite Method
20. TP – Third Pole
21. TPCF – Third Pole Climate Forum
22. TPCR – Third Pole Core Region
23. TPE – Third Pole Environment Programme
24. TPRCC-Network –Third Pole Regional Climate Centre Network
25. TT-CP –Technical Team on Climate Prediction
26. UNESCAP – United Nations Economic and Social Commission for Asia and the Pacific
27. UN OCHA – United Nations Office for the Coordination of Humanitarian Affairs
28. WIPPS – WMO Integrated Processing and Prediction System
29. WMO – World Meteorological Organization