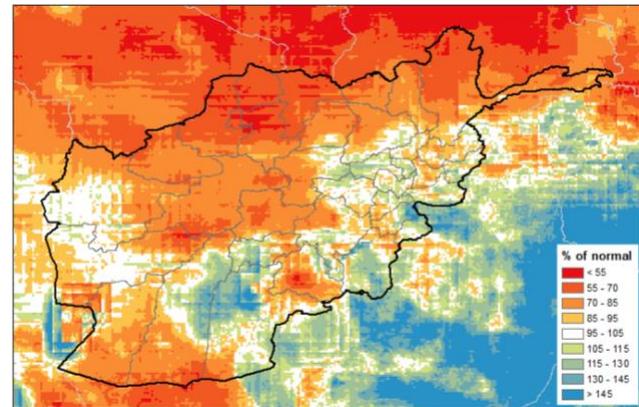


Below-average precipitation and snow water volumes persist over much of the country while above-average precipitation is observed in the East and South

KEY MESSAGES

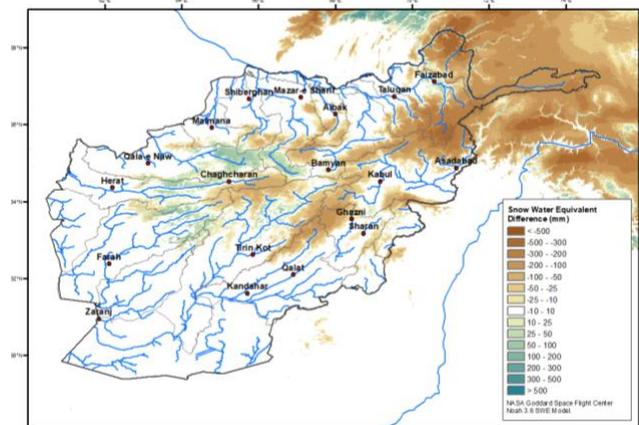
- Above-average cumulative precipitation anomalies for October 1, 2021, to February 20, 2022, were observed in the eastern and southern parts of the country. Below-average cumulative precipitation was observed in southwestern, northern, central highlands, and northeastern parts of the country (**Figure 1**).
- As of February 22, negative snow water equivalent differences persist in the northeastern and central basins of the country. However, positive snow water equivalent differences were observed in central highlands and western basins of the country (**Figure 2**). Below-average snow water volumes persist in the remaining basins of the country. **Figure 3** depicts select snow water volume charts.
- Based on forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF), below-average precipitation is most likely during the next two weeks (**Figure 4**).
- Below-average precipitation and above-average temperatures (**Figure 5**) are most likely through May 2022, given the ongoing *La Niña*. There is a low risk of landslides and flash floods during March – May 2022. Although above-average temperatures may aid in quick vegetative growth of irrigated wheat, they may also lead to crop stress later during the critical flowering season in April and May.

Figure 1: October 1, 2021 – February 20, 2022, precipitation percent of average from CHIRPS.



Data: CHIRPS version 2.0 prelim., Source:USGS/UCSB

Figure 2: As of February 22, 2022, daily snow water equivalent difference from the 2002-2016 average in mm.



Source: USGS EROS

UPDATE ON SEASONAL PROGRESS

Current conditions:

Meteorological and hydrological droughts persist in the northern and northeastern parts of the country and low streamflow conditions are prevalent in the country. Nevertheless, field reports indicate that the previous month’s precipitation across the country has improved soil moisture conditions, prompting farmers in the lower elevations to begin land preparations for planting of spring wheat.

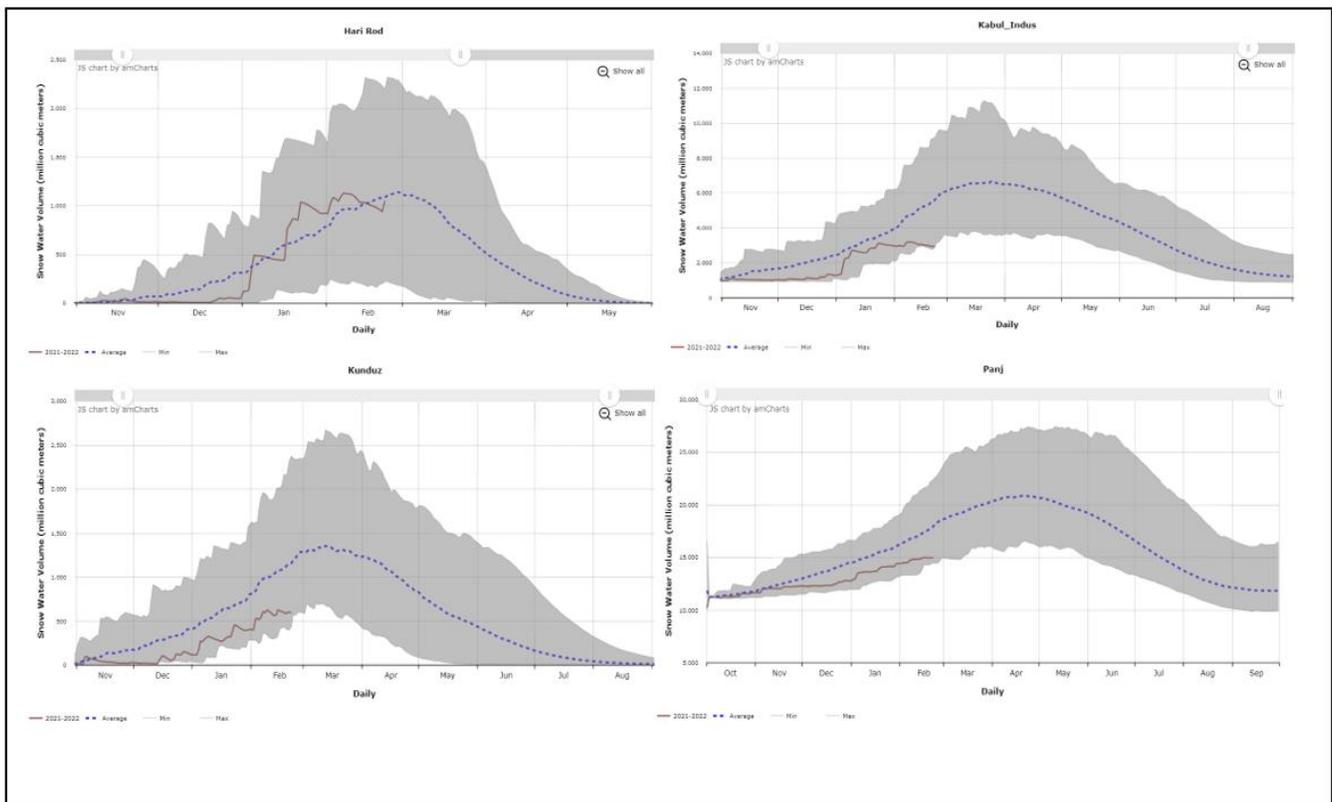
Precipitation anomalies:

Eastern, central, southern, and western parts of the country received above-average precipitation from mid-December to mid-January due to the [Madden-Julian Oscillation](#). As of February 20, below-average cumulative precipitation (70-85 percent of average) was observed in the central highlands while more severe deficits (55-70 percent of average) persisted in the areas bordering Turkmenistan, Uzbekistan, and Tajikistan (**Figure 1**).

Snowpack and snow water volume:

Consistent precipitation from the first week of January through the second week of February has led to above-average snow water volumes in the northwestern, western, and southern basins of the country. Currently, snow water volumes in Balkhab, Sari Pul, Shirin Taghab, Bala-Murghab Kushk, Hari Rod, Farah-Adraskan, Khash-Khuspas, and Helmand basins are near or above average. However, snow water volumes in Khulm, Kunduz, Khanabad, Kokcha-Ab-I-Rustaq, Panj, Kabul, Ghazni, Shamal, and Arghandab basins are below average. **Figure 3** highlights the snow water volume profiles up to February 22 in Hari Rod, Kabul, Kunduz, and Panj basins.

Figure 3. Seasonal snow water volume accumulations, compared to the historical average and minimum-maximum ranges, for the Hari Rod, Kabul, Kunduz, and Panj basins, as of February 22.

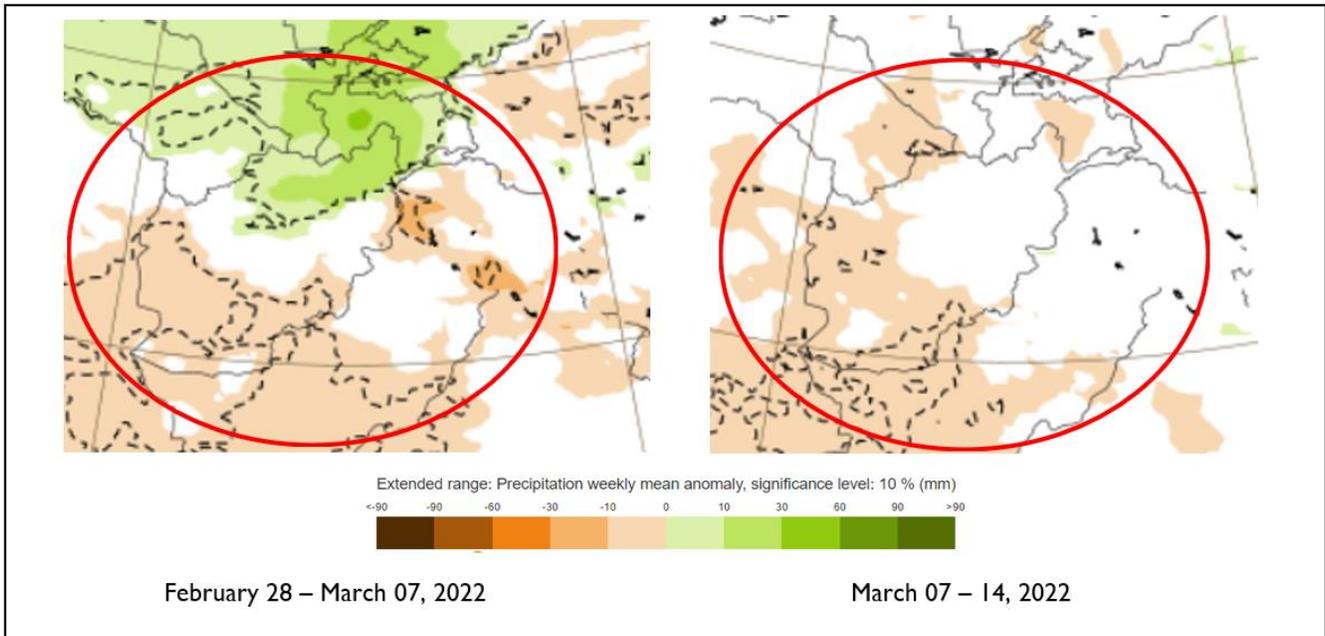


FORECAST

Precipitation:

Based on ECMWF forecasts, average to below-average precipitation is generally most likely in the country from 28 February - 07 March 2022 and from 07 - 14 March 2022. The exception is for above-average precipitation in the northeastern and north central parts of the country during the week 28 February – 07 March 2022. Precipitation during the remainder of the wintertime wet season is expected to be below average, given the forecast [persistence of La Niña](#) and [subsequent impacts](#) (**Figure 5**).

Figure 4. Mean weekly precipitation anomalies from ECMWF made on February 22, 2022 for (left) February 28 – 07 March, 2022, and (right) 07 – 14 March, 2022. The dashed lines indicate precipitation anomalies that are significant at the 1 percent confidence level while the color shaded areas indicate precipitation anomalies that are significant at the 10 percent confidence level. White shading indicates precipitation anomalies that are not significant at the 10 percent confidence level.



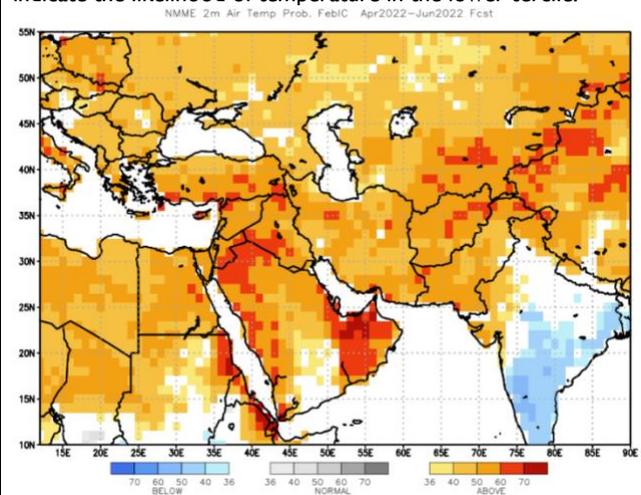
Source: ECMWF

Temperatures:

The North American Multi-Model Ensemble temperature forecast for April – June 2022 indicates a high probability of above average temperatures across the country during the forecast period (**Figure 5**).

Current field reports indicate average to below-average temperatures across the country, absence of early snowmelt, and low streamflow conditions in the country. However, forecast of persistent above-average temperatures may initiate flash floods and landslides during the coming months. Furthermore, the above-average temperatures may also lead to moisture stress in crops during the latter part of spring.

Figure 5. North American Multi-Model Ensemble temperature forecast for April - June 2022 made in February 2022. Warm colors indicate the likelihood of temperature in the lower tercile.



Source: NOAA CPC