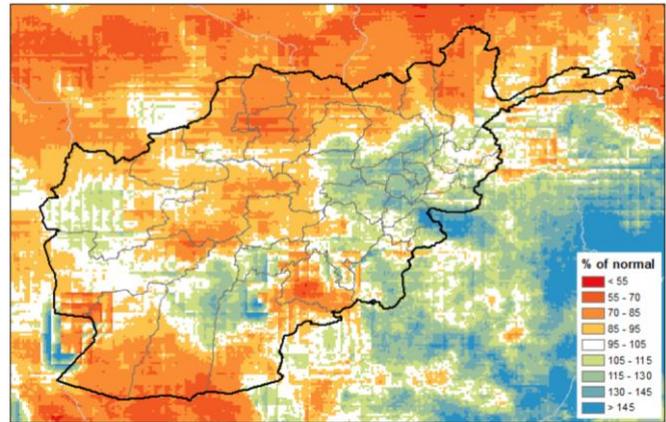


Precipitation during March supports normal spring wheat sowing although final wheat harvest depends on precipitation and temperature during April-May

KEY MESSAGES

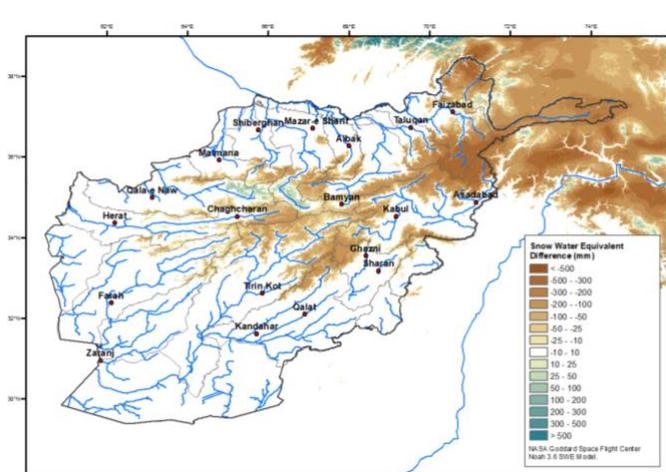
- Below-average cumulative precipitation from October 1, 2021, to March 20, 2022, was observed in southwestern, northern, central highlands, and northeastern parts of the country. Above-average cumulative precipitation was observed in the eastern and southern parts of the country (Figure 1).
- As of March 22, 2022, below-average snow water equivalent was observed across much of the country, except in isolated north-central areas (Figure 2). Below average and record low snow water volumes persist in many basins of the country (Figure 3).
- The above-average precipitation from the last week of February to mid-March supported normal sowing of spring wheat. Further, current soil moisture conditions support healthy vegetative growth of irrigated wheat in some areas. Winter wheat is reported to be healthy.
- The European Centre for Medium-Range Weather Forecasts (ECMWF) indicates below-average precipitation during the next two weeks (Figure 4). In case these dry spells persist in April then wheat crop in flowering stage might be affected due to temperature and moisture stresses. There is a low risk of landslides and flash floods in the coming months, given the precipitation forecasts.
- Below-average precipitation and above-average temperatures (Figure 5) are most likely through the end of the 2021-2022 wet season in Afghanistan, due to the ongoing La Niña. The precipitation and temperature forecasts, together with low snow water volumes, may increase the likelihood of crop stress during the critical flowering season during April and May. There is a high likelihood that the cultivation of second season crops may be severely affected due to water availability shortages.

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



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

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



Source: NASA and USGS EROS

## UPDATE ON SEASONAL PROGRESS

### Current conditions:

Meteorological, agricultural, and hydrological droughts persist in many areas of the country. However, field reports indicate that precipitation from the last week of February to mid-March has ensured normal progress of spring wheat sowing. It is expected that the current soil moisture conditions will also support/enhance the vegetative growth of irrigated wheat in the coming weeks.

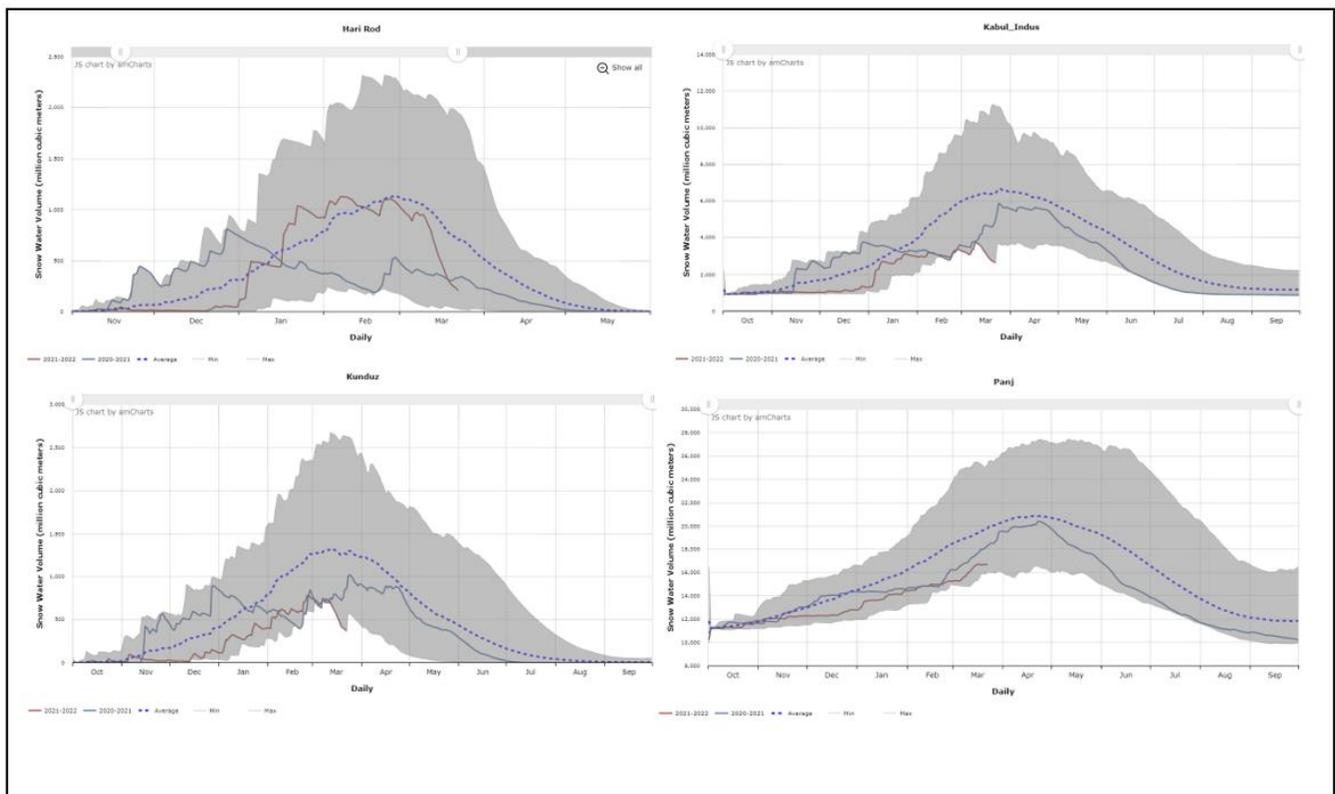
### Precipitation anomalies:

Below-average cumulative precipitation from October 1, 2021, to March 20, 2022 (70-85 percent of average) was observed in northern, and northeastern parts of the country bordering Turkmenistan, Uzbekistan, and Tajikistan, and in south parts bordering Pakistan. Below-average precipitation (85-95 percent of average) was observed in the central highlands. Above-average precipitation (115 to 145 percent of average) was observed in eastern and southern parts of the country (**Figure 1**).

### Snowpack and snow water volume:

Snow water volume (SWV) did not improve as much as cumulative precipitation over the previous couple of months (**Figure 3**) due to above-average temperatures. As a result, SWV remained below-average across the country, except in some central areas. As of March 22, below-average SWV was observed in most basins across the country. SWV levels were at record minimum levels in Kokcha-Ab-I-Rustaq, Kunduz, Khulm, Ghazni, Shamal, and Kabul basins. These low SWV levels in various basins across the country do not bode well for irrigated crops in the coming months. The prospects for second crop cultivation from June will be adversely impacted because low SWV and the ongoing hydrological drought will reduce water availability.

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

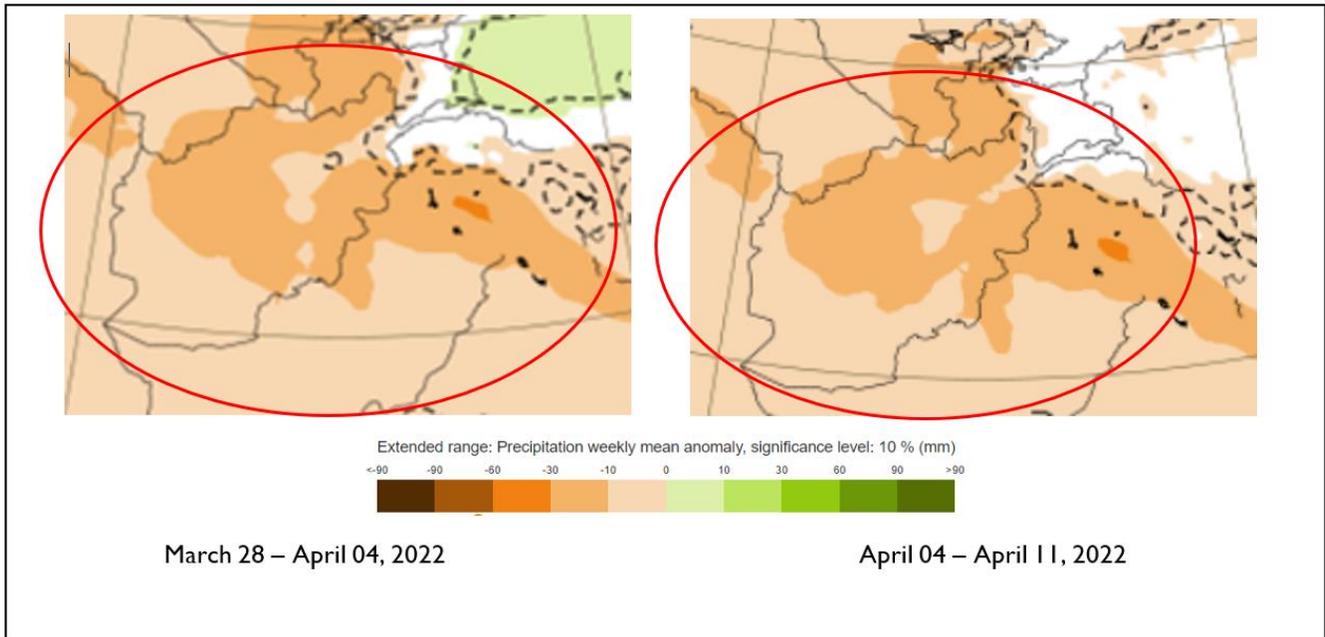


## FORECAST

### Precipitation:

Based on ECMWF forecasts, below-average precipitation is most likely for the majority of the country from 28 March – 04 April 2022 and from 04 – 11 April 2022 (**Figure 4**). Precipitation during the remainder of the season is also expected to be below average, given the forecast persistence of La Niña and subsequent impacts.

**Figure 4.** Mean weekly forecast precipitation anomalies from ECMWF made on March 23, 2022 for (left) March 28 – 04 April, 2022, and (right) 04 – 11 April, 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.



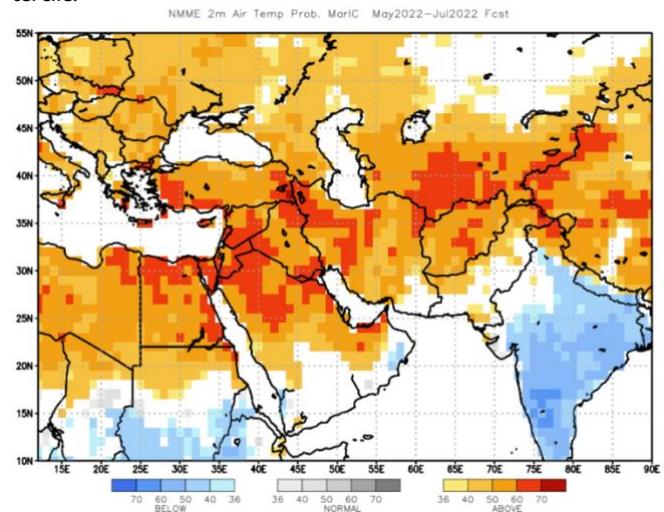
Source: ECMWF

**Temperatures:**

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

Current field reports indicate average to above-average temperatures and low streamflow conditions in the country. Above-average temperatures may also lead to moisture stress in crops during the latter part of spring.

**Figure 5.** North American Multi-Model Ensemble probabilistic temperature forecast for May - July 2022 made in March 2022. Warm colors indicate the likelihood of temperature in the higher tercile.



Source: NOAA CPC