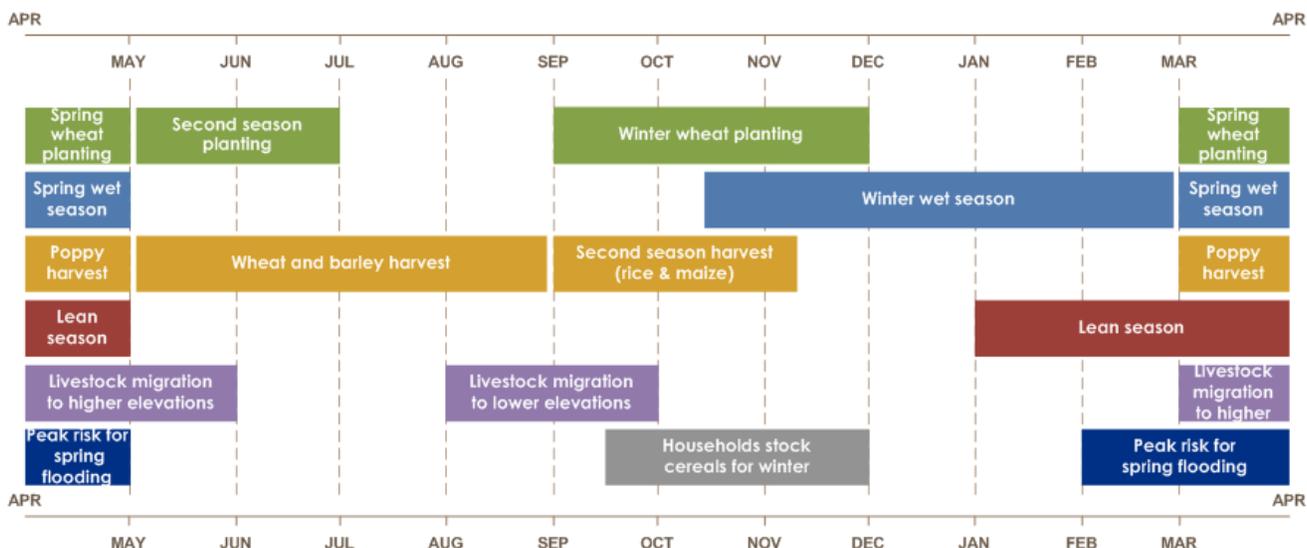


Abundant seasonal water available for normal growth of crops and pastures

KEY MESSAGES

- Weak El Nino conditions that led to above-average precipitation in March across the country are expected to generate heavy rains in the north, northeast and central basins through the 2nd week of April.
- Most basins in the central highlands, north, and northeast are continuing to show record maximum levels of snow water volumes. While average snow water volumes have been observed in the Khanabad and Khokcha-Ab-I-Rustaq basins, below-average snow water volume is being highlighted in the Panj basin as of reporting date.
- Seasonal snow accumulation in all the basins is in the recession phase.
- The above-average rainfall and abundant water availability are expected to be beneficial for healthy growth of standing wheat crop. Further, these conditions will also be beneficial for ongoing land preparation/sowings/emergence of spring wheat in the country.
- The above-average cumulative rainfall, the record maximum levels of snow water volumes in most of the basins and greater probability of above-average air temperatures for April-June may lead to more snowmelt runoff and thereby increase the risk of flooding.

SEASONAL CALENDAR IN A TYPICAL YEAR



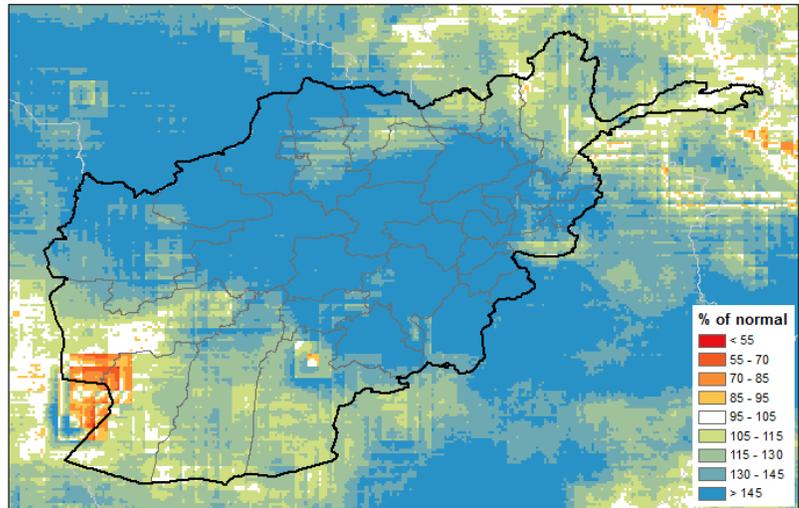
Source: FEWS NET

UPDATE ON SEASONAL PROGRESS

Precipitation anomalies:

The spatial variability of the cumulative rainfall from October 1, 2018 – April 5, 2019, indicates above-average precipitation throughout the country except in the desert locations in western Farah and Nimroz provinces (**Figure 1**). This cumulative precipitation map indicates that the northern, central and southern provinces have received cumulative rainfall in excess of 130% or more of the long-term average while the remaining provinces have recorded 95-115% of the long-term average precipitation.

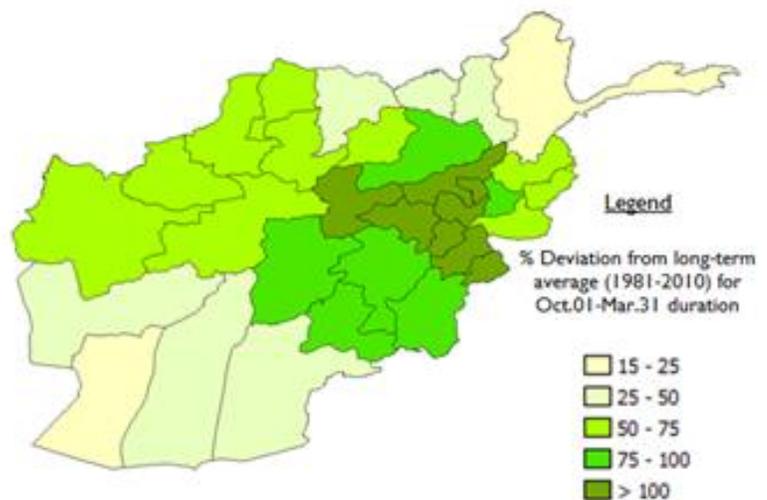
Figure 1. October 1, 2018 - April 5, 2019 percent of normal (1981 - 2010) cumulative precipitation.



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

The spatial distribution of accumulated precipitation, aggregated by province, and expressed as a percent of corresponding long-term average (1981 - 2010) for October - March (**Figure 2**) indicates that (a) Bamiyan, Kabul, Kapisa, Khost, Logar, Panjsher, Parwan, Paktya, Wardak, provinces have received more than 100%; (b) Baghlan, Dayakundi, Ghazni, Laghman, Paktika, Uruzgan, and Zabul provinces received 75-100%; (c) Baghdis, Faryab, Ghor, Jawzjan, Herat, Samangan, Sari pul received 50-75%; (d) Balkh, Farah, Helmand, Kunduz, Kandahar, and Takhar provinces received 25-50% ; and (e) Nimroz and Badakhshan provinces received 15-25% in excess of the long-term average cumulative rainfall.

Figure 2. Seasonal cumulative rainfall (Oct. 01, 2018 - Mar. 31, 2019), expressed as percent deviation from long-term average (1981-2010).



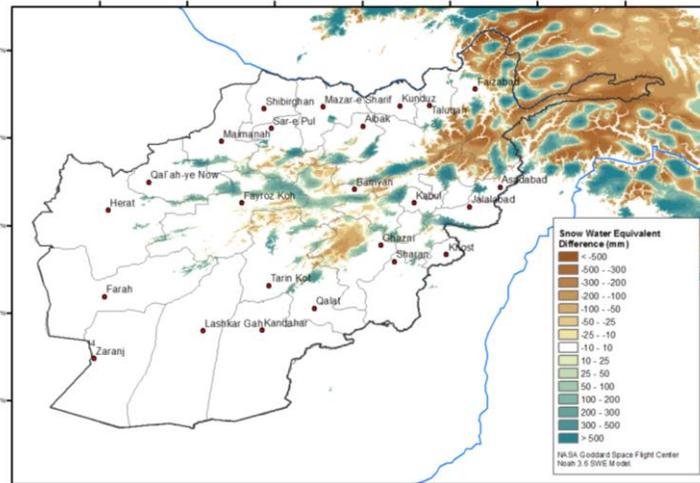
Data: CHIRPS 2.0 prelim, Source: UCSB

Snowpack and snow water storage:

Figure 3 depicts the spatial distribution of the snow depth anomalies with respect to the average as of April 9. Reduction in the snow depth difference (from average) is noticeable in the central highlands during the current reporting period compared to that reported in March largely due to seasonality. Despite the presence of localized deficit snow accumulation in the northeast and central highlands, the above-average snow accumulation received through April 9 will ensure sufficient water available for crops and pastures.

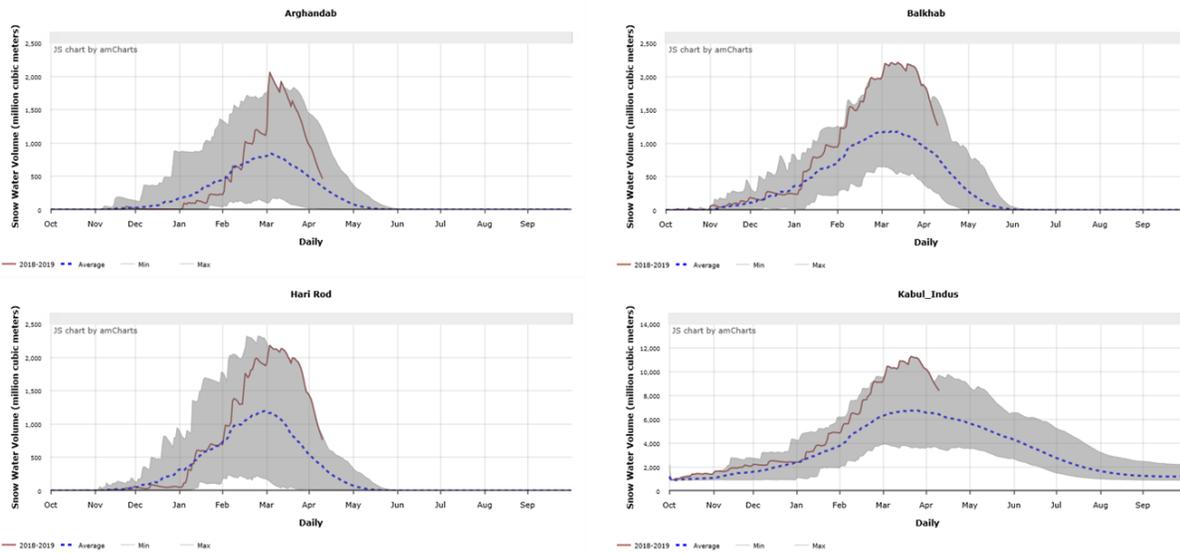
Figure 4 highlights the current above-average snow water volumes in Arghandab, Balkhab, Hari Rod and Kabul basins as of April 9. The seasonal snow water volume curves for these basins indicate that they are in their recession phases. The above-average snow water volumes will be beneficial to winter wheat and second season cropping in the country.

Figure 3. Snow depth difference from average (2002-2016) in mm as of April 9, 2019.



Source: USGS/NASA

Figure 4. Daily progression of snow water volumes in Arghandab, Balkh, Hari Rod, and Kabul basins as of April 9, 2019.



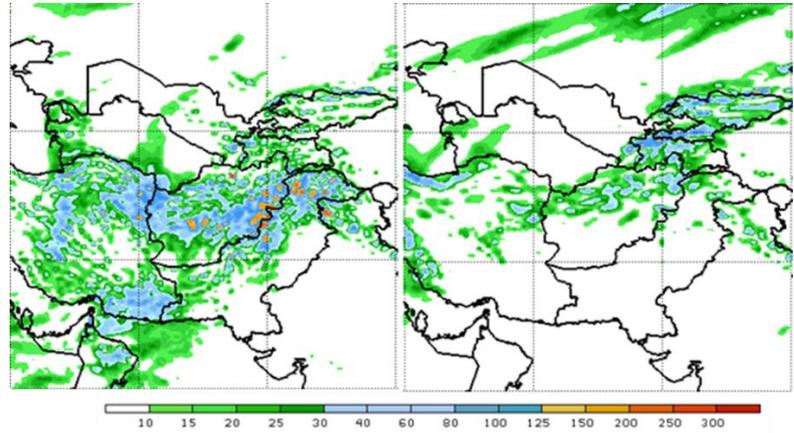
Source: USGS/NASA

Forecasts:

Precipitation:

Left and right panels (Figure 5) depict the 7-day forecasts of total precipitation for the period ending April 17 and April 24 respectively. Heavy rain (60-125 mm) is the forecast all over the entire country in the 7-day period ending April 17. Thereafter, light to heavy rains (20-80 mm) are expected in the north and northeast portions of the country in the following 7-day period ending April 24. The persistent rains continuing from last month and into April will most likely impact areas that have already been affected by flash floods. In addition, these conditions are likely to bring flooding to currently unaffected areas.

Figure 5. GFS 7-day forecast of total precipitation in mm for 7-day period ending on April 17 (left panel) and ending on April 24 of 2019 (right panel).

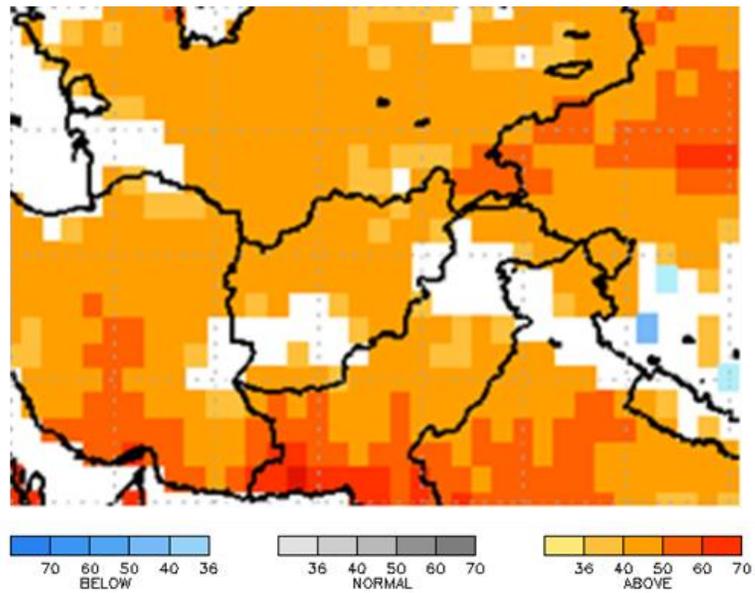


Source: NOAA CPC

Temperature:

The latest NMME forecast of 2-Meter air temperature anomalies for April - June indicates a higher probability (40-70%) of above-average temperatures in the entire central Asian region (Figure 6). Above-normal air temperatures are forecast for most parts of Afghanistan except for portions of Helmand, Kandahar and Nimroz provinces.

Figure 6. NMME 2-Meter Air Temperature (°C) forecast for Afghanistan, April – June 2019 with Mar. 2019 IC.



Source: NOAA CPC