Climate Prediction Center's Central Asia Hazards Outlook
For USAID / FEWS-NET
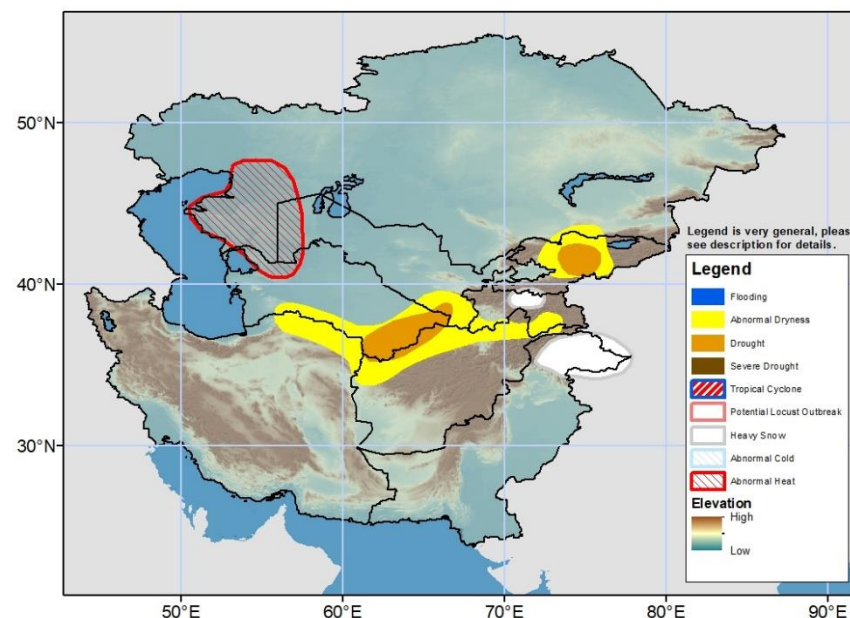# 27 April – 3 May, 2023

Temperature:

Weekly average minimum temperatures were below normal over most of Central Asia. The largest negative anomalies were 6-12ºC across northeastern Kazakhstan, with more moderate 4-6ºC anomalies across southern Kazakhstan, Uzbekistan, eastern Turkmenistan and parts of Afghanistan. Maximum temperatures exhibited a very similar anomaly pattern in the region. Weekly average maximum temperatures remained lower than 10ºC across northeastern Kazakhstan and only exceeded 30ºC in southwestern Afghanistan and parts of Iran and Pakistan. Weekly average minimum temperatures were observed around -10 to 0ºC across higher elevations of Kyrgyzstan (>3000 m), the higher elevations of eastern Tajikistan (>4000 m), northern Kazakhstan, and the higher elevations of the central highlands and northeastern Afghanistan (>2500 m).

During the outlook period, the GEFS model forecasts a substantial increase in temperatures throughout the region. Much-above average mean maximum temperatures will move in from the west and the warmest areas in western Kazakhstan, western Uzbekistan, and northern Turkmenistan will observe 6-10ºC anomalies. More moderate positive anomalies (2-6ºC) should expand across central Kazakhstan, eastern parts of Turkmenistan and Uzbekistan, northern Iran, northern and western Afghanistan, western Kyrgyzstan, and western Tajikistan. Far-eastern Afghanistan and Pakistan should expect below-average temperatures to remain in place. The mean minimum temperature pattern is predicted to look very similar with comparable magnitude anomalies. Weekly average minimum temperatures are forecast between -15 to -5ºC across eastern Tajikistan, the higher elevations of eastern Kyrgyzstan and northeastern Afghanistan. Mean minimum temperatures are likely to remain above freezing across Kazakhstan. Mean maximum temperatures are forecast to exceed 30ºC in Turkmenistan, southern Uzbekistan, and southern/western/northern Afghanistan, while exceeding 35ºC in southwestern Afghanistan, eastern Iran, and Pakistan.

Precipitation:

A robust low pressure system brought heavy precipitation to eastern Afghanistan and northern Pakistan. 25mm to as much as 100mm of liquid equivalent precipitation were observed according to gauge analysis, with much of it falling as heavy snow at higher elevations. Lighter precipitation was observed over central portions of Afghanistan, Tajikistan, and eastern Kyrgyzstan. Based on USGS snow water equivalent (SWE) analysis, negative SWE anomalies persist across eastern/northwestern Tajikistan, most of northeastern/central Afghanistan, and most of Kyrgyzstan outside of lower elevations in west-central portions of the country. However, recent precipitation has slightly increased SWE values in Afghanistan and Pakistan. Low SWE values and low standardized precipitation index (SPI) values support the placement of drought in central Kyrgyzstan. Low SPI values and precipitation accumulation over the last two months, as well as low soil moisture, supports the placement of a drought hazard in eastern Turkmenistan and northern/western Afghanistan.

The GEFS ensemble mean forecasts moderate to heavy precipitation (25-100mm liquid equivalent) for eastern Afghanistan, as well as in northern Pakistan during the outlook period. Heavy snowfall (>25cm) is likely to accumulate in northern Pakistan's higher elevations. Moderate rain and mountain snow is forecast in Tajikistan, Kyrgyzstan and parts of eastern Kazakhstan. Little to no precipitation is forecast in Kazakhstan, Turkmenistan, and Uzbekistan.