

BENGALURU/THIRUVANANTHAPURAM, NOVEMBER 23:

For wheat farmers, who are already grappling with the currency shortage triggered by the demonetisation of high value notes in the ongoing rabi season, there's more to worry about in the coming days.

The India Met Department, in its seasonal outlook for South Asia, has said that most parts of India are likely to witness a mild winter this year with higher-than-normal average temperatures in November, December and January.

Yields under threat

Higher-than-normal temperatures could mean that the wheat yields will get impacted, thereby influencing the output, said analysts and experts.

Wheat is the main rabi crop and sowing has kept pace with last year's levels in most States (see table). The IMD said average temperatures in the November-January period could be above normal by 0.5-1 degree Celsius over the country as a whole.

This, however, doesn't mean that the winter would be uniformly mild in all regions.

"The general assumption is that winter should be good when the rainfall is normal and this year we have received normal rains. We need to see how the winter actually progresses," said an official at the Karnal-based Indian Institute of Wheat and Barley Research.

Output, imports

However, studies have shown that higher-than-normal temperatures generally impact wheat yields, the source added.

Wheat yields in India are estimated at 2,750 kg per hectare as compared to world average of 3,289 kg per hectare.

The Central government has pegged the wheat production target at 96.5 million tonnes (mt) — higher than last year's 93.5 mt. The trade, however, had pegged wheat output last year at between 82 and 84 mt.

Lower output this year had led to imports of the cereal.

Trade estimates suggest that the country has imported about 1 million tonnes and another 1.2-1.5 mt has been contracted for imports in the current quarter.

"Mild winter and a slight delay in sowing, as witnessed in some States like Punjab and Haryana could impact the yields," said Amit Bharadwaj, CEO of Level A Commodities.

However, Bharadwaj expects the output to be better than last year.

Warm winter

According to the Inter-governmental Panel on Climate Change (IPCC), winter in India is expected to turn warmer, with temperatures rising between 0.4 and 0.8 degrees over the next 20 years — starting from 2016 to 2035.

The temperatures will again rise by 2-3 degrees between 2046-65. North India will be 3-5 degrees hotter by the end of the century from what it is today.

The temperatures in North India will become comparatively warmer than south India during this period and thereafter.

Global weather models suggest a warmer-than-normal winter this year for most parts of the northern hemisphere in the December-January-February period.

Global models

The European Centre for Medium-Range Weather Forecasts and the Application Laboratory of Jamstec, the Japanese national forecaster, have issued outlooks suggesting this.

Both also find that rainfall would be normal in most of North-West India with a few exceptions — but they differ over where the rain deficits are likely to crop up.

The European agency points to parts of Uttar Pradesh (especially the central parts) while the Japanese model cites areas further north-west — Jammu & Kashmir, Himachal Pradesh, Punjab and Uttarakhand.

The standing rabi crop, especially wheat and mustard, is known to flourish in cooler climates when temperatures dip significantly below normal. But current forecasts do not suggest such a trend anytime from December to March.

Western disturbances

There is also a significant correlation between winter-time precipitation over North-West India and the El Nino/La Nina phase in the Equatorial Pacific.

It is principally caused by western disturbances, the low-pressure wave that originates over the Mediterranean and Caspian Sea.

They travel east towards Iraq, Iran, Afganistan and Pakistan before entering India through the Rajasthan/Gujarat border.

The disturbances are intensified during an El Nino. The Pacific is currently transitioning into a 'neutral' (neither El Nino nor La Nina), which may partly explain the forecast of an indifferent winter here.

On an average, six to seven disturbances per month move across India during the winter.