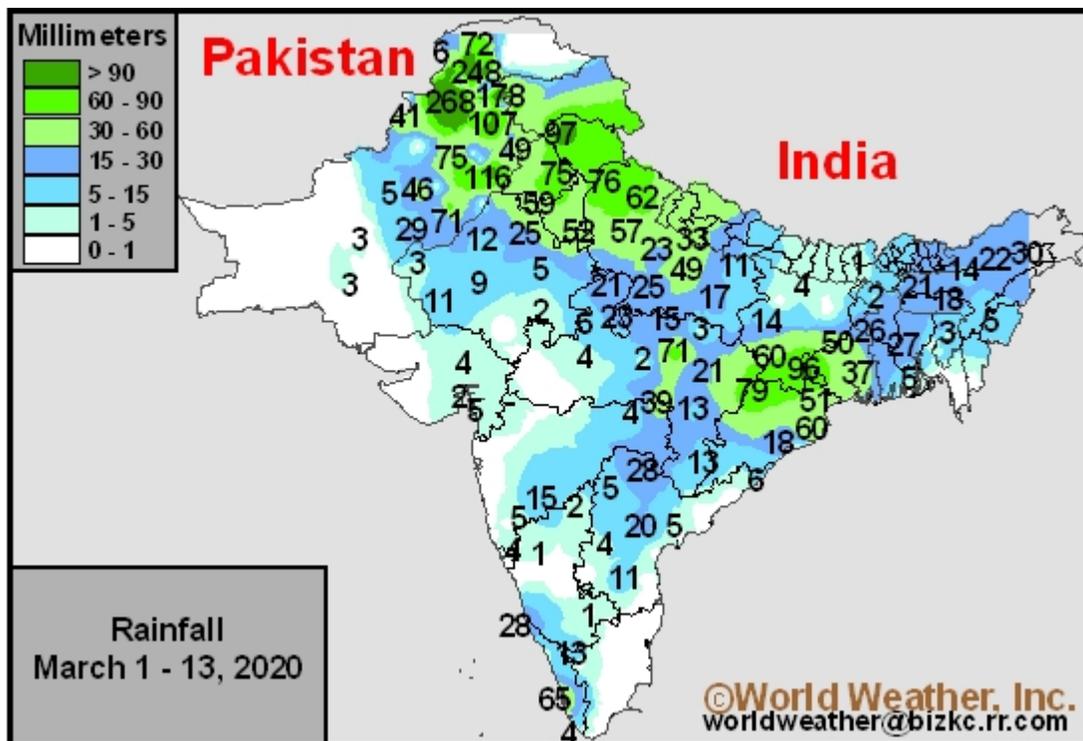


India Winter Crop Outlook Remains Favorable

By Andrew Owen

Kansas City, March 13 (World Weather Inc.) – [India's winter wheat, rapeseed and pulses are in generally favorable shape this year. Late season monsoonal rain last year helped bolster soil moisture and water reservoir levels in much of the country. Northern and eastern India has also been wetter than normal over the winter. Ample moisture in the reservoirs combined with periods of rain in northern and eastern India helped promote aggressive development over the winter season.](#) Some of the production areas in western and southern India did not receive much rain in February as the crops were reproducing, though no significant production impacts were suspected. [The environment will remain favorable in most areas as crops are in the late stages of reproduction and early stages of filling.](#)

Areas from Punjab, Haryana and Himachal Pradesh into much of Uttar Pradesh, Jharkhand, Chhattisgarh, northeastern Odisha, and Bangladesh were generally wetter biased in recent months. These areas received 120% to over 200% of normal precipitation from December 13 to March 11, 2020. The remaining portions of India were mostly drier biased, but they do not normally receive much rain at this time of year.



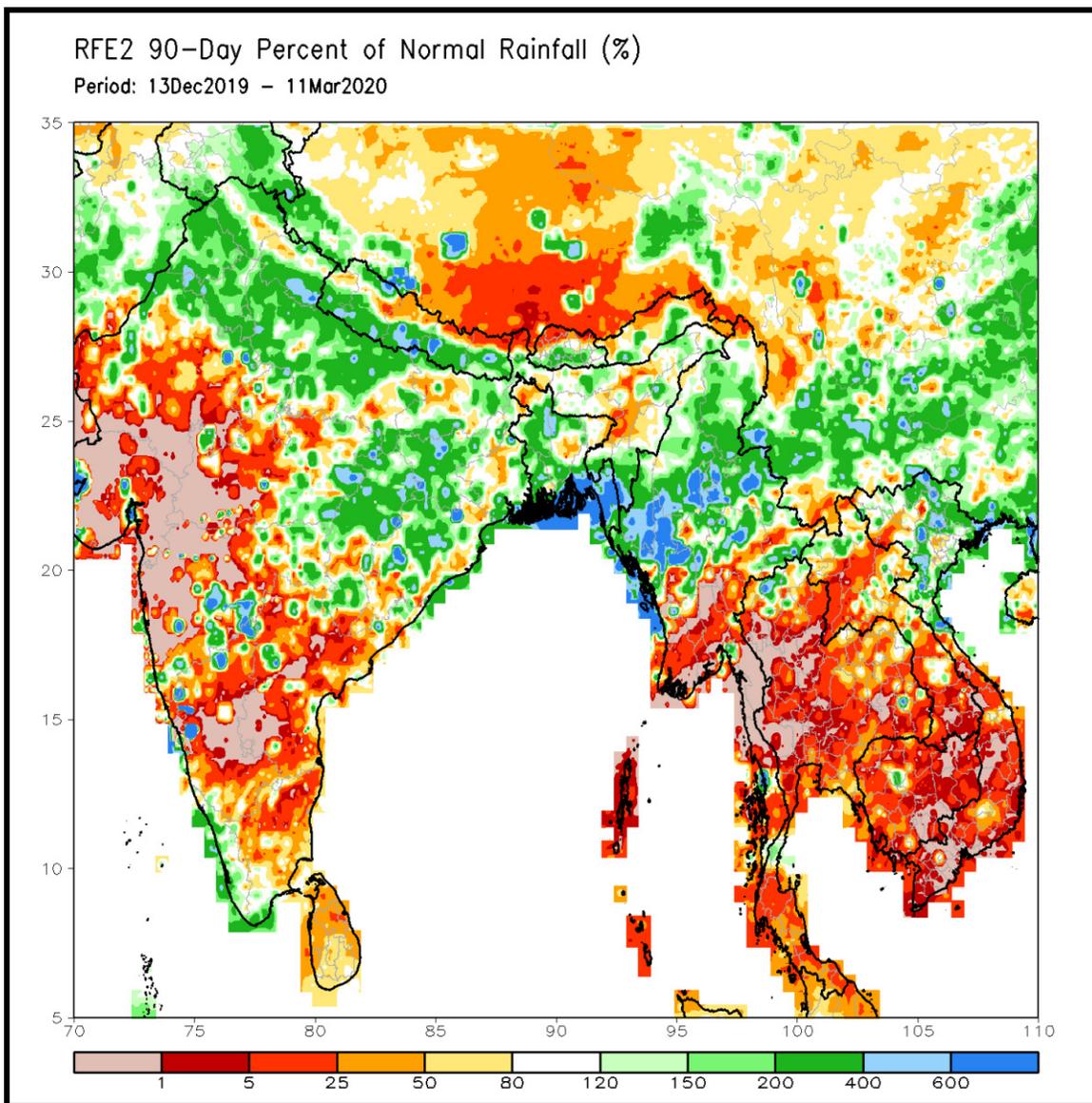
Rainfall since the beginning of March has been variable across India. Himachal Pradesh, Punjab, Haryana, and northern Uttar Pradesh reported some of the most significant rain with totals ranging from 2.05 to 3.82 inches March 1-13. Northern Odisha, West Bengal, Jharkhand, portions of Chhattisgarh and eastern Madhya Pradesh received 0.51 to 3.78 inches of rain while most other areas in eastern India received up to 1.18 inches. Several areas in Rajasthan and central Madhya Pradesh into Telangana, southern sections of

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Maharashtra and Andhra Pradesh reported a trace to 0.60 inch with local totals to 1.10 inches in northern Telangana.

Isolated thunderstorms occurred in portions of northern and eastern India at times since the beginning of the month. Some of the storms were intense enough to produce hail and strong wind speeds which may have damaged some crop, but damage was likely minimal and restricted to a few fields.

The environment has generally been favorable for aggressive growth over the winter for much of India. Northern and eastern India received enough rain to supplement irrigation while there was ample moisture in the water reservoirs for irrigated crops in western, central, and southern India to perform normally. Recent rain and seasonable temperatures were quite supportive of reproduction which has ensured high yields.



Northern India will continue to see a mix of erratic rain and sunshine during the next two weeks. Some of the most significant rain will occur today and Saturday before the

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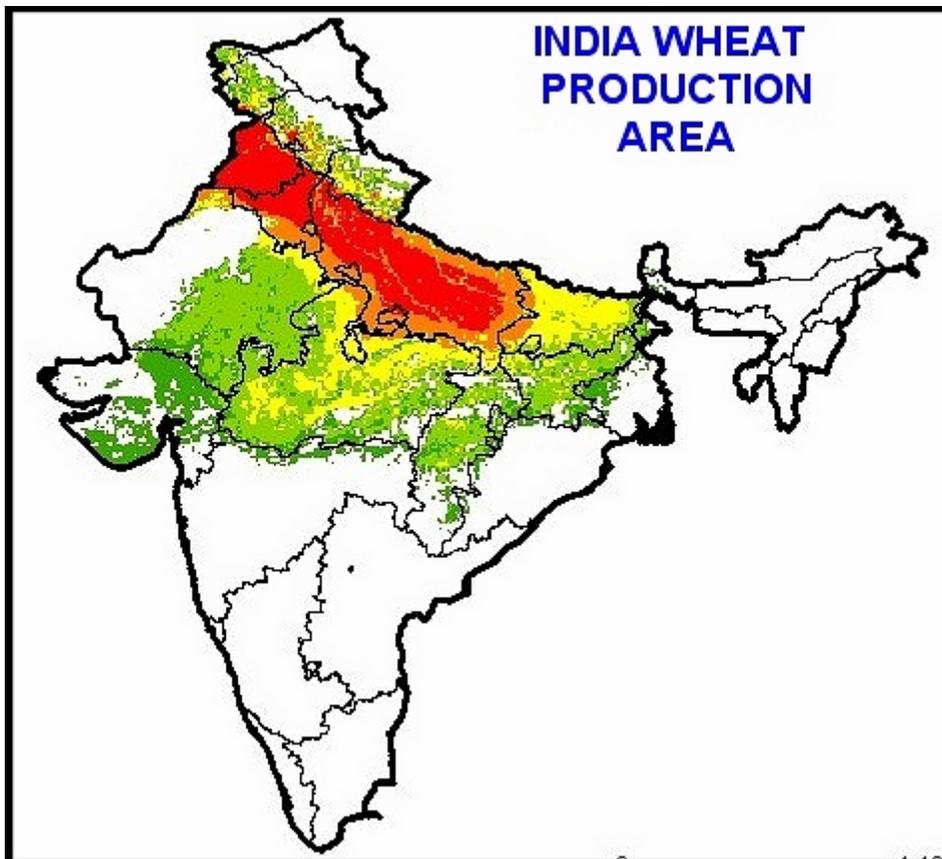
region is mostly dry later this weekend into next week. Moisture totals from today and Saturday's event will range from 0.40 to 2.00 inches and locally greater amounts.

Eastern India will also see varying amounts of rain during the next two weeks. Erratic precipitation will evolve on a frequent basis for Jharkhand, West Bengal, Odisha, Chhattisgarh, eastern Madhya Pradesh, and neighboring areas during the coming week. Moisture totals by next Friday morning will range from 0.35 to 2.00 inches with several locations receiving more than 4.00 inches of rain northern Chhattisgarh and immediate neighboring areas. Other portions of eastern India will only see brief periods of light rain that will be unable to counter evaporation.

Western, southern, and much of central India will be mostly dry through the end of next week. Any rain that does occur will be rapidly lost to evaporation. There is potential for some light and erratic rain March 21 – 27, though precipitation will generally be too light to impact long-term soil conditions.

Reproduction and filling conditions will be generally favorable for India in the coming weeks. The rain in the north and east may slow filling for the most advanced crops, though no other impacts are expected for the crops.

Temperatures will also be seasonable and that, too, will help production potentials be high.



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