Record June Rains to Aid Power, Farm Production

32% above-normal rains fill up dams which will also support winter sowing

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Agriculture output is poised to accelerate and power deficits will narrow as the monsoon has begun bountifully in its first month, irrigating fields and filling up reservoirs with the heaviest June rainfall in more than a decade.

Rainfall has been 32% above normal in June, injecting moisture into fields and preparing them for early sowing of kharif crops and reducing the farmer's need for electricity or diesel to pump water into fields.

A heavy rainfall in the Himalayan region has helped key reservoirs such as Bhakra and Tehri accumulate huge reserves of water, much higher than normal. This will help generate more electricity and irrigate fields. Of the 85 main reservoirs across the country, 60 now have 80% of normal storage, which is expected to help rabi crop sowing later in the year. Crop planting has already jumped, according to official data. By June 28, total sown area had jumped to 250.99 lakh hectare from 135.87 hectare at this time last year.

"There has been an unprecedented sowing this year with a good spread of rainfall. If the dry spell is not for a longer duration, we should be looking at a bumper harvest," said AK Sikka, deputy director general (Natural Resource Management), Indian Council of Agricultural Research. Deficient and erratic rains in 2012-13 reduced grain output to 252.36 million tonne from 259.32 million tonne in 2011-12.

The four-month-long rainy season began on June 1, recording 216.3 mm rainfall till June 30, which was 32% above normal. According to the India Meteorological Department (IMD), it was after 12 years that the country received such heavy rains in June. In 2001, the country received 35.6% normal rainfall at 219 mm in June and it saw a 37.7% above normal rainfall at 219.8 mm way back in 1980.

Monsoon was weak in 2002, 2004, 2009 and 2012, which impacted sowing pattern, yield and production. Apart from increasing acreage, no major change in crop pattern and good production, the rains will also help farmers who mainly grow long-duration crops like cotton, sugarcane and those in rainfed regions to save on labour, diesel and electricity cost to run tube wells.

"Initial signs are good. If the trend continues, it will be beneficial not only for farmers and consumers but for the economy. Our growth rate has slowed down in the last two years. Agriculture can provide the much-needed push. It will also help in keeping a check on inflation and macro economic stability," said Ramesh Chand, director, National Centre for Agricultural Economics and Policy Research, New Delhi. July and August are of extreme importance as the maximum spell of rainfall is received during these months which helps moisten the earth for sowing and to mature planted crops.

A good monsoon is of particular importance for paddy (42% of area is rainfed), which constitutes more than 60% of the kharif crop. "Farmers in Punjab and Haryana exploit water resources and ensure that the crop is good even in a drought year. However, this is not the case in other parts of the country. But we see rains helping farmers immensely in Uttar Pradesh, Bihar and Chhattisgarh," said Sikka.

Good Going

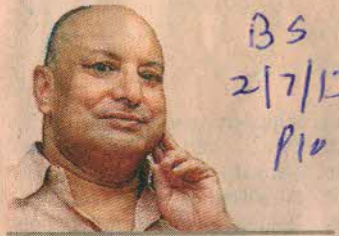
- **June records** 216.3 mm rainfall till month-end, which is 32% above normal
- **Rains will** help farmers who mainly grow long-duration like sugarcane and cotton
- **They will** also keep a check on inflation and bring macro economic stability

No Rain Respite Seen for Uttarakhand

NEW DELHI More rains are expected over Uttarakhand, which has been washed out in record downpour this season, in the next three days, reports **Our Bureau**. Monsoon activity is expected to strengthen over northwest India from July 4. "Heavy to very heavy rainfall is expected at a few places on July 5-6 across Uttarakhand," said OP Singh, Deputy Director General of Meteorology, regional meteorological centre, New Delhi. He said that the state would get 3-4 cm rainfall in lower reaches from July 1-3. "The state will get rainfall at most places with 7-13 cm rainfall at a few places each day during the period of July 4-7," he said.

Two sides of a canal

Indira Gandhi Canal's salubrious effect on the Thar has been overlooked



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FARM VIEW

SURINDER SUD

The Indira Gandhi Canal, also called the Rajasthan canal, which ferries water from the Harike Barrage in Punjab to the distant Thar Desert in Rajasthan, has been much maligned for its adverse environmental consequences, especially waterlogging of areas around it. What has escaped notice is the salubrious effect of the canal water-based intensive farming on the inherently barren desert soil. A recent comprehensive study of the changes in the soil properties indicates that irrigated agriculture has propped up the carbon content of the soils and improved their overall physical and chemical health. The study report, in fact, commends irrigated farming as a management option for restraining desertification in the Thar and other similar deserts in the hot tropical regions.

This is a significant policy suggestion given that the sprawling Thar desert spans some 2,00,000 sq km in Rajasthan and its adjoining states. A typical feature that sets the Thar apart from the world's other great deserts is the exceptionally large population of humans and livestock that it has to support, notwithstanding its innately low carrying capacity. The average population density in this arid belt is 84 to 90 people per sq km, against just three to six people in other deserts. The livestock count, which constitute the mainstay of the livelihood of people here, too, is very high and is growing rapidly. This is adversely affecting the grazing lands and local vegetation which, in any case, are sparse. The rainfall in the Thar Desert is extremely low and sporadic. On an average, there are just 16 rainy days in a year.

Much of the land in the desert has traditionally been covered with sands and sand dunes, some of which even tended to shift from one locale to another. Many of these dunes have since been stabilised or leveled to facilitate farming in the canal command areas. It is true that waterlogging had occurred on quite a substantial scale, especially in the initial stages of the expansion of the canal network, but that was largely because adequate stress was not simultaneously laid on provision of proper drainage. This issue has since been addressed to a considerable extent, mitigating the waterlogging menace.

On the upside, the irrigation, and also the cotton and wheat-based cropping systems that have sprung up in the canal command area due to availability of water, have had several positive effects on the sandy and loamy desert soils. These have been quantified and documented in this study carried out by an inter-institutional group of scientists led by S K Singh of the Kolkata-based regional centre of the National Bureau of Soil Survey and Land Use Planning.

A feature that sets the Thar apart from the other great deserts is the exceptionally large population of humans and livestock that it has to support

The report maintains that irrigation and regular cropping have led to a perceptible improvement in the physical, chemical and biological characteristics of the soils in the Thar Desert, enhancing their water holding capacity and augmenting their fertility. This qualitative upswing is attributed partly to the sediments (clay and silt) brought in by the canal that are rich in nitrogen, phosphorus, potassium and carbon components, and partly to the addition of organic matter (manures) to the soil as part of the routine agronomic practices for crop cultivation. The presence of microbes in the soils, which is critical for its long-term health, too, has tended to look up due to increase in its organic carbon content. In the past 47 years, canal water irrigation has helped push up the silt content of the soils by 7.2 per cent and clay content by 5.4 per cent even while simultaneously reducing the proportion of sand by 12.5 per cent. Besides, it has moderated soil temperature in both summers and winters to create better ambience for the growth of roots and micro-organisms.

"These observations suggest that irrigation and cropping sequences together may be one of the management options for greater sequestration of organic carbon to improve physical and chemical conditions of the soil and reduce desertification in the Thar desert," the report concludes. This unambiguous inference should serve as an eye-opener for the anti-water development lobby that has been resisting construction of dams and other projects for conveying water to water-stressed areas to irrigate crops and meet drinking water and other needs of people.

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