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केन्द्रीय जल आयोग
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विषय : दिनांक ०२/०६/२० की समाचार की कतरन (News Clippings) प्रस्तुत करने के सम्बन्ध में ।

मानसून/ बाढ़ सम्बन्धी समाचारों की कतरन (News Clippings) अवलोकन हेतु प्रस्तुत हैं :

संलग्न : उपरोक्तानुसार

Heuridw
2/6/20
(सहायक निदेशक)

उपनिदेशक

निदेशक (बा.प.प्र.)

कृपया केन्द्रीय जल आयोग की वेब साईट पर अपलोड करने की व्यवस्था करें।

निदेशक (तकनीकी प्रलेखन)

Mumbai on cyclone red alert

NISARGA PROGRESS Landfall expected in Maha, Gujarat coastline on June 3; heavy rainfall, flooding of low-lying areas likely in region

Badri Chatterjee, Jayashree Mandi
letters@hindustantimes.com

MUMBAI/NEWDELHI: Nisarga, a possible severe cyclonic storm that is expected to result from a depression forming in the southeast and adjoining east-central Arabian Sea and Lakshadweep area will impact Mumbai city which may experience high speed winds and extremely heavy rainfall, the India Meteorological Department (IMD) said Monday as it issued a red alert for six other districts including Palghar, Thane, Raigad, Dhule, Nandurbar and Nashik between June 3 and 4.

Meanwhile, Gujarat chief minister Vijay Rupani presided over a high-power committee meeting on Monday to review the precautionary measures being taken by state and district administration for cyclone forecast likely to hit South Gujarat and Saurashtra regions on June 3.

According to the IMD bulletin, the system is expected to become a cyclonic storm by 11.30 am and a severe cyclonic storm by 5.30 pm on June 2. It is likely to make landfall by Wednesday afternoon. The wind speed is expected to be 105-115 kmph gusting to 125 kmph over east-central and northeast Arabian Sea along and off Maharashtra coast.

As per the current forecast, the region between Damam (near Gujarat) and Hariharwar in Raigad — along the Konkan coastline, which encompasses Mumbai — as well as some inland districts of Maharashtra, stand to be affected. However, the next 48 hours may bring further changes

to the forecast. Sunitha Devi, in-charge of cyclones at the IMD, said, "The landfall is expected towards the south of Mumbai. Since the Arabian Sea system is dynamic there are a few predictability issues. There might be changes in the coming 48 hours depending on how the [weather] system moves," she said.

"It will pass over this region as a severe cyclone but there is a marginal reduction in wind speed expected. Mumbai is likely to experience high speed winds as the cyclone makes landfall south of the city," Devi said.

"We haven't given an exact location of landfall yet. It will be shared as soon as reliable information is available but Mumbai will be impacted," M Mohapatra, director general, IMD confirmed. Scientists said Nisarga, likely to make landfall on June 3 afternoon could inundate low lying areas especially in cities like Mumbai and cause structural damage from falling trees and power poles. This has raised concern over how the city, already strained for healthcare resources on account of Covid-19, will cope.

What's more, each year monsoon brings the city to a halt as rain lines, streets and drains get flooded leaving lakhs stranded. A red alert — which indicates the possibility of extremely heavy rain of more than 204.5 mm — is a warning for residents to take action and keep safe from adverse impact. It has been sounded for seven districts including Mumbai for Wednesday, and additionally on Thursday for Palghar. An orange alert

has been sounded for Mumbai and Thane for Thursday.

"The wind speed along with rough sea conditions in the landfall region will be capable of damaging weak structures such as huts, and thus affect poor people and fishermen who live on the coastline," Akshay Deoras, independent meteorologist and doctoral researcher at the University of Reading, UK, said.

The experience of cyclone Amphan — which hit the Sunderbans on May 21 and left 86 dead as well as millions homeless — is still fresh in national memory. Mumbai is facing a severe healthcare infrastructure crunch as hospitals and care facilities are unable to cope with the high number of cases, which stood at 41,099 cases as on June 1. "Central and state agencies are trying to take all steps possible to prevent damage. We are advising fishermen in Maharashtra, Kerala, coastal Karnataka, Gujarat, Goa, and Lakshadweep to avoid going to the sea till June 4. Those out at sea should return immediately," Mohapatra said.

With the formation of two cyclones — in the Bay of Bengal (Amphan) and Arabian Sea (yet to be formed Cyclone Nisarga) — within two weeks of each other, scientists warn about possibility of more pre-monsoon cyclonic storms in coming years due to warmer ocean temperatures.

The IMD forecast also said that Gujarat's coastal areas of Surat, Navsari, Valsad, Dahanu and Bhavnagar districts in Saurashtra may be affected.

BEDROCK OF TROUBLE

The Arabian Sea witnessed 5 cyclones in 2019 equalling a 117-year-old



CATEGORIES OF CYCLONIC STORMS

- 1. Very severe cyclonic storm: 62-88 kmph
- 2. Severe cyclonic storm: 89-117 kmph
- 3. Very severe cyclonic storm: 118 to 164 kmph
- 4. Extremely severe cyclonic storm: 165 to 220 kmph
- 5. Super cyclone: Over 220 kmph

Nisarga will likely be a severe cyclone, Amphan, classified as a super cyclone, became a very severe cyclonic storm upon landfall on May 21

दिनांक ०२/०६/२००० को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hindustan Times (Delhi)
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The Assam Tribune (Guwahati)

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हिन्दुस्तान (पटना)

The Deccan Herald (Bengluru)

The Deccan Chronical (Hyderabad)

Central Chronical (Bhopal)

Cyclone Nisarga to hit M'rashttra, Gujarat tomorrow

VIBHA SHARMA

TRIBUNE NEWS SERVICE

NEW DELHI, JUNE 1

The 'depression' over east-central and adjoining south-east Arabian Sea is expected to make a landfall as 'severe cyclone' on June 3, the IMD today said. While a 'yellow' alert has been sounded for both Maharashtra and Gujarat coasts, the areas expected to be most affected are coastal parts of Maharashtra — Mumbai, Thane, Raigad, Ratnagiri and Sindhudurg districts.

If and when it intensifies into a 'cyclone', it will be named Nisarga as per the established protocol for tropical storms in the Indian Ocean region.

"According to our assessment, it may make a landfall as severe cyclone around the afternoon of June 3. The effect is expected to be more on the Maharashtra coast, Mumbai, Thane, Raigarh, Ratnagiri and Sindhudurg districts," said IMD Director General Mrutyunjay Mohapatra.

Currently positioned as 'depression', the tropical storm is "very likely to intensify into a deep depression during the next six hours and further into a cyclone during the subsequent 24 hours," says the IMD.

Notably, Bay of Bengal and Arabian Sea have witnessed "above normal" cyclogenesis in past two years. India and Bangladesh have already been hit by first major storm of the season, super cyclone Amphan.

This particular system is likely to move nearly northwards initially till the morning of June 2 then re-curve north northeastwards and cross north Maharashtra and south Gujarat coasts between Harihareshwar (Raigad, Maharashtra) and Daman during the afternoon of June 3.

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Monsoon hits Kerala, to be above normal: IMD

VIBHA SHARMA
TRIBUNE NEWS SERVICE

NEW DELHI, JUNE 1

The India Meteorological Department today declared the onset of monsoon over mainland, two days after private agency Skymet said it had arrived. The South-west Monsoon set in over Kerala today (June 1), coinciding with its normal date, the IMD said, while upgrading its countrywide forecast to 102% of the long period average (LPA).

Issuing the long range forecast update, the weather office said rainfall over the country in June to September season is most likely to be normal (96% to 104%). Quantitatively, it is expected to be 102% of the LPA with a model error of $\pm 4\%$. In its first update on 2020 monsoon in April, the IMD predicted 100% rains of the LPA with a model error of $\pm 5\%$.

107% RAIN FORECAST FOR NORTHWEST

Nationwide forecast upgraded to 102% of long period average (LPA)

Northwest India is expected to receive 107% of LPA this year

In 2019, India received 110% of the LPA and the Northwest 98%



People look at dark clouds over Arabian Sea in Kochi on Monday. REUTERS

The region-wise forecast also has good news for the Northwest, which is expected to receive 107% of LPA this year. For Central India, rains are expected to be 103% of LPA, South Peninsula 102% and Northeast

around 96%, all with a model error of $\pm 8\%$.

In 2019, India received 110% of the LPA and the Northwest 98%. In the region comprising Punjab, Haryana, Chandigarh, Delhi, Rajasthan, western UP

and the three hill states, the LPA is 599.5 mm. Last year, the region received 98% of it, that is 586 mm.

Meanwhile, in main sowing month of July, the rainfall on the whole is expected to be 103% of LPA and in August 97%, said Earth Sciences Secretary M Rajeevan. Both figures come with a model error of $\pm 9\%$.

Officials said El Niño-Southern Oscillation (ENSO) neutral conditions are prevailing over the equatorial Pacific and neutral IOD conditions over the Indian Ocean. Global models are indicating cool ENSO conditions will prevail during the four-month season with some possibility of development of weak La Niña conditions in the later part. "All these are signs of good monsoon rains," said Rajeevan. "ENSO neutral and weak La Niña conditions will help India get good rains," he added.

दिनांक 02/06/20... को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

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Nisarga to hit Maha tomorrow, Mumbai braces for impact

MUMBAI: Nisarga, a possible severe cyclonic storm that is expected to result from a depression forming in the southeast and adjoining east-central Arabian Sea and Lakshadweep area, will impact Mumbai city which may experience high speed winds and extremely heavy rainfall, the India Meteorological Department (IMD) said Monday as it issued a red alert for six other districts including Palghar, Thane, Raigad, Dhule, Nandurbar and Nashik between June 3 and 4.

The entire region between Daman (near Gujarat) and Harihareshwar in Raigad — comprising the Konkan coastline — as well as some inland districts of Maharashtra, stand to be affected as the cyclone may make landfall on the Maharashtra and Gujarat coasts on June 2, IMD said. »P7

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NEW DELHI: The south-west monsoon made an onset over Kerala on Monday morning, keeping its normal arrival date of June 1, with heavy to very heavy rains and strong southwesterly winds blowing in many parts of the state.

The India Meteorological Department (IMD) forecast on Monday that the monsoon this year was likely to be "normal" at 102% of long period average (LPA).

According to IMD's second long-range forecast update for the monsoon, north-west India is expected to receive excess monsoon rainfall at 107% of LPA; central India is

GOOD NEWS FOR FARMERS

Monsoon keeps date with Kerala, IMD forecasts normal rain this year



Fishermen wait in their boats as clouds gather over Vizhinjam in Thiruvananthapuram on Monday. VIVEK NAIR/HT PHOTO

likely to get 103% of LPA, while south peninsula and north-east India area likely to receive 102% and 96% of LPA, respectively.

According to IMD, the

monsoon has already advanced into all of the South Arabian Sea; Lakshadweep, most parts of Kerala and even some parts of Tamil Nadu.

FULL REPORT »P8

New Delhi

Was the 1882 Great Bombay Cyclone a hoax?

Badri Chatterjee

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MUMBAI: As the city braces for a possible impact of the predicted cyclone making its way towards the Maharashtra coast, officials might find it hard to call upon lessons of a previous cyclone alleged to have originated in the Arabian Sea and hit the Mumbai almost 140 years ago.

Available newspaper reports from the time indicate that a tropical cyclone had made landfall on June 6, 1882 in then Bombay that led to more than 100,000 deaths. However, the Columbia University (CU), New York, the Massachusetts Institute of Technology, Cambridge, and Indian Institute of Tropical Meteorology (IITM),

Pune published a peer-reviewed research paper in May 2019 stating the event never occurred.

According to Parthasarathi Mukhopadhyay of IITM Pune, one of the contributing authors, the purported event was nothing but smoke and mirrors. "After CU professor Adam Sobel raised a query about the authenticity of the Great Bombay Cyclone, which has found its way in various research papers and books internationally, we decided to probe the source and found the entire thing was a hoax," he said.

"The most impactful cyclone of these was Phyan in November 2009, when high speed winds were recorded," he said.

The paper stated that no maps of the cyclone, a usual practise,

are available from the time. "The India Meteorological Department (IMD) has maintained archives of cyclone tracks as well as daily weather summaries from 1877-1970 for both, the Bay of Bengal and the Arabian Sea. Maps are available for all cyclones in each calendar month during 1877-1883. The map for June shows no cyclone in Arabian Sea in 1882."

LS Rathore, the former director general of IMD disagreed. "This is not a hoax. Owing to improper dissemination of information at the time, the true facts were never published or recorded. Even if they were, they have been lost. We were told data had been lost since the then Bombay was a much smaller city with hardly any infrastructure, and

occupations were mostly dependent on port activities, which was most impacted. One would have to speak to a historian."

City-based historian Deepak Rao said there is no comparison between the situation today with what may have happened in 1882. "Extension of Greater Mumbai, including Mumbai suburbs, started from Mahim, added only in 1945. In 1882, these seven islands were not seen together and the population would have been devastated completely if a cyclone would have taken place," he said.

Mukhopadhyay said that if more than 100,000 people had died in a city as small as south Mumbai alone, the British would have documented it as a record. "But we found nothing," he said.