

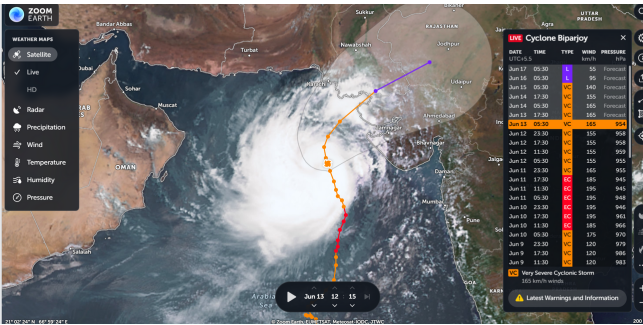


CYCLONE BIPARJOY

Situation Report - 13 June 2023

INTRODUCTION

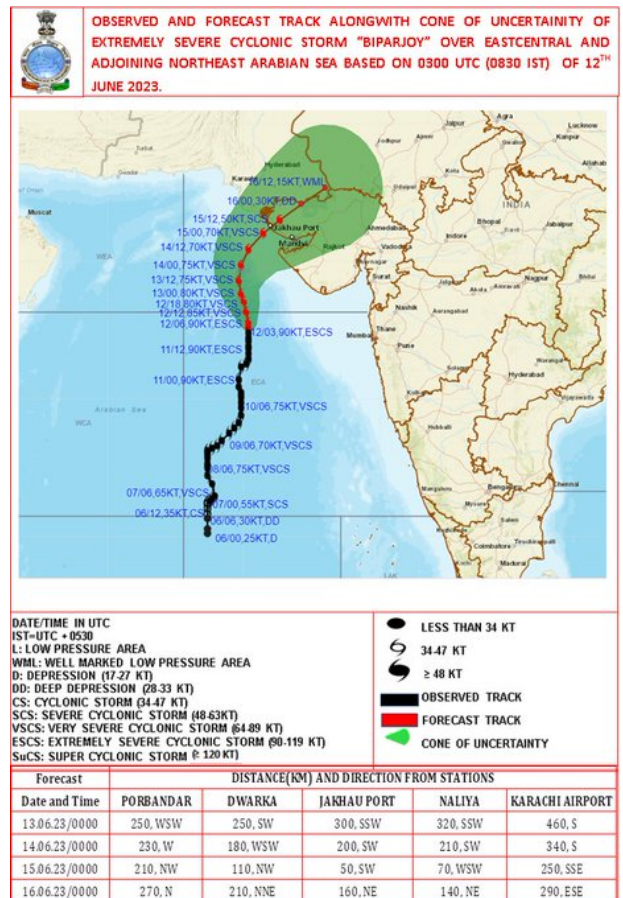
- Cyclone Biparjoy, categorized as a "Very Severe Cyclonic Storm (VSCS)" with maximum wind speeds ranging from 135 to 145 kilometers per hour (kmph) and peaking at 150 kmph, is expected to make landfall near Jakhau port in Gujarat's Kutch district on June 15, 2023.
- Cyclone Biparjoy developed over the southeast Arabian Sea on June 6. It has approximate duration of seven days and 12 hours so far, making it cyclone with longest lifespan in Arabian Sea. Currently classified as a Category 1 cyclone.
- Development of a tropical cyclone named Biparjoy is highlighted in the report on the tropical situation in the Arabian Sea issued by UAE National Centre of Meteorology (NCM)
- Historical data from the India Meteorological Department (IMD) reveals that Cyclone Biparjoy will be the third cyclone to hit the western state of Gujarat in June, since 1965. Prior to 2023, only two cyclones had made landfall on the Gujarat coast in June out of a total of 13 cyclones that formed between 1965 and 2022. These were a severe cyclone in 1996 and an extremely severe cyclonic storm in 1998.



Source - Zoom Earth

FORECAST

- At present, Cyclone Biparjoy is located approximately 550 km south of Karachi and 530 km south of Thatta, with a latitude of 19.9° N and a longitude of 67.8° E.
- In the latest bulletin, the Indian Meteorological Department (IMD) stated that the "extremely severe cyclonic storm" is expected to move in a north-northeast direction until June 14, after which it will shift to a north-northeast trajectory. The cyclone is projected to make landfall between Mandvi (Gujarat) and Karachi (Pakistan) around noon on June 15 as a very severe cyclonic storm, with sustained wind speeds ranging from 125 to 135 kmph and gusts up to 150 kmph.
- On June 14, light to moderate rainfall is likely to occur in most areas, with heavy to very heavy rainfall expected at isolated locations in Kutch, Devbhumi Dwarka, Porbandar, Jamnagar, Rajkot, Junagarh, and Morbi districts of Saurashtra & Kutch.
- On June 15, the intensity of rainfall is predicted to increase, with heavy to very heavy rainfall anticipated at a few places and extremely heavy rainfall at isolated locations in Kutch, Devbhumi Dwarka, and Jamnagar. Additionally, heavy to very heavy rainfall is expected at a few places in Porbandar, Rajkot, Morbi, and Junagarh districts of Gujarat. Isolated heavy rainfall is also likely over the remaining districts of Saurashtra and the north Gujarat region on June 15.



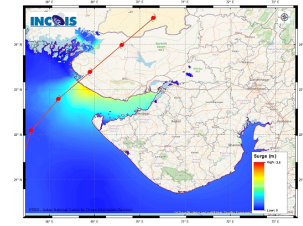
Source - IMD

WARNING

- Gujarat's Saurashtra and Kutch beaches will be under an orange alert for June 14, while a red alert has been issued for all districts of Gujarat for June 15.
- As a precautionary measure, all public places will be closed from June 13 to June 15, 2023. In the coastal districts, authorities have implemented prohibitory orders to prevent people from gathering near the seashores.
- A signal 10 has been issued for Jamnagar, Dwarka, Kandla, Porbandar, and Morbi, indicating that wind speeds are predicted to exceed 80 km/h in these areas.
- Consequently, fishing activities along Gujarat's south and north coasts have been temporarily halted.
- The Adani Mundra Port issued Local Warning Signal Number 4, indicating potential danger to the port and its ships. Small ships are still in use, while larger ships have been instructed to remain at sea

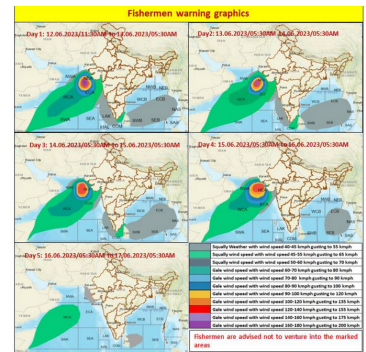


STORM SURGE GUIDANCE (GRAPHIC ATTACHED) FOR KUTCH, DEVBHUMI DWARKA, PORBANDAR, JAMNAGAR AND MORBI DISTRICTS OF GUJARAT
Storm surge of about 2-3 m above the astronomical tide is likely to inundate the low lying areas of above districts during the time of landfall.



Astronomical Tide on 15th June 2023

Station	Time (IST)	Height (m)
PORBANDAR	09:37	2.61
NAVLAGHI	13:38	7.54
GOVA	11:36	3.74
DEENDAYAL PORT (KANDLA)	13:02	6.79



Source - IMD

DAMAGE & EFFECTS

- On June 15, significant damage is expected in the districts of Kutch, Devbhumi Dwarka, Porbandar, Jamnagar, Morbi, Junagarh, and Rajkot in Gujarat. The potential impacts include the destruction of both "kutcha and pucca roads," flooding of escape routes, minor disruptions to railways, overhead power lines, and signaling systems, as well as bending and uprooting of power and communication poles. Widespread damage to standing crops, plantations, and orchards is anticipated, along with the falling of green coconuts and tearing of palm fronds. Bushy trees like mango trees may be blown down. Small boats and country crafts may become detached from their moorings, and visibility could be severely affected due to salt spray.
- Three fatalities have been reported in Saurashtra as a result of the high winds and rain.
- Harshad village in Dwarka experienced the effects of the cyclone, with seawater reaching the main markets and causing flooding in shops.
- Navsari city encountered rainfall late at night due to the cyclone's effects, providing relief from high temperatures. Although it is currently not raining, the coastal areas of Navsari have been impacted by high-speed winds and high tides, prompting authorities to advise people to avoid the coast.
- As a result of the cyclone, a total of 67 train operations to and from Gujarat, including Mumbai and Delhi, have been affected.
- Flight operations in Mumbai were also disrupted due to the rough weather caused by Cyclone Biparjoy.
- Schools in the six coastal districts have been ordered to remain closed.
- As a precautionary measure, the North Western Railway (NWR) has cancelled 67 train operations in anticipation of the cyclone's entrance into southwest Rajasthan.
- In Goa, all "beach activities" have come to a halt, and lifeguards have been instructed to install red flags at vulnerable spots.
- Fishing permits have not been issued since June, and fishermen are not venturing into deep seas without permits.
- All boats in the district are safely anchored..

REVIEW & ADVISORIES

- On June 12th, Prime Minister Narendra Modi conducted a review of the situation pertaining to Cyclone Biparjoy. During the review, the Prime Minister instructed officials to ensure the maintenance of essential services such as power, telecommunications, health, drinking water, and the safety of animals. The Prime Minister also emphasized the need for round-the-clock functioning of control rooms.
- The Ministry of Home Affairs is continuously monitoring the situation and maintaining constant communication with the state government and relevant central agencies.
- The National Crisis Management Committee (NCMC), chaired by the Cabinet Secretary, reviewed the preparedness of the Gujarat government and central ministries/agencies in anticipation of Cyclone Biparjoy in the Arabian Sea. The NCMC aimed to assess and enhance preparedness for the impending cyclone.
- The Indian Coast Guard provided details on the preventive measures taken and the advisories issued ahead of the cyclone's landfall.
- The National Disaster Management Authority (NDMA) released an information bulletin on how to stay safe indoors and outdoors during the cyclone, providing guidelines and precautions.
- Section 144, which restricts the assembly of individuals beyond a specified limit, has been imposed in the coastal areas of the Kutch district. The local administration is actively involved in evacuating people from areas close to the sea in the Saurashtra-Kutch regions.
- Digitalized maps will be utilized to obtain primary information on the extent of damage following the cyclone. This will aid in assessing the damage and initiating repair and restoration work promptly. Pachim Gujarat Vij Company Ltd (PVGCL) has made arrangements to restore power as quickly as possible after the cyclone.
- The Indian Coast Guard has deployed ships and aircraft to engage with mariners and coastal communities, providing them with safety advisories. Fishermen have also been given the necessary advisories to ensure their safety.

PREPAREDNESS & RESPONSE

- The Gujarat government has deployed teams from the NDRF and State Disaster Response Force (SDRF) in coastal areas, proactively evacuating residents in preparation for the cyclone.
- The National Disaster Response Force (NDRF) has strategically positioned 12 teams equipped with boats, tree cutters, telecom equipment, and other necessary resources. Additionally, 15 teams are on standby for immediate deployment. These teams are located in Gujarat, with 5 teams each in Arrakonam (Tamil Nadu), Mundli (Odisha), and Bathinda (Punjab), ready to be airlifted at short notice if required.
- The Indian Coast Guard, Army and Navy have also mobilized ships and helicopters for relief operations, search missions, and rescues for emergency operations.
- The Air Force and Army's engineer task force units, equipped with boats and rescue equipment, are prepared for potential deployment.
- The railways are closely monitoring the wind velocity and rainfall on an hourly basis to impose necessary traffic restrictions, particularly on bridges.
- The Disaster Management Room at the Zonal Railway headquarters has been activated, and various departments and field staff are on alert. Emergency control rooms have been established in Bhavnagar, Rajkot, Ahmedabad, and Gandhidham.
- The Mumbai airport is closely monitoring the situation and is prepared to implement necessary measures to mitigate any operational impact caused by adverse weather conditions. Passengers are advised to contact their respective airlines for flight status updates.
- A comprehensive list of vulnerable villages has been compiled to facilitate effective evacuation measures.
- The authorities have identified over 12,000 individuals in Kutch and Dwarka for evacuation.
- As part of the plan, approximately 23,000 people residing in villages within a 10-kilometer radius from the coastline will be relocated to makeshift shelter homes.
- As a precautionary measure, more than 8,000 individuals had already been transferred to temporary cyclone shelters in Gujarat by the evening of June 12.
- Special attention has been given to identify pregnant women and ensure their safe relocation to government and private medical facilities.
- Residents of 130 dilapidated buildings have been notified about the potential risks and necessary precautions.
- In Jamnagar, 30 shelter homes have been established to facilitate the relocation of residents.
- In Porbandar, shelters have been prepared to evacuate the population residing in the coastal areas of 30-31 villages. Four cyclone centers have been set up in these coastal regions, each capable of accommodating up to 500 people.
- The administration is collaborating with non-governmental organizations (NGOs) and the government to provide relief assistance to areas affected by heavy rainfall.
- So far, a total of 21,000 boats have been safely parked
- Alternate modes of communication have been activated, as there is a possibility of mobile towers becoming non-functional.
- Indian Coast Guard ships are actively patrolling the coastal areas of Gujarat.

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