

## SPECIAL BULLETIN -13

DATE: 24.05.2021

TIME: 2300 HRS IST

### Sub:: Cyclonic Storm 'Yaas' (pronounced as 'Yass') over Eastcentral Bay of Bengal – (Cyclone Warning for Odisha – West Bengal coasts-Orange Message).

The Cyclonic Storm 'Yaas' (pronounced as 'Yass') over Eastcentral Bay of Bengal moved north-northwestwards with a speed of about 12 kmph during past 6 hours, and lay centred at 2030 hrs IST of today, the 24<sup>th</sup> May, 2021 over Eastcentral Bay of Bengal near latitude 17.4°N and longitude 89.2°E, about 420 km south-southeast of Paradip (Odisha), 510 km south-southeast of Balasore (Odisha), 500 km south-southeast of Digha (West Bengal) and 520 kms nearly south of Khepupara. It is very likely to move north-northwestwards, intensify further into a **Severe Cyclonic Storm** during next 06 hours and into a **Very Severe Cyclonic Storm** during subsequent 12 hours. It would continue to move north-northwestwards, intensify further and reach Northwest Bay of Bengal near north Odisha and West Bengal coasts by 26<sup>th</sup> May early morning.

**It is very likely to cross north Odisha-West Bengal coasts between Paradip and Sagar Island around Balasore, during noon of 26th May as a Very Severe Cyclonic Storm.**

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

Date/Time(IST)	Position Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
24.05.21/2030	17.4/89.2	80-90 gusting to 100	CYCLONIC STORM
24.05.21/2330	17.6/89.0	90-100 gusting to 110	SEVERE CYCLONIC STORM
25.05.21/0530	18.2/88.7	100-110 gusting to 120	SEVERE CYCLONIC STORM
25.05.21/1130	18.9/88.3	120-130 gusting to 145	VERY SEVERE CYCLONIC STORM
25.05.21/1730	19.7/87.9	135-145 gusting to 160	VERY SEVERE CYCLONIC STORM
26.05.21/0530	20.9/87.3	155-165 gusting to 185	VERY SEVERE CYCLONIC STORM
26.05.21/1730	21.9/86.7	125-135 gusting to 150	VERY SEVERE CYCLONIC STORM
27.05.21/0530	22.5/86.3	70-80 gusting to 90	CYCLONIC STORM
27.05.21/1730	23.2/85.6	40-50 gusting to 60	DEPRESSION

### Warnings:

#### (i) Rainfall:

Days	Forecast	Heavy Rainfall Warning
<b>Day-1:</b> Valid upto 0830 Hrs IST of 25.05.21	Light to moderate rain or thundershower very likely to occur at many places over the districts of coastal Odisha, Keonjhar, Mayurbhanj, Dhenkanal and at isolated places over the districts interior Odisha.	<b>Yellow Warning (Be updated)</b> Heavy rainfall very likely to occur at isolated places over the districts of <b>Kendrapada, Jagatsinghpur, Bhadrak, and Puri.</b>
<b>Day-2:</b> Valid from 0830 Hrs IST of 25.05.21 to 0830 Hrs IST of 26.05.21	Light to moderate rain or thundershower very likely to occur at most places over the districts of coastal Odisha, at many places over the districts of north interior Odisha & at a few places over the districts of south interior Odisha.	<b>Orange Warning (Be prepared)</b> Heavy to very heavy rainfall very likely to occur at a few places over the districts of <b>Balasore, Bhadrak, Jajpur, Kendrapada, Jagatsinghpur, Cuttack, Puri, Khurdha.</b> <b>Yellow Warning (Be updated)</b> Heavy rainfall very likely to occur at isolated places over the districts of <b>Mayurbhanj, Dhenkanal and Ganjam.</b>
<b>Day-3:</b> Valid from 0830 Hrs IST of	Light to moderate rain or thundershower very likely to occur at most places over the districts of north Odisha, at a few	<b>Red Warning (Take Action)</b> Heavy to very heavy rainfall at a few places with isolated extremely heavy fall very likely to occur

26.05.21 to 0830 Hrs IST of 27.05.21.	over the districts of south Odisha	over the districts of <b>Balasore, Bhadrak, Jajpur, Kendrapada, Jagatsinghpur, Cuttack, Mayurbhanj, Keonjhar and Dhenkanal.</b>  <b>Yellow Warning (Be updated)</b> <b>Heavy rainfall</b> very likely to occur at isolated places over the districts of <b>Anugul, Deogarh, Khurdha, Puri and Sundergarh.</b>
<b>Day-4:</b> Valid from 0830 Hrs IST of 27.05.21 to 0830 Hrs IST of 28.05.21	Light to moderate rain or thundershower very likely to occur at many places over the districts of north interior Odisha, at a few over the districts of north coastal Odisha and at one or two places over the districts of south Odisha.	<b>Yellow Warning (Be updated)</b> <b>Heavy rainfall</b> very likely to occur at isolated places over the districts of <b>Sundergarh, Deogarh and Keonjhar.</b>

**(ii) Wind warning**

- Gale winds speed reaching 80-90 kmph gusting to 100 kmph prevailing over major parts of central Bay of Bengal and would increase gradually becoming 100-110 gusting to 120 kmph from 25<sup>th</sup> morning.
- Squally wind speed reaching 50-60 kmph gusting 70 kmph is prevailing over North Bay of Bengal and along and off Odisha–West Bengal coasts. It would further increase becoming gale wind speed 155-165 kmph gusting to 185 kmph over northwest Bay of Bengal and along & off north Odisha and adjoining West Bengal coasts including Jagatsinghpur, Kendrapara, Bhadrak, Balasore districts of Odisha, 100-120 kmph gusting to 145 kmph over Mayurbhanj district of Odisha from early hours of 26<sup>th</sup> May. Gale wind speed reaching 80-90 kmph gusting to 110 kmph would prevail over Puri, Cuttack, Khurda, Jajpur districts of Odisha during same period.
- Squally wind speed reaching 60-80 kmph gusting to 90 kmph would prevail over Ganjam, Dhenkanal and Keonjhar districts of Odisha from early hours of 26<sup>th</sup> May. Squally wind speed reaching 50-60 kmph gusting to 70 kmph would prevail over Angul, Deogarh & Sundergarh districts of Odisha during the same period.
- Squally wind speed reaching 50-60 kmph gusting to 70 kmph over Kendrapara, Bhadrak, Balasore, Mayurbhanj, Keonjhar, Sundergarh & Deogarh districts of Odisha on 27<sup>th</sup>.

(Wind warning for different districts given in Map below).

**(iii) Sea condition**

- Sea condition is High to Very High over Westcentral & adjoining eastcentral Bay of Bengal. It is very likely to become Very High to Phenomenal over northern parts of central Bay of Bengal, north Bay of Bengal and along & off Odisha–West Bengal coasts during 25<sup>th</sup> – 26<sup>th</sup> May.

**(iv) Fishermen Warning**

The fishermen are advised not to venture into central Bay of Bengal till 25<sup>th</sup> May and into north Bay of Bengal and along & off Odisha coast till 27<sup>th</sup> May, 2021.

**v) Port Warning:**

Keep hoisted Local Warning Signal No. 4 (LW-4) at Paradip and Dhamra Ports and Local Cautionary Signal No. 3 (LC- 3) at Gopalpur and Puri Ports of Odisha.

**(vi) Storm surge warning.**

Tidal waves of height 2-4 meters above astronomical tide are likely to inundate low lying areas of Balasore, Bhadrak and about 2 meters above astronomical tide are likely to inundate low lying areas of Kendrapara & Jagatsinghpur Districts around the time of landfall.

**Damage Expected for coastal districts of North Odisha, and adjoining interior districts:**

- ❖ Total destruction of thatched houses/ extensive damage to kutcha houses. Some damage to pucca houses.
- ❖ Potential threat from flying objects.
- ❖ Bending/ uprooting of power and communication poles.
- ❖ Major damage to Kutcha and Pucca roads.
- ❖ Flooding of escape routes.
- ❖ Disruption of railways, overhead power lines and signaling systems.
- ❖ Widespread damage to standing crops, plantations, orchards, falling of green coconuts and tearing of palm fronds.
- ❖ Blowing down of bushy trees like mango.

भारतसरकार  
पृथ्वीविज्ञानमंत्रालय  
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MINISTRY OF EARTH SCIENCES  
INDIA METEOROLOGICAL DEPARTMENT  
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BHUBANESWAR, ODISHA-751020

ଭାରତସରକାର  
ପୃଥିବୀବିଜ୍ଞାନମନ୍ତ୍ରାଳୟ  
ଭାରତପାଣିପାଗବିଜ୍ଞାନବିଭାଗ  
ପାଣିପାଗବିଜ୍ଞାନକେନ୍ଦ୍ର  
ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା-୭୫୧୦୨୦

- ❖ Small boats, country crafts may get detached from moorings.
- ❖ Visibility severely affected.

**Action Suggested for coastal districts of North Odisha, and adjoining interior districts:**

- Suspension of fishing operation and movement of ships in disturbed areas.
- Ports along the east coast of India may take necessary pre-cautions.
- Naval base operations may maintain necessary pre-cautions
- Tourism activities may be restricted over these areas.
- Mobilise evacuation from coastal areas of North Odisha.
- Judicious regulation of rail and road traffic.
- People in affected areas to remain indoors.
- Preparatory action before the cyclones.

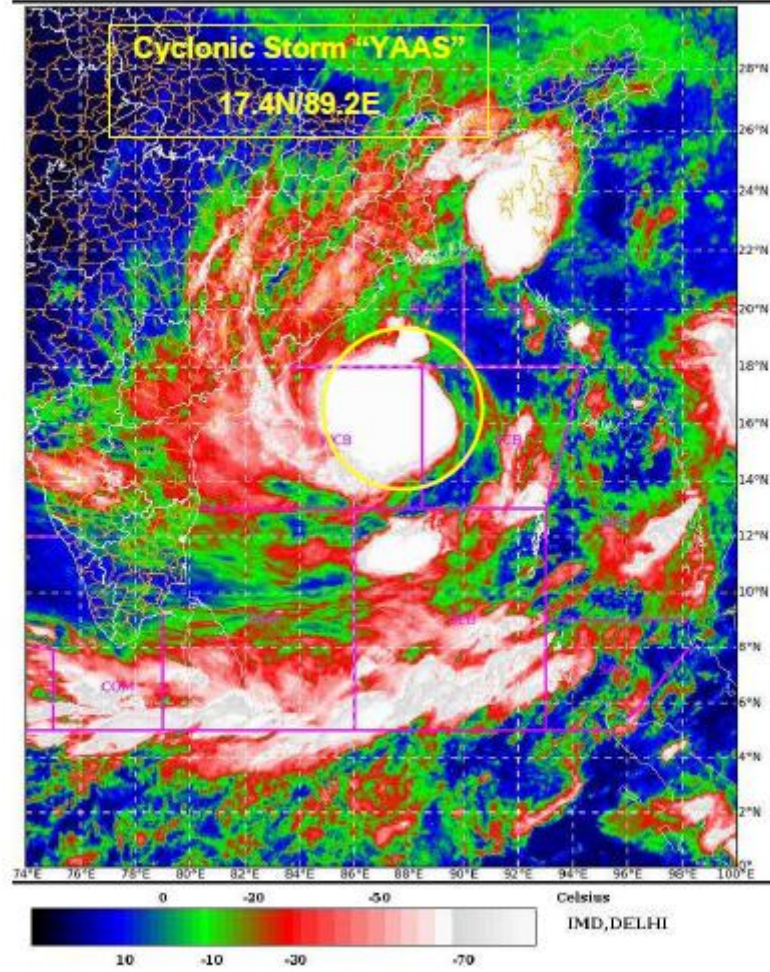
**N.B:** SPATIAL RAINFALL DISTRIBUTION: ISOLATED :=< 25%, A FEW: 26-50%, MANY: 51-75%, MOST: 76-100%, RAINFALL AMOUNT (MM): HEAVY RAIN: 64.5 – 115.5, VERY HEAVY RAIN: 115.6 – 204.4, EXTREMELY HEAVY RAIN: 204.5 OR MORE. PROBABILISTIC FORECAST: UNLIKELY =< 25%, LIKELY 26-50%, VERY LIKELY 51-75%, MOST LIKELY > 75%

Dr.H.R. Biswas,  
Head & Scientist-E,  
Met .Centre Bhubaneswar

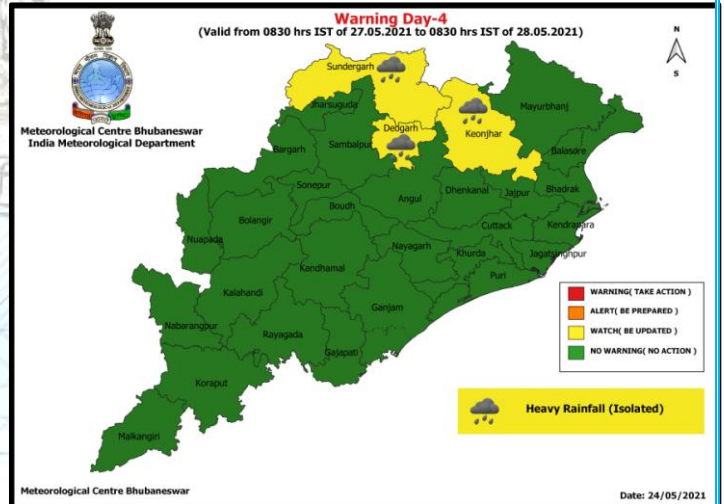
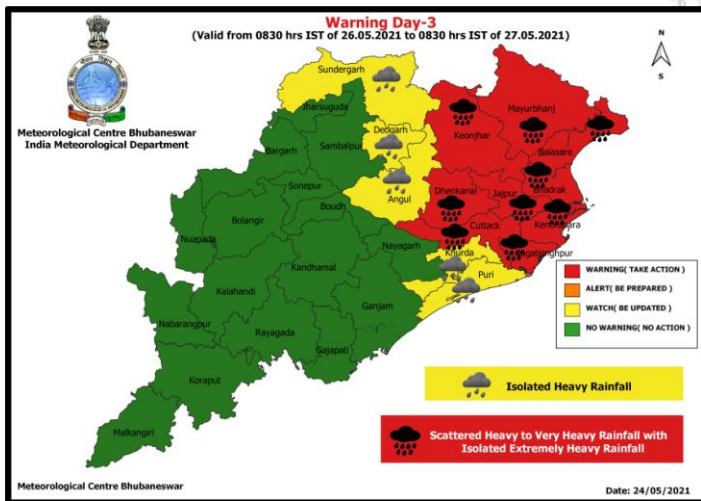
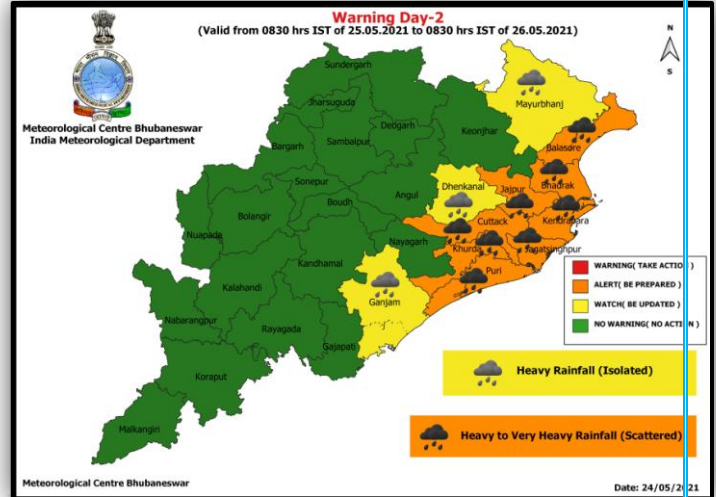
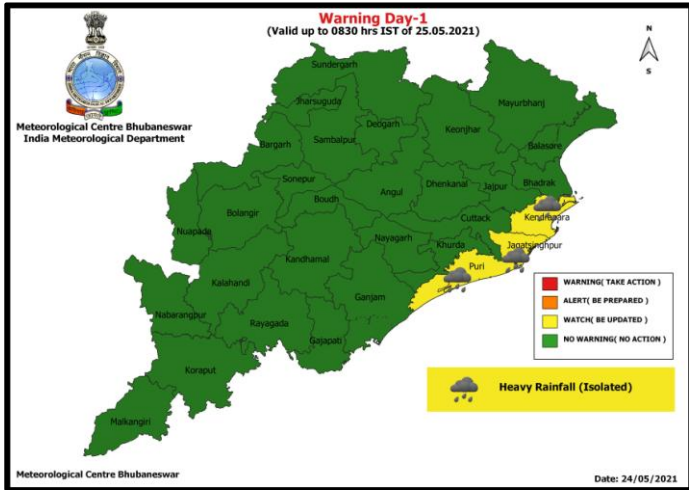
To

1. CHIEF SECRETARY, GOVT OF ODISHA.
2. PRINCIPAL SECRETARY, REVENUE & DISASTER MANAGEMENT, GOVT. OF ODISHA.
3. PRINCIPAL SECRETARY, DEPT. OF AGRICULTURE, GOVT. OF ODISHA.
4. PRINCIPAL SECRETARY, DEPARTMENT OF WATER RESOURCES, GOVT. OF ODISHA.
5. SPECIAL RELIEF COMMISSIONER (SRC), GOVT. OF ODISHA BHUBANESWAR.
6. REVENUE SECRETARY, GOVT. OF ODISHA, BHUBANESWAR.
7. M.D., OSDMA, GOVT. OF ODISHA, BHUBANESWAR.
8. RDC, CENTRAL DIVISION/ SOUTHERN DIVISION/ NORTHERN DIVISION.
9. AIR CUTTACK / DOORDARSHAN.

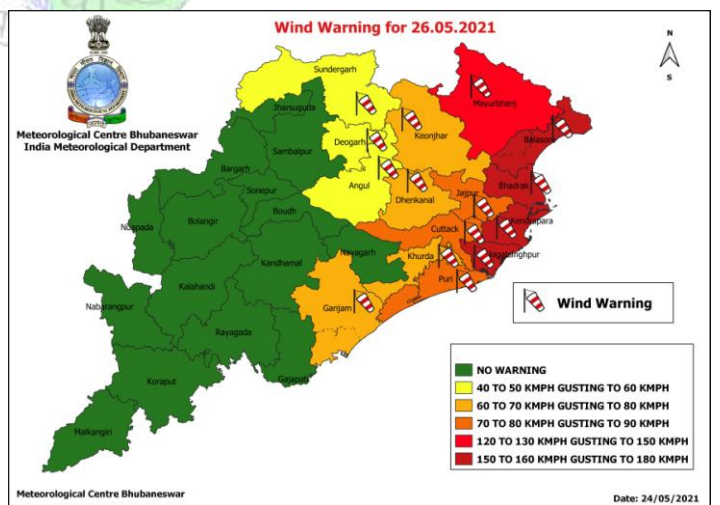
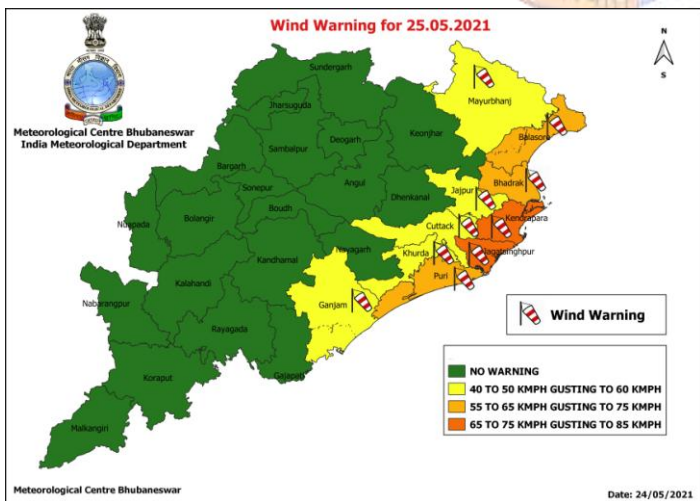


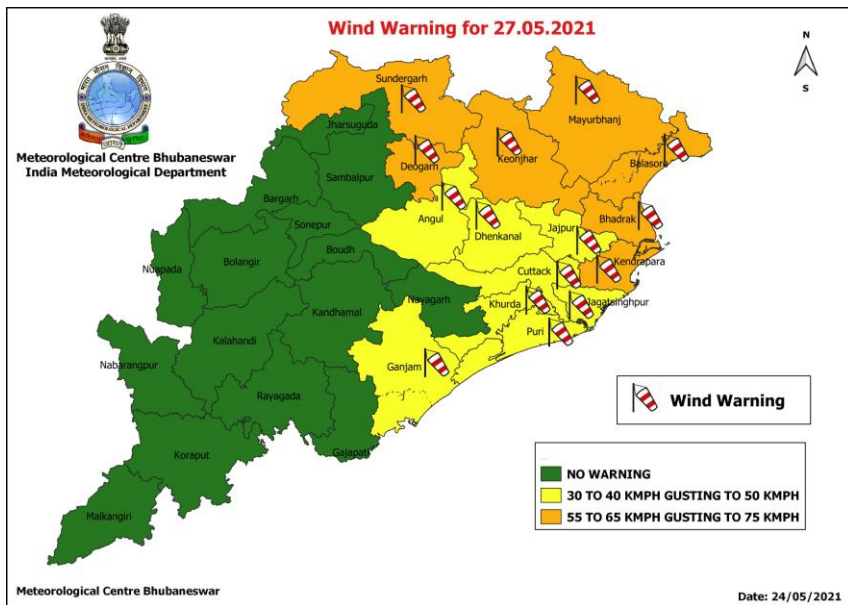


## Rainfall Warning Maps for Day-1 to Day-4

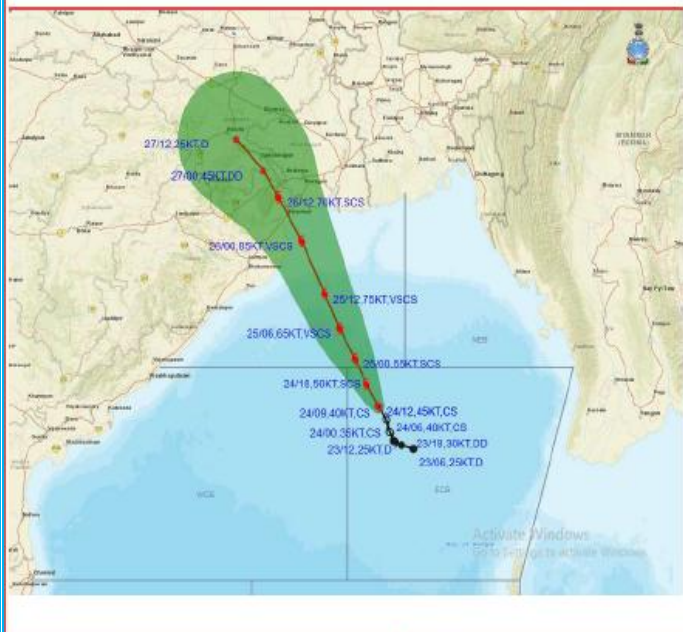


## Wind warning for 25<sup>th</sup> to 27<sup>th</sup> May, 2021





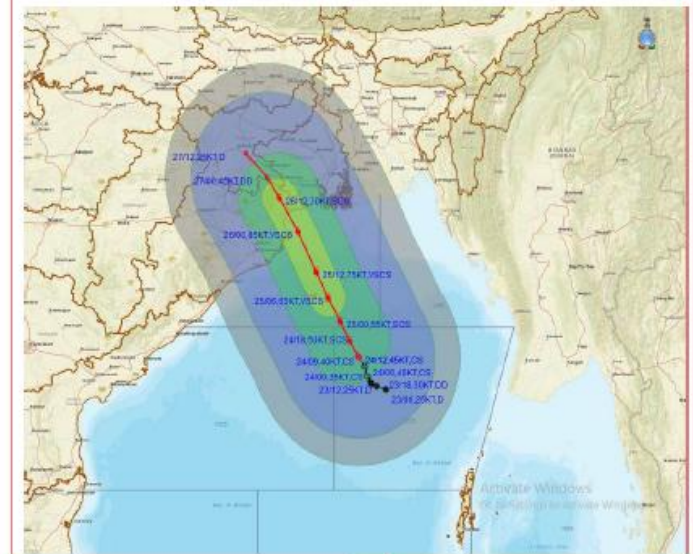
**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "YAAS" OVER EASTCENTRAL BAY OF BENGAL BASED ON 1200 UTC OF 24<sup>th</sup> MAY, 2021**



DATE/TIME IN UTC  
IST-UTC + 0530  
L: LOW PRESSURE AREA  
WML: WELL MARKED LOW PRESSURE AREA  
D: DEPRESSION (17-27 KT)  
DD: DEEP DEPRESSION (28-33 KT)  
CS: CYCLONIC STORM (34-47 KT)  
SCS: SEVERE CYCLONIC STORM (48-63KT)  
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT  
○ 34-47 KT  
○ ≥ 48 KT  
— OBSERVED TRACK  
— FORECAST TRACK  
● CONE OF UNCERTAINTY

**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "YAAS" OVER EASTCENTRAL BAY OF BENGAL BASED ON 1200 UTC OF 24<sup>th</sup> MAY, 2021**



DATE/TIME IN UTC  
IST-UTC + 0530  
L: LOW PRESSURE AREA  
WML: WELL MARKED LOW PRESSURE AREA  
D: DEPRESSION (17-27 KT)  
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SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT  
○ 34-47 KT  
○ ≥ 48 KT  
— OBSERVED TRACK  
— FORECAST TRACK  
● CONE OF UNCERTAINTY  
AREA OF MAXIMUM SUSTAINED WIND SPEED:  
■ 28-33 KT (62-61 KMPH)  
■ 34-48 KT (62-91 KMPH)  
■ 50-63 KT (92-117 KMPH)  
■ ≥ 64 KT (≥ 118 KMPH)

IMPACT OVER THE SEA		
MSW (knot/kmph)	Impact	Action
28-33 (62-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥ 118)	Phenomenal	Total suspension of fishing operations



**Storm surge information**

\* The below listed surge heights are over and above astronomical tide.

MANDAL/ TALUK	DISTRICT	NEAREST PLACE OF HABITATION	STORM SURGE(M)*	EXPECTED INUNDATION EXTENT(KM)
Balasure	Balasure	Kumbhigari	2.1-3.8	Upto 2.33
Bhadrak	Bhadrak	Mohanpur	0.9-2.1	Upto 7.02
Kendrapada	Kendrapada	Tikayat Nagar	0.5-1.5	Upto 2.64

