

## **SPECIAL BULLETIN-05**

Date: 3<sup>rd</sup> December 2021

Time: 0700 Hrs IST

### **Sub: Depression over southeast Bay of Bengal: **Pre-Cyclone Watch for north Andhra Pradesh and Odisha coasts.****

The Depression over southeast Bay of Bengal moved west-northwestwards with a speed of 32 kmph during past 06 hours and lay centered at 2330 hrs IST of 2nd December 2021, over the same region near Lat. 12.0°N and Long. 87.5°E, about 770 km south-southeast of Vishakhapatnam (Andhra Pradesh), 850 km south-southeast of Gopalpur (Odisha) & 920 km south-southeast of Paradip (Odisha).

**It is likely to move northwestwards and intensify into a Cyclonic Storm over central parts of the Bay of Bengal during next 24 hours. It is likely to reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts around 4th December morning. Thereafter it is likely to move north-northeastwards.**

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
02.12.21/2330	12.0/87.5	45-55 gusting to 65	DEPRESSION
03.12.21/1130	13.6/85.4	50-60 gusting to 70	DEEP DEPRESSION
03.12.21/2330	15.2/84.1	70-80 gusting to 90	CYCLONIC STORM
04.12.21/1130	16.9/83.6	90-100 gusting to 110	SEVERE CYCLONIC STORM
04.12.21/2330	18.4/84.5	80-90 gusting to 100	CYCLONIC STORM
05.12.21/1130	19.5/85.6	60-70 gusting to 80	CYCLONIC STORM

**Details Forecast and warning as follows:**

#### **Rainfall Forecast:**

Light to moderate rain or thundershower very likely to occur at many places over the districts of south coastal Odisha & at a few places over rest districts Odisha on today, 3<sup>rd</sup> December, light to moderate rain or thundershower very likely to occur at most places over districts of coastal Odisha & at many places over the districts of interior Odisha on 4<sup>th</sup> and light to moderate rain or thundershower very likely to occur at most places over the districts of north coastal Odisha and at many places over rest districts of Odisha on 5<sup>th</sup> Dec, 2021.

#### **Warnings:**

Heavy Rainfall Warning	Expected Impact & action suggested
<b>Day-1 (Valid from 0830 Hrs IST of 03.12.21 to 0830 Hrs IST of 04.12.21 ):</b> <b>Yellow Warning (Be updated)</b> Heavy to very heavy rainfall very likely to occur at one or two places over the districts of Ganjam , Gajapati with heavy rainfall very likely to occur at one or two places over the districts of Koraput, Rayagada, Puri Jagatsinghpur and Kendrapada	<b>Impact Expected:</b> i)Major damage to thatched houses/ huts. ii) Breaking of tree branches, uprooting of trees. iii)Minor damage to power and communication lines. iv)Localized Flooding of roads, inundation and water logging in low lying areas and closure of underpasses mainly in urban areas of the affected region. v)Occasional reduction in visibility due to heavy rainfall. vi)Disruption of traffic in major cities due to water logging in roads leading to increased travel time. vii) Minor Damage to Kutchha roads and vulnerable structure and wall collapsed of vulnerable kutchha houses
<b>Day-2 (Valid from 0830 Hrs IST of 04.12.21 to 0830 Hrs IST of 05.12.21 ):</b>	
<b>Red warning (Take action)</b>	

Heavy to very heavy rainfall very likely to occur at a few places with isolated extremely heavy falls (more than 20 cm) over the districts of Gajapati, Ganjam, Puri, and Jagatsinghpur	viii) Localized Landslides/Mudslides in hilly areas ix) Damage to horticulture and standing crops in some areas due to inundation. Damage to banana, Papaya & Moringa (Drumstick) trees. x) It may lead to riverine flooding in some river catchments (Nagavali, Rushikulya, Vanshadhara) (for riverine flooding please visit Web page of CWC)
<b>Orange warning (Be Prepared)</b> Heavy to very heavy rainfall very likely to occur at one or two places over the districts of Kendrapada, Cuttack, Khordha, Nayagarh, Kandhamal, Rayagada and Koraput	<b>I Action Suggested</b> i) Total suspension of fishing operations. ii) Check for traffic congestion on your route before leaving for your destination. iii) Follow any traffic advisories that are issued in this regard. iv) Avoid going to areas that face the water logging problems often. v) Avoid staying in vulnerable structure. vi) Harvest the ripen crops like Paddy & Horticultural crops and also secure the harvested crops securely from the damage due to rain and strong winds. vii) Harvest of matured paddy crop and the harvested paddy should be shifted to safer places. Also harvest the rabi vegetables like cauliflower and cabbage if heads are ready to use. viii) Do arrangement for Drainage of excess water from standings crops in growing stage and vegetable fields. ix) Postpone sowing of rabi crop like Green gram, black gram and Mustard and vegetables like potato, Onion and coriander. x) Provide support to young fruit plants like Papaya and Banana and vegetables like ridge gourd. Cover the vegetable nursery with white polythene. xi) Keep the livestock indoors during rainfall if possible keep them loose inside the shed. Keep feed for 3-5 days, in case of any emergency.
<b>Yellow Warning (Be updated)</b> Heavy rainfall very likely to occur at isolated places over the districts of Balasore, Bhadrak, Jajpur and Malkangiri.	
<b>Day-3 (Valid from 0830 Hrs IST of 05.12.21 to 0830 Hrs IST of 06.12.21 )</b>	
<b>Orange warning (Be Prepared)</b> Heavy to very heavy rainfall very likely to occur at one or two places over the districts of Mayurbhanj, Balasore, Bhadrak, Kendrapada, Jagatsinghpur, Jajpur, Cuttack, and Puri.	
<b>Yellow Warning (Be updated)</b> Heavy rainfall very likely to occur at isolated places over the districts of Keonjhar, Angul, Dhenkanal, Nayagarh, Khordha, Ganjam and Gajapati	

**Wind warning:**

(i) Squally wind speed reaching wind speed reaching 50-60 kmph gusting to 70 kmph over east-central Bay of Bengal, from today, 3rd December morning. Gale winds speed reaching 65-75 kmph gusting to 85 kmph likely to prevail over central Bay of Bengal from the evening of 3rd December and gradually increase becoming 90-100 kmph gusting to 110 kmph over northwest & adjoining west-central Bay of Bengal from the morning of 4th December for the subsequent 24 hours.

(ii) Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to commence along & off North Andhra Pradesh – Odisha coasts from the mid-night of 3rd December and increase gradually becoming 70-80 kmph gusting to 90 kmph from 4th morning, for the subsequent 12 hours.

**Sea conditions**

Sea condition would be high over central Bay of Bengal on today, 3rd December and High to very high over west-central & northwest Bay of Bengal from the early morning of 4th December for the subsequent 24 hours.

Sea condition will be rough to very rough over along & off North Andhra Pradesh – Odisha coast from the mid-night of 3rd December and become high to very high from 4th Afternoon, for the subsequent 12 hours.

**Fishermen Warning:**

**Fishermen are advised not to venture into** southeast & adjoining east-central Bay of Bengal till today, 3<sup>rd</sup> December, **west-central & adjoining northwest Bay of Bengal and along & off north Andhra Pradesh - Odisha- West Bengal coasts till 5th December 2021.**

**Port warning:**

Keep hoisted Distance Cautionary Signal No.1 (DC-1) at all ports of Odisha.

**Advisory to along & off shore Installations**

The off-shore & alongshore operations along Odisha coast (Viz., All ports of Odisha, ITR Chandipur, Army Defence College, Gopalpur, INS Chilika, Chilika Development Authority establishment, ICZMP activity,

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GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
INDIA METEOROLOGICAL DEPARTMENT  
METEOROLOGICAL CENTRE  
BHUBANESWAR, ODISHA-751020

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ପୃଥିବୀବିଜ୍ଞାନମନ୍ତ୍ରାଳୟ  
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ପାଣିପାଗବିଜ୍ଞାନକେନ୍ଦ୍ର  
ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା-୭୫୧୦୨୦

**Bhitarkanika wildlife sanctuary, Kendrapada, ONGC Odisha etc)** are advised to be judiciously regulated on today, 3rd December and to be suspended on 4th December 2021, to ensure safety of life & property.

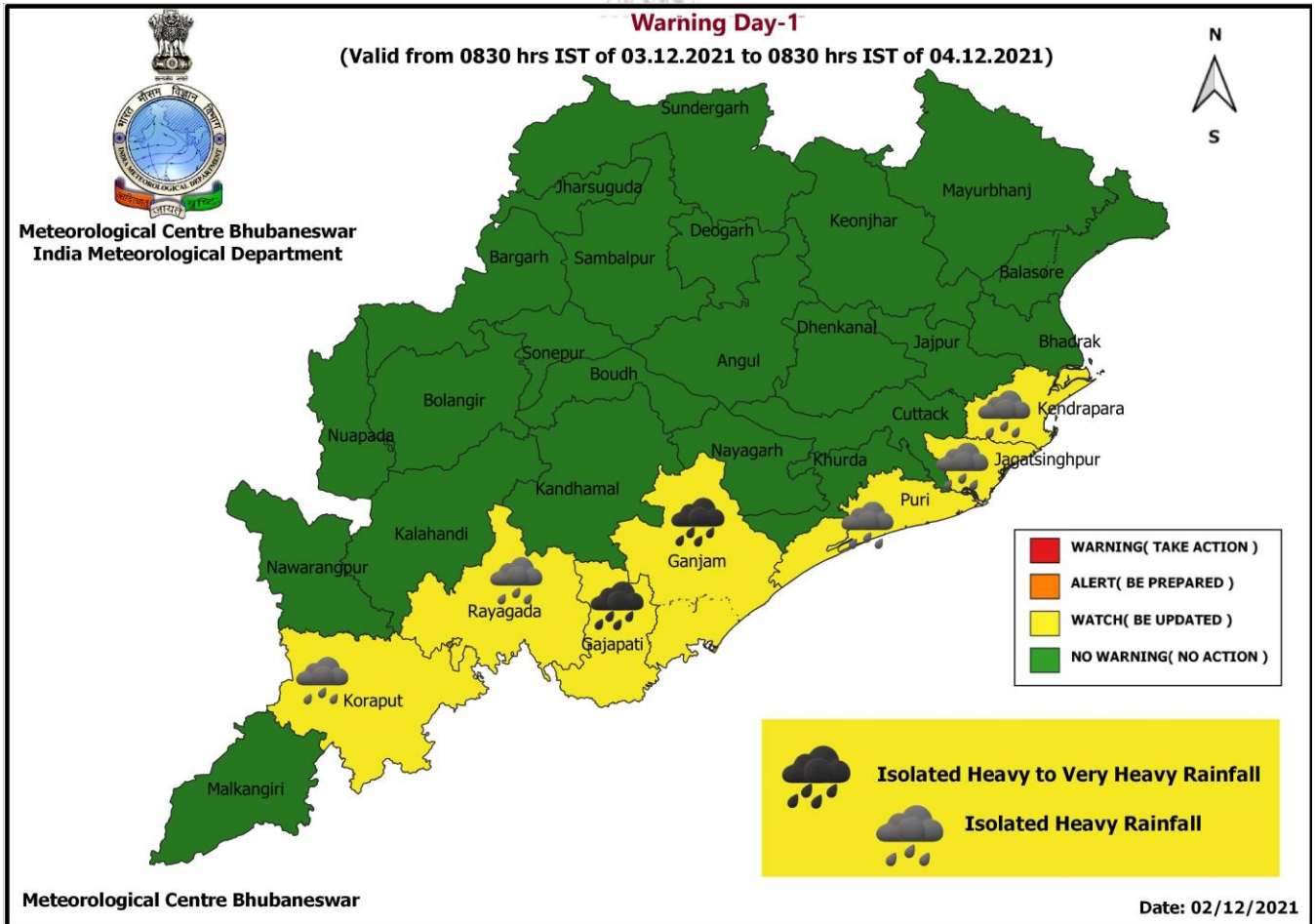
**N.B:** SPATIAL RAINFALL DISTRIBUTION: ISOLATED :=< 25%, A FEW: 26-50%, MANY: 51-75%, MOST: 76-100%, RAINFALL AMOUNT (MM): HEAVY RAIN: 64.5 – 115.5, VERY HEAVY RAIN: 115.6 – 204.4, EXTREMELY HEAVY RAIN: 204.5 OR MORE. PROBABILISTIC FORECAST: UNLIKELY =< 25%, LIKELY 26-50%, VERY LIKELY 51-75%, MOST LIKELY > 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-2 to Day-4



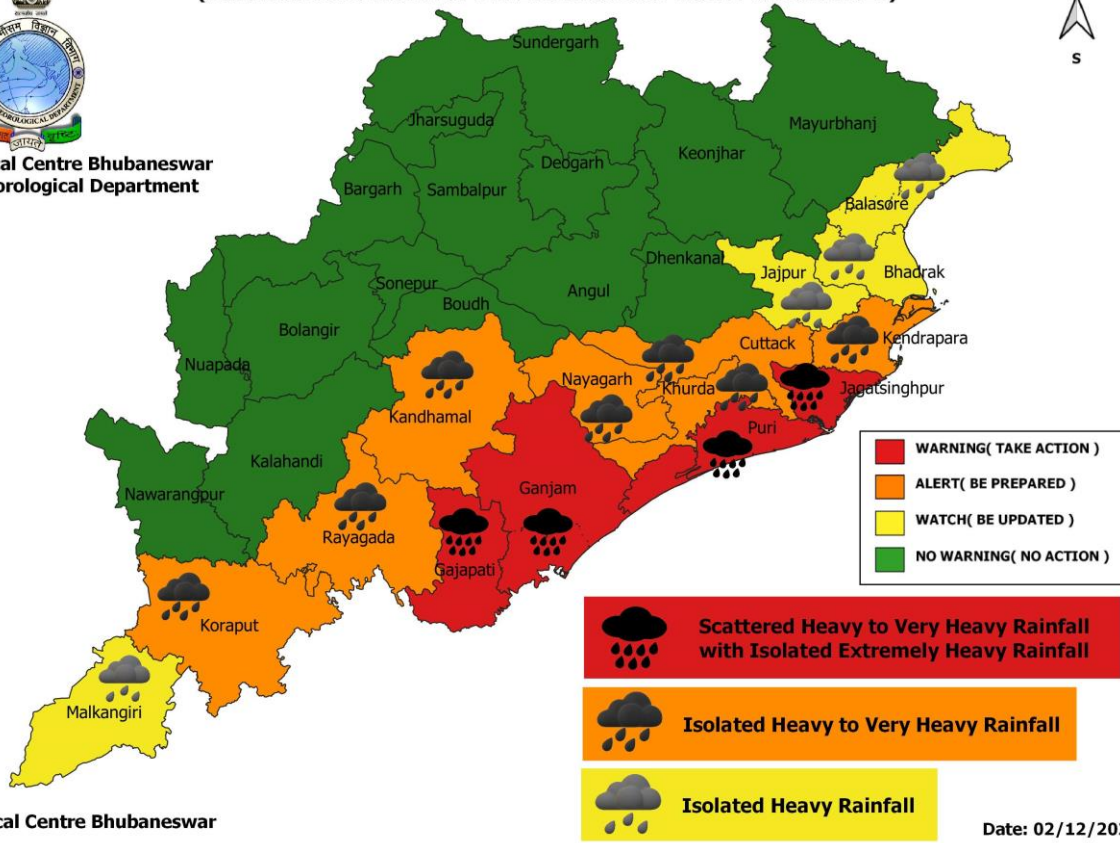




**Warning Day-2**  
(Valid from 0830 hrs IST of 04.12.2021 to 0830 hrs IST of 05.12.2021)



Meteorological Centre Bhubaneswar  
India Meteorological Department



Meteorological Centre Bhubaneswar

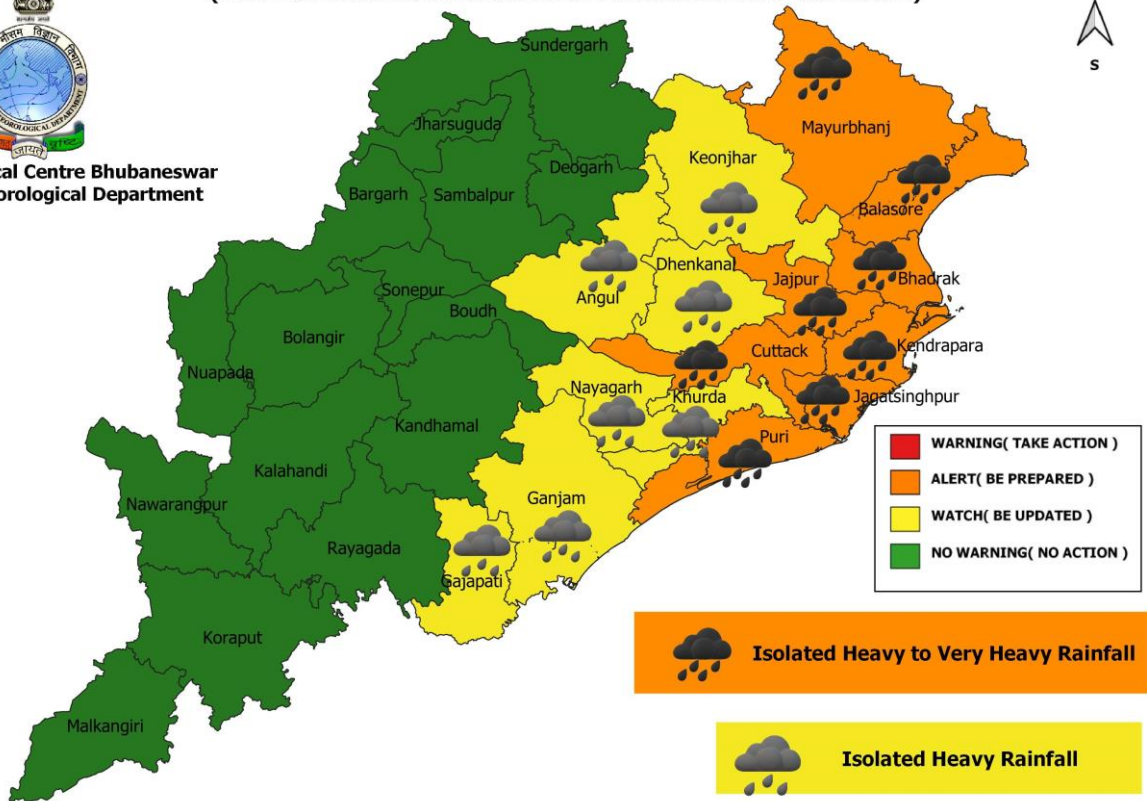
Date: 02/12/2021



**Warning Day-3**  
(Valid from 0830 hrs IST of 05.12.2021 to 0830 hrs IST of 06.12.2021)



Meteorological Centre Bhubaneswar  
India Meteorological Department



Meteorological Centre Bhubaneswar

Date: 02/12/2021

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 ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା-୭୫୧୦୨୦



**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHEAST BAY OF BENGAL BASED ON 1800 UTC OF 2<sup>nd</sup> DECEMBER, 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 DEPRESSION OVER SOUTHEAST BAY OF BENGAL BASED ON 1800 UTC OF 2<sup>nd</sup> DECEMBER, 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 ( $\geq$  120 KT)

● LESS THAN 34 KT

○ 34-47 KT

○  $\geq$  48 KT

— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY

SAT : INSAT-3DR IMG  
IMG\_TIR1\_TEMP 10.6 um  
LIC Mercator

02-12-2021/(1745 to 1812) GMT  
02-12-2021/(2315 to 2342) IST

