

SPECIALBULLETIN-06

Date: 3rd December 2021

Time: 0915 Hrs IST

Sub: Depression intensified into a Deep Depression over westcentral and adjoining south Bay of Bengal: Cyclone Alert for north Andhra Pradesh and Odisha coasts.

The Depression over southeast Bay of Bengal moved northwestwards with a speed of 32 kmph during past 06 hours, intensified into a Deep Depression and lay centered at 0530 hrs IST of today, the 3rd December 2021, over the westcentral and adjoining south Bay of Bengal near Lat. 13.4°N and Long. 86.4°E, about 580 km south-southeast of Vishakhapatnam (Andhra Pradesh), 670 km south-southeast of Gopalpur (Odisha) and 760 km south-southwest of Paradip (Odisha).

It is likely to continue to move northwestwards and intensify into a Cyclonic Storm during next 12 hours. It is likely to reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts by tomorrow, the 4th December morning. Thereafter it is likely to recurve north-northeastwards and move along north coastal Andhra Pradesh and Odisha coasts during the subsequent 24 hours with a maximum sustained wind speed of 80-90 kmph gusting to 100 kmph.

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
03.12.21/0530	13.4/86.4	50-60 gusting to 70	DEEP DEPRESSION
03.12.21/1130	14.2/85.6	60-70 gusting to 80	CYCLONIC STORM
03.12.21/1730	15.0/85.0	70-80 gusting to 90	CYCLONIC STORM
03.12.21/2330	15.7/84.6	75-85 gusting to 95	CYCLONIC STORM
04.12.21/0530	16.4/84.3	80-90 gusting to 100	CYCLONIC STORM
04.12.21/1730	17.6/84.2	90-100 gusting to 110	SEVERE CYCLONIC STORM
05.12.21/0530	18.8/85.0	75-85 gusting to 95	CYCLONIC STORM
05.12.21/1730	19.6/85.9	60-70 gusting to 80	CYCLONIC STORM

Details Forecast and warning as follows:

Rainfall Forecast and warnings:

Day	Forecast	Heavy Rainfall Warning
Day-1 (Valid upto 0830 Hrs IST of 04.12.21):	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.	Yellow Warning (Be updated) 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.
Day-2 (Valid from 0830 Hrs IST of 04.12.21 to 0830 Hrs IST of 05.12.21):	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	Red warning (Take action) 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. Orange warning (Be Prepared) Heavy to very heavy rainfall very likely to at one or two places over the districts of Kendrapada, Cuttack, Khordha, Nayagarh, Kandhamal, Rayagada and Koraput

		Yellow Warning (Be updated) Heavy rainfall very likely to occur at isolated places over the districts of Balasore, Bhadrak, Jajpur and Malkangiri.
Day-3 (Valid from 0830 Hrs IST of 05.12.21 to 0830 Hrs IST of 06.12.21):	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	Orange warning (Be Prepared) 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. Yellow Warning (Be updated) Heavy rainfall very likely to occur at isolated places over the districts of Keonjhar, Angul, Dhenkanal, Nayagarh, Khordha, Ganjam and Gajapati
Day-4 (Valid from 0830 Hrs IST of 06.12.21 to 0830 Hrs IST of 07.12.21):	Light to moderate rain or thundershower very likely to occur at isolated places over the districts of Odisha	NIL

Wind warning:

Squally wind speed reaching wind speed reaching 50-60 kmph gusting to 70 kmph over east-central Bay of Bengal, from 3rd December morning. Gale winds speed reaching 70-80 kmph gusting to 90 kmph likely to prevail over westcentral & adjoining northwest Bay of Bengal from today evening and gradually increase becoming 90-100 kmph gusting to 110 kmph over northwest & adjoining west-central Bay of Bengal from the evening of 4th December for the subsequent 12 hours.

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 80-90 kmph gusting to 100 kmph from 4th evening, for the subsequent 12 hours.

Sea conditions

Sea condition will be rough to very rough over westcentral and adjoining southeast & eastcentral Bay of Bengal till today evening. Sea condition would be high over central Bay of Bengal from the evening of today, the 3rd December for subsequent 12 hours 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 3rd December, west-central & adjoining northwest Bay of Bengal and along & off north Andhra Pradesh - Odisha- West Bengal coasts during 3rd - 5th December 2021.

Port warning:

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

Expected impact and action suggested:

Districts	Expected Impact	Action suggested
Gajapati, Ganjam, Puri, Khordha, Jagatsinghpur, Kendrapada, Cuttack, Balasore, Bhadrak	<p>i)Major damage to thatched houses/huts.</p> <p>ii) Breaking of tree branches, uprooting of trees.</p> <p>iii)Minor damage to power and communication lines.</p> <p>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.</p> <p>v)Occasional reduction in visibility due to heavy rainfall.</p> <p>vi)Disruption of traffic in major cities due to water logging in roads leading to increased travel time.</p> <p>vii) Minor Damage to Kutchha roads and vulnerable structure and wall collapsed of vulnerable kutchha houses</p> <p>viii) Localized Landslides/Mudslides in hilly areas</p> <p>ix) Damage to horticulture and standing crops in some areas due to inundation. Damage to banana, Papaya & Moringa (Drumstick) trees.</p> <p>x) It may lead to riverine flooding in some river catchments(Nagavali, Rushikulya, Vanshadhara) (for riverine flooding please visit Web page of CWC)</p>	<p>i) Total suspension of fishing operations.</p> <p>ii) Check for traffic congestion on your route before leaving for your destination.</p> <p>iii) Follow any traffic advisories that are issued in this regard.</p> <p>iv) Avoid going to areas that face the water logging problems often.</p> <p>v) Avoid staying in vulnerable structure.</p> <p>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.</p> <p>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.</p> <p>viii) Do arrangement for Drainage of excess water from standings crops in growing stage and vegetable fields.</p> <p>ix) Postpone sowing of rabi crop like Green gram, black gram and Mustard and vegetables like potato, Onion and coriander.</p> <p>x) Provide support to young fruit plants like Papaya and Banana and vegetables like ridge gourd. Cover the vegetable nursery with white polythene.</p> <p>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</p>

<p>Jajpur Malkangiri Nayagarh, Kandhamal, Rayagada Koraput, Mayurbhanj Keonjhar, Angul, and Dhenkanal</p>	<p>i) Breaking of tree branches iii) 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 Kutcha roads and vulnerable structure and wall collapsed of vulnerable kutcha houses xi) Localized Landslides/Mudslides in hilly areas Damage to horticulture and standing crops in some areas due to inundation. Damage to banana, Papaya & Moringa (Drumstick) trees.</p>	<p>i) 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</p>
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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, Bhitarkanika wildlife sanctuary, Kendrapada, ONGC Odisha etc) are advised to be judiciously regulated on 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

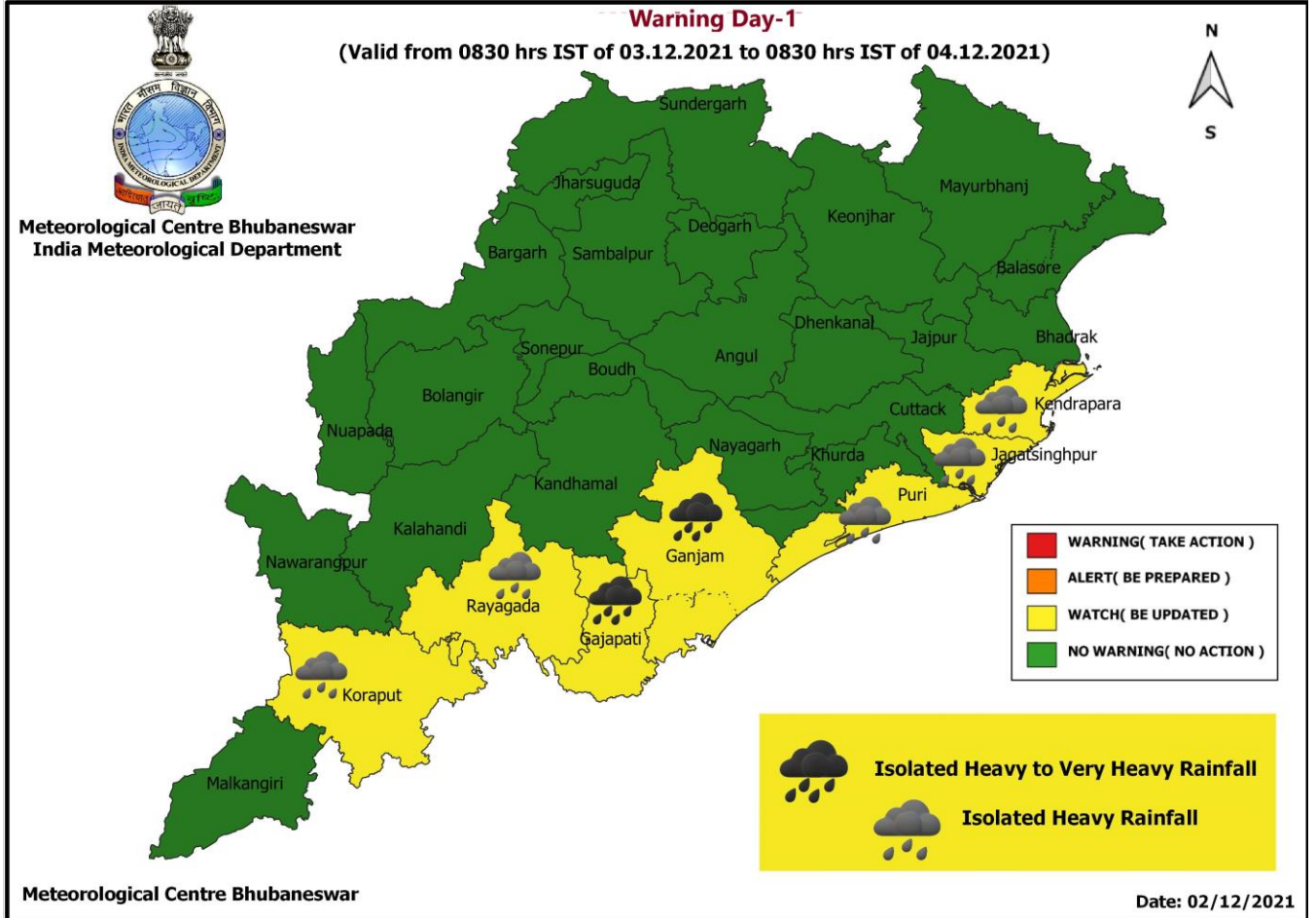
1. CHIEF SECRETARY , GOVT. OF ODISHA
2. PRINCIPAL SECRETARY, REVENUE & DISASTER MANAGEMENT, GOVT. OF ODISHA.
3. PRINCIPAL SECRETARY, DEPT. OF AGRICULTURE, GOVT. OF ODISHA.
4. PRINCIPAL SECRETARY, DEPARTMENT OF WATER RESOURCES, GOVT. OF ODISHA.
5. SPECIAL RELIEF COMMISSIONER (SRC), GOVT. OF ODISHA BHUBANESWAR.
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.

भारतसरकार
 पृथ्वीविज्ञानमंत्रालय
 भारतमौसमविज्ञानविभाग
 मौसमविज्ञानकेंद्र
 भुवनेश्वर, ओडिशा-751020


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

ଭାରତସରକାର
 ପୃଥିବୀବିଜ୍ଞାନମନ୍ତ୍ରାଳୟ
 ଭାରତପାଣିପାଗବିଜ୍ଞାନବିଭାଗ
 ପାଣିପାଗବିଜ୍ଞାନକେନ୍ଦ୍ର
 ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା-୭୫୧୦୨୦

Rainfall Warning Maps for Day-1 to Day-3

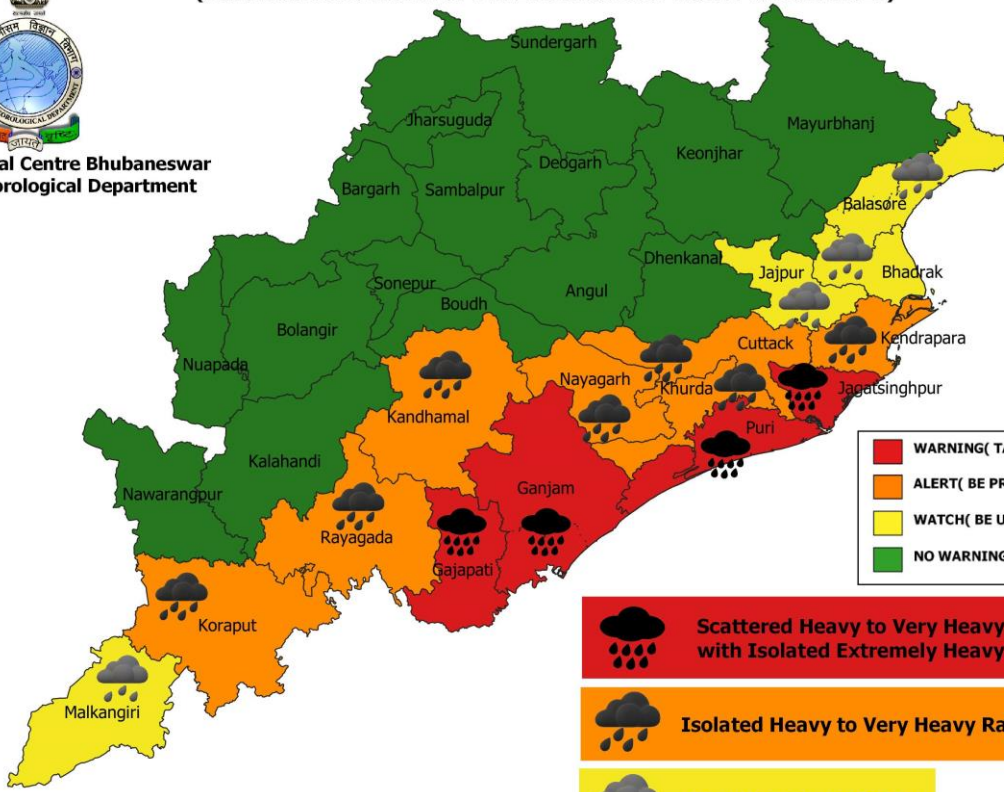




Warning Day-2
(Valid from 0830 hrs IST of 04.12.2021 to 0830 hrs IST of 05.12.2021)



Meteorological Centre Bhubaneswar
India Meteorological Department



- WARNING(TAKE ACTION)
- ALERT(BE PREPARED)
- WATCH(BE UPDATED)
- NO WARNING(NO ACTION)

Scattered Heavy to Very Heavy Rainfall with Isolated Extremely Heavy Rainfall

Isolated Heavy to Very Heavy Rainfall

Isolated Heavy Rainfall

Meteorological Centre Bhubaneswar

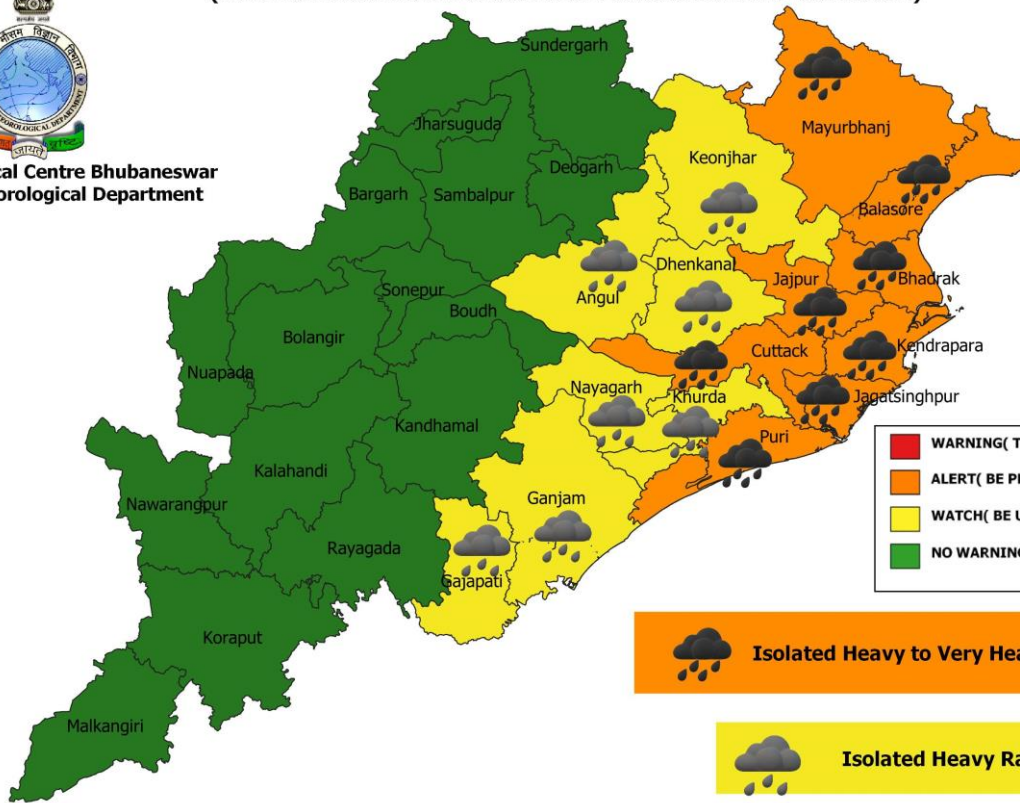
Date: 02/12/2021



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



- WARNING(TAKE ACTION)
- ALERT(BE PREPARED)
- WATCH(BE UPDATED)
- NO WARNING(NO ACTION)

Isolated Heavy to Very Heavy Rainfall

Isolated Heavy Rainfall

Meteorological Centre Bhubaneswar

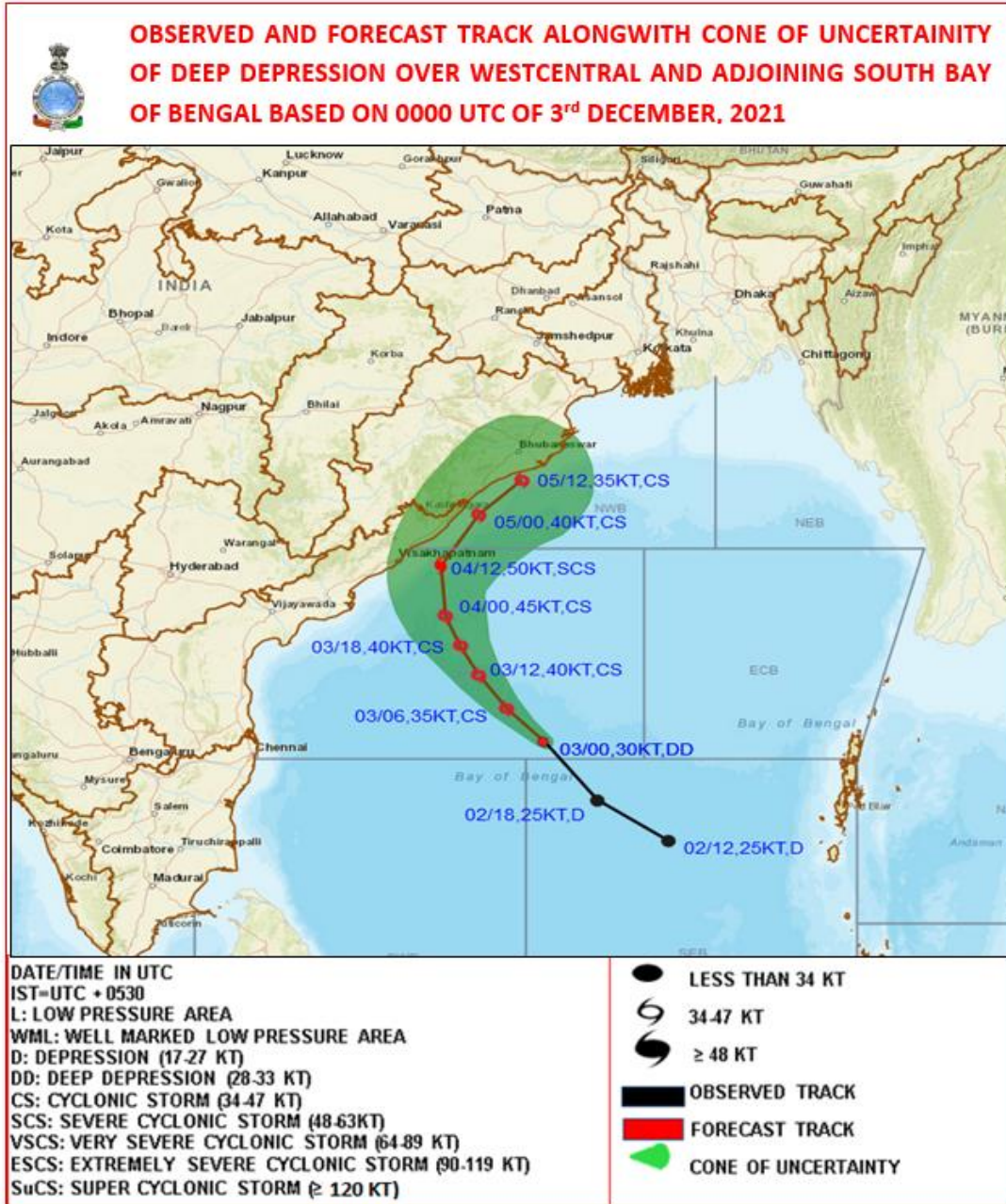
Date: 02/12/2021

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 भारतमौसमविज्ञानविभाग
 मौसमविज्ञानकेंद्र
 भुवनेश्वर, ओडिशा-751020



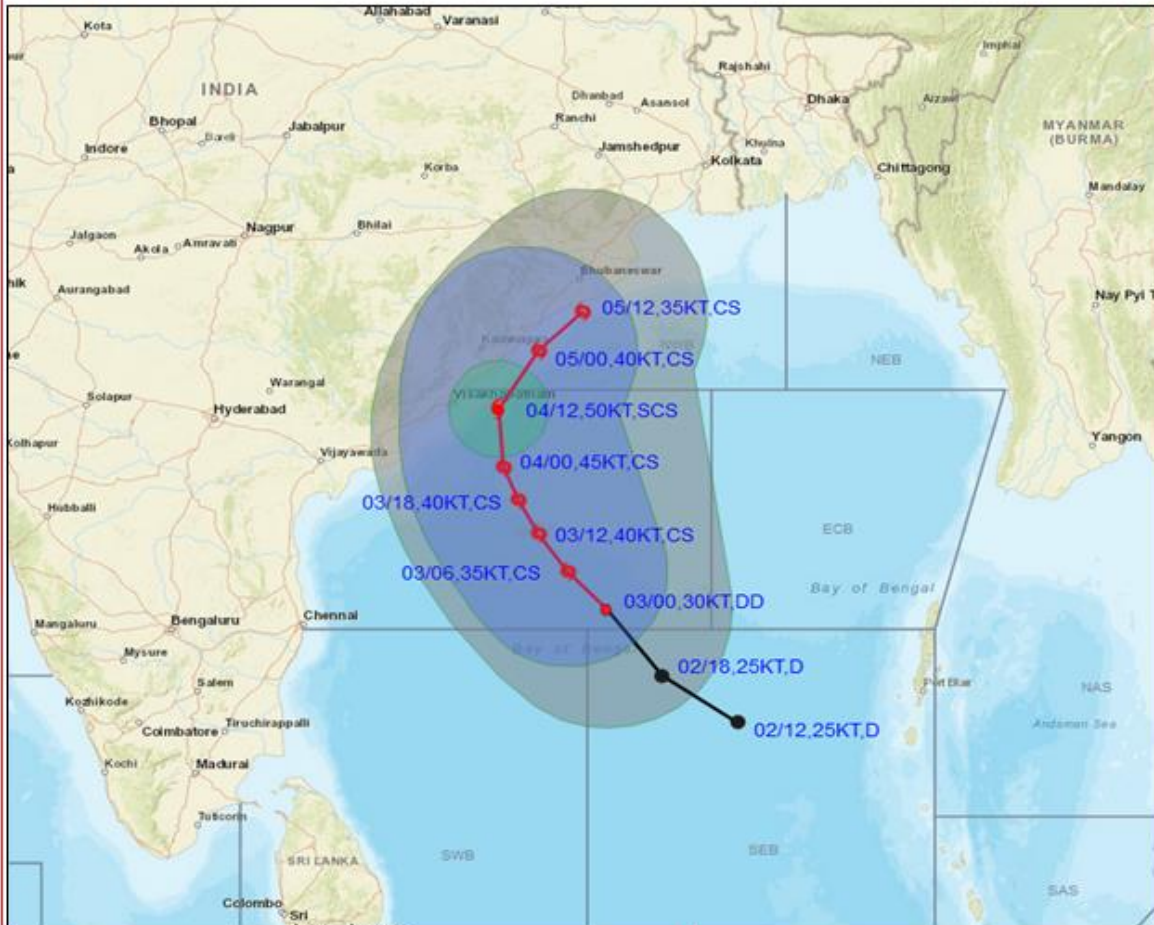
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 ପୃଥିବୀବିଜ୍ଞାନମନ୍ତ୍ରାଳୟ
 ଭାରତପାଣିପାଗବିଜ୍ଞାନବିଭାଗ
 ପାଣିପାଗବିଜ୍ଞାନକେନ୍ଦ୍ର
 ଭୁବନେଶ୍ୱର, ଓଡ଼ିଶା-୭୫୧୦୨୦





OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTH BAY OF BENGAL BASED ON 0000 UTC OF 3rd 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

SAT : INSAT-3D IMG

03-12-2021/(0130 to 0156) GMT

IMG_TIR1_TEMP 10.8 um

03-12-2021/(0700 to 0726) IST

L1C Mercator

