

## **SPECIALBULLETIN-09**

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

Time: 1630 Hrs IST

**Sub: Cyclonic Storm 'JAWAD' over westcentral Bay of Bengal: Cyclone Warning for north Andhra Pradesh and Odisha coasts – Orange Message.**

The Cyclonic Storm 'JAWAD' (Pronounced as JOWAD) over westcentral Bay of Bengal moved north-northwestwards with a speed of 22 kmph during past 06 hours and lay centered at 1430 hrs IST of today, the 3<sup>rd</sup> December 2021, over westcentral of Bengal near Lat. 15.0°N and Long. 85.3°E, about 360 km south-southeast of Vishakhapatnam (Andhra Pradesh), 470 km south-southeast of Gopalpur (Odisha), 530 km south-southwest of Puri (Odisha) and 600 km south-southwest of Paradip (Odisha).

It is likely to move north-northwestwards, intensify further and reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts by tomorrow, the 4<sup>th</sup> December morning. Thereafter it is likely to recurve north-northeastwards and move along Odisha coast reaching near Puri around 5<sup>th</sup> December noon. Subsequently it is likely to continue to move north-northeastwards along coastal Odisha towards West Bengal coast.

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
03.12.21/1430	15.0/85.3	60-70 gusting to 80	CYCLONIC STORM
03.12.21/1730	15.0/85.1	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	16.5/84.3	80-90 gusting to 100	CYCLONIC STORM
04.12.21/1130	17.1/84.2	90-100 gusting to 110	SEVERE CYCLONIC STORM
04.12.21/2330	18.4/84.7	90-100 gusting to 110	SEVERE CYCLONIC STORM
05.12.21/1130	19.5/85.6	80-90 gusting to 100	CYCLONIC STORM
05.12.21/2330	20.7/86.9	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 coastal Odisha & at a few places over rest districts Odisha.	<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.
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	<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. <b>Orange warning (Be Prepared)</b> Heavy to very heavy rainfall very likely to at one or two places over the districts of Kendrapada, Cuttack, Khordha, Nayagarh, Kandhamal, and Rayagada

		<b>Yellow Warning (Be updated)</b> Heavyrainfall very likely to occur at isolated places over the districts of Balasore, Bhadrak, Jajpur, Koraput and Malkangiri.
<b>Day-3</b> (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	<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> Heavyrainfall very likely to occur at isolated places over the districts of Keonjhar, Angul, Dhenkanal, Nayagarh, Khordha, Ganjam and Gajapati
<b>Day-4</b> (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 55-65 kmph gusting to 75 kmph over westcentral and adjoining southeast & Eastcentral Bay of Bengal during next 06 hours. 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 today, the 3rd December and increase gradually becoming 80-90 kmph gusting to 100 kmph from 4th evening, for the subsequent 12 hours.**

**(For districtwise wind warning kindly see the attached maps. )**

#### Sea conditions

Sea condition will be rough to very rough over westcentral and adjoining southeast & Eastcentral Bay of Bengal during next 6 hours. Sea condition would be High over central Bay of Bengal from the afternoon 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 sea over westcentral and adjoining southeast & eastcentral Bay of Bengal on 3<sup>rd</sup> December, over west-central & northwest Bay of Bengal and along & off north Andhra Pradesh - Odisha- West Bengal coasts during 3<sup>rd</sup> - 5<sup>th</sup> December 2021**

#### Port warning:

Keep Hoisted Local Warning Signal No. 4 (LW-4) at all ports of Odisha.

**Expected impact and action suggested:**

Districts	Expected Impact	Action suggested
Gajapati, Ganjam, Puri, Khordha, Jagatsinghpur, Kendrapada and Cuttack	<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 Kutcha roads and vulnerable structure and wall collapsed of vulnerable kutcha 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 &amp; 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 &amp; 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>

**Balasore, Bhadrak  
Jajpur, Malkangiri  
Nayagarh,  
Kandhamal,  
Rayagada Koraput,  
Mayurbhanj  
Keonjhar, Angul, and  
Dhenkanal**

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 Kutchha roads and vulnerable structure and wall collapsed of vulnerable kutchha 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.

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

### **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.



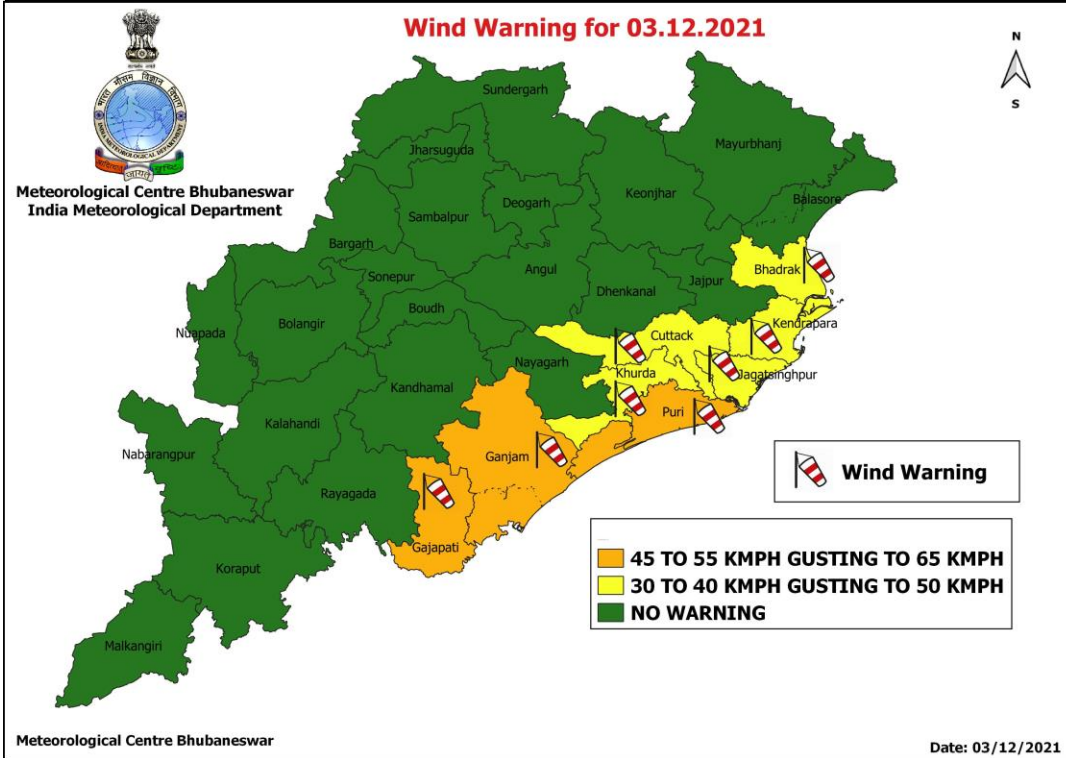
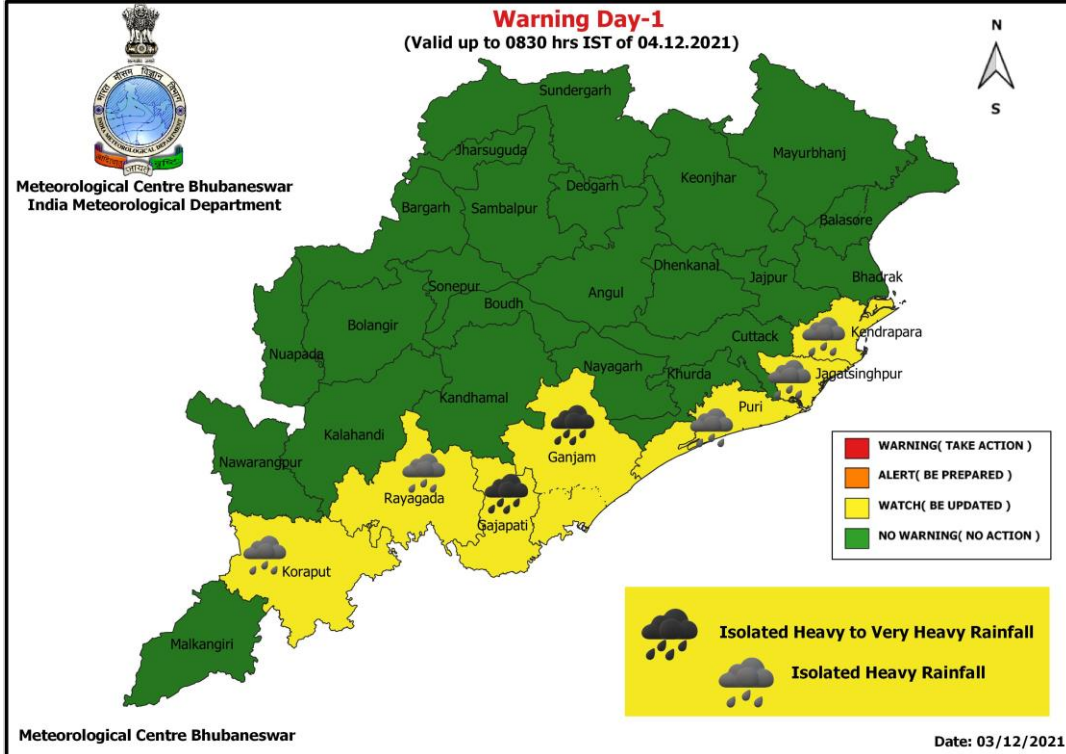
भारतसरकार  
 पृथ्वीविज्ञानमंत्रालय  
 भारतमौसमविज्ञानविभाग  
 मौसमविज्ञानकेंद्र  
 भुवनेश्वर, ओडिशा-751020



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**



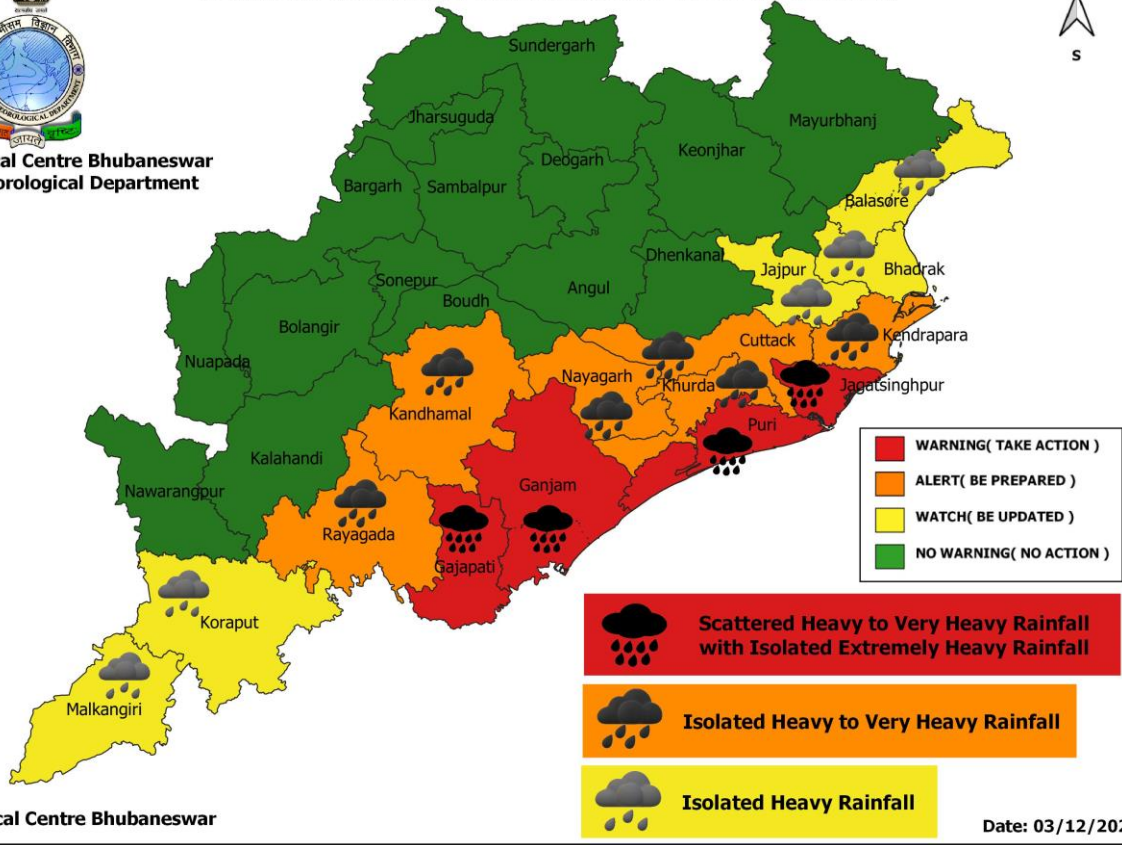


### Warning Day-2

(Valid from 0830 hrs IST of 04.12.2021 to 0830 hrs IST of 05.12.2021)



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India Meteorological Department

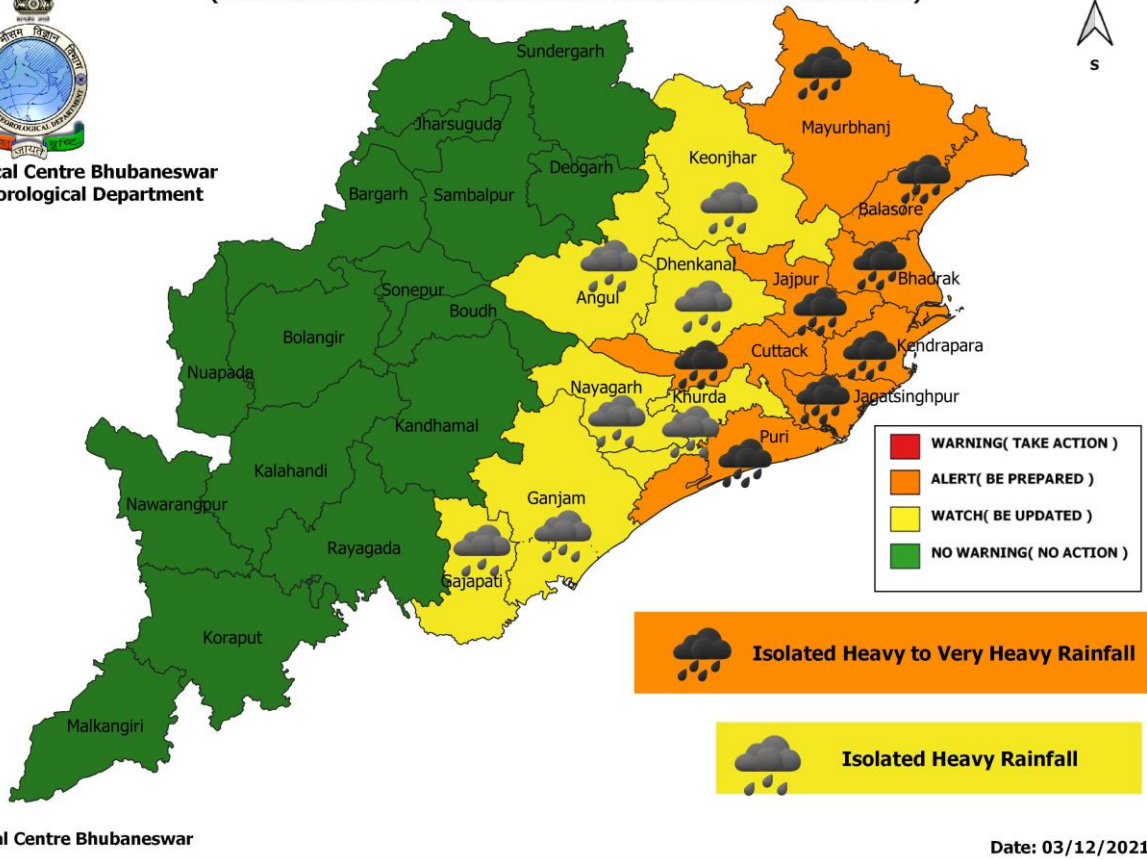


### Warning Day-3

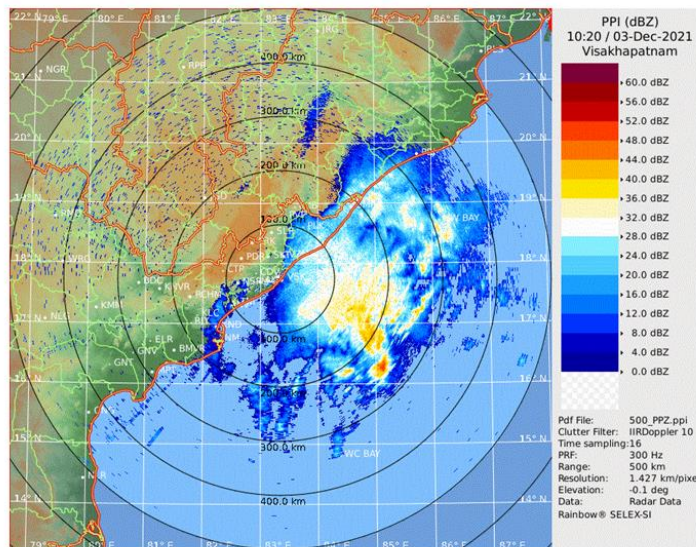
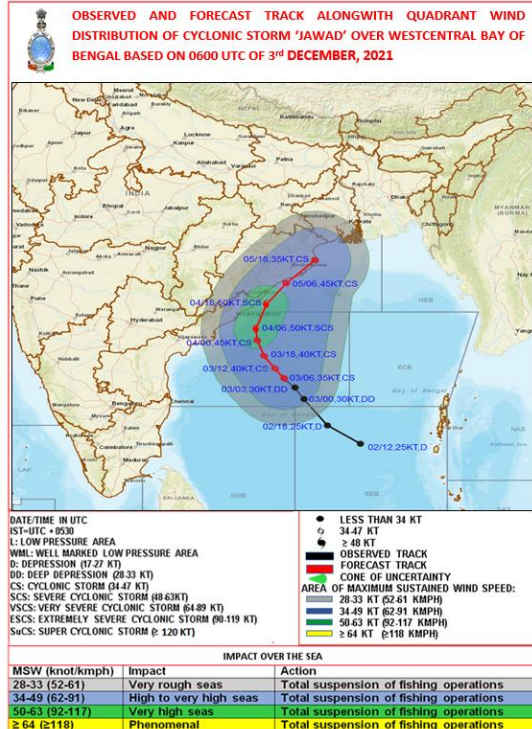
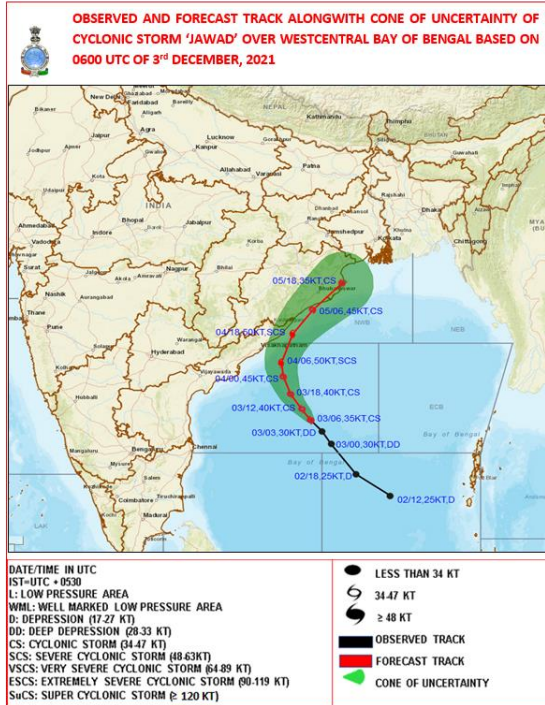
(Valid from 0830 hrs IST of 05.12.2021 to 0830 hrs IST of 06.12.2021)



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India Meteorological Department







Doppler Weather RADAR imagery from Vishakhapatnam, depicting the approaching convective cloud towards north Andhra Pradesh coast.