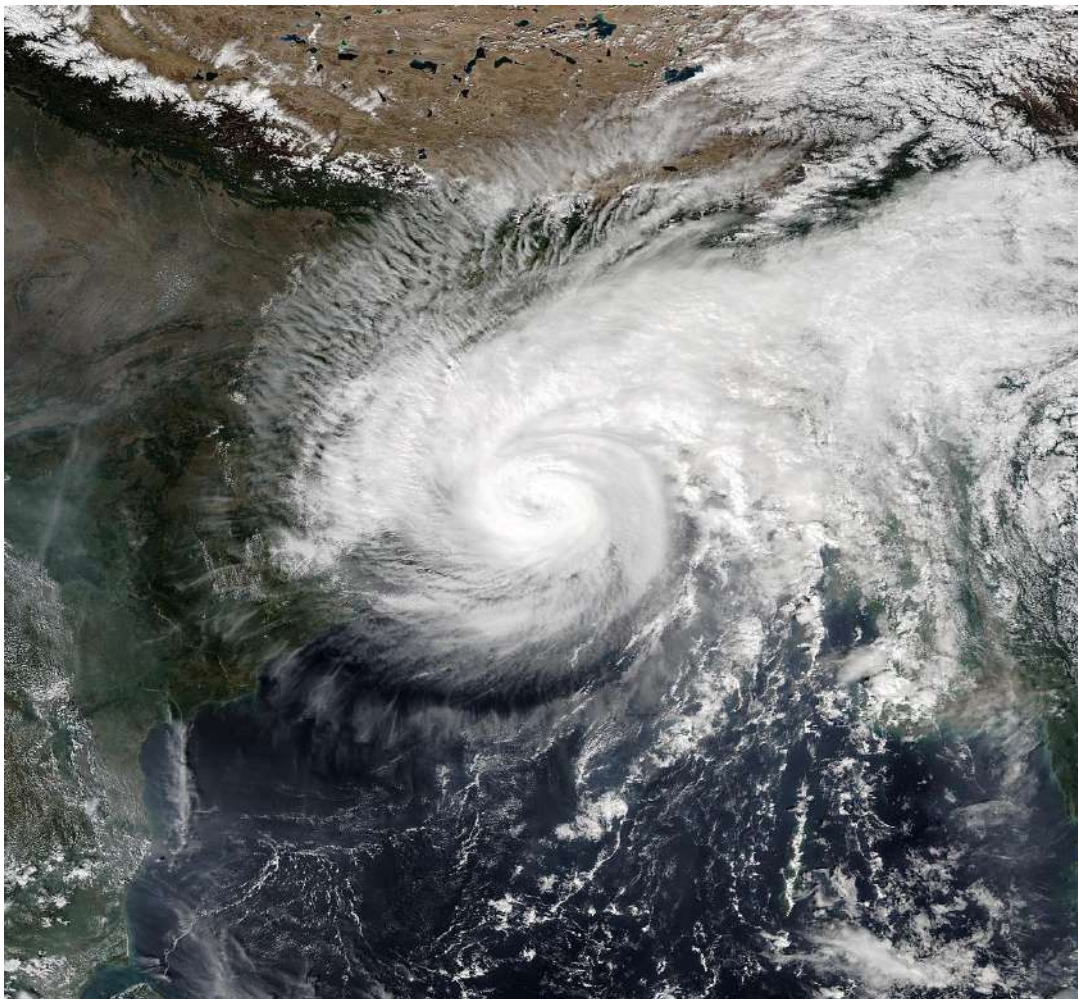




**Government of Odisha**

**MEMORANDUM**  
**on**  
**VERY SEVERE CYCLONIC STORM 'BULBUL'**



**NOVEMBER, 2019**

**SPECIAL RELIEF COMMISSIONER**  
**Revenue & Disaster Management Department**  
**(Disaster Management)**

# ***CONTENTS***

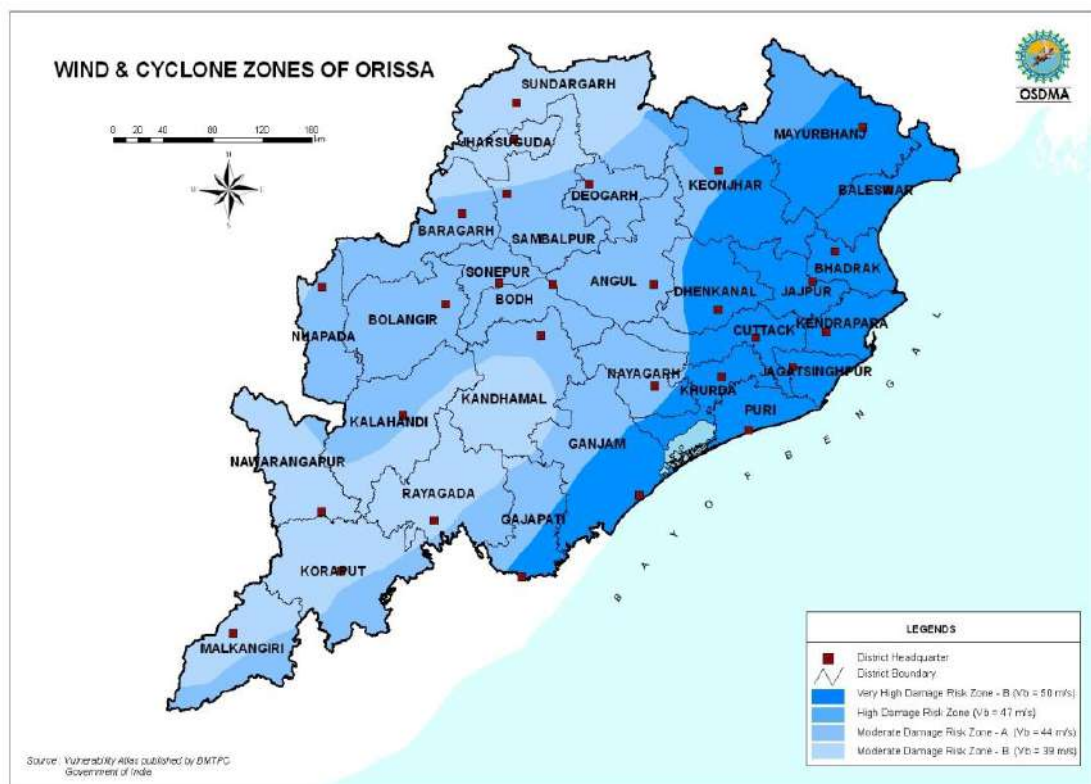
CHAPTER – I	-	Introduction.....	01-02
CHAPTER – II	-	Cyclone Tracking.....	03-09
CHAPTER – III	-	Occurrence & Intensity.....	10-13
CHAPTER – IV	-	Preparedness.....	14-16
CHAPTER- V	-	Response.....	17-21
CHAPTER – VI	-	Impact & Damages.....	22-26
CHAPTER- VII	-	Assistance Sought for.....	27-31
CHAPTER – VIII	-	State Disaster Response Fund.....	32-33
CHAPTER – IX	-	Conclusion.....	34-34
APPENDIX	-	II to VIII.....	35-41
CHAPTER – X	-	Visual Clippings.....	42-46

# CHAPTER – I

## Introduction

Odisha, one of the most vulnerable states in the country to natural disasters, bears the brunt of natural disasters such as floods, cyclones and droughts year after year. It has a vast coast line of 480 km which makes the coastal districts highly vulnerable to tropical cyclones and tidal surge. Generally, two cyclone seasons i.e., one during pre-monsoon period (April, May & June up to onset of monsoon) and another post monsoon (October to December) prevail over the Odisha. If the disturbances are grouped in terms of pre and post monsoon season, they are more in the post-monsoon season.

The Building Material Technology Promotion Council (BMTPC) of Ministry of Urban Development, based on Hazard Vulnerability identified cyclone prone districts of Odisha taking into consideration cyclone hazards of the coastal area. As per Wind and Cyclone Hazard Zones Map of Odisha, out of 30 districts of the state, 14 districts are categorized as high damage risk zone either fully or partially.



After the Super Cyclone of 1999 which was the most catastrophic cyclonic event, Odisha faced four Extremely/ Very Severe Cyclonic Storms during the last 6 years.

1	12-14 October, 2013	Very Severe Cyclonic Storm, Phailin	Crossed Odisha Coast near Gopalpur at evening of 12 October
2	12-14 October, 2014	Very Severe Cyclonic Storm 'Hudhud'	Crossed Andhra Pradesh Coast at Vishakapatnam and impact on south Odisha
3	10-12 October, 2018	Very Severe Cyclonic Storm Titli	Crossed Andhra Pradesh Coast at Palasa and severe impact on south Odisha
4	3 May, 2019	Extremely Severe Cyclonic Storm 'Fani'	Crossed Odisha Coast near Puri

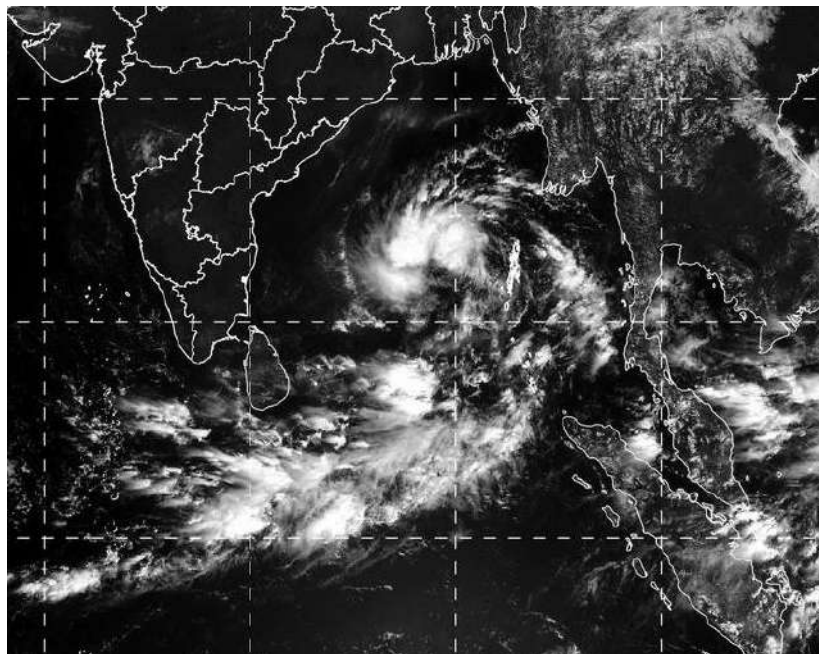
Barely after 6 months of Extremely Severe Cyclonic Storm 'Fani' that crossed the Odisha on 3<sup>rd</sup> May, 2019, Odisha has faced yet another Very Severe Cyclone 'Bulbul' in the month of November, 2019. Cyclone Bulbul although did not make its landfall in the territory of Odisha, it passed near Odisha coast during 8<sup>th</sup> to 10<sup>th</sup> November 2019. The wind and the cyclonic rain due to the effect of cyclone Bulbul has caused extensive damage to the standing paddy & other crops. The cyclone also caused severe damage to private and public properties in the coastal districts of the Odisha.

## CHAPTER – II

### Cyclone Tracking

India Meteorological Department (IMD) reported on 4.11.2019 that under the influence of cyclonic circulation over north Andaman Sea & adjoining Myanmar coast, a Low Pressure Area has formed over north Andaman Sea. It would very likely to move west-northwestwards, concentrate into a Depression over eastcentral Bay of Bengal during subsequent 2-3 days and intensify further with northwestwards movements subsequently. It would very likely to move west-northwestwards, concentrate into a Depression over eastcentral Bay of Bengal during subsequent 2-3 days and intensify further with northwestwards movements subsequently. North Andhra Pradesh and south & coastal Odisha would very likely to experience widespread rainfall with isolated heavy to very heavy falls from 9th November onwards. Squally wind speed of 40-50 Kmph gusting to 60 Kmph would very likely to prevail over above coasts on 9th November and increase thereafter.

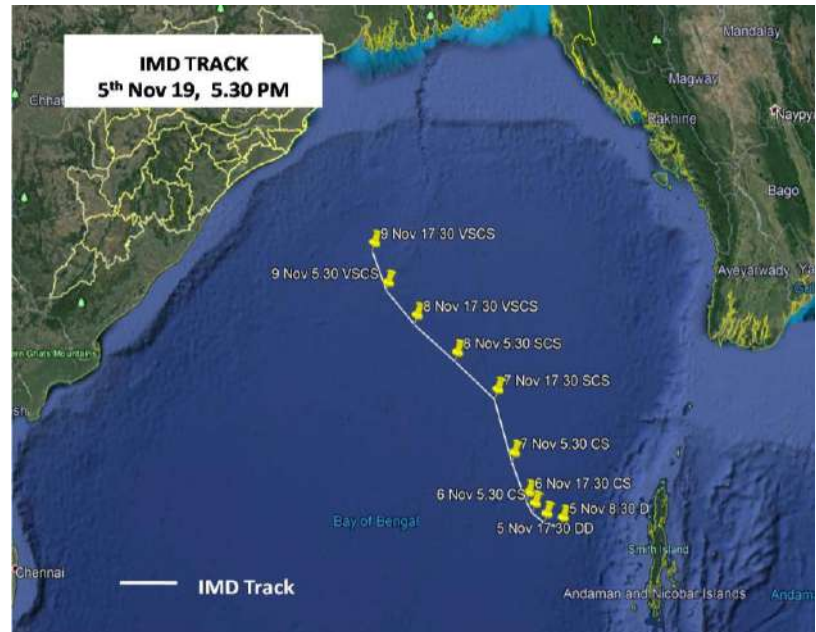
On 5.11.2019, IMD informed that, the Well Marked Low Pressure Area over north Andaman Sea moved west-northwestwards, concentrated into a Depression and lay centered at 0530 hours IST of 5th November, 2019 over eastcentral & adjoining southeast Bay of Bengal and North Andaman Sea, near Latitude 13.1°N and



Longitude 91.5°E, about 150 km west-northwest of Maya Bandar (Andaman Islands), about 950 km south-southeast of Paradip (Odisha), 1020 km south-southeast of Sagar Islands (West Bengal) and 1000 km south-southwest of Khepupara (Bangla Desh). **It would very likely to intensify into a Deep**

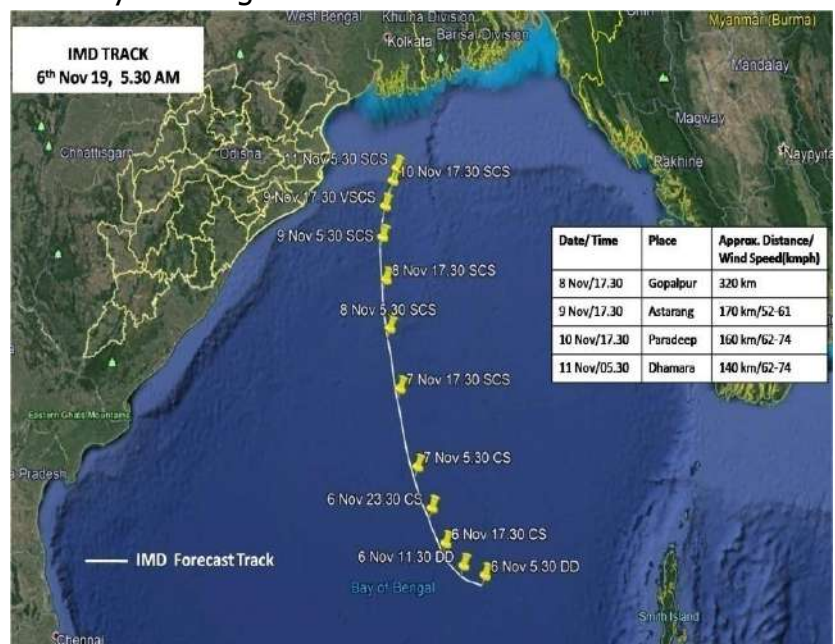
**Depression during next 12 hours and into a Cyclonic Storm during the subsequent 24 hours. It would very likely to move west-northwestwards initially and then north-northwestwards, towards Odisha-West Bengal coasts**

Soon after receiving the meteorological warning, the State Government started closely monitoring the situation. Based on the forecast issued from IMD and other international Agencies like Regional Integrated Multihazard Early Warning Systems (RIMES), Thailand, Joint Typhoon Warning Center (JTWC),



USA, the tracking of the system was thoroughly done by the Experts of Odisha State Disaster Management Authority (OSDMA) in GIS platform with regard to possibility of its likely impact over the Odisha.

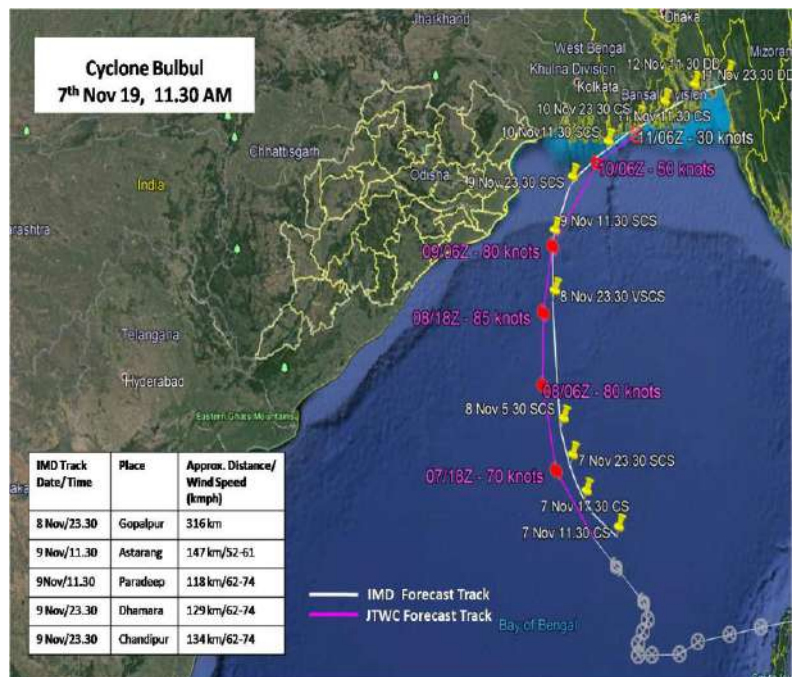
On 6.11.2019 IMD issued its bulletin saying that the depression over eastcentral & adjoining southeast Bay of Bengal and North Andaman Sea moved northwestwards in past 24 hours, intensified into a deep depression in the early morning (0530 hours IST) of 6th November and centered over eastcentral & adjoining southeast Bay of Bengal near Lat.13.4°N and Long. 89.3°E, about 390 km west-northwest of Maya Bandar (Andaman Islands),



about 810 km south-southeast of Paradip (Odisha), 920 km south-southeast of Sagar Islands (West Bengal) and 960 km south-southwest of Khepupara (Bangladesh) . It would very likely to intensify into a Cyclonic Storm during next 24 hours and into a Severe Cyclonic Storm during the subsequent 24 hours. It would very likely to move northwestwards for some time and then north-northwestwards towards West Bengal and Bangladesh coasts. Further cyclone intensified in to cyclonic storm and named as Bulbul.

As per the Special Bulletin issued by IMD at 1330 hours 07.11.2019, the cyclonic storm 'Bulbul' over east central Bay of Bengal continued to move northwards with a speed of 13 kmph during past 06 hours and centered about 680 km south- southeast of Paradip, 780 km south-southeast of Sagar islands ( West Bengal) and 810 km south-southwest of Khepupara ( Bangladesh). It would very likely to intensify into a severe cyclonic storm during next 24 hours . It would very likely to move north-northwestwards towards West Bengal & and Bangladesh coasts.

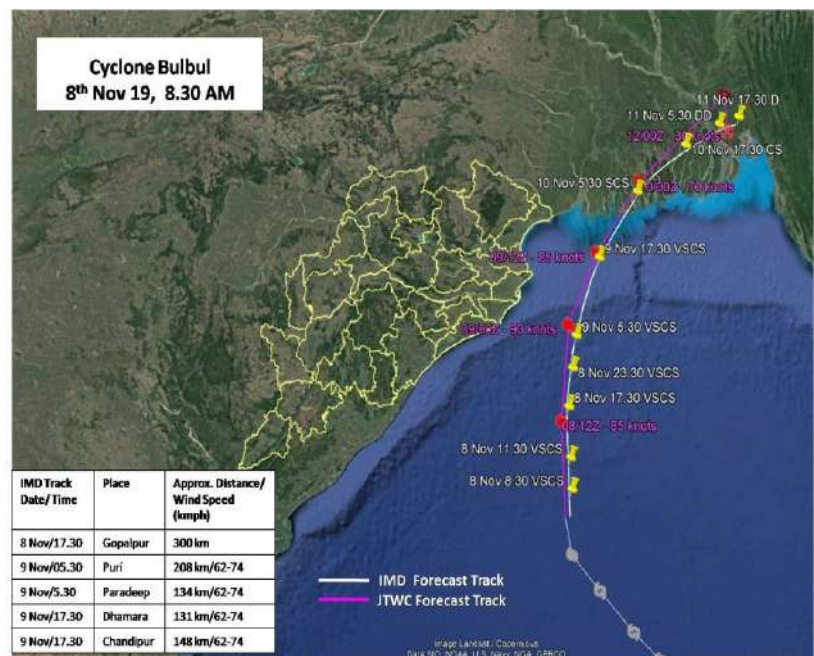
IMD warned that four districts (Puri, Jagatsinghpur, Kendrapara And Bhadrak) would get Heavy rainfall from 0830 hrs of 08.11.19 to 0830 hrs of 09.11.2019. Intense rainfall activity likely to occur from 8th evening. Four districts (Balasore, Bhadrak, Kendrapara & Jagatsinghpur) had been issued with orange warning. Heavy very heavy rainfall would very likely to occur at isolated places over these districts from 0830 hrs of 09.11.19 to 0830 hrs of 10.11.2019. Three districts (Cuttack, Jajpur & Mayurbhanj) had been issued with yellow warning. Heavy rainfall would very likely to occur at isolated places over these districts from 0830 hrs of 09.11.19 to 0830 hrs of 10.11.2019 . Light to moderate rain would very likely to occur at many places over the districts of



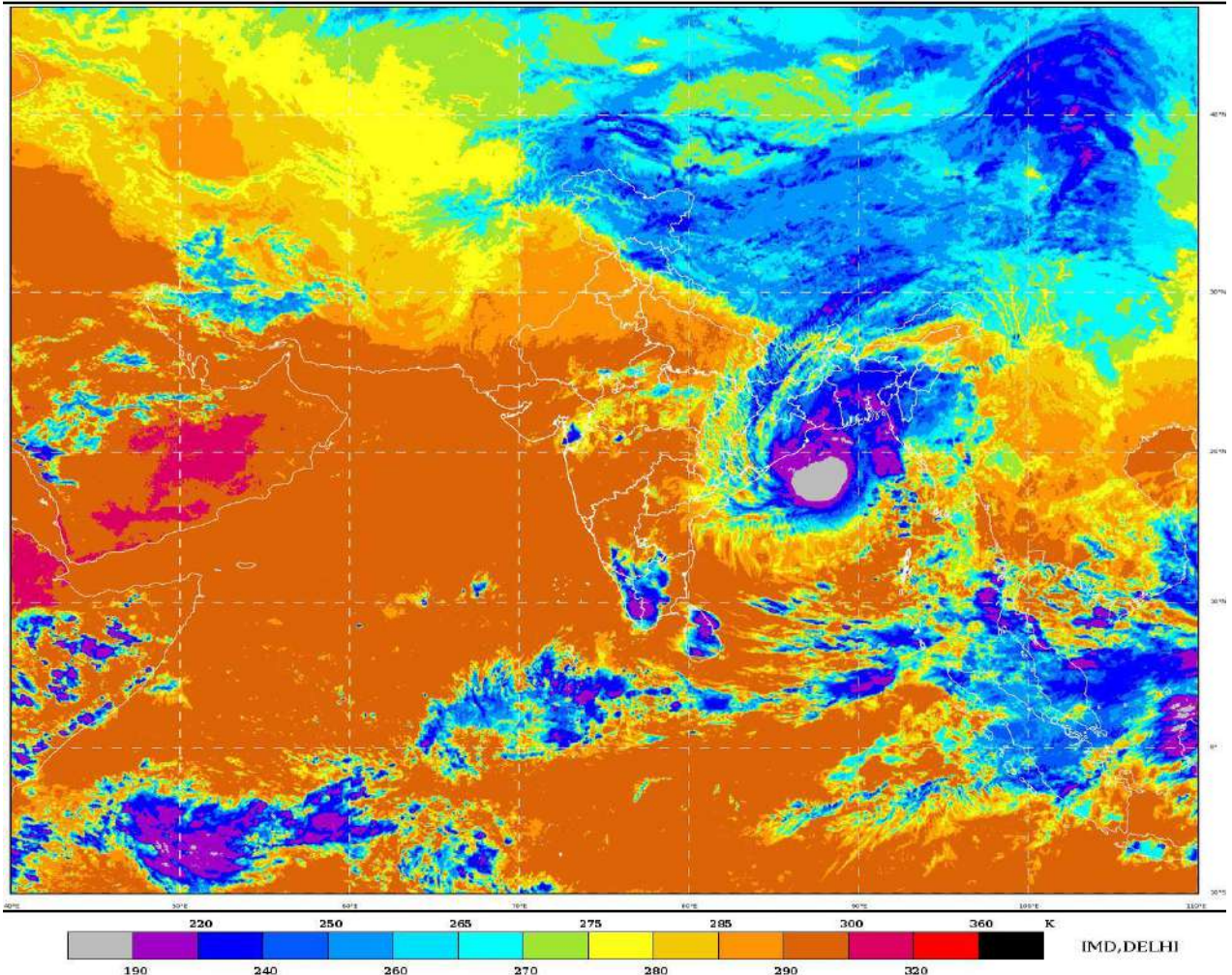
north coastal Odisha , at a few places over the districts of south coastal Odisha, Mayurbhanj, Keonjhar and isolated places over rest districts of Odisha.

Strong wind speed reaching 35- 45 kmph gusting to 55 kmph squally gusting to 65 would like to be experienced by afternoon of 8<sup>th</sup> over Kendrapara, Jagatsinghpur, Balasore and Bhadrak districts . Gale wind speed reaching 70-80 kmph gusting to 90 kmph would likely occur towards evening of 9<sup>th</sup> November over Jagatsinghpur, Balasore, and Bhadrak districts . It would likely to decrease from 10<sup>th</sup> onwards ) Puri, Ganjam and Jajpur districts would likely to experience squally wind speed reaching 40-50 kmph gusting to 60 kmph on 8<sup>th</sup> and 9<sup>th</sup> November.

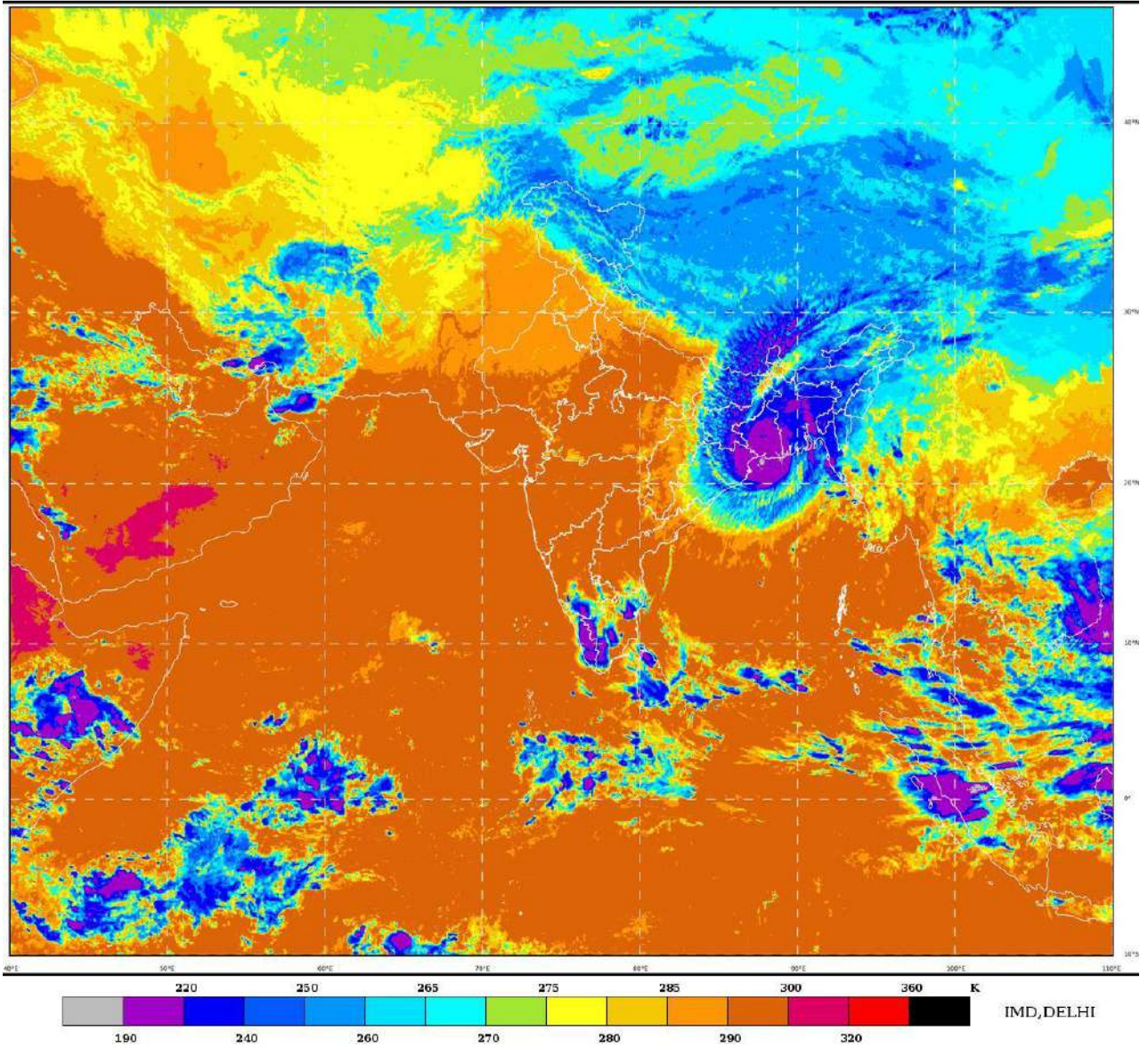
On 8.11.2019, the Very Severe Cyclonic Storm 'Bulbul' over westcentral & adjoining eastcentral Bay of Bengal continued to move north-northwestwards with a speed of 12 kmph during past 06 hours, and lay centred at 0830 hrs IST of 8th November 2019, over westcentral & adjoining eastcentral Bay of Bengal, near Lat.17.2°N and Long. 87.6°E about 350 km south-southeast of Paradip (Odisha), 490 km southsouthwest of Sagar Islands (West Bengal) and 590 km south-southwest of Khepupara (Bangladesh) . It would very likely to intensify further till early morning of 9th November. It would very likely to move nearly northwards till 9th November morning. Thereafter, it would very likely to re-curve northeastwards and cross West Bengal - Bangladesh Coasts between Sagar Islands (West Bengal) and Khepupara (Bangladesh), across Sunderban delta during the early hours of 10th November as a Severe Cyclonic Storm with maximum sustained wind speed of 110-120 Kmph gusting to 135 Kmph.



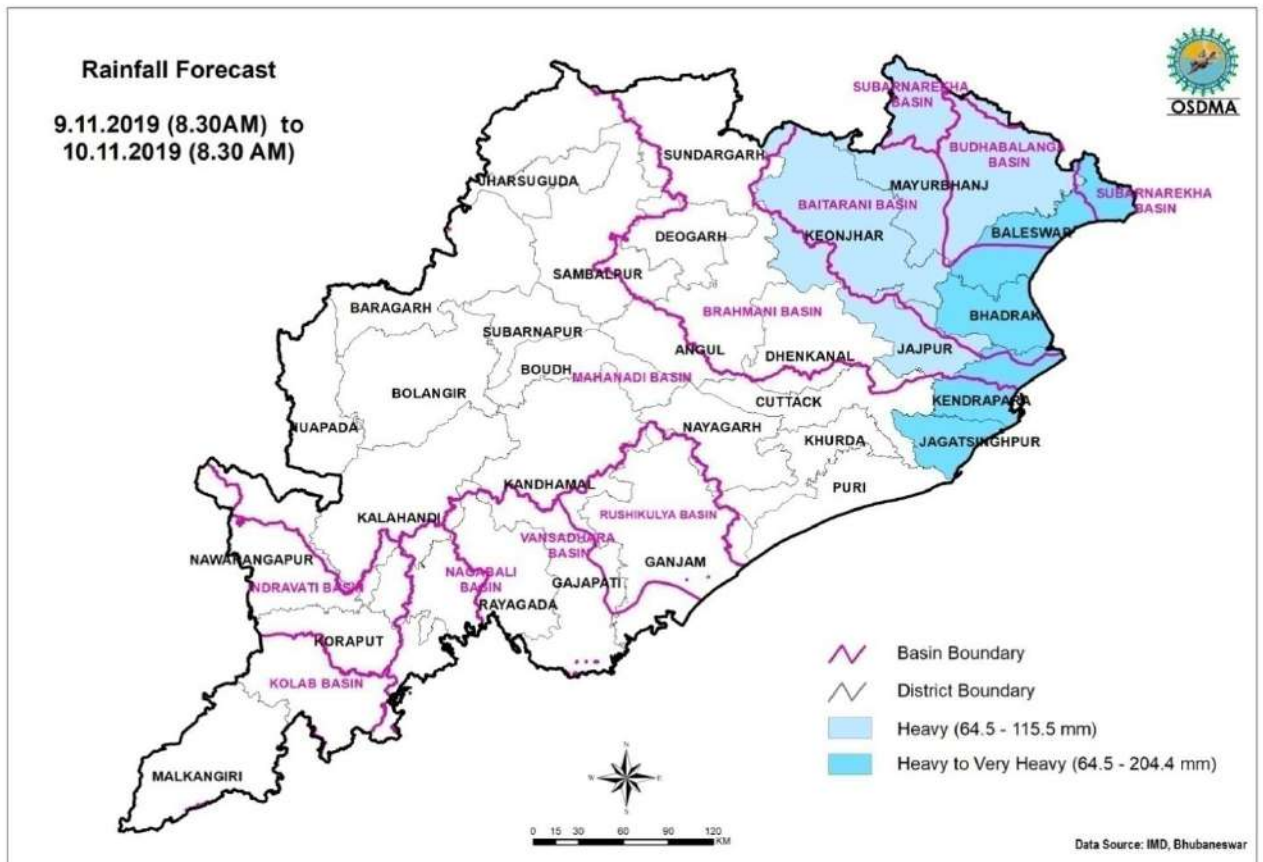
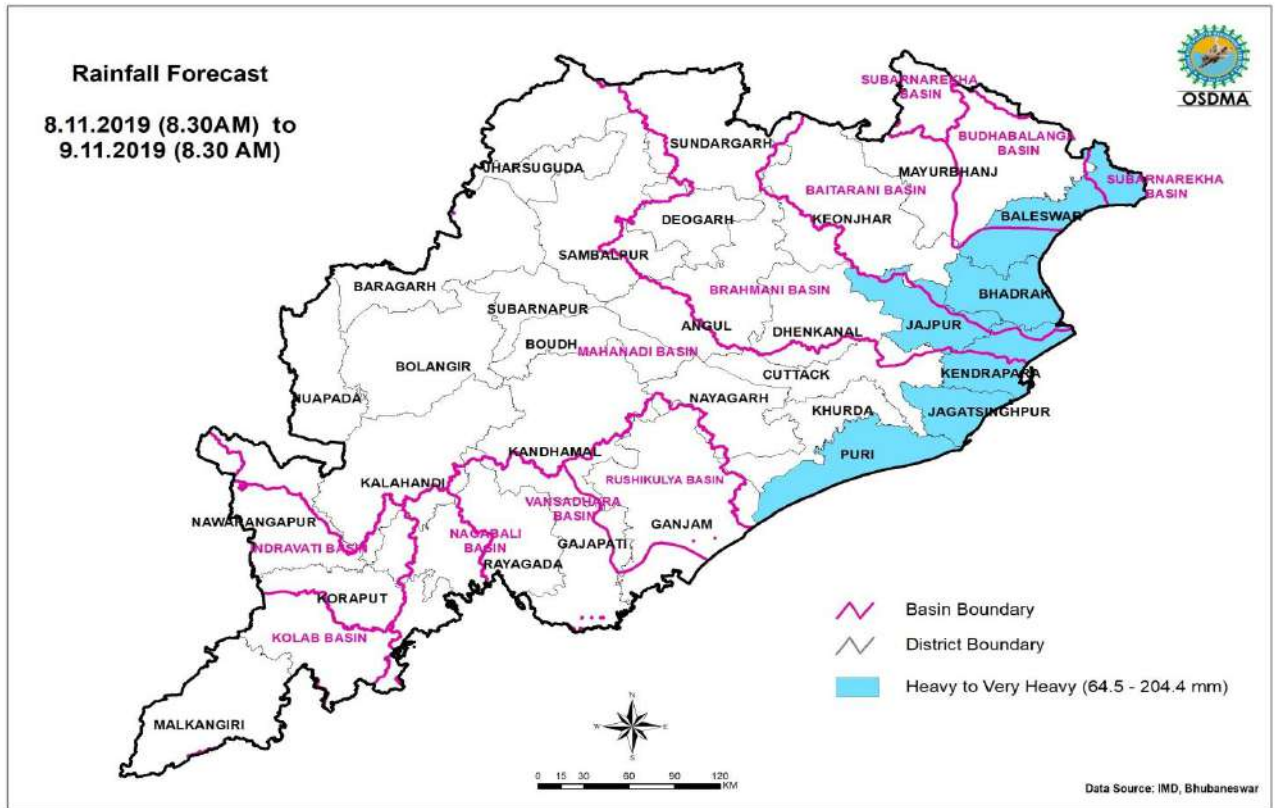




On 9.11.2019, the Very Severe Cyclonic Storm 'Bulbul' over northwest Bay of Bengal continued to move nearly northwards with a speed of 09 kmph during past 06 hours, and lay centred at 1430 hrs IST of today, the 9th November 2019, over northwest Bay of Bengal, near Lat.20.9°N and Long. 87.9°E about 140 km east-northeast of Paradip (Odisha), 85 km south of Sagar Islands (West Bengal), 120 km east of Chandbali, 120 km south-southeast Balasore, 90 km south-southeast of Digha, 185 km south-southwest of Kolkata and 270 km west-southwest of Khepupara (Bangladesh). It would very likely to weaken gradually, move northeastwards and cross West Bengal - Bangladesh Coasts between Sagar Islands (West Bengal) and Khepupara (Bangladesh), across Sunderban delta by late evening/ night (between 2000 & 2300 hours IST) of 9th November as a Severe Cyclonic Storm with maximum sustained wind speed of 110-120 Kmph gusting to 135 Kmph.



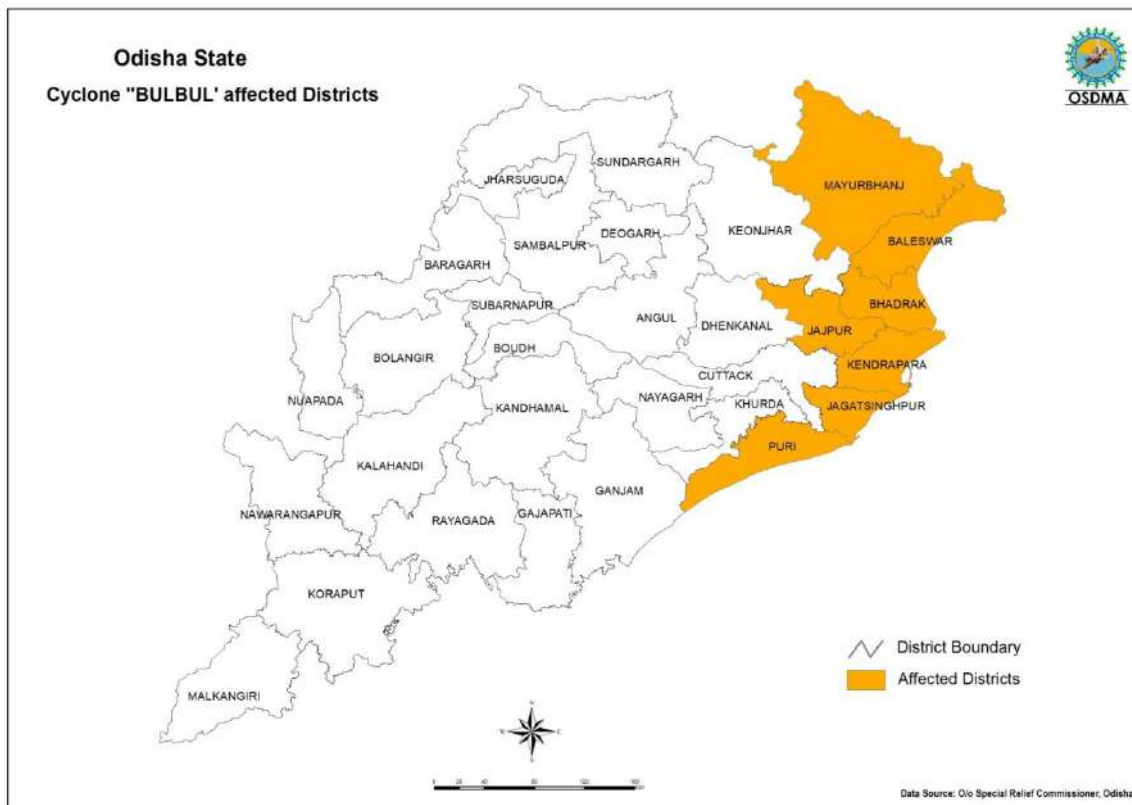
IMD issued the rainfall warnings for the Odisha. The rainfall prediction with colour code was given by IMD in its bulletin. Maps were prepared in GIS platform and shared to the districts for taking further action.



## CHAPTER – III

### Occurrence & Intensity

Due the cyclone, Gale wind speed reaching 70-80 kmph gusting to 90 kmph was experienced along & off Kendrapara, Jagatsinghpur, Balasore, and Bhadrak districts on 9.11.2019. Puri and Ganjam districts experienced squally wind speed reaching 40-50 kmph gusting to 60 kmph. Wind speed of 110 kmph was recorded at Dhamara.

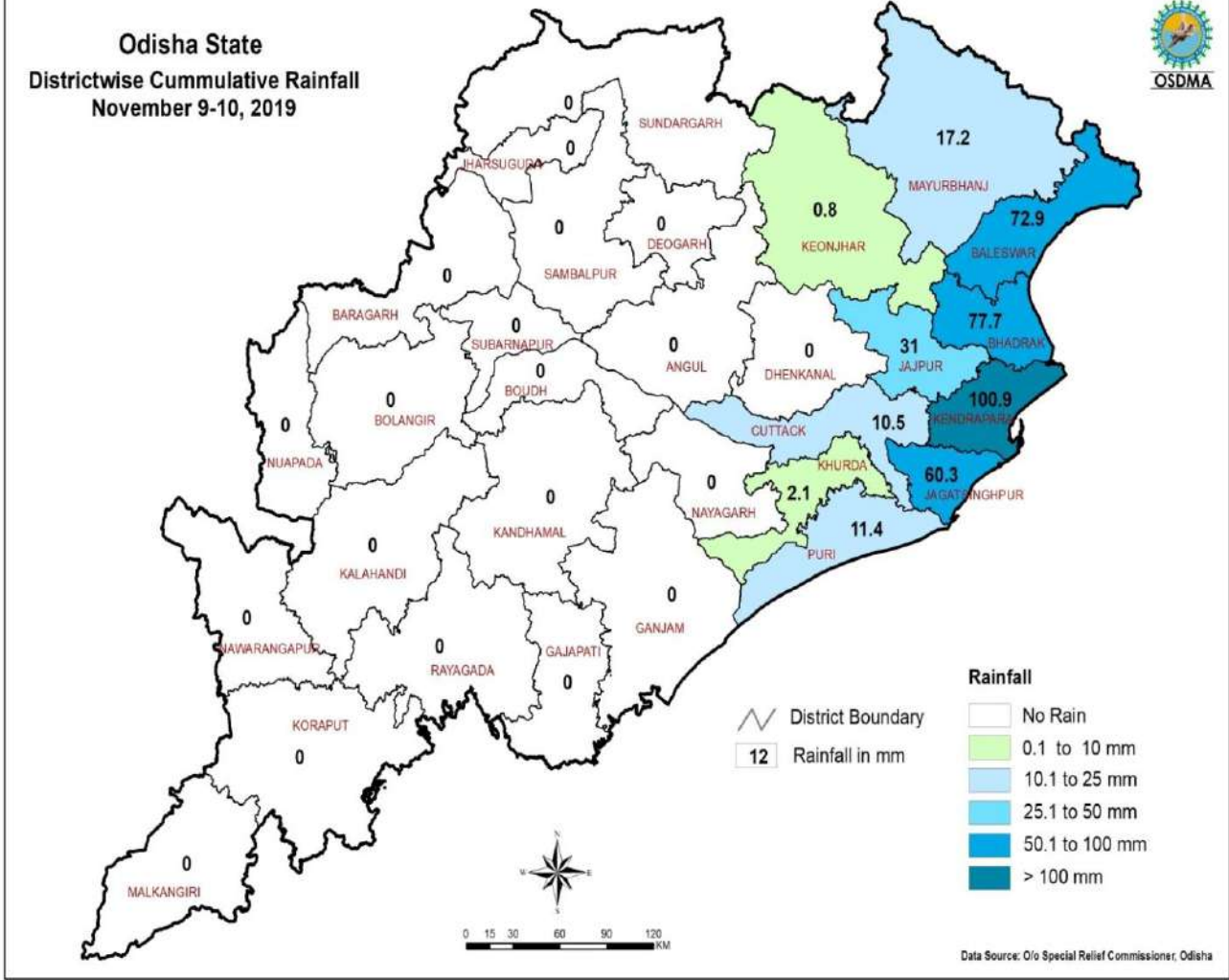


#### Rainfall:

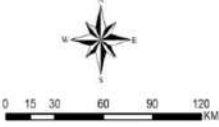
Under the impacts of cyclone, heavy rainfall was experienced in different Blocks of Kendrapara, Bhadrak, Jagatsinghpur, Balasore, Jajpur, Puri, Cuttack, and Mayurbhanj districts. In these districts, at least 8 Blocks recorded rainfall of more than 100 mm and 25 more Blocks rainfall between 50 mm and 100 mm during 2 days 9.11.2019 and 10.11.2019.

<b>RAINFALL STATUS OF THE SIX DISTRICTS</b>					
<b>9.11.2019 and 10.11.2019</b>					
<b>(Rainfall in mm.)</b>					
<b>Sl. No.</b>	<b>District</b>	<b>Block/ Station</b>	<b>DATE</b>		<b>Total</b>
			<b>9.11.2019</b>	<b>10.11.2019</b>	
<b>Rainfall of 50 mm and above</b>					
1	Kendrapara	Rajnaragar	180.0	34.0	214.0
2	Bhadrak	Chandbali	150.1	28.7	178.8
3	Kendrapara	Rajkanika	136.0	39.0	175.0
4	Balasore	Bhogarai	52.2	86.0	138.2
5	Kendrapara	Aul	89.0	41.0	130.0
6	Jagatsinghpur	Tirtol	100.0	15.0	115.0
7	Balasore	Baliapal	51.0	56.0	107.0
8	Kendrapara	Mohakalpara	75.0	30.0	105.0
9	Jajpur	Binjharpur	51.0	39.2	90.2
10	Bhadrak	Bhadrak	72.0	18.0	90.0
11	Jagatsinghpur	Kujanga	64.0	23.0	87.0
12	Jagatsinghpur	Erasama	81.0	6.0	87.0
13	Balasore	Jaleswar	41.0	45.0	86.0
14	Bhadrak	Dhamnagar	35.0	50.0	85.0
15	Balasore	Nilagiri	48.0	25.0	73.0
16	Bhadrak	Basudevpur	45.0	28.0	73.0
17	Balasore	Balasore	35.0	37.0	72.0
18	Balasore	Basta	32.0	39.0	71.0
19	Mayurbhanj	Betanati	34.0	36.0	70.0
20	Balasore	Remuna	40.0	27.0	67.0
21	Kendrapara	Pattamundai	37.0	30.0	67.0
22	Balasore	Bahanaga	41.0	22.0	63.0
23	Jajpur	Bari	45.0	16.0	61.0
24	Mayurbhanj	Morda	33.0	28.0	61.0
25	Kendrapara	Derabis	44.0	16.0	60.0
26	Kendrapara	Garadapur	46.0	14.0	60.0
27	Jagatsinghpur	Balikuda	56.0	3.0	59.0
28	Jajpur	Dasarathpur	40.4	18.0	58.4
29	Balasore	Soro	33.0	24.0	57.0
30	Kendrapara	Marshaghai	44.0	9.0	53.0
31	Mayurbhanj	Suliapada	18.0	34.5	52.5
32	Balasore	Khaira	32.0	20.0	52.0
33	Bhadrak	Tihidi	29.0	21.0	50.0

# Odisha State Districtwise Cummulative Rainfall November 9-10, 2019

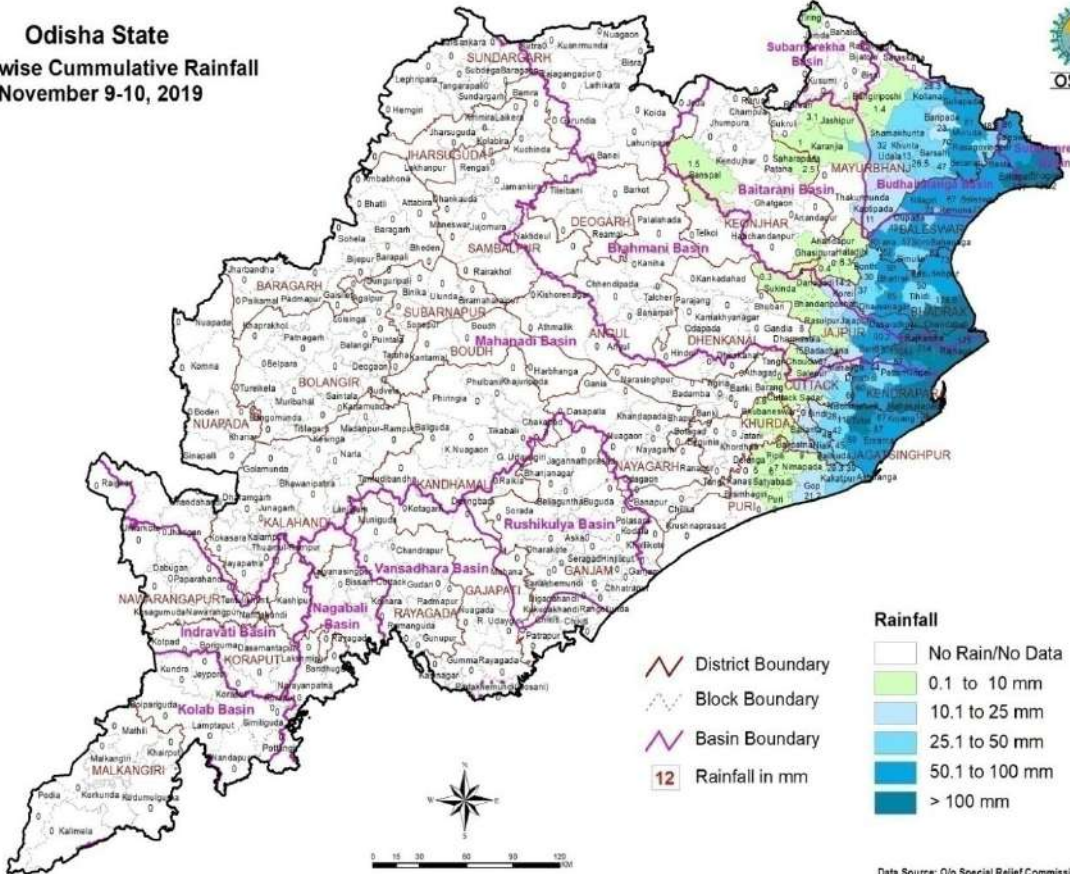


12 District Boundary  
Rainfall in mm



Data Source: O/o Special Relief Commissioner, Odisha

**Odisha State**  
**Blockwise Cumulative Rainfall**  
**November 9-10, 2019**



## **CHAPTER – IV**

### **Preparedness**

Soon after receipt of warning from IMD and analysis of forecasts, the State Government took all required preparedness measures to combat the possible situation. Different measures undertaken are briefly indicated below.

1. Detailed instructions were issued to the Collectors of the coastal and adjoining districts such as Ganjam, Puri, Jagatsinghpur, Kendrapada, Bhadrak, Balasore, Khordha, Cuttack, Jajpur and Mayurbhanj to keep the administrative machinery fully prepared to meet the possible situation on account the impending cyclone 'Bulbul'. District Administrations of other districts were kept on alert to meet any eventuality.
2. Collectors of coastal districts were instructed to make advance arrangements to identify people living in kutcha houses and low lying areas in vulnerable conditions and evacuate them to safe shelters and to provide them adequate food, safe drinking water, lighting, health and sanitation facilities at the shelters/ relief camps.
3. Cyclone and flood shelters in the coastal districts were kept in readiness for sheltering people.
4. The departments in charge of roads were instructed to make advance arrangements for cutting of fallen trees and clearance of roads.
5. Advance arrangements were made by the concerned department for immediate restoration of electricity supply.
6. Collectors and concerned departments were instructed to make advance back-up power arrangement (generator with adequate fuel) in the different offices including health and other lifeline institutions.
7. Advisory was issued to the fishermen not to venture into the sea from 8<sup>th</sup> November and the fishermen on sea to return to the shore by 7<sup>th</sup> evening positively. The officials Fisheries & ARD Department camped at the fishing harbours/ fish landing centres and ensured implementation of the said



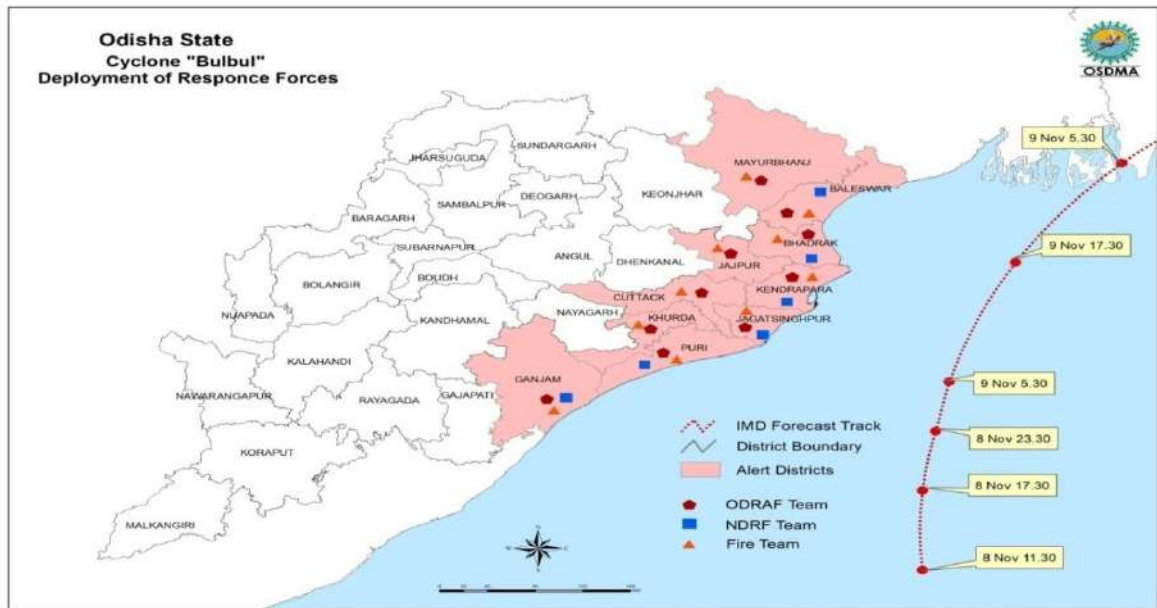
instructions in coordination with the Fishermen Associations. All 19,653 fishing trawlers and boats returned to base by 7<sup>th</sup> November, 2019.

8. Detailed crop advisory issued by the Agriculture & FE Department/ OUAT for the farmers to save the paddy and other crops and the same was disseminated through media as well as Agriculture and Horticulture field officials. Mike announcements were made to communicate the advisory to the farmers.
9. Schools and Anganwadi Centres of the districts likely to be affected were closed on 8<sup>th</sup>/ 9<sup>th</sup> November 2019.
10. District Emergency Operation Centres in all the districts and control rooms of different departments were made functional round the clock.
11. People were advised through media to remain indoor and beach movement were restricted during the cyclone.

#### **Deployment of Disaster Response Force:**

20 Units of ODRAF, 6 Units of NDRF and 150 Units of Fire Service Teams were prepositioned in the districts for search & rescue operation. The details of deployment are indicated below.

<b>Sl. No</b>	<b>District</b>	<b>ODRAF</b>	<b>NDRF</b>	<b>Fire Services</b>	<b>Total</b>
1	Puri	2	1	25	18
2	Jagatsinghpur	2	1	18	21
3	Kendrapara	2	1	20	23
4	Jajpur	2	1	22	25
5	Cuttack	2	0	0	2
6	Khordha	2	0	0	2
7	Bhadrak	2	1	16	19
8	Balasore	2	1	23	26
9	Mayurbhanj	2	0	0	2
10	Ganjam	2	0	0	2
	<b>Total</b>	<b>20</b>	<b>6</b>	<b>124</b>	<b>150</b>



### Review Meetings:

1. Special Relief Commissioner & Principal Secretary, Disaster Management reviewed the preparedness measures undertaken by the district authorities through video conferencing with Collectors of Balasore, Bhadrak, Kendrapara, Jajpur, Jagatsinghpur, Cuttack, Puri, Khordha and Mayurbhanj on 6.11.19 .
2. Chief Secretary reviewed the situation and status of preparedness for the impending cyclone with Secretaries of Departments on 7.11.2019.
3. Cabinet Secretary, Govt. of India reviewed the situation through video conferencing with the Chief Secretary & Special Relief Commissioner during 7<sup>th</sup> to 11<sup>th</sup> November.

## CHAPTER – V

### Response

#### Evacuation/ Free Kitchen:

As many as 11,458 people were evacuated from vulnerable areas and sheltered in 100 relief camps. They were provided with dry food, drinking water and free kitchen. Besides this Chuda, Gud, Biscuits, matchbox and candle were provided. District wise details of evacuation and relief camps are indicated below.

Sl. No.	Name of the affected district	No. of Relief camps	No. of People accommodated per day in the relief camps
1	Balasore	5	1208
2	Bhadrak	19	1025
3	Jagatsinghpur	16	576
4	Kendrapara	59	8477
5	Mayurbhanj	1	172
<b>Total</b>		<b>100</b>	<b>11,458</b>

#### Administration of Emergent Relief:

Sl. No.	District	Chuda (in Qtl)	Gur (in Qtl)	Polythene distributed (in pcs)	Other material
1	Balasore	6.0	0.60	563	
2	Bhadrak	2.19	0.22	0	
3	Jagatsinghpur	0.50	0.05	0	Biscuit- 200pkt Milk powder- 256pkts.
4	Mayurbhanj	0.27	0.07	150	Biscuit- 110pkt, Candles- 5 pkt
<b>Total</b>		<b>8.96</b>	<b>0.94</b>	<b>713</b>	

#### Ariel Survey by Hon'ble Chief Minister:

Hon'ble Chief Minister conducted an aerial survey of the cyclone affected districts on 11.11.2019.

### **Package of assistance for Bulbul victims:**

Hon'ble Chief Minister after review of the progress of restoration through a video conferencing with Collectors of affected districts on 11.11.2019, announced a Special Package for the victims of Cyclone Bulbul. He directed the Collectors to complete the assessment of damage by 18.11.2019 and complete the disbursement of assistance to eligible victims by 24.11.2019. He also directed the Collectors to ensure all transparency in disbursement.

### **Package**

To ameliorate the suffering of the affected people, the State Government have decided to implement the following package:

#### **Agriculture Sector:**

1. Agriculture input subsidy will be provided to the small and marginal farmers who have sustained crop loss of 33% and above @Rs. 6,800/- per hectare of land in rain fed/non irrigated areas, Rs.13,500/- per hectare of land in areas under assured irrigation, and Rs.18,000/- per hectare for all types of perennial crops. Perennial crops will include mango, cashew, coconut, betel vine, etc. The assistance shall be provided to the actual cultivators.

[Action: SRC / Agriculture & FE Department]

2. Agricultural input subsidy to any affected farmer shall not be less than Rs.2,000/- for perennial crops and Rs.1,000/- for other crops.

[Action: SRC]

3. 50,000 seed minikits of pulses and oilseeds shall be supplied to the affected farmers during Rabi 2019-20.

[Action: Agriculture & FE Department]

4. 45,000 acres of demonstration programmes of different crops will be taken up in affected districts in the Rabi season.

[Action: Agriculture & FE Department]

5. 3,000 sprayers will be made available to the affected farmers in the cyclone affected areas at a subsidy of 50% limited to maximum of Rs.3800/- for battery operated sprayers and Rs.750/- for hand operated sprayers.

[Action: Agriculture & FE Department]

6. 10,000 nos. of vegetable minikits shall be supplied to the affected farmers during Rabi 2019-20.

[Action: Agriculture & FE Department]

7. An incentive of Rs.15,000 per farmer will be provided to 30 units for repair and renovation of betel vine cultivation (*Pan Baraja*).

[Action: Agriculture & FE Department]

8. Rs.40,000/Unit will be provided for repair and renovation of shade net/thatched structure for restoration of Mushroom Units to 50 units.

[Action: Agriculture & FE Department]

9. Immediate steps will be taken to arrange and distribute quality seeds and other inputs in sufficient quantity for the Rabi season.

[Action: Agriculture & FE Department]

10. Expeditious steps will be taken to conduct crop cutting experiments to settle the claims of the affected insured farmers under crop insurance scheme (PMFBY).

[Action: Agriculture & FE Deptt./ Cooperation Dept./ P &C Dept.]

#### **Farm Credit:**

11. Short Term Rabi Loans advanced in the affected areas during Rabi 2019 having crop loss of 33% and above shall be converted into Medium Term (Conversion) Loans.

[Action: Cooperation Department]

#### **Animal Resources Development Sector:**

12. Assistance to farmers for replacement of animals - Assistance shall be provided towards loss of animals @Rs.30,000/- per milch cow and buffalo,

Rs.25,000/- per draught animal (upto 3 animals), Rs.16,000/- per calf (upto 6 animals), Rs.3,000/- per goat/ sheep (upto 30 animals), Rs.50/- per poultry bird (maximum Rs.5,000/-).

(Action: SRC /F & ARD Department)

**Fisheries sector:**

13. Assistance to the Fishermen for loss/ damage of Boat & Net: Financial assistance @ Rs.4,100/- for repair of partially damaged boats, Rs.2,100/- for repair of partially damaged net, Rs.9,600/- for replacement of fully damaged boat and Rs.2,600/- for replacement of fully damaged net will be provided to the affected fishermen.

(Action: F & ARD Department)

14. Assistance for repair of Fish Farms/ Fish Seed Farms: Financial assistance of Rs.12,200/- per ha. shall be provided for de-silting, restoration of fish farms. Input subsidy @Rs.8,200/- per ha. shall be provided for damaged fish seed farms.

(Action: F & ARD Department)

**Repair/ Restoration Activities:**

**Clearance of Roads:**

Sl. No.	District	No. of Road Blocked	No. of Road Cleared
1	Kendrapara	15	15
2	Bhadrak	156	156
3	Balasore	13	13
4	Jagatsinghpur	25	25
5	Jajpur	3	3
	<b>Total</b>	<b>212</b>	<b>212</b>

**Restoration of Power:**

<b>Sl. No.</b>	<b>District</b>	<b>Consumers affected</b>	<b>Electricity restored</b>
1	Balasore	487448	487448
2	Jagatsinghpur	120181	120181
3	Bhadrak	279488	279488
4	Kendrapara	273000	273000
5	Mayurbhanj	112792	112792
6	Jajpur	189400	189400
	<b>Total</b>	<b>1462309</b>	<b>1462309</b>

**Restoration of Water Supply:**

<b>Sl. No.</b>	<b>District</b>	<b>PWS affected (nos.)</b>	<b>PWS operationalized (nos.)</b>
1	Bhadrak	124	124
2	Balasore	457	457
3	Kendrapara	72	72
	<b>Total</b>	<b>653</b>	<b>653</b>

## CHAPTER – VI

### Impact & Damages

#### Area and Population affected:

Sl. No.	Name of the District	No. of Blocks affected	No. of ULBs affected	No. of Villages affected	Population affected	No. of Persons injured
1	Balasore	12	4	1069	5,16,900	0
2	Bhadrak	7	4	1300	5,50,000	0
3	Jagatsinghpur	8	2	1321	11,36,971	0
4	Jajpur	4	1	569	81,516	0
5	Kendrapara	9	2	1592	15,22,901	6
6	Mayurbhanj	10	0	734	293	2
	<b>Total</b>	<b>50</b>	<b>13</b>	<b>6585</b>	<b>38,08,581</b>	<b>8</b>

#### Livestock affected:

A total of 27344 large animals, 3894 small animals and 6125 poultry birds were affected due to cyclone "Bulbul". The district wise details are given below.

Sl. No	District	No. of Livestock Affected			
		Large Animal	Small Animal	Poultry	Total
1	Bhadrak	978	314	125	<b>1417</b>
2	Kendrapara	26366	3580	6000	<b>35946</b>
	<b>Total</b>	<b>27,344</b>	<b>3,894</b>	<b>6,125</b>	<b>37,363</b>

#### House Damage:

Sl. No.	Name of the affected District	No. of Houses Damaged					Cowshed damaged	G. Total
		Fully/ Severely Pucca and Kutcha	Partly Damaged pucca house	Partly Damaged Kutcha house	Hut damaged	Total		
1	Balasore	3	2	546	12	563	6	569
2	Bhadrak	3	0	2,359	12	2,374	22	2,396
3	Jagatsinghpur	0	0	31	0	31	1	32



4	Kendrapara	0	428	4183	958	5569	1435	7004
5	Mayurbhanj	0	0	147	3	150	0	150
	<b>Total</b>	<b>6</b>	<b>430</b>	<b>7,266</b>	<b>985</b>	<b>8,687</b>	<b>1464</b>	<b>10,151</b>

### Crop Damage:

Agriculture crops especially paddy crop, which was at flowering, milking, panicle emerging, early maturity and maturity stage and horticulture crops in the six districts have suffered severe damage due to cyclonic wind and heavy rainfall. The district wise crop loss is detailed below.

Sl. No.	Name of affected District	Total agricultural area affected (In ha.)	Total Agricultural area where crop loss is > 33% (in ha.)
1	Balasore	28,542.20	28,542.20
2	Bhadrak	67,166.21	63,730.21
3	Jagatsinghpur	9077.00	6,751.00
4	Jajpur	38,398.00	25,701.00
5	Kendrapada	72,007.00	40,110.00
6	Mayurbhanj	7,305.74	4,423.74
	<b>Total</b>	<b>2,22,496.15</b>	<b>1,69,258.15</b>

### Loss of livestock:

10 no. of large milch animals, 4 no. of small draught animals, 5 no. of small milch animals and 429 poultry birds have perished due to the Cyclone. The district wise details are given bellow.

Sl. No.	Name of the District	No of Livestock / Birds lost					
		Milch Animal		Draught Animal		Poultry Birds	Total
		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		
1	Bhadrak	3	2	0	3	389	397
2	Kendrapara	7	3	0	1	40	51
	<b>Total</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>429</b>	<b>448</b>

### Damage to Fishery Sector:

The Severe Cyclonic Storm "Bulbul" has caused severe damage to the fishing boats and nets in Kendrapara, Jagatsinghpur, Balasore and Bhadrak districts. 3.7 hect. of fish seed farm has also been damaged. The district wise details are given below.

Sl. No	District	No. of Boats fully damaged	No. of boats partially damaged	No. of nets fully damaged	No. of nets partially damaged	Fish seed farm damage	
						Nos.	Area (Ha.)
1	Balasore	1	0	0	0	0	
2	Bhadrak	1	1	0	0	0	
3	Kendrapara	67	125	36	48	17	
4	Jagatsinghpur	0	8	0	0	0	
	<b>Total</b>	<b>69</b>	<b>134</b>	<b>36</b>	<b>48</b>	<b>17</b>	
						<b>3.7</b>	

### Total loss/ damage to Private and Public Properties:

Sl.	Departments	Quantity	Loss (Rs. in lakh)
<b>1</b>	<b>Water Resources Department</b>		
	Damage to Lift Irrigation Projects	92 Nos.	150.63
	Damage to Cluster Shallow Tube Well	2 Nos.	11.00
	<b>Total</b>		<b>161.63</b>
<b>2</b>	<b>Works Department</b>		
	Clearance of Debris		3.22
	<b>Total</b>		<b>3.22</b>
<b>3</b>	<b>Rural Development Department</b>		
	Damage to Residential Buildings	5 Nos.	7.50
	RD Dept. Buildings	2 Nos.	9.00
	Revenue Dept. Buildings	4 Nos.	7.00
	PHC Buildings	1 Nos.	1.50
	School Buildings	14 Nos.	43.00
	Other Infrastructure	1 Nos.	1.00
	Damage to road/ embarkment including breaches	4.00 kms	60.00

	Damage to CD/ Bridges	1 No.	10.00
	Clearance of Debris		22.08
	<b>Total</b>		<b>161.08</b>
<b>4</b>	<b>Housing &amp; Urban Development Department</b>		
	Damage to Roads	16.33 Kms.	100.00
	Damage to Drainage	0.8 Kms.	8.00
	Damage to Culverts	7 Nos.	16.20
	Clearance of debris		1.65
	Operation of Free Kitchen		0.77
	<b>Total</b>		<b>126.62</b>
<b>5</b>	<b>Panchayati Raj &amp; DW Department</b>		
	Repair of Anganwadi Centres	613 Nos.	1010.53
	Damage to GP/ PS Building & Community Hall	123 Nos.	199.51
	Damage to Primary School Buildings	1243 Nos.	2264.02
	Damage to GP/ PS roads	1499 nos	2272.35
	<b>Total</b>		<b>5746.41</b>
<b>6</b>	<b>Energy Department</b>		
	Damage to Conductor (HT/ LT)	336 Kms	338.75
	Damage to Distribution Transformer	126 Nos.	135.62
	Damage to Poles (HT/ LT)	1523 Nos.	86.36
	Power Transformer damaged	1 No.	65.33
	<b>Total</b>		<b>626.05</b>
<b>7</b>	<b>Agriculture &amp; FE Dept.</b>		
	Damage to Plantation	10 Hacts.	4.00
	Damage to Avenue Plantation	9571 plants	25.84
	<b>Total</b>		<b>29.84</b>
	<b>Total (Public Properties)</b>		<b>6854.85</b>
<b>8</b>	<b>Pure Relief Items</b>		
	Ex-gratia payment to the injuries persons	8 Nos.	0.51
	Clothing & Utensils	8 Nos.	0.30
	Cost of evacuation, search & Rescue measure		10.00
	Temporary shelter		11.41
	Emergence supply of drinking water		2.50
	Agriculture input subsidy-SMF	169258.15Ha.	15197.56

	Replacement of milch/ draught animals		4.00
	Provision of cattle health care	312 Nos.	15.60
	Assistance to fisherman	287 Nos.	14.06
	Input subsidy-FISH seed farm	3.70 Ha.	0.30
	House building assistance	10151 Nos.	331.71
	<b>Total</b>		<b>15587.95</b>
	<b>Grand Total</b>		<b>22442.80</b>

## **CHAPTER – VII**

### **Assistance Sought For**

**Ex-gratia Payment to the grievous injuries persons:** *[Item -1(c) of SDRF Norms]*.

Eight Persons (Kendrapara-6, Mayurbhanj-2) were grievously injured due to cyclone out of which 2 were hospitalised for a period exceeding 7 days and 6 others for less than a week. The requirement of funds for the purpose comes to **Rs.0.51 lakh**.

**Clothing and utensils for families:** *[Item -1 (d) of SDRF Norms]*

Eight families whose houses have been washed away/ fully damaged or severely inundated for more than 2 days are to be provided with clothing and utensils as per the SDRF Norms. An amount of **Rs. 0.304 lakh** is required for the purpose.

**Gratuitous Relief for affected people:** *[Item -1 (e) of SDRF Norms]*

8.96 qtl of chuda, 0.94 qtl gur , 310 pkts of biscuit and 256 pkts of milk power have been provided to the affected people for immediate need. The total expenditure incurred towards providing gratuitous relief comes to **Rs 0.40 lakh**.

**Cost of Search, Rescue and Evacuation of affected people:** - (Item 2(a) of revised SDRF norms)

20 units of ODRAF, 6 teams of NDRF and 124 Fire Service teams were deployed in the vulnerable/ affected areas for search & rescue operation and for post cyclone relief line clearance. 11458 people were evacuated and placed in cyclone/ flood shelters as well as school buildings. Nearly **Rs. 10.00 lakh** has been spent on deployment of response forces, use of vehicles and ancillary expenditure for evacuation of the people.

**Provision for temporary accommodation, food, clothing and medical care:**

*[Item -3(a) of revised SDRF Norms]*

a) 100 nos. of relief camps were opened to accommodate **11458** people. An amount of **Rs.9.87 lakh** has been spent towards cost of providing temporary

accommodation, food, clothing and medical cares in the relief camps. The district-wise detail is given in **Appendix- III**.

b) 713 families whose kutcha houses and huts have been damaged were provided with polythene sheets for use as temporary shelter materials. The total amount spent for 713 polythene sheets @ Rs.1600/- per family comes to **Rs.11.41 lakh**.

**Emergency supply of drinking water in rural areas and urban areas** [*Item -3 (c) of SDRF Norms*]

8 nos. of water tankers were engaged for emergency supply of drinking water in the cyclone affected areas. An amount of **Rs.2.50 lakh** have been spent for the purpose.

**Clearance of Debris in the public areas:** (Item 4(a) of SDRF norm)

An amount of **Rs.26.95 lakh** has been spent by the concerned departments for clearance of debris from public places in the cyclone affected areas.

**Agriculture input subsidy to Small and Marginal Farmers where crop loss is 33% and above:** [*Item -5(i)B of SDRF Norms*]

Out of 222496.15 hectares of affected arable land, 169258.15 hectares of cropped area have sustained crop loss to the extent of 33% and above. An amount of **Rs.15197.56 lakh** is required for providing agriculture input subsidy to the affected farmers. The District wise requirement of funds is given under **Appendix-IV**.

**Replacement of draught & milch animals:** [*Item -6(i) of Revised SDRF Norms*]

14 nos. of large animals and 5 nos. of small animals and 429 poultry birds have been reported dead due to Cyclone. The total expenditure for replacement of these animals along with poultry birds as per the norms and guidelines of SDRF comes to **Rs.4.01 lakh**. The detailed calculation is given at **Appendix-VI**.

**Animal Health Camp:**

In order to reduce morbidity and mortality of the livestock, it is essential to organise Animal Health Camps for rendering curative health care services in the

cyclone affected areas. 312 nos. of animal health camps at every affected GPs were organised. For this purpose, **Rs.15.60 lakh** has been spent.

**Assistance to fishermen:** *[Item -7(i) of Revised SDRF Norms]*

69 nos. of boats, 36 nos. of nets have been fully damaged and 134 nos. of boats, 48 nos. of nets have been partially damaged due to cyclone. An amount of **Rs.14.06 lakh** is required for providing assistance to the affected fishermen.

**Input subsidy for fish seed farms:** *[Item -7(ii) of SDRF Norms]*

3.7 hectares of fish seed farms have been damaged due to this cyclone. The requirement for providing input subsidy @Rs 8200/- per hectare comes to **Rs.0.30 lakh**.

**Assistance for repair / restoration of damaged houses:** *[Item -9 of revised SDRF Norms]*

6 pucca and kutcha houses have been fully/ severely damaged due to the cyclone. Besides, 430 pucca houses and 7266 kutcha houses have been partially damaged. Similarly, 985 huts and 1464 cowshed attached to houses have been damaged. An amount of **Rs.331.71 lakh** is required for providing assistance for repair/ restoration of the damaged houses of affected people. The detailed requirement of fund as per SDRF/ NDRF Norms is given in **Appendix- VII**.

**Repair/ restoration of immediate nature of the damaged infrastructure in eligible sectors:** - *[Item -10 of revised SDRF Norms]*

**Roads and bridges**

4.00 Km of Rural Roads & one culvert have been damaged due to cyclone associated with heavy rain. Besides, 16.33 Km of urban roads, 0.8 Km of drainage channel and 7 numbers of culverts have been damaged. Similarly 1499 nos. of Panchayat roads have been damaged. An amount of **Rs. 2458.55 lakh** is required for immediate repair and restoration of the above damage.

**Community Assets owned by Panchayat**

Community Assets like 613 Anganwadi centres, 1243 primary school buildings and 123 Panchayat Ghar/ Community Buildings have been badly damaged due to

this cyclone. An amount of **Rs.3474.06 lakh** is required for repair/ restoration of these buildings.

### **Repair and restoration of power supply**

126 nos. of distribution transformers, 336 km of conductors, 1523 nos. of poles up to 11 KV have been damaged due to cyclone. **Rs.354.92 lakh** is required for immediate restoration of power supply in the affected areas.

<b>ASSISTANCE SOUGHT FOR</b>		
<b>Sl. No.</b>	<b>Item</b>	<b>Amount required/spent (Rs. in lakh)</b>
1	Ex-gratia Payment to the grievous injuries persons	0.51
2	Clothing & Utensils	0.30
3	GR kind cost of chuda & gur	0.40
4	Cost of evacuation, search & rescue measure	10.00
5	Temporary shelter	11.41
6	Emergence supply of drinking water	2.50
7	Clearance of debris	26.95
8	Agriculture input subsidy-SMF	15197.56
9	Replacement of Milch/ Draught animals	4.00
10	Provision of cattle health care	15.60
11	Assistance to fisherman	14.06
12	Input subsidy-Fish seed farm	0.30
13	HB assistance	331.71
14	Repair of Roads & Bridges	2458.55
15	Repair of GP Building/ Panchayat Ghar owned by Panchayat	199.51
16	Repair of PHC/CHC buildings	1.50
17	Repair of Primary/ Secondary School Buildings	2264.02
18	Repair of Anganwadi Centres	1010.53
19	Restoration of Power supply	354.92
	<b>Grand Total</b>	<b>21904.33</b>



### **Visit of Central Team:-**

An Inter-Ministerial Central Team led by Ms. Saheli Ghosh Roy, Joint Secretary (CIC), Ministry of Home Affairs, Government of India visited the State from 14.11.2019 to 16.11.2019 for an on the spot assessment of the damages and requirement of assistance in the wake of Very Severe Cyclonic Storm "Bulbul" in November,2019.

The Central Team visited the cyclone affected areas of Bhadrak, Jagatsinghpur, Kendrapara districts.

## CHAPTER- VIII

### State Disaster Response Fund

#### Status of Expenditure from State Disaster Response Fund (SDRF) Account

(As on 23.12.2019)

Year – 2019-20

State – Odisha

(Rs. in crore)

Sl. No.	Item	Amount
	<b>(I) Receipts</b>	
	Opening balance in SDRF account as on 1.4.2019	
1.	(a) SDRF	447.52
	(b) NDRF	0.00
	(c) Total	447.52
2	SDRF Releases made during instant financial year ( Central and State share)	
	(a) First instalment	378.75
	(b) Second instalment	234.58
	(c) Total	613.33
3	NDRF releases during the instant financial year, if any	3114.46
4	Interest received on investments made as per the CRF scheme	0.00
5	<b>Total funds available in the SDRF account(1+2+3+4)</b>	<b>4175.31</b>
	<b>(II) Expenditure</b>	
6	Expenditure incurred as per norms on approved natural calamities as per the scheme of SDRF/NDRF(indicate calamity-wise expenditure)	
	(a) Drought	162.44
	(b) Cyclone	3605.29
	(c) Flood	117.98
	(d) Fire	8.83
	(e) Hailstorm	7.12

	(f) Pest Attack	7.50
	(g) Landslides	0.04
	(h) State Specific disasters	70.56
	(i) Total	3979.76
7	Expenditure incurred on training to specialized Teams of the State personnel	7.33
8	Expenditure incurred on procurement of search and rescue equipment etc.(as per extant approved items)	28.63
9	<b>Total expenditure incurred(6+7+8)</b>	<b>4015.72</b>
10	<b>Balance available in the SDRF ( 5 – 9)</b>	<b>159.59</b>

## CHAPTER – IX

### Conclusion

As per the assessment made by different Departments & the affected Districts of the State, the requirement of funds towards different relief measures and immediate repair and restoration of damaged infrastructure in admissible sectors as per the extant norms of SDRF/ NDRF comes to **Rs. 219.04 crore**.

As indicated in chapter-VIII, a balance of Rs.159.59 crore only is available in the SDRF account of the State as on 23.12.2019.

Therefore, the State Government through this memorandum seeks assistance of **Rs.219.04 crore** from National Disaster Response Fund in order to meet the expenditure towards relief and restoration works.



## Appendix-II

### **Extent of damage due to natural calamities State-Odisha**

Nature and period of natural calamity

S. No.	Item	Details
1	Total number of districts in the state	30
2	Number and names of districts affected	6 (Balasore, Jagatsinghpur, Bhadrak, Kendrapada, Jajpur and Mayurbhanj,)
3	Number of villages affected	6585
4	Population affected (in lakh)	38.09
5	Total land area affected (in lakh ha)	
6	Cropped area affected in ha.	
	(i) Total cropped area affected	2.22
	(ii) Estimated loss to crops	
	(iii) Area in ha. where crop damage was more than 33%	1.69
7	Percentage of area held by SMF:	
	(i) In the State as a whole	70.47
	(ii) In the affected Districts	
8	Houses damaged :-	10,151
	(a) No. of house damaged :-	
	(i) Fully damaged pucca houses	6
	(ii) Fully damaged kutcha houses	
	(iii) Severely damaged pucca houses	
	(iv) Severely damaged kutcha house	
	(v) Partly damaged pucca houses	430
	Partly damaged kutcha houses	7,266
	(vi) No. of huts damaged	985
	(vii) No. of cowshed damaged	1,464
	(b) Estimated value of damage to houses (Rs.in <b>crore</b> )	
9	No. of human lives lost	0

10	No. of persons with grievous injuries	2
11	No. of persons with minor injuries	6
12	Animals lost:-	
	(a) No. of big animals lost	14
	(b) No. of small animals lost	5
	(c) No. poultry (birds) lost	429
13.	Damage to public proprieties:- (a) In physical terms (sector wise details should be given – e.g. length of State roads damaged, length of district roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.)	Details given in Chapter- VI
	(b) Estimated value of the damage to public properties.	<b>Rs. 6854.85 lakh</b>
14.	Estimated total damage to houses, crops and public properties.	<b>Rs. 22442.80 lakh</b>

### Appendix-III

<b>Assistance for Provision of Temporary Accommodation, food, clothing medical care etc. of the people affected/evacuated (Operation of Relief Camps)</b>									
Sl. No.	Name of the affected district	No. of Relief camps	Average duration of operation of relief camps	Average No. of People accommodated per day in the relief camps	Expenditure incurred on (Rs. In Lakhs)				
					Temporary accommodation	Food	Medical care	Other essential items (to be specified)	Total
1	2	3	4	5	6	7	8	9	10
1	Balasore	5	1	1208	0	0.62465	0	0	0.62
2	Bhadrak	19	1	1025	0	0.71920	0	4500	0.76
3	Jagatsinghpur	16	2	576	0	0.73820	0	78970	1.53
4	Kendrapara	59	1	8477	0	6.89478	0	0	6.89
5	Mayurbhanj	1	1	172	0	0.06000	0	220	0.06
<b>Total</b>		<b>100</b>	<b>6</b>	<b>11458</b>	<b>0</b>	<b>903683</b>	<b>0</b>	<b>83690</b>	<b>9.86</b>

## Appendix-IV

### Assistance for agricultural input subsidy for crop loss due to cyclone "Bulbul" -SMF (in Rs.)

Sl.	Districts	Total Agricultural area Affected [in Hect.]	Total agricultural area where crop loss is > 33%	Crop loss 33% & above			Assistance sought for			Total in Rs.
				Rainfed [in hect.]	Irrigated [in hect.]	Perennial	Rainfed @Rs.6800/- per hectare	Irrigated @Rs.13500/- per ha.	Perennial @Rs.18000/ per Hect.	
1	2	3	4	5	6	7	8	9	10	11
1	Balasure	28542.20	28542.20	20566.20	7944.7	31.30	139850160	107253450	563400	247667010
2	Bhadrak	67166.21	63730.21	40372.56	23356.85	0.00	274533408	315317475	0	589850883
3	Jagatsinghpur	9077.00	6751.00	1203.00	5548	0.00	8180400	74898000	0	83078400
4	Jajpur	38398.00	25701.00	14249.00	11452	0.00	96893200	154602000	0	251495200
5	Kendrapara	72007.00	40110.00	33908	6147.5	54.50	230574400	82991250	981000	314546650
6	Mayurbhanj	7305.74	4423.74	4179.44	244.30	0.00	28420192	3298050	0	31718242
	<b>Total</b>	<b>222496.15</b>	<b>169258.15</b>	<b>114478.20</b>	<b>54693.35</b>	<b>85.8</b>	<b>778451760</b>	<b>738360225</b>	<b>1544400</b>	<b>1518356385</b>
	Kendrapara	Mushroom	7 unit (Rajkanika- 5 units & Rajnagar- 2 units) @ 200 sqft/ unit							280000
		Beetelvine	28 units ( MahakalapaDA BLOCK) @ 90.04ha./unit							1120000
	<b>Grand Total</b>									<b>1519756385</b>



## Appendix-VI

### Animal Husbandry (Replacement of Animals)

Sl. No.	Name of the District	No of Livestock / Birds lost					No of animals qualifying for relief grant (i.e., subject to ceiling of 3 large milch animal or 30 small milch animals or 3 large draught animal or 6 small draught animal per household)	Expenditure incurred ( Milch animals @ Rs.30000 for large animal , Rs.3000 for small animals & Draught animals @ Rs 25,000 for large animal, Rs. 16000 for small animals)				Poultry @ 50/- per bird subject to a ceiling of assistance of Rs.5000/- per beneficiary household.	Total expenditure in Rs.			
		Milch Animal		Draught Animal		Poultry Birds		Milch Animal		Draught Animal				Poultry Bird	(12+13+14+15+16)	
		Buffalo / Cow	Sheep / Goat	Camel/ Horse/ Bullock	Calf/ Donkey / Pony			Buffalo / Cow	Sheep / Goat	Camel/ Horse/ Bullock	Calf/ Donkey / Pony					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Balasore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Bhadrak	3	2	0	3	389	3	2	0	3	90000	6000	0	48000	19450	163450
3	Jagatsinghpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Jajpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Kendrapara	7	3	0	1	40	7	3	0	1	210000	9000	0	16000	2000	237000
6	Mayurbhanj	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>429</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>300000</b>	<b>15000</b>	<b>0</b>	<b>64000</b>	<b>21450</b>	<b>400450</b>

## Appendix-VII

### Assistance required towards repair /restoration of damaged houses and clothing & utensils due to cyclone "Bulbul" (in Rs.)

Sl. No	Name of the block./ ULB	Total fully/ Severely damaged pucca/ kutcha house		Partially damaged				Hut damaged		Total		Cow shed damaged		Grand total		Clothing & utensils			
		No. of house damaged	Fund required @ Rs.95100/- or Rs.101900/- per house	Pucca house	Funds required @ Rs.5200/- per house	Kutcha house	Funds required @ Rs.3200/- per house	No. of hut	Funds required @ Rs.4100/- per hut	No. of house damaged (7+9+11+13)	Funds required (8+10+12+14)	No. of cow shed	Cow Shed Damaged @ Rs.2100/- per	House damaged including Cow Shed	Funds required (16+18)	No. of families eligible for the	Assistance required @2000/- for	Assistance required @1800/- for	Total assistance required in Rs.
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No	Amount	No.	Amount	No.	Amount	No	Amount	Amount	Amount
1	2	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Balasore	3	285300	2	10400	546	1747200	12	49200	563	2092100	6	12600	569	2104700	2	4000	3600	7600
2	Bhadrak	3	285300		0	2359	7548800	12	49200	2374	7883300	22	46200	2396	7929500	3	6000	5400	11400
3	Jagatsinghpur	0	0	0	0	31	99200	0	0	31	99200	1	2100	32	101300	0	0	0	0
4	Kendrapara	0	0	428	2225600	4183	13385600	958	3927800	5569	19539000	1435	3013500	7004	22552500	0	0	0	0
5	Mayurbhanj	0	0	0	0	147	470400	3	12300	150	482700	0	0	150	482700	3	6000	5400	11400
	<b>Total</b>	<b>6</b>	<b>570600</b>	<b>430</b>	<b>2236000</b>	<b>7266</b>	<b>23251200</b>	<b>985</b>	<b>4038500</b>	<b>8687</b>	<b>30096300</b>	<b>1464</b>	<b>3074400</b>	<b>10151</b>	<b>33170700</b>	<b>8</b>	<b>16000</b>	<b>14400</b>	<b>30400</b>

## **Appendix-VIII**

**Format for working out the requirements under the head of repair of damaged infrastructure of immediate nature.**

*(Rs.in Lakh)*

<b>Sector</b>	<b>Damage in physical terms</b>	<b>Requirement of funds for repair of immediate nature</b>	<b>Out of (3), amount available from annual maintenance budget</b>	<b>Out of (3), amount available from related Schemes/ programmes / other sources</b>	<b>Out of (3), amount proposed to be met from SDRF/ NDRF in accordance with list of works indicated in the Appendix to the revised items and norms</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b><i>Details given under Chapter- VI</i></b>					

## CHAPTER – X

### Visual Clippings



**(Evacuation)**



**(Free Kitchen)**



**(Free Kitchen)**







