

**2022**

**District Disaster Management  
Plan for the Year 2022-23  
District Name-Cuttack, ODISHA**

**Volume- I**



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## Abbreviation

DDMA- District Disaster Management Authority

DDMP- District Disaster Management Plan

DEOC- District Emergency Operation Centre

HRVA- Hazard Risk and Vulnerability Analysis

ADM -Additional District Magistrate

AWC - Anganwadi Centre

BDO - Block Development officer

BCR - Block Control Room

CCA - Climate Change Adaptation

CDMO - Chief District Medical Officer

CDPO - Child Development Project Officer

CDVO - Chief District Veterinary Officer

CMRF - Chief Ministers Relief Fund

DC - District Collector

DCR - District Control Room

DDMP -District Disaster Management Plan

DDM - District Disaster Manager

DEOC - District Emergency Operation Centre

DRDA - District Rural Development Agency

DSWO – District Social Welfare Officer

DRR - Disaster Risk Reduction

GoI - Government of India

GP - Gram Panchayat

HRVA - Hazard Risk and Vulnerability Assessment

IAY - Indira Aawas Yojana

MO - Medical Officer

NGO - Non-granted Organisation

OSDMA - Odisha State Disaster Management Authority

OIC - Officer In charge

PDS - Public Distribution System

PHC - Primary Health Centre

PWD - Public Works Department

RD - Route Distance

SP - Superintendent of Police

VSO - Veterinary Stock officer

W&CD - Women & Child Development

UNDP - United Nations Development Programme

NIDM - National Institute of Disaster Management

CDKN - Climate & Development Knowledge Network

GEAG - Gorakhpur Environmental Action Group

ISSET - Institute for Social and Environmental Transitions

SLD - Shared Learning Dialogue

# Chapter – I

## Introduction

The district is vulnerable towards natural disasters like; floods, cyclones, droughts, earthquakes, sunstroke, fire accidents and others. These hazards, natural as well as manmade, pose a serious threat to life and livelihood causing loss of life, property and adversely affecting the process of development. The effective disaster management strategy can often be prevented or at least minimized the probable disaster.

Precise actions, procedures and responsibilities have to be laid down well in advance in order to ensure timely response in case of any disaster. Therefore, a mechanism that takes into account multiple hazards and basic preparedness has to be articulated in the form of Quick Response Teams, Quick Assessment Teams, Reporting Procedures, Checklist and Handbooks. The mechanism also lays down crucial parameters, requirements and organizational composition of Emergency Operations Centers and Incident Command Systems.

Under the DM Act 2005, it is mandatory on the part of District Disaster Management Authority (DDMA) to adopt a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary and expedient for prevention as well as mitigation of disasters. These processes are to be incorporated in the developmental plans of the different departments and preparedness to meet the disaster and relief, rescue and rehabilitation thereafter, so as to minimize the loss to be suffered by the communities and are to be documented so that it is handy and accessible to the general public.

**Section 31 of Disaster Management Act 2005 (DM Act) makes it mandatory** to have a disaster management plan for every district. DDMP shall include Hazard Vulnerability Capacity and Risk Assessment (HVCRA), prevention, mitigation, preparedness measures, response plan and procedures.

### 1.1 Aims and Objectives of the DDMP:

*An indicative list with possible plan objectives is given below:*

- I. To mitigate impact of natural and manmade disasters through preparedness at Dit./Block/G.P and Village level
- II. To provide effective support and resources to all concerned individuals, groups and departments in disasters
- III. To assists the Line Departments, Block Administration, communities in developing compatible skills for disasters preparedness and management.
- IV. To disseminate factual information in time
- V. To develop immediate support to the affected people during the disasters
- VI. To create the awareness among the people about hazards and to increase their participation in preparedness, prevention, relief, rehabilitation.
- VII. To identify the areas vulnerable to major types of the hazards in the district.
- VIII. To adopt proactive measures at district level by all the govt. departments to prevent disaster and mitigate its effects.

- IX. To define and assign the different tasks and responsibilities to stakeholders during the pre-disaster and post-disaster phases of the disaster.
- X. To enhance disaster resilience of the people in the district by way of capacity building.
- XI. Reduce the loss of public and private property, especially critical facilities and infrastructure, through proper planning.
- XII. Manage future development to mitigate the effect of natural hazards in the district.
- XIII. To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- XIV. To prepare a response plan based upon the guidelines issued in the State Disaster Management Plan so as to provide prompt relief, rescue and search support in the disaster affected areas.
- XV. To adopt disaster resilient construction mechanism in the district by way of using Information, Education and Communication for making the community aware of the need of disaster resilient future development.
- XVI. To make the use of media in disaster management.
- XVII. Rehabilitation plan of the affected people and reconstruction measures to be taken by different govt. departments at district level and local authority.

The District Disaster Management Plan (DDMP) is the guide for achieving the objective i.e. mitigation, preparedness, response and recovery. This Plan needs to be prepared to respond to disasters with sense of urgency in a planned way to minimize human, property and environmental loss.

## 1.2 Preparation and Approval of DDMP:

### ***Authority for DDMP: Disaster Management Act 2005 (DM Act)***

To provide for effective management of disasters, the Government of India promulgated the Disaster Management Act in December 2005. The Act defines disaster as a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area. The Act further defines disaster management as a continuous and integrated process of planning, organizing, coordinating, and implementing measures, which are necessary or expedient for –

1. Prevention of danger or threat of any disaster;
2. Mitigation or reduction of risk of any disaster or its severity or consequences;
3. Capacity building
4. Preparedness to deal with any disaster;
5. Prompt response to any threatening disaster situation or disaster;
6. Assessing the severity or magnitude of effects of any disaster;
7. Evacuation, rescue and relief;
8. Rehabilitation and reconstruction

**As defined in Section 30 of DM Act 2005, DDMA** shall act as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by the National Authority and the State Authority.

The district Collector will discuss the modalities and seek views for preparation of a holistic plan in the meeting of the DDMA held in the month of January and to prepare the plan by the end of February every year.

After finalisation the District Authority shall send a copy of the District DM plan to the State Disaster Management Authority for approval.

The District Disaster Management Plan should be reviewed and updated annually.

### **1.3 Evolution of DDMP in brief: Evolution, Procedure and Methodology to be followed for preparation of DDMP**

The District Disaster Management Plan (DDMP) has been envisaged as a preparedness plan whereby the receipt of a signal of an impending disaster would simultaneously energise and activate the mechanism for response and mitigation without loss of crucial time. This would be entailing all the participating managers to know in advance the task assigned to them and the manner of response. Identification of available resources including manpower, material, equipment and adequate delegation of financial and administrative powers are prerequisites to successful operation of the DDMP. Hence Cuttack District administration organized several district level orientation meeting for different disasters with all line department heads to sensitize and prepared to tackle any emergency situation.

#### **Who formulates and Carries out the plan in Cuttack District:**

The Disaster Management Plans have been formulated starting from the village level up to the district level. The plan clearly indicates the role and responsibility of each team member.

The Collector in the District level, Sub-Collector in the Sub-Divisional level and the BDO in the Block level will be chief of the team. The Sarpanch plays the key role in GP level and the Community with guidance of Village Disaster Management Committee to carry out this plan in the village level. Civil society organisations also have a vital role during the implementation of this plan in the ground level. A detailed description of the information flow among different components of the plan for better understanding.

The DDMP is in essence, the Standard Operating Procedure (SOP) in which the implementation of efforts on ground is well laid down. Activities such as evacuation, search and rescue, temporary shelter, food, drinking water, clothing, health and sanitation are given prime importance. Communications accessibility and public information, that are important components of disaster management, would follow on the activation of the DDMP. These activities are common to all types of disasters and require subdivision and preparation of sub action plans by each specified authorities. Each sub group has been requested to work out the DDMP mechanism relevant to their group of disasters.

#### **The DDMP requires the disaster managers to;**

- ❑ Evolve an effective signal/warning mechanism
- ❑ Identify activities and their levels
- ❑ Identify sub activities under each activity/level of activity
- ❑ Specify authorities for each level of activity and sub activity
- ❑ Determine the response time for each activity
- ❑ Workout individual plans of each specified authority to achieve activation as per the response time.
- ❑ Have quick response terms for each specified authority
- ❑ Have alternative plans and contingency measures
- ❑ Provide appropriate administrative and financial delegation to make the response mechanism functional viable
- ❑ Undergo preparedness drills.

## Methodology

Lessons from previous disasters show that the best way to mitigate disasters and reduce their impact is through advance preparation and timely action. In some situations, for instance, that are caused by fire; it may even be possible to prevent disaster. Cities with large concentration of population have maximum propensity to suffer loss of life and damage to property in the event of a disaster. District disaster management plans are very much needed to minimize these losses. It was proposed to prepare a disaster management plan for Cuttack District:

## Scope of the Plan

As per the terms of reference of the project, the plan shall be comprehensive and holistic in nature and suggest measures pertaining to different cycles of disaster management such as disaster prevention and mitigation, disaster response including evacuation, temporary shelter and rehabilitation plan in time of emergency. The terms of reference of the project specifically include the following: Preparation of Comprehensive Disaster Management Plan for Cuttack District

This plan has been prepared on the basis of the following studies:

### (a) Hazard Analysis

A study shall be conducted on various types of hazards such as earthquake, flood, high winds, fire, chemical and industrial accidents, road accidents, etc., and potential hazards such as Cyclone, Flood, Drought, Heat-Wave, Hail Storm, Earthquake, etc.

### (b) Risk Analysis

A risk analysis of Cuttack District in terms of its physical, socio-economic and environmental features shall be carried out.

(c) Vulnerability Analysis a vulnerability analysis of district in terms of physical, socioeconomic and environmental aspects shall be undertaken.

(d) Disaster Management Strategy: A disaster management strategy shall be developed on the basis of hazard and risk analysis as stated above and will include both structural and non-structural mitigation measures.

## Types of Disasters:

The following disasters have commonly experienced in Cuttack District.-

Common Natural Disasters	Man Made Disasters
• Cyclone	• Chemical Hazards
• Flood	• Fire- Accident
• Drought	• Communal Riot
• Heat-Wave	• Road/Train accident
• Hail Storm	• Strike/Rasata Rok
• Earthquake	• Forest Fire

## Risk Assessment:

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Cyclone	April-May & October-November	Loss of Life, Livestock, Infrastructure, livelihood &	All blocks of Cuttack district.  Most vulnerable: Niali,



		environment	Kantapada & Banki
Flood	July-September	Loss of Life, Livestock, Infrastructure, livelihood & environment	All blocks of Cuttack district.  Most vulnerable: Niali, Kantapada, Banki & Dompada
Drought	May-August	Crop Loss	Athgarh, Badamba, Tigiria, Narsinghpur, Banki, Mahanga, Nischintakoili, Barang Blocks of Cuttack district
Earthquake	Anytime	Loss of Life, Livestock, Infrastructure, livelihood & environment	All blocks of Cuttack district
Sunstroke	April-May	Loss of Life & Livestock	All blocks of Cuttack district
Fire	March-June	Loss of Life, Livestock, Infrastructure, livelihood & environment	Baramba, Narsinghpur, Tigiria, Athgarh, Salipur, Banki,
Chemical accidents	Anytime	Loss of Life, Livestock, Infrastructure, livelihood & environment	Tangi Choudwar & Cuttack Municipal Corporation
Boat capsized	Anytime	Loss of life	Niali, Kantapada, Banki, Barang
Lightening	April-July	Loss of life	Niali, Banki, Tangi Choudwar, Salipur, Athgarh
Road Accidents	Any time	Loss of live &, property	All blocks of Cuttack district
Rail Accident	Any time	Loss of live &, property	Sadar & Baranga block of the district

Hailstorm	March-May	Loss of live &, property	Narsinghpur, Baramba, Niali and Kantapada
Heavy wind/ Gale wind	March-may	Loss of live &, property	Narsinghpur, Baramba, Niali ,Kantapada and Salipur

## DISASTER SPECIFIC MEASURES AND APPROACHES

Heat Wave Meeting: For Pre Arrangement to face Heat Wave calamities

- Operation of Control Room
- Rescheduling of School College timing
- Measures taken by Health and Animal Care
- Jalachatra
- Provision of drinking water
- Measures by RWSS, PHED, School and Mass Education and ICDS

Natural Calamity Meeting: For pre flood arrangements and response mechanism for flood managements

- Opening of Control room
- Flood zoning
- Storage of food stuff at vulnerable points
- Pre flood arrangements by irrigation dept.
- Health measures
- Animal Care
- Assignment of duties
- Arrangements of boats, rescue, volunteers etc.
- Co-ordination with state level agencies
- Arrangements of relief materials

Response to Cyclone:

- Construction of Cyclone shelter
- Equipped of Cyclone shelter
- Training and capacity building of shelter level volunteers in First Aid, Rescue and Counselling
- Early Warning dissemination and formation of Wats App group of Govt. stakeholders and volunteers
- Effective co-ordination among Departments, volunteers, NGOs and management groups

### 1.4 Stakeholders and their responsibilities

- At the District level, District Disaster Management Authority, with the District Collector designated as the Response Officer (RO), and other line departments at district HQ are responsible to deal with all phases of disaster management within district.

- Other technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the District Disaster Management Plan.

**At State level** - The State Disaster Management Authority (SDMA) and the Office of the Relief Commissioner of Revenue Department, are the major institutions in the State that deal with all the phases of disaster management. All the major line departments of the State Government and the emergency support function agencies converge into SEOC during disasters.

**At the District level** – District Disaster Management Authority (DDMA), with the District Collector designated as Response Officer (RO), and other line departments at district HQ are responsible to deal with all phases of disaster management within the district.

Other technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the District Disaster Management Pan.

The role of the stakeholders has been prepared with the sole objective of making the concerned organizations understand their duties and responsibilities regarding disaster management at all levels and accomplishing them.

**Local Authorities (including town planning authorities)** have the following duties:

1. To provide assistance to the District Collector in disaster management activities.
2. To ensure training of its officers and employees and maintenance of resources so as to be readily available for use, in the event of a disaster.
3. To undertake capacity building measures and awareness and sensitization of the community
4. To ensure that all construction projects under it conform to the standards and specifications laid down. Each department of the Government in a district shall prepare a disaster management plan for the district. The local authorities need to ensure that relief, rehabilitation and reconstruction activities in the affected area, within the district, are carried out.
5. Trust / Organizations managing Places of Worships & Congregation
  - a. Each establishment / organization identified as —critical infrastructure and key resource||,
  - b. Including places of congregation in a district shall prepare —on-site|| and —off-site
  - c. Disaster management plan. Carry out mitigation, response, relief, rehabilitation and
  - d. Reconstruction activities.

**Private/ Public Sector:**

1. The public/ private sector should be encouraged to ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the DDMA or the Collector.
2. They should adhere to the relevant rules regarding prevention of disasters, as may be stipulated by relevant local authorities.
3. As a part of CSR, undertake DRR projects in consultation with district collector for enhancing district's resilience.
4. Community Groups and Volunteer Agencies:
5. Local community groups and voluntary agencies including NGOs normally help in prevention and mitigation activities under the overall direction and supervision of the DDMA or the Collector.
6. They should be encouraged to participate in all training activities as may be organized and should familiarize themselves with their role in disaster management.

**Community Groups and Volunteer Agencies:**

1. Local community groups and voluntary agencies including NGOs normally help in prevention and mitigation activities under the overall direction and supervision of the DDMA or the Collector.
2. They should be encouraged to participate in all training activities as may be organized and should familiarise themselves with their role in disaster management.

**Citizens:**

- a. It is the duty of every citizen to assist the District Collector or such other person entrusted with or engaged in disaster management whenever demanded generally for the purpose of disaster management.

**1.5 Plan for review and updating: Periodicity**

District Disaster Management Plan for Cuttack is a public document it is neither a confidential document nor restricted to any particular section or department of administration. The underlying principal of disaster management is that it has to be part of all departments and none can fold fingers against it. The District Disaster Management Plan is the sum and substance of the Horizontal and the Vertical disaster management plans in the district. Horizontal plans included plans prepared by line departments & Vertical plan includes Sub Divisional Plans, Community Plans, School/Hospital plans and all other logical units' plan at the lower level and State disaster management plans and National disaster management plans at the higher level.

Preparation of plan is the ultimate responsibility of the District Disaster Management Committee and DDMA. The first draft plan is to be discussed in the DDMA and later the Chairman of the DDMA shall ratify it. The same procedure is to be followed in updating of the plan document. The District plan is to be updated biannually by the District Disaster Management Authority (DDMA). In order to update the document, all Vertical and Horizontal plans shall be collected and incorporated to the District Plan. After each biannual up-dating of the DDMP, version number shall be given serially. A copy of the updated document shall be circulated to each stakeholder of disaster management Authority.

**REGULAR UPDATION OF DDMP:**

Besides the above said procedure of up-dating of the DDMP, a regular data collection system shall be set up at district EOC. This is just to be ready to face any situation, The EOC in-charge, under the supervision of the DDMA shall enter the collected data to an online system or shall be documented properly.

**POST DISASTER EVALUATION MECHANISM**

Disasters are always unexpected. Each disaster causes huge loss of human lives, live stocks and property as well. It is said that, every disaster repeats after a particular interval. Also lessons learnt from a particular disaster will help to plan for another potential hazard. The DDMA Chairman shall make special arrangements to collect data on a particular disaster irrespective of size and vulnerability. This post disaster evaluation mechanism shall be set up with qualified professionals and researchers and the collected data shall be thoroughly crosschecked and documented in the EOC for further reference.

**Dissemination of the plan.**

Revise and Maintain - Planning teams should establish a process for reviewing and revising the plan. Reviews should be a recurring activity. Review on an annual basis is considered minimum. It should be mandatory to consider reviewing and updating the plan after the following events:

- i. A major incident.
- ii. A change in operational resources (e.g., policy, personnel, organizational structures, Management processes, facilities, equipment).
- iii. A formal update of planning guidance or standards.
- iv. Major exercises.

- v. A change in the district's demographics or hazard or threat profile.
- vi. The enactment of new or amended laws or ordinances.

The responsibility for the coordination of the development and revision of the basic plan, annexes, appendices and implementing instructions must be assigned to the appropriate person(s). It is recommended that a DDMP be internally reviewed on a yearly basis and either be updated or reaffirmed. The updates or reaffirmed document may also be used to summarize the accomplishments of the past year and help the administration to prioritize mitigation goals for the next year.

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## *Chapter-II*

# District Profile

### **History & Location:**

The district of Cuttack is named after the principal town as well as the headquarters of the district of the same name. Cuttack is derived from the Sanskrit word 'Kataka'. The word "Kataka" etymologically means military camp or a fort or a Government seat protected by an army. Early history of Cuttack is associated with the Keshari dynasty. As stated by the distinguished historian A. Stirling, present-day Cuttack was established as a military cantonment by King Nrupa Keshari of Keshari dynasty in 989 A.D.

Historical evidence suggests that Cuttack became the capital of a Kingdom founded by Ananga Bhima Deva of Ganga dynasty in 1211 A.D. The famous Barabati Fort was constructed in 1229 A.D. by the famous Ganga ruler Ananga Bhima Deva. After the end of Ganga rule, Odisha passed to the hands of the Gajapati Kings [1435-1541 A.D.] of Solar dynasty under whom Cuttack continued to be the capital of Odisha. The reference from Ain-i-Akbari clearly denotes that Cuttack was a flourishing capital city during the time of Mukunda Deva. After the death of Mukunda Deva, the last Hindu king of Odisha, Cuttack first came under Afghan occupation [Muslim rules]. The Afghans, however, were not destined to rule Odisha and they were soon ousted by the imperial Mughals. Cuttack continued to be the capital of Mughal in Odisha.

By 1750, Cuttack came under Maratha rules and it grew fast as a business centre being the convenient point of contact between the Marathas of Nagpur and the English Merchants of Bengal. It was occupied by the British in 1803 and later became the capital of Odisha division in 1816. From 1948 onwards, when the capital was shifted to Bhubaneswar, the city remained the administrative headquarters of the district. The designation of the town Cuttack (Kataka) which has a very rich and ancient historical background was, in course of time, given to the surrounding country, now comprising the district.

### **Administrative Setup:**

After the conquest of Orissa by the British in 1803, two Joint Commissioners were appointed who at once took measures to place the administration on satisfactory footing. The office of the "Commissioners for settling the affairs of Cuttack" was abolished in 1805 and the province was placed under the charge of a Collector and of a Judge and Magistrate. The whole province formed but one district having its headquarters at Puri until 1816 when Cuttack was made the capital. In 1829, the province was split into three regulation districts of Cuttack, Baleswar and Puri and the non-regulation Tributary States. After the formation of the district the criminal and revenue jurisdiction underwent many changes until 1870, when the Baitarani

and Dhamara rivers were fixed as its northern limit. The next important change made in its jurisdiction after that year was the annexation to it Banki in 1882. Four feudatory states of Athagarh, Tigiria, Badamba and Narasinghpur merged in the district on 1st January, 1948. Since then only the following minor adjustments in the area of the district had been made for reasons of administrative necessity.

Jijupada area (9.06 sq. Km.) of Keunjhar district was transferred to Sukinda police-station of Cuttack sometime after merger. During 1964, two villages viz. Kabatabandha and Goliamahanpatana of Dhenkanal district were included in Darpan Tahasil of cuttack district. Thirty five villages Dashapalla Tahasil (puri district) were transferred to Narasinghpur Tahasil in Cuttack district during 1967. In 1969, 31 villages covering an area of 78.06 sq. km. of Nimapara Tahasil of Puri district were transferred to Jagatsinghpur Tahasil 28 villages of Cuttack Sadar Tahasil were excluded from Cuttack district and included in Bhubaneswar Tahasil of Puri district. Total number of villages after such inter district transfer in the district stands at 6, 781.

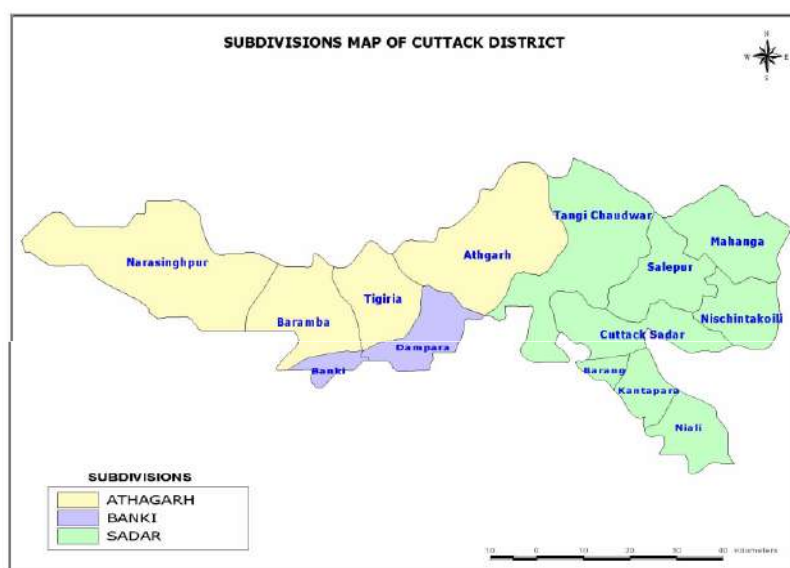
The sub divisional system was not introduced till 1859 when Jajpur and Kendrapada were for the first constituted separate subdivisions just after independence and merger of the princely states, the district comprised four subdivisions viz, sadar, Kendrapara, Jajpur and Athagrh. Before Athagrh became a subdivision consisting of the ex-states of AThagrh, Badamba, Narshinghpur and Tigiria, the area was declared the district of Narasinghpur with the District Magistrate of Cuttack becoming the ex officio District Magistrate of Narasinghpur. The sadar sub-division covered the police station areas of Lalbag, Mangalabag, Sadar, Tangi, Choudwar, Salepur, Mahanga, Kisannagar, Tirtol, Erasama, Jagatsinghpur, Balikuda and Govindpur. Banki Khashmahal area was included in Cuttack Sadar subdivision but it was looked after by a Deputy Collector Jajpur Sub-division consisted of the police station areas of Jajpur, Nijharpar, Dharamasala, Barachana, Korei and Sukinda. Kendraparha sub-division consisted of the police station areas of Kendrapara, Patamunde, Patakura, Mahakalaparha, Aul (Aali) and Rajnagar. A separate subdivision of Jagatsinghpur comprising the police stations of Jagatsinghpur, Balikuda, Tirtol and Erasama (formerly in Sadar subdivision) was formed in 1965. n so also Banki area was detached from cuttack sadar subdivision and was formed a separate subdivision in 1969.

Sl No.	Name of the Subdivision (Headquarters)	Name of the Tahasil (year of opening)	Name of the police-station	Name of the community development block
1	Cuttack Sadar	Sadar Cuttack	Lalbag, Mangalabag, Sadar, Tangi, Choudwar, Salepur, Mahanga, Kisannagar, Tirtol, Erasama, Jagatsinghpur, Balikuda and	Cuttack Sadar Tangi- Choudwar Baranga Salipur Nischintakoili Kantapada Mahanga Niali

			Govindpur	
2	Athagarh	1.Athagarh (1.6.1964) 2.Tigiria (1.7.1965) 3.Badamba (25.6.1965) 4.Narasinghpur (1.12.1965)	Athagarh Gurudijhatia Tigiria Badamba Narasinghpur Kanpur	Athagarh Tigiria Badamba Narasinghpur
3	Banki	Banki (1.12.1963)	Banki Baidyeswar	Banki Banki-Dampada

### Administrative Set-up

The district is mostly rural in character having 1952 villages with one municipal corporation, one municipality and two NACs. Increasing urbanization has contributed to the fast development in the district falling under fifteen Tahasils. Detail administrative set-up of the district is reflected in the following table.



Administrative Set-up of Cuttack District	
Geographical Area	3,932 square kilometres
Number of Sub-Division	3 [Sadar, Athgarh, Banki]
Number of Tahasils	15
Number of Municipal corporation	1
Number of Municipality	2 (Cuttack & Choudwar)
Number of N.A.C.	2 [Banki, Athagarh]
Number of C.D. Blocks	14
Number of Towns	11
Number of Post Office	355
Number of Police Stations including Mahila P.S.	50
Number of Gram Panchayats	373
No. of Inhabited Villages	1981
No. of Uninhabited Villages	96
Total Number of villages	2077
Rivers	4 nos
Length of Road Network	6565.76 kms
Source: District Statistical Handbook, Cuttack,	



## Climate & Rain fall:

Cuttack district is located between 84 58 to 86 20 East longitude and 20 3 to 20 40 North latitude. Cuttack District is located at an altitude of about 15 meters above MSL and receives an average annual rainfall of about 1501.3 mm. Its climate is hot and humid. During the summer, the mercury rises as high as 40 celsius while during the winter, the temperature falls as low as 10 Celsius. Summer starts at the end of March and lasts till June till monsoon sets in. Winter season starts from November and lasts till January and is characterized by chill winds from the North Mid January to mid March is pleasant with moderate climate.

The natural divisions of the district form into three district parts differing widely in their physical characters. The first is the marshy woodland strip from 5 to 48 Km. In breadths stretching along the coast from the river Dhamara on the north to the Devi on the south for a distance of about 135km. The second is the vast cultivated alluvial plain formed the deposits of its great rivers, and the third, the broken hills of the Eastern Ghats region forming the western boundary of the district.

The marshy strip along the coast is a low woodland tract. It abounds in swamps and morasses and is often intersected by innumerable winding creeks and lakes having a coarse jungly growth of canes brush-wood and reedy grass on either side. The tract in its swamps dense forest and noxious atmosphere resembles the Sundarbans and is rightly described as the Sundarabans on a miniature scale. This dismal region is subject is subject to inundations of sea water which leaves a deposit of salt on the surface of the low lying area, and in many parts render cultivation impractical. The coast is unbroken but on account of excessive deposition of the Mahanadi and its branches deltaic formation giving rise to capes and inlets have been formed at a number of places. The most conspicuous of these is at the mouth of the Mahanadi near Hukitola. Hukitola itself is a deltaic hook. The whole coast is covered with sand dunes. The maximum width of the sand dune-belt is nearly one kilometres. In the central part of the coast, that is near the mouths of Jambu and Kharnasi rivers, there are no sand dunes. The depth of the sea varies from thirty to sixty feet (nine to eighteen meters). The delta consists of a level plain stretching inland for about sixty four kilometers and occupying the country between the marshy sea coast strip and the hilly frontier. It is intersected by several large rivers, which emerge from the western mountains and throw out a network of branches in every direction. The rivers geologically speaking have reached the old stage as they are full of meanders, elbows and interlocking as well as braided streams. It is a region of rich rice-fields dotted with banyan trees, bamboos, mango orchards and palm groves and it forms the only really fertile part of the district.

### Rainfall

Rain recording stations are available in all the blocks of this district except Banki as the block office of Banki-Dompada has a rain recording station in the same headquarters. The Head Clerks of the Blocks are acting as Rain Recording Officers under the supervision of the respective Block Development Officers.

The rainfall reports from each rain recording station shall be transmitted to the District Control Room daily through V.H.F./Telephone/Messenger.

### GAUGE READING (Paragraph 50 of O.R.C.)

The gauge reading stations of different rivers are available at different places in the district as shown in Chapter- II. The gauge readings at (i) Naraj (ii) Bellevue (River Kathajodi) and Mahanadi Barrage at Jobra (both upstream and downstream) will be transmitted by the flood control cell, Mahanadi South Division, to the District Control Room every hour when the gauge reading is near or above danger level. When the gauge reading is fairly below the danger level, the same will be transmitted once a day by 5 P.M., Gauge readings at the above Gauge stations shall be communicated to the Revenue Control Room through phone/Fax from the District Control Room.

A statement showing monthly annual rainfall in the district from 2015 to 2022 is given in below.

Sl. No	Actual Rainfall (in mm)								
	Month	2015	2016	2017	2018	2019	2020	2021	2022
1	January	21.38	0.00	0.0	0	0	8.38	0.00	40.72
2	February	0.00	3.62	0.0	0	36.08	55.10	0.00	15.85
3	March	0.00	10.08	47.82	0	18.71	72.93	15.55	0.00
4	April	54.62	5.92	3.62	75.28	32.74	136.32	22.32	0.00
5	May	15.85	122.92	16.74	118.50	173.69	147.74	202.12	
6	June	195.77	161.77	134.25	174.83	165.18	181.03	270.52	
7	July	329.31	340.33	382.49	457.98	553.12	170.14	271.20	
8	August	290.31	327.12	301.18	302.40	389.12	635.13	264.88	
9	September	207.85	293.02	250.06	427.43	399.11	106.60	581.33	
10	October	41.54	96.02	222.39	270.33	301.98	228.63	93.31	

11	November	5.15	18.75	63.78	0	10.49	1.15	56.23	
12	December	14.08	0.00	19.78	14.71	0.00	0.00	71.82	
	<b>TOTAL</b>	1175.86	1379.55	1475.75	1841.46	1880.22	1743.19	1849.28	56,57

## Temperature

There are two meteorological observatories in the district. The one at Cuttack is having sufficiently long period of data which may be taken as the representative of the climatic conditions of the district as a whole. The hilly areas of the district have slightly colder temperature during winter and hotter during summer. But in the coastal regions the climate particularly in summer is milder than in the interior. The district is not directly on the tract of the cyclonic storm which frequently cross Orissa during the monsoon season and the extremes of climate are more marked than in most other parts of the neighbouring state of Bihar. There is steady rise in temperature from the period March to May. With March the heat approaches, and by April the hot weather has fairly set in. May is usually the hottest month with the mean daily maximum temperature at 38.8' C and the mean daily minimum at 26'9 C. On some days the maximum temperature rises up to about 47'C in May and June; while the mean temperature falls from 31.4'C in the hot weather months to 30.8 C in the monsoon season and to 24.7 C in February. It is one of the hottest districts in the state. The account of William Bruton, one of the small band of Englishmen, who first visited Cuttack in 1633, shows how intensely they felt the heat. On the 28th of April he writes. "At the hours of between eleven and twelve of the clock, it was so excessively hot that we could not travel, and the wind blew with such a sultry scalding heat as if it had come forth of an oven of furnace, such a suffocating fume did I never feel before or since". During these hot months due to the prevailing high humidity, days are oppressive. However, in the coastal parts of the district though the heat is excessive in the day time, there is some relief due to the setting in of the sea breeze in the afternoons. During March and April and frequently in May there are occasional showers of rain accompanied by strong north western wind which brings down temperature. With the onset of the monsoon early in June, day temperatures drop appreciably, but the night temperature continues to be as in the summer season. With the withdrawal of the monsoon, both day and night temperatures begin to decrease, the drop in the night temperature being more marked. The cold weather commences in the beginning of November and the mornings and the evenings are chilly. December is the coldest month with the mean daily minimum of 15.5 C. Occasionally cold waves

affect the district in the wake of western disturbances passing across north India and the night temperatures may then drop down to about 8°C.

The highest maximum temperature recorded at Cuttack was 47.7°C on the 2nd May, 1957 and the lowest minimum was 7.8 C on the 4th January, 1923.

### **Humidity**

Relative humidity is generally high about 75 percent throughout the year. Humidity in the coastal area of the district is comparatively more than in the interior parts. The driest part of the year is the cold and summer seasons when the afternoon relative humidity ranges between 40 and 60 percent. Owing to the excessive humidity, the dew formation is at its maximum in the beginning of the cold relative humidity of the district.

### **Cloudiness**

Sky is overcast or heavily clouded in the south-west monsoon season. In the later half of the summer season and in October, sky is moderately clouded. In the rest of the year sky is mostly clear or slightly clouded.

### **Wind**

Winds are generally light. The winds in the coastal region are stronger than in the interior. In the south west monsoon season, winds are mainly from southwest or west. In the post monsoon or cold seasons, winds are calm or light and variable in direction. In summer, winds blow from directions between south and west. Appendix- V gives the mean wind speed of the district.

### **Special Weather Phenomena**

Most of the depressions and storms originating in the Bay of Bengal in the monsoon season cross the coast of Orissa and move in a westerly to north west direction. These affect the district causing widespread heavy rain and dusty winds. Similarly the post monsoon storms also affect the district occasionally. Thunderstorms are common during the period from March to October. During the cold season fog is experienced occasionally. Mist of Kuhudi as locally known, are also common features during the months of January and February which affects the mango blossoms in some years.

### **Geography:**

Cuttack district is located between 84 58 to 86 20 East longitude and 20 3 to 20 40 North latitude. Cuttack District is located at an altitude of about 15 meters above MSL and receives an average annual rainfall of about 1501.3 mm. Its climate is hot and humid. During the summer,

the mercury rises as high as 40 celsius while during the winter, the temperature falls as low as 10 Celsius. Summer starts at the end of March and lasts till June till monsoon sets in. Winter season starts from November and lasts till January and is characterized by chill winds from the North Mid January to mid March is pleasant with moderate climate.

The natural divisions of the district form into three district parts differing widely in their physical characters. The first is the marshy woodland strip from 5 to 48 Km. In breadths stretching along the coast from the river Dhamara on the north to the Devi on the south for a distance of about 135km. The second is the vast cultivated alluvial plain formed the deposits of its great rivers, and the third, the broken hills of the Eastern Ghats region forming the western boundary of the district.

The marshy strip along the coast is a low woodland tract. It abounds in swamps and morasses and is often intersected by innumerable winding creeks and lakes having a coarse jungly growth of canes brush-wood and reedy gras on either side. The tract in its swamps dense forest and noxious atmosphere resembles the Sundarbans and is rightly described as the Sundarabans on a miniature scale. This dismal region is subject to inundations of sea water which leaves a deposit of salt on the surface of the low lying area, and in many parts render cultivation impractical. The coast is unbroken but on account of excessive deposition of the Mahanadi and its branches deltaic formation giving rise to capes and inlets have been formed at a number of places. The most conspicuous of these is at the mouth of the Mahanadi near Hukitola. Hukitola itself is a deltaic hook. The whole coast is covered with sand dunes. The maximum width of the sand dune-belt is nearly one kilometers. In the central part of the coast, that is near the mouths of Jambu and Kharnasi rivers, there are no sand dunes. The depth of the sea varies from thirty to sixty feet (nine to eighteen meters). The delta consists of a level plain stretching inland for about sixty four kilometers and occupying the country between the marshy sea coast strip and the hilly frontier. It is intersected by several large rivers, which emerge from the western mountains and throw out a network of branches in every direction. The rivers geologically speaking have reached the old stage as they are full of meanders, elbows and interlocking as well as braided streams. It is a region of rich rice-fields dotted with banyan trees, bamboos, mango orchards and palm groves and it forms the only really fertile part of the district.

Geographically this district occurs mainly in the area Mahanadi Delta. The region is covered with deltaic sediments o the Mahanadi River formed in recent times. The soils occurring on very gently sloping uplands are moderately shallow to moderately deep, well drained, loamy with low AWC (Available Water Capacity). They are acidic in reaction and moderately eroded. These soils have been classified as Typic Ustropepts, Typic Ustorhents and Ultic Ustrorhents.

They are associated with shallow to moderately deep, well drained, slightly eroded and neutral soils. (Sarkar et al, 1998).

Gently sloping coastal plains of the Mahanadi delta are dominantly occupied by very deep, imperfectly drained clayey soils. They are slightly acidic in reaction and have medium to high AWC. These soils are classified as Typic Haplustalfs and Typic Ustropepts. They are associated with deep, moderately well neutral in reaction.

The Cuttack district comes under East and South Eastern Coastal Plain Agro Climatic Zone of Odisha. (Nanda et al, 2008)

### **Topography:**

Cuttack district is a narrow strip of land spreading from east to west. Topographically, Cuttack has two prominent divisions i.e hilly terrain on the west and Mahanadi delta plain on the east. The highly fertile and densely populated land is criss-crossed by hundreds of rivers and rivulets. These water bodies function both as tributaries and as distributaries of the Mahanadi river system. Large portion of the land mass is low lying and gets submerged during flood. People of Cuttack largely depend upon agriculture as the primary means of livelihood. The vast network of irrigation canals established by the Britishers after the great famine of 1866 is the backbone of agriculture. Cuttack city is still the commercial capital of Odisha with the Malgoldown controlling the trade throughout the state.

The soils being variable characteristics, the colour ranges from high grey and pale yellow to deep grey and the textures from coarse sand to silty day to day. These soils are generally fertile with low status of nitrogen and available phosphoric acid at certain places. They usually contain sufficient quantity of potash. The district has mainly two varieties of soil viz. alluvial soil in the southeast and northern parts and normal strip of saline soil in the North-East along the river belt.

### **River System:**

The most conspicuous feature in the general aspect of the district is its river system. The district is webbed by a network of rivers. The system of rivers issues in three magnificent streams through three great gorges in the mountainous country to the west. To the south, the Mahanadi debouches upon the plains just above Naraj, 112 km.

The distributaries, struggling in thousand contortions and convolutions towards the cost, form a network of rivers, which joining here and separating there ultimately reunite with one or the other of the three parent rivers as they approach the sea.

The Mahanadi is the major river which traverses Cuttack District in an east-west direction. The Mahanadi is the only river which has taken its source from the Amarkantak plateau, Chhatisgarh and it enters into Odisha near Padigan (Sinha, 1998). The river enters the plain stage at Naraj in Cuttack District where initially it meets the old shoreline of the Bay of Bengal before the formation of the delta. From this point bifurcation of the main trunk stream starts and the delta stage begins. At Naraj, many river islands have been formed and the first bifurcation gave birth to the river Kathajodi from Mahanadi at Cuttack, the Birupa took off from its left bank. At this stage, anicuts have been constructed at Jobra over the Mahanadi, over Birupa and at Naraj. The River Kathajodi bifurcates into Kuakhai and further downstream, the Kuakhai divides into Daya and Bhargavi. The Daya and Bhargavi drain into Chilika lake.

#### **Rivers originating from the Mahanadi Delta:**

There are seven rivers namely Samolia, Gobari, Prachi, Kadua, Dhanua, Ratnachira and Luna which have originated in the Mahanadi Delta from the low interflaves of the distributaries of the Mahanadi. These are primarily drainage channels of short length.

The Samolia originates from Haripur villages and flows straight to the Bay of Bengal. The Godavari originates from Devidola and joins the Devi near Bandasahi. The Prachi branched off from the Kuakhai and flows from Phulnakhara and drains the area between the Kandal and the Kushabhadra rivers. The Dhanua originates near Balipatna and flowing for about 25 Kms. Drains to the Kushabhadra. The Ratnachira has its origin near Mukundpur village and drains to the Bhargavi. The Luna rises near the Gora diha hills and drains in to the Daya near Sahupara.

#### **Mahanadi and some of its branches**

The Mahanadi, so aptly named, is the largest river in Orissa having a drainage basin of nearly 1,41,600 square kilometers. The river originates from a small pool, 6 km from Pharsiya village in Raipur district in the Amarkantak plateau of Madhya Pradesh and enters Orissa near Padigan. It passes through the districts of Sambalpur, Balangir and Phulbani. From Boudh (Phulbani district) the Mahanadi takes a north-west-north to south-east-south course and touches the district of Cuttack in Narasinghpur Tahasil of Athagarh subdivision to from the boundary between Cuttack and Puri for some distance. Finally the river enters the district near Baidyswar of Banki subdivision. Emerging from the hilly areas of the district it pours down upon the delta at Naraj nearly twelve kilometers west of the city of Cuttack. The Mahanadi traverses the district from west to east and throwing off numerous branches on its way falls into the Bay of Bengal by several channels near False Point, in 20 18 N and 86 43' E after a course of around 851 km.

The river forms a series of rapids till it reaches Dholpur where the river enters into the Eastern Ghats mountain ranges by forming a grand gorge about 23 km. long popularly known as Satkosia. At village Barmul the gorge ends. For about fifteen kilometers below the village of Tikarparha, the bed of the river is quite rocky and often takes irregular shape. Below Tikarparha, over a course of nearly 75 km, the river channel opens out to an average width of three kilometers. For a length of 20km. below Baidyeswar up to Naraj the banks are defined by rocks. A weir has been constructed across the river Mahanadi at Mundali 5 km. upstream of Naraj whence a large canal system (Puri main canal) emanates. The river further contracts in width to 1 km. between Siddheswar and Dbikot hills.

While flowing down the rugged hilly region of the district the Mahanadi receives numerous stream and tributaries from the high land on either bank, but as soon as it reaches the plains its character changes. Now in the plains it forms a great delta head and instead of inviting confluents it shoots out a number of distributaires, forming many river islands from Naraj downwards upto Hukitola islands of Jambu. The biggest of these islands is the Bayalish Mouza which literally means forty two revenue villages (actually 31 revenue villages) surrounded on all sides by the river Kathajodi and its tributary Serua. From Naraj it bifurcates, the southern branch being known as the Kathajodi, while the northern retains the name of the parent stream. The city of Cuttack is built on the apex of the delta which separates the two rivers and opposite the city Mahanadi proper throws off a large branch known as the Birupa. Just below the bifurcation of the Mahandi and the Birupa, both the rivers are dammed by anicuts. These anicuts control the supply of water to the head sluices of the High Level Kendrapara, Taladanda and Machhagan canals. All the delta irrigation canals begin from these anicuts. Mahanadi has a total length of 851km. of which 494 km. falls in Orissa.

After passing Cuttack, the Mahanadi divides into three branches the Chitrotpala to the north, the Mahanadi in the centre and the Sukhapaika to the south. The Sukhapaika starts at Aitpur, 15 km. below Mahanadi Anicut. Forming a loop it joins the main stream again at Kulasahi, 30km. lower down. The mouth of the Sukhapaika was closed in 1951 by a cross bundh for providing irrigation into its island. The Chitrotpala branch leaves the parent stream about 15 km. below the Birupa imouth, and soon bifurcates into the Chitrotpala and Nuna. These streams unite after flowing for course of about 30km. and under the name of Nuna fall into the Mahanadi estuary near Paradeep. The Baranadi is a branch of NUna. About 5 km. below the out fall of Sukhapaika, the Mahanadi bifurcates again into Paika. The Paika reunites with the parent stream nearly opposite Marshaghai, a few kilometers about the point where the Nuna meets the Mahanadi. The Pankal is the last escape from the right bank of the Mahanadi. From Taladanda the Mahanadi flows eastwards and falls into the sea below the False Point.



## **Kathajodi and Devi**

As stated earlier, the river Kathajodi is an arm of the Mahanadi and it branches off at Naraj and then immediately it is bifurcated, the southern branch, known as Kuakhai which means crow's pool, flows into the district of Puri, its mouth is closed by a bar, so that little water flows into it except at flood times. It is practically a spill channel of the Kathajodi, About 5 km. below Cuttack at Jhinkiria, the mainstream throws off the Surua, which however rejoins it at Barada after a course of 16 kilometers. A little lower down at Barada after course of 16 kilometers. A little lower down at Gobindpur the Kathajodi is bifurcated. The right branch is known as the Devi and the left branch as the Biluakhai. The Devi in which the main body of water pass the river passes, takes an easterly direction and rejoins with Biluakhai. On its way to the sea the river Devi gives off a number of branches, the Kandal, the Khandia, the Dalkhai, the Puruna Devi and many other minor channels which all eventually reunite and flow, under the name of the Devi, through the neighboring district of Puri into the Bay of Bengal.

Flowing in the northerly direction, the Kathajodi again divides into the Alaka and Kathajodi proper which have been cut off at their head by the Devi left embankment. The water originally carried by them has been diverted into the Devi and Tampua. The Kathajodi is said to have been originally a comparatively small stream. Its name implies that it could at one time be crossed by a plank. During the last century the volume of water passing down its channel increased considerably and the head of the river became too large to carry off the enormous volume of water poured into it by the Mahanadi. A weir and training embankment were, therefore, constructed at Naraj between 1860 to 1965, in order to regulate the flow and direct some of the water to the Mahanadi channels.

During rains the river and its branches carry great volume of water in them and at the time of high floods they overflow their banks. To safeguard people from the ravages of flood, embankments have been erected on their banks where necessary. In dry months the streams are almost flowless.

## **Birupa**

As mentioned above, the Mahanadi throws off to Birupa opposite the city of Cuttack. Some 20km. down a branch called the Chota Genguti and further down another branch called the Bada Genguti fall out of the Birupa. The head of the Chota Genguti has been closed. The Bada Genguti flows 30km. to join the Kimiria, a branch of the Brahmani and about 3 km. further down it joins the parent stream, the Birupa. The Birupa thus increased in volume meets the main stream of the Brahmani, a little above Indupur. The Two streams flow together being joined lower down by the Kharsuan, and finally debouch into the Dhamara estuary.

The Mahanadi estuary – The northern branches of the Mahanadi also join together while approaching the sea, and eventually fall into the Bay of Bengal under the name of the parent stream. The estuary has several mouths, but the principal one is that which debouches through the shoals to the south of the False Point lighthouse. For a considerable distance up the river, there is abundance of depth for ships of large burden, but unfortunately, as in the case of the Devi, and indeed of all other harbours of Orissa, a bar stretches across the mouth, which in addition to the perils of shoal water, adds to the dangerous incident to constant which lies a little north of the Mahanadi estuary, is a comparatively exposed anchorage and was, until the construction of the Hirakud Dam, rapidly silting up. Two separate channels lead inland from the anchorage, on the north the river Jambu and on the south the Kharnasi creek, a short branch of the Mahanadi. At a later period the sandbar at the mouth has been improved in 1952 from 21 to 3 meters (8' to 10) at low water thus causing the river water to pass through the shortest distance to empty itself straight into the sea instead of following a circuitous way as was done previously. Several foreign experts were invited by the Government of Orissa to give their advice for the improvement of the bar in connection with the development port. All of them were of the opinion that paradeep could be developed into an all wether deep-sea-port by construction of estuarine or coastal harbor to accomadate vessels up to 32 draft. Later on the major port of Pradaeep developed, details of which are given in chapter VII (Communications).

### **Lake**

There is only one lake in the district which is Ansupa lake in Banki subdivision. This is fresh lake situated on the left bank of the river Mahanadi opposite Banki. Its distance is nearly 70km. from Cuttack. The lake was formed due to meander shifting of the Mahanadi. It is a picturesque lake and it offers an ideal asylum to the migratory birds in the winter season. It is surrounded by bamboo and mango groves and the Saranda hill stands beside it. More about this lake will find place in Chapter XIX (Places of Interest).

Soil Fertility Status of Cuttack District:

### **Alluvium**

The youngest formations alluvium occupy the largest area in the district. And over two third of the district is covered with thick piles of alluvium. Much of these is a recent deltaic deposit of the Mahanadi and the Brhamani river system occupy a flat tract of country extending some 50 km. from the sea with the exception of a belt of sandy tract along the coast. Almost the whole expanse of the district to the east of the railway tract (Howrah-Madras) is covered with alluvium and to the west of it these are confined to narrow stripes of valleys on either side of the rivers Mahanadi and Brahamani. In the north western part some undulating land consists of an older alluvium containing Kankar and pisolitic ferruginous nodules with no well-defined

boundary to separate it from the inland laterite or to distinguish it from the inland laterite or to distinguish it from the alluvium of the delta.

As per the modern system of soil classification, “Soil Taxonomy” the soils of Cuttack District come under four orders, viz (1) Alfisols, (2) Inceptisols, (3) Entisols, the comparatively older alluvial soils come under inceptisols and the more matured soils come under Alfisols. The black soils of Tangi-Choudwar Block come under Vertisols.

### **The block wise soil Taxonomy and fertility are as follows-**

#### **Athagarh**

Mixed red and black soils are found in this block. The soil are found in this block. The soil is classified as typic Ustochrepts and Aeric Ochraqualfs. The soil reaction (pH) varies from 4.25 – 6.27 and the mean is 5.31. Therefore the soils are mostly acidic. The soil organic carbon varies from 0.21- 1.28(%) and the mean is 0.66%. So the soils are medium in organic carbon content. The available nitrogen varies between 105.0-261.2 (Kg/h) and the mean is 177.45 Kg/h. so the soils are low in available nitrogen. The available phosphorus varies from 0.245-161.2 (Kg/h) and the mean is 24.9 Kg/h. the soil are mostly low in available phosphorous content. The available potash varies between 44.8-980.0 (Kg/h) and the mean is 208.32 Kg/h and thus the soils are medium in available potash. The available sulphur varies from 5.60-39.9(ppm) and the mean is 18.43 ppm. It is evident that the soils are sufficient in available sulphur. The available boron varies between 0.14 -2.99 (ppm) and the mean is 0.53 ppm and thus the soils are sufficient in available boron content.

#### **Badamba**

Red, mixed red and black soils are found in this block. The soil is classified as typic Ustochrepts and Aeric Ochraqualfs. The soil reaction (pH) varies from 4.92 – 8.04 and the mean is 6.07. Therefore most of the soils are acidic. The soil organic carbon varies from 0.13-1.49(%) and the mean is 0.53(%). Therefore the available nitrogen varies between 110.2-208.7 (Kg/h) and the mean is 150.3 (Kg/h). So the soils are low in available nitrogen. The available phosphorous varies from 1.47-29.64 (Kg/h) and the mean is 5.58 (kg/h). Therefore the soils are low in available phosphorous. The available potash varies between 47.04-909.44 (Kg/h) and the mean is 232.53 Kg/h. So the soils are medium in available potash. The available sulphur varies from 6.3-40.6 (ppm) and the mean is 20.09 ppm. So the soils are sufficient in available sulphur. The available boron varies between 0.14-1.24 (ppm) and the mean is 0.50 ppm. Therefore the soils are sufficient in available boron.

### **Banki**

The soil found in this block is brown in colour. The soil is classified as typic ustochrepts and typic ustorthents. The soil reaction (pH) varies from 4.26-6.77 and the mean is 5.24. So the soils are mostly acidic. The organic carbon varies from 0.17-1.66(%) and the mean is 0.58%. Thus the soils are medium in organic carbon. The available nitrogen varies between 102.5-247.5(Kg/h) and the mean is 147.3Kg/h. Therefore the soils are low in nitrogen. The available phosphorous varies from 0.245-58.31 (Kg/h) and the mean is 10.52 Kg/h. So the soils are low in phosphorous. The available potash varies from 62.7-1456.0 (Kg/h) and the mean is 278.04 Kg/h and thus the soils are medium in potash content. The available sulphur varies between 11.55-125.654(ppm) and the mean is 24.17 ppm. So the soils are mostly sufficient in sulphur. The available boron varies from 0.23-1.01 (ppm) and the mean is 0.62 ppm. Therefore the soils are mostly boron sufficient.

### **Banki-Dampada**

Brown colors soils are present in this block. The soil is classified as Typic Trophaquepts. The soil PH varies from from 4.77-5.33 and the mean is 4.95. therefore the soils are acidic. The organic carbon content varies from 0.32-1.20 (%) and the mean is 0.77%. So the soils are high in organic carbon. The available nitrogen varies between 142.5-197.5 (Kg/h) and the mean is 169.06 Kg/h. Thus the soils are low in nitrogen content. The available phosphorous varies from 4.90-37.73 Kg/h and the mean is 15.8 Kg/h. Therefore the soils are medium in phosphorous. The available potash varies between 294.5-658.5 (Kg/h) and the mean is 440.62 Kg/h. So the soils are high in potash. The available sulphur varies between 17.15-39.55 (ppm) and the mean is 26.19 ppm. It is evident that the soils are sufficient in sulphur content. The available boron varies from 0.32-0.87 (ppm) and the mean is 0.51 ppm. Therefore the soils are sufficient in boron.

### **Baranga**

Brown color soils are found in this block. The soil is classified as Typic Trophaquepts and Vertic Ustropets. The soil pH varies from 4.55-6.65 and the mean is 5.26. So the soils are mostly acidic. The organic carbon content varies from 0.14-1.10 (%) and the mean is 0.49%. Thus the soils are low in organic carbon. The available nitrogen varies between 118.7-255.0 (Kg/h) and the mean is 161.7 Kg/h. So the soils are low in nitrogen content. The available phosphorous varies from 1.71 -164.3 (Kg/h) and the mean is 27.35 Kg/h. Therefore the soils are mostly low in phosphorous. The available potash varies between 13.44 -496.16 (Kg/h) and the mean is 158.48 Kg/h. So the soils are medium in potash content. The available sulphur varies from 6.3-38.8 (ppm) and the mean is 20.23 ppm. Thus the soils are sulphur sufficient. The available born varies between 0.18-1.56 ppm and the mean is 0.07ppm. Therefore the soils are boron sufficient.

### **Cuttack-Sadar**

Brown, mixed red and black soils are found in this block. The soil is classified as Aeric Fluvaquents and Aeric Tropaquepts. The soil pH varies from 4.64-6.66 and the mean is 5.41. So the soils are acidic. The soil organic carbon varies from 0.17-1.25 (%) and the mean is 0.61%. Thus the soils are medium in organic carbon. The available nitrogen varies between 70.0-216.2 (Kg/h) and the mean is 145.2kg/h. So the soils are low in nitrogen. The available phosphorous varies from 0.245-36.5 (Kg/h) and the mean is 8.33 Kg/h. Therefore the soils are low in available phosphorous. The available potash varies between 36.96-803.04 (Kg/h) and the mean is 194.58 Kg/h. Hence the soils are medium in potash content. The available sulphur varies from 7.35-109.55 (ppm) and the mean is 23.14 ppm. Thus the soils are sulphur sufficient. The available boron varies between 0.14-299 (ppm) and the mean is 0.46 ppm. So the soils are boron deficient.

### **Kantapada**

Reddish brown and black soils are found in this block. The soil is classified as Aeric Tropaquepts. The soil reaction (pH) varies from 4.80-6.94 and the mean is 5.51. So the soils are mostly acidic. The soil organic carbon varies from 0.36-1.27 (%) and the mean is 0.83%. So the soils are high in organic carbon. The available nitrogen varies between 95.0-292.5 (Kg/h) and the mean is 150.26 Kg/h. Thus the soils are low in nitrogen. The available phosphorous varies from 0.245-110.4 (Kg/h) and the mean is 15.79 Kg/h. Therefore the soils are mostly low in phosphorous content. The available potash varies between 33.6 -875.8 (Kg/h) and the mean is 233.4 Kg/h. SO the soils are medium in potash content. The available sulphur varies from 13.3-113.75 (ppm) and the mean is 30.55 ppm. Thus the soils are sulphur sufficient. The available boron varies between 0.18-4.74 (ppm) and the mean is 1.05 ppm. So the soils are sufficient in boron.

### **Mahanga**

Brown and grey colour soils are found in this block. The soil is classified as vertic Ustrprpts and Typic Ustifluvents. The soil reaction (pH) varies from 4.74-6.37 and the mean is 5.31. So the soils are acidic. The organic carbon of the soil varies between 0.23 -1.62 (%) and the mean is 0.078%. Thus the soils are high in organic carbon. The available nitrogen ranges from 111.2-270.0 (Kg/h) and the mena is 181.9 Kg/h. Therefore the soils are low in nitrogen. The available phosphorous varies from 0.245-25.23 (Kg/h) and the mean is 161.09 Kg/h. Hence the soils are medium in potash. The available sulphur ranges from 6.65-57.75 (ppm) and the mean is 22.7 ppm. It is evident that the soils are sulphur sufficient. The available boron varies from 0.18 -1.38 (ppm) and the mean is 0.57 ppm. Therefore the soils are boron sufficient.

### **Narasinghpur**

Red, black and brown soils are found in this block. The soil is classified as Typic Ustochpts and Lithic Ustortthents. The soil reaction (pH) varies from 4.74 -7.73 and the mean is 6.22. So the soils are mostly acidic. The organic carbon of the soil varies between 0.15 -1.29(%) and the mean is 0.53%. Thus the soils are medium in organic carbon. The available nitrogen varies from 106.2-218.7 (Kg/h) and the mean is 154.7 Kg/h. It is evident that the nitrogen content in this block is low. The available phosphorous ranges from 0.245 -76.19 (Kg/h) and the mean is 8.32 Kg/h. Hence the soils are low in phosphorous. The available potash varies between 61.6-769.4 (Kg/h) and the mean is 241.4 Kg/h. Therefore the soils are medium in potash content. The available sulphur ranges from 1.75 -45.15 (ppm) and the mean is 17.85 ppm. So the soils are sulphur sufficient. The available boron varies between 0.23-3.35 (ppm) and the mean is 0.72 ppm. Therefore the soils are boron sufficient.

### **Niali**

Brown colour soils are present in this block. The soil is classified as Typic Fluvaquents. Vertic Ustropepts and Aeric Tropaquepts. The soil reaction (pH) ranges from 4.42 -6.49 and the mean is 5.17. So the soils are acidic. The organic carbon of the soil varies between 0.19-1.22 (%) and the mean is 0.62%. Thus the soils are medium in organic carbon. The available nitrogen ranges from 105.0-217.5 (Kg/h) and the mean is 162.6 Kg/h. Thus the nitrogen content of this block is low. The available phosphorous varies between 1.22-22.29 (Kg/h) and the mean is 7.02 Kg/h. So the soils are low in phosphorous content. The available potash ranges from 44.8-701.1 (Kg/h) and the mean is 185.09 Kg/h. Therefore the soils are medium in potash content. The available sulphur varies from 2.45-43.75 (ppm) and the mean is 13.48 ppm. Thus the soils are sulphur sufficient. The available boron varies between 0.14-1.88 (ppm) and the mean is 0.63 ppm. Hence the soils are sufficient in boron.

### **Nischintakoili**

Yellowish brown and grey colour soils are found in this block. The soils is classified as Vertic Ustropepts and Typic Ustifluvents. The soil reaction (pH) varies from 4.94-7.11 and the mean is 5.54. So most of the soils are acidic. The organic carbon of the soil ranges from 0.15 – 1.17 (%) and the mean is 0.72%. Thus the soils are medium in organic carbon. The available nitrogen varies from 96.25-323.7 (Kg/h) and the mean is 202.2 Kg/h. Thus the soils are low in nitrogen. The available phosphorous varies between 0.98-45.57 (Kg/h) and the mean is 5.66 Kg/h. It is evident that the soils are low in phosphorous content. The available potash ranges from 43.68-728.0 (Kg/h) and the mean is 160.6 Kg/h. so the soils are medium in potash content. The available sulphur varies from 4.20-49.69 (ppm) and the mean is 22.12 ppm. Thus the soils

are sulphur sufficient. The available boron varies between 0.18-1.47 (ppm) and the mean is 0.49 ppm. Therefore the soils are deficient in boron.

### **Salipur**

Brown and grey colour soils occur in this block. The soils are classified as Vertic Ustropepts and Typic Ustifluvents. The soil reaction (pH) varies between 4.71 -6.68 and the mean is 5.46. So the soils are mostly acidic. The organic carbon content of the soil varies from 0.10 – 1.38 (%) and the mean is 0.79%. Thus the soils are medium in organic carbon. The available nitrogen ranges from 87.5-263.7 (Kg/h) and the mean is 191.8 Kg/h. So the nitrogen content of the soil is low. The available phosphorous varies from 3.18- 76.44 (Kg/h) and the mean is 8.77 Kg/h. It is evident that phosphorous status of the soil is low. The available potash varies between 4.48-1108.8 (Kg/h) and the mean is 303.25 Kg/h. Therefore the soils are high in potash. The available sulphur varies from 1.4-37.4 (ppm) and the mean is 16.26 ppm. So the soils are sufficient in sulphur. The available boron varies between 0.18 -5.24 (ppm) and the mean is 0.78 ppm. Thus the soils are sufficient in boron.

### **Tangi-Choudwar**

Red, black and brown colour soils are present in this block. The black soils are classified as Typic Chromasterts and brown soils as Typic Ustrochrepts. Only in this block of Cuttack district, Vertisols are found (Mishra, 2011). The soil reaction (pH) varies from 4.64-6.09 and the mean is 5.19. So the soils are acidic. The organic carbon of the soil varies between 0.29-1.13(%) and the mean is 0.64%. Thus the soils are medium in organic carbon. The available nitrogen ranges from 46.25 -283.7 (Kg/h) and the mean is 173.09 Kg/h. So the soils are low in available nitrogen. The available phosphorous varies 1.47 -39.2 (Kg/h) and the mean is 4.74 Kg/h. So the soils are low in phosphorous content. The available potash ranges from 23.5-484.9 (Kg/h) and the mean is 103.03 Kg/h. Therefore the soils are low in potash. The available sulphur varies between 5.95-40.6 (ppm) and the mean is 19.4 ppm. Thus the soils are sulphur sufficient. The available boron varies from 0.18 -1.15 (ppm) and the mean is 0.54 ppm. Hence the soils are sufficient in boron.

### **Tigiria**

Reddish brown and grey soils are found in this block. The soil is classified as Typic Ustrochrepts. The soil reaction (pH) varies from 4.88-7.48 and the mean is 5.68. So most of the soils are acidic. The organic carbon of the soil ranges from 0.23 -1.20(%) and the mean is 0.68%. Thus the soils are medium in organic carbon. The available nitrogen varies between 120.0-210.0 and the mean is 164.7 Kg/h. So the soils are low in nitrogen. The available phosphorous varies from 1.96-36.75 (Kg/h) and the mean is 11.21 Kg/h. It is evident that the soils are low in phosphorous content. The available potash ranges from 48.16 – 308.0 (Kg/h) and the mean is 161.7 Kg/h. Therefore the soils are medium in potash content. The available sulphur varies from

4.9- 35.35 (ppm) and the mean is 15.56 ppm. Thus are soils are sulphur sufficient. The available boron varies between 0.09-0.97 (ppm) and the mean is 0.05 ppm. Hence the soils are sufficient in boron.

These variations in available nutrient content in soils of different blocks of the district have a great bearing on crop production and productivity.

### Demography:

Households and its distribution:

Sl. No	Total Number of Families/HH	Category		Category				Category	
		Rural	Urban	SC	ST	OBC	GEN	BPL	APL
1	<b>579170</b>	<b>1936672</b>	<b>687798</b>	<b>498633</b>	<b>93745</b>	<b>2032092</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Population and its composition:

Sl. No	Population			SC		ST		OBC	
	T	M	F	M	F	M	F	M	F
1	2624470	1352760	1271710	254456	244177	47437	46308	NA	NA

- Population density of the district and decadal growth of population- Religion wise distribution of Population:

Sl. No.	Total Population	Category				
		Hindu	Muslim	Christian	Sikh	Others
1	2624470	2457729	141263	11985	1026	12467

Age Group

Sl. No.	Total Population	0-4 years	5-14 years	15-59 years	60 years and above
1	2624470	190662	444397	1701547	278680

Sex Ratio:

1	Sex Ratio (Females per 1000 males):	940
2	Sex Ration(0-6 Years):	914



Literacy Rate:

	Total	Male	Female
Literacy Rate	85.5	91.1	79.55

## Socio-Economic profile:

### Workforce participation

The labour force participation rate is the measure to evaluate working-age population in an economy. The participation rate refers to the total number of people or individuals who are currently employed or in search of a job. People who are not looking for a job such as full-time students, homemakers, individuals above the age of 64 etc. will not be a part of the data set. People who are not interested in working or getting some sort of employment are not included in the participation rate, but to understand the unemployment data better, participation rate is considered carefully. An ageing population may have a negative impact on any economy. That is when the labour participation rate comes into the picture. If the rate is on the higher side, it is a good sign. But if it is on the lower side, it can also act as a warning sign for any economy. For that reason, participation rate as well as unemployment data should be looked into simultaneously to understand the overall employment status in the economy.

<b>Workforce Participation Details of Cuttack Dist. as per Census 2011</b>				
Sl. No.	Category	Male	Female	Total
1	Workers	761876	174489	936365
2	Main Workers	615670	80604	696274
3	Marginal Workers	146206	93885	240091
4	Non- Workers	590884	1097221	1688105

### Workforce Participation Rate- Male/ Female

The womenfolk being mostly illiterate or with low levels of education face shortage of work in the home turf and have inhibitions in working as manual labour in the non-agricultural sector. But with an increase in family income and improvement in the education level of females, more and more females start entering the labour force, especially into non-manual or service-oriented jobs. That is why the participation of females in the labour force in comparison with the economic growth is supposed to be U-shaped. In the agriculture sector, among rural females who reported themselves as self-employed, there was an increase in the proportion of the own count worker category both in the principal status and subsidiary status. But what is disturbing is that a large proportion of rural females in agriculture are working as unpaid helpers both in principal and subsidiary capacity.

## **Land Holding Pattern**

The agricultural land is 47% of the geographical area of the district. The forest area comprises 20% of the geographical area. The blocks having most forest area are Narasinghpur, Baramba, Athagarh, Tangi- Choudwar and Banki. The Misc tree crops & grooves comprises 0.2%, Permanent pasture and other grazing lands comprises 0.2%, Cultivable waste comprises 0.2%, Land put to non-agriculture use comprises 21%, Barren and uncultivable land comprises 0.2% Current fallow & Other fallow comprises 0.8% of the geographical district of the district. The district has 188150 Ha of cultivated land with Kharif & Rabi cropping area 129920 Ha and 159810 Ha respectively with a gross cropping area of 303110 Ha with a cropping intensity of 192 percent.

Cuttack district is divided into two agro climatic zones viz. East and South Eastern Coastal plain and Mid Central Table Land. Based on variation in topography, soil type, availability of irrigation and cropping pattern, each agro climatic zone has been divided into several agro ecological situation with a view to generate location specific technologies to cater to the needs of the farming community

The four blocks namely Narasinghpur, Baramba, Tigiria, Athagarh come under River Valley Alluvium Medium Rainfed & Light textured lateritic medium rainfed AES zone under the broad agro climatic zone of Mid Central Table Land. As the soils are mainly acidic in nature it requires soil amendments like application of lime or Paper mill sludge to enhance the nutrient uptake for a better yield. The main crop in Kharif season is paddy followed by pulses, oilseeds and vegetables in Rabi season taking into account the irrigation availability.

Rest ten blocks of the district comes under East and South Eastern Coastal Plain agro climatic zone with. Rainfed Lateritic, Rainfed Alluvium & Coastal Irrigated Alluvium AES. The blocks like Baranga, Tangi Choudwar which are mainly rainfed lateritic soil, recommended with paddy cultivation specifically shorter duration with proper soil management. Few pockets of the blocks like Cuttack Sadar, Niali, Nischintakoili, Mahanga, Kantapada which comprise only 5% the cultivated area comes under rain fed alluvium. Many a type of crops like paddy, pulses, oilseeds and vegetables can be taken up in rain fed condition with better soil moisture holding capacity.

The small and marginal farmers' operational holders constitute 91.8% of total holding with 69.85% area under their possession. Similarly large holders constitute 8.2% with 30.15% area under their possession

### **Agriculture and Irrigation**

Agriculture is the mainstay of district's economy followed by growing industries. A large proportion of district population depends on agriculture as their primary source of livelihood as well as building up economic stability. Therefore, the Agricultural Policies of the government are aiming at bringing an all-round development of agriculture. Agriculture has been accepted as industry because about 85% of the State's people virtually depend on agriculture.

This district represents two agro ecological zones characterized by hot humid climate and having average annual rainfall 1501 mm. All eight blocks of Cuttack and Salipur Agril. Districts, two blocks of Banki Agril. Districts are situated in east and south eastern coastal plain whereas four blocks of Athagarh Agril. Districts are located in Mid Central Table Land. The maximum temperature remains 43° C during May, June and minimum 11.5 ° C in December.

Generally the area is occupied by loam, costal alluvial with textured lateritic medium loam mixed red black soils having variable depth for both Agro Climatic zone. The soil of the district is mainly acidic. Cuttack district is divided into four agricultural districts viz.-Cuttack, Salipur, Athagarh, and Banki. The total Geographical Area of the District is about 3, 67,097 Ha., out of which 1,88,150 Ha comes under cultivated area (High-46884Ha, Medium-74738Ha, Low 66528Ha) and 1,40,000 Ha. comes under Paddy (High-9217Ha, Med.-64255Ha, Low-66528Ha) leaving rest for non-paddy. More than 70% of the population of the district depend on agriculture and allied activities. This broad sector comprises Crop Husbandry, Horticulture, Soil & water conservation, Animal Husbandry & Dairy, Fisheries, Rashtriya Krishi Vikas Yojana (RKVY) as a component of all these aforesaid sub-sectors and Co-operation.

Emphasis has been given for integrated development of horticulture through area expansion under different fruit crops, vegetables, spices, root and tuber crops and floriculture. Emphasis has been given for dissemination of technology by way of massive training programme, production and distribution of quality planting materials at subsidized rate, establishment/revival of Block level Nurseries, establishment of vermi compost units etc.

The Minor Irrigation covers irrigation projects having ayacut area of 40 Hectares to 2000 Hectares. OCTMP is a World Bank funded project, works in 36no of M.I.Ps covering 6341.00 Ha. of ayacut area under 7no. Blocks in Cuttack District. Under Check Dam Scheme 360 no. of check dams have been administratively approved again for creation of 4944 Ha. of ayacut. Under Lining Scheme 3 no. of M.I.Ps have been administratively approved.

Particularly, to promote irrigation in the region for draught- proofing and for higher agriculture productivity, the Government of India has liberally supported many special schemes like ACA, SCA, and AIBP. Further, to give a boost to extension of irrigation network and to strengthen Pani Panchayat in the state, promotional scheme has been launched by the Government of Orissa. Stress has been laid on attracting people's participation in planning and implementation of small irrigation projects by revival of derelict irrigation systems as well as construction of new projects.

### **Employment and livelihood**

One of the challenge before the district in the coming years would be to provide employment opportunities to the semi-skilled and unskilled people with the increasing population pressure due to inward migration of skilled labourers / workforce. Major changes in economic front would be to eliminate the current backlog of unemployed job-seekers and assure employment opportunities for all additional labour force (according to NSSO 2007, the state is second in terms of unemployment. The district needs to generate around at least five lakh additional employment opportunities by 2017. At the same time, it is expected that the total proportion of the workforce involved in agriculture is likely to decline from current level of 6.13 lakh to at least 50000 to 75000 due to various factors like movement to urban places, industrialisation etc., thus increasing the pressure for rapid multiplication of non-farm employment opportunities.

The district vision 2017 in this regard looks forward to “employment for all” as constitutional right of every citizen, backed by the full commitment of the Government. The district vision looks at enhancing employment opportunities in high employment potential sectors, including commercial agriculture, agro-industry and agri-business; retail and wholesale trade; tourism, housing and construction; IT and IT-enabled services; transport and communications; education, health and financial services. While all these sectors are already expanding, a wide range of strategies and policies will be made available to stimulate more rapid development of the underdeveloped sectors. Growth in under developed sectors will bring in employment opportunities for educated youths and skill labourers.

Tourism-related occupations hardly employ a substantial segment of the population. In Odisha the Tourism Sector employ only 10% of the total workforce. Development of district tourism infrastructure, combined with growth of hotel industry and related services could generate additional employment opportunities in this sector. The district also requires additional teachers and medical professionals to meet the increasing demand for education and health services. This can also be achieved in a public private partnership and public private community partnership mode encouraging more private investment in these sector.

Agriculture is main source of district economy. More than 75 per cent people are earning their livelihood from agriculture and allied activities (animal husbandry, forestry and fishery), which generate massive employment opportunities for poor and vulnerable people. It is observed that wage employment is available within and nearby the villages for about three months. It is mostly the poor and the very poor households who are working as wage earners. During lean seasons wage earners are forced to migrate distant places such as cities and towns within and outside the state, working for construction and related activities. These households are mainly from the Poor and Very Poor categories.

Animal Husbandry is one of the most significant activities in the rural economy of Cuttack district. The livestock resource of this district is very rich (as mentioned in livestock population). It includes a good number of CB cattle and improved buffaloes. The district is also rich in small animal & poultry resources. It has also been estimated that the quantity of livestock produce (milk, meat and egg) is much higher in comparison to the other parts of the state.

By 2017, the district will have the capacity to produce sufficient quantities of food to provide a healthy diet to its entire population and become a major inter district food exporter. By maintaining the required rates of productivity growth for major cereal, the district will be able to meet the projected demand in all major food categories and generate a substantial surplus of food grains and dairy products. Rising productivity and rapid diversification into value-added crops would benefit the farmers and overall agrarian economy of the rural habitation. Production of required / surplus food will help to ensure eradication of under-nutrition and better access to the farmers for other benefits.

## **Industries and mining**

In Industries sector, the schemes coming relating to Large & Medium Industries are not covered under District Sector. The CDP includes only Small Scale Industries (SSI), Handicraft and Cottage Industries, Handloom and Sericulture. The SSI sector has the potential for employing a large number of people with small capital investment. The contribution of Handicraft and Cottage Industries sector towards economic development and removal of economic disparities among the cross sections of societies has been tremendous. It plays a vital role in socio economic development of the artisans and empowerment of women by creating large scale employment at lower capital investment. In recognition of the important role of small scale, handicraft and cottage industries for rural development, efforts have been made to provide institutional support in addition to various incentives and concessions, for promoting these sectors. Handloom is also a cottage industry which has massive employment potential. Government have laid emphasis on the development of handloom industries in the organized sector by providing modern looms and accessories, imparting training to weavers for skill development, providing market support, design innovation etc. For the development of the sector, Central and State grants are provided to the weavers through co-operative societies. Cluster Development Approach has been adopted as a focused strategy for developing and assisting all production organizations and activities in concentrations of weavers' habitats. Under this approach not only the viable Co-operative Societies but Self Help Groups through entrepreneur weavers are also receiving support. In Sericulture sector, the focus is on developing sericulture as viable livelihood activities. Resources have been earmarked for capacity building and equipment support to sericulture farmers.

## **Education**

Education is the process of learning skills to read, write and communicate effectively in any language, acquire knowledge about place, people, culture, climate, history, evolution of civilization, advancement in science and technology, basic calculation etc. which aim at all round development of individuals. Education not only impacts human development and growth, but also is the fundamental right of the citizen according to Constitution of India. Through education, people become more responsible and informed citizens and have a voice in politics and society, which is essential in sustaining democracy. Education is an important tool in empowering people with skills and knowledge and addressing poverty and unemployment. Skill formation and improvement is possible through liberal and technical education.

Technical education, both vocational and professional provides the foundation for development of science and technology and its application. The existing ITIs / engineering colleges need to be upgraded to ensure ever increasing quality standards

## **Health**

Health is a product of many factors and forces that combine and interact in a cohesive manner. Economic growth, per capita income, employment, literacy, education, age at marriage, birth rates, availability of information regarding health care and nutrition, access to safe drinking water, public and private health care infrastructure, access to preventive health and medical care, and health insurance are among the contributing factors in this regard. Measured in terms of infant mortality rates, maternal mortality, life expectancy and nutrition, the health of the people has improved dramatically over the past 50 years. Yet, despite these achievements, wide disparities exist between different income groups, between rural and urban communities, among male and female and between different GPs and blocks in the district.

Communicable diseases remain the major cause of illness. However, malaria and HIV/AIDS will remain as major public health problems. Improved diagnostic services and treatment provisions can reduce the rate of prevalence of such diseases by 2012-17. Restructuring the workforce and strengthening health care infrastructure can reduce the incidence of malaria by 20 % or more by 2017. Childhood and infant diarrhoea, another major cause of illness, can be largely prevented through community action and public education

## **Housing**

Housing being a basic need, efforts have been made to meet the housing needs of people belonging to different income groups in both rural and urban areas. Priority has been given to families living below poverty line. Indira Awas Yojana (IAY) & "Mo Kudia" has been introduced in the district to provide housing facility to the needy people.

Urban population of the district is expected to rise by another 10-12% by 2017, placing increasing strain on the district's urban infrastructure. Future growth is likely to concentrate in and around existing township areas. So, efforts are to be made to increase the infrastructural base of the urban centres through public and private investment. Also it is important to accelerate all-round development of smaller upcoming urban centres at different blocks and GPs and facilitate to compensate for the deficiencies of market mechanisms in the delivery of public goods.

Simultaneous efforts are needed to strengthen the rural infrastructure relating to education, health care, transport, telecom, energy, water etc. Unless, bold steps are taken to promote a geographically more dispersed and equitable development paradigm, widening disparities between rural and urban centres will accelerate the migration to cities and the rapid expansion of urban slum areas. One supportive approach to rural infrastructure development is to link clusters of villages together by improved communication facilities so that people can minimise the transit time in accessing urban amenities.

## **Electrification**

Energy plays myriad role in the economic development of the district. It has cascading impact on all other sectors of district economy. Consumption of energy, both domestic and commercial, has increased steadily over the years. Increase in power generation has cascading effects on all sectors leading to increased growth, particularly in industry, agriculture, other ancillary trade and business activities. Therefore, the objective of the Government is to achieve self-sufficiency in the energy sector on a sustainable basis taking care of steady growth in the demand for energy. In keeping with this objective, State Government have been making substantial investments in the energy sector in the successive Plans by embarking on ambitious programmes and specifically, have introduced reform process in this Sector since 1995 to ensure a competitive environment in each of the sub-sector, namely, generation, transmission and distribution, under an independent and transparent regulatory regime. The State Government have also been attaching considerable importance to tapping energy from non-conventional sources that are renewable and environment-friendly. The twin role of renewable energy is fuel conservation and its substitution. Under Power sector, Biju Gram Jyoti Yojana (BGJY) is the source of funding for rural electrification and Biju Saharanchal Vidyutikaran Yojana (BSVY) is the source of funding for electrification in ULBs. Besides, funds from Gopabandhu Gramin Yojana also supplement the effort for rural electrification. The non-conventional sources of energy like NBMMP, Bio-mass, solar lighting system, Mini-hydro Project, solar hot water system, and energy from jatropha plantation are to play conspicuous role to support the conventional sources of energy.

OREDA is promoting, executing, monitoring, planning, coordinating and evaluating various renewable energy sources in the State. To manage the core establishment for the above schemes, a sum of ₹310.31 lakh has been proposed for the Annual Plan, 2016-17 as against an expenditure of a sum of ₹282.10lakh that was made in the previous plan period of 2015-16.

## **Drinking water and sanitation**

Safe drinking water supply is absolutely essential for sound health of the people. It is the social responsibility of the Government to provide potable water facilities to all households in rural and urban areas. The Rural Water Supply and Sanitation Organization, which is functioning under the Rural Development Department, primarily aims at providing safe drinking water to rural people of the district. Similarly, the Urban Local Bodies are keen to provide safe drinking water supply with sewerage and sanitation facilities to the uncovered areas through strengthening various water supply infrastructural facilities. Implementation of different water supply and sanitation schemes in both rural and urban areas. Rural water supply is carried out as per the new policy of Government of India under National Rural Drinking Water Programme (NRDWP). The goal of the programme is to provide every rural person with adequate water for

drinking, cooking and other domestic basic needs on a sustainable basis. There is a paradigm shift in measuring coverage from the conventional trend in terms of litres per capita per day norms to ensure drinking water security for all in the community. To meet the emerging challenges in the rural drinking water sector relating to availability, sustainability and quality components under the programme are: NRDWP (coverage), NRDWP (Sustainability), NRDWP (Water Quality), NRDWP (National Calamity) and NRDWP (Support).

In order to address sanitation needs through community empowerment, the centrally sponsored “Total Sanitation Campaign (TSC)” is being implemented in Cuttack district. The entire operation under this campaign is being looked after by the District Water Supply and Sanitation Mission. The objective of this scheme is to eliminate the practice of open defecation in rural areas. This brings an improvement in general quality of life in Cuttack District by accelerating sanitation coverage that would help reducing water and sanitation related diseases.

The Public Health Engineering Organisation of the state with Head Qrs. at Bhubaneswar headed by the Engineering-in-Chief functions under H&UD Department which looks after drinking water supply and sewerage system of different Urban Local Bodies of the State. The state has been divided in to six circles, each under the charge of Superintending Engineer. The urban area of Cuttack District comes under the administrative control of the Superintending Engineer, Public Health Circle, Cuttack established in 1978. Under this circle, there are two divisions for Cuttack District namely PH Division-I, Cuttack and PH Division-II, Cuttack. The Head Qrs. of both the division are at Cuttack.

The main function of the Public Health Division-I, Cuttack is to provide safe drinking water in Cuttack Municipal Corporation area along with repair & maintenance of water supply infrastructure, hand pump tube wells and PH works in residential and non-residential buildings of CMC. The division comprises of three subdivisions namely (1) Water Supply Sub-Division, Cuttack, (2) Store PH Sub-Division, Cuttack and (3) Medical PH Sub-Division, Cuttack. The Water Supply subdivision has been divided into seven sections where as five sections each are functioning under Store PH Subdivision, Cuttack and Medical PH Sub-Division, Cuttack. The Head Qrs. of all subdivisions and sections are located at Cuttack City. The Subdivisions are headed by Asst. Executive Engineers and the Sections are headed by Asst. Engineers/ Jr. Engineers.

### **Migration**

Migration (human) is the movement of people from one place in the world to another for the purpose of taking up permanent or semi-permanent residence, usually across a political boundary. An example of "semi-permanent residence" would be the seasonal movements of migrant farm laborers. People can either choose to move ("voluntary migration") or be forced to move ("involuntary migration"). Migrations have occurred throughout human history, beginning



with the movements of the first human groups from their origins in East Africa to their current location in the world. Migration occurs at a variety of scales: intercontinental (between continents), intracontinental (between countries on a given continent), and interregional (within countries). One of the most significant migration patterns has been rural to urban migration—the movement of people from the countryside to cities in search of opportunities.

From Cuttack district, we find some migration from the Block Area of Salepur and Mahanga. A contractor/Agent who recruits and drafts five and more Inter State Migrant Workmen from the State to employ them in other state, is required to obtain a license u/s 8(1)(a)(ii) of the Inter State Migrant Workmen (RE & CS) Act, 1979 (The Act).

In case of recruitment and drafting of the workmen to outside the State, provision is prescribed under the Act to incur expenses by the Agent towards journey and displacement allowances, wages, passbook and to provide welfare facility to the Inter State Migrant Workmen at the place of employment and in the case of violation of such provision, legal action against the contractor is provided under the Act. In case of non-payment wages to the Inter State Migrant Workmen in respect of his employment in outside the State, legal action for recovery of unpaid wages can be taken against the employer in the SDJM Court situated in the home district of the Inter State Migrant Workmen by themselves and through the Inspector appointed under the Payment of Wages Act, 1936 due to the commencement of employment of the workmen w.e.f the date of recruitment.

The social scenario of the district depicts a diversified system in which people from different castes and creeds live together. Antagonism among people on social, cultural religious or occupational backgrounds is negligible. People do observe and participate in each other's social festivals and occasions. Women, being mostly the housewives, engage themselves in the household and agricultural activities. Although social status of women is not low, their independence and involvement in the decision making needs to be improved. Although not practiced openly, some of the social evils against women like early marriages, dowry deaths, wife beatings and excessive workloads and discrimination are noticed in some of the pockets. Due to lack of adequate health facilities women do face a lot of health hazards. Their economic dependency on male counterparts makes them more vulnerable. The district is well known for being disaster-prone most of the people go for either agricultural labour, or migrate to find work in nearest urban and semi urban centres or to the neighbouring states.

### **Food security**

The National Development Council adopted Resolution to launch a Food Security Mission on rice, wheat & pulses to increase the production. Accordingly this district was included for pulse production development under this scheme. Basing on the feedback of the last five year

plan, a new approach, and norms of financial assistance and programme implementation strategy with a revised operational guideline has taken up for XII five year plan.

The NFSM during the XII five year plan will have 5 components i.e. Rice, wheat, pulses, coarse cereals and commercial crops. The objectives of the programme is to Increasing production through area expansion and productivity enhancement in a sustainable manner. Restoring soil fertility and productivity at the individual farm level. Enhancing farm level economy (farm profit) to restore confidence among the farmers.

**INTERVENTIONS** -: The outlines are Accelerated Pulse Production Programme (A3P), Demonstration in improved package of practices, need based inputs, distribution of seeds, nutrient management / soil ameliorants, plant protection measures, farm mechanization, training of farmers.

**Commercial crop based cropping systems**- Sugarcane & Jute are the two major commercial crops taken up in this district with different interventions to promote the crops & increase the production and productivity of farmers.

Local initiatives to support important location specific intervention, financial assistance are provided for augmentation of water resources, development of go-down for safe storage of critical inputs, machines of post-harvest processing are provided as finalized for the district.

District will have the capacity to produce sufficient quantities of food to provide a healthy diet to its entire population and become a major inter district food exporter. By maintaining the required rates of productivity growth for major cereal, the district will be able to meet the projected demand in all major food categories and generate a substantial surplus of food grains and dairy products. Rising productivity and rapid diversification into value-added crops would benefit the farmers and overall agrarian economy of the rural habitation. Production of required / surplus food will help to ensure eradication of under-nutrition and better access to the farmers for other benefits.

### **Social Security**

The government had announced several social security schemes pertaining to the insurance and pension sectors in the 2015 Budget in a bid to move towards creating a universal social security system, targeted especially towards the poor and the underprivileged. To provide social security to the workers, the following Acts are being enforced in the district by the respective institutions.

1. Employees Provident Fund and Miscellaneous Provisions Act.
2. Employee's State Insurance Act.

Social security means protecting a worker and his family against work or health related eventualities. Eventualities include, but are not limited to, Sickness, Maternity, Disability, Death, Unemployment, Old age. Social Security in India covers treatment, rehabilitation or compensation.

## **Critical infrastructure**

### **Anganwadi centers**

The Department has an elaborate field formation with the District Social Welfare Officer (DSWO) to assist the Collector in each District and a Sub-divisional Social Welfare Officer (SSWO) in every sub-division. Besides this, there are Social Educational Organizers (SEOs) and Lady Social Educational Organizers (LSEOs) at the Block level who assist the Block Administration in implementing the social welfare programmes. In the district, each ICDS project is headed by a Child Development Project Officer (CDPO), the project is further divided into 5-6 Sectors. Each sector is headed by a Supervisor, who oversees the work of 20-25 Anganwadi Centres (AWC) functioning at the village level. There are total 3310 Anganwadi Centers in Cuttack district.

### **Schools and other Educational Institutions**

Educated and skilled human resources would be the backbone of district development in the sphere of political, economic, technical, scientific, social, environmental etc. By that time education would be the foundation for growth of productivity, income and employment. In this context national vision highlights that “literacy must be considered the minimum right and requirement of every citizen of the country”. Presently, the district is having about 14.5% illiterates which will be reduced to 0%. The Government’s goal is to achieve almost universal literacy within the next five years. A cent per cent literate district is of paramount importance for realizing the district and state vision. Current enrolment in Primary school, Upper Primary School and Secondary School are 189513, 111374 and 71302 numbers in the district. Achieving 80 per cent enrolment of all children in the 6 to 14 year age group is an ambitious but achievable goal for 2012-17 that should be pursued as a top priority. Increasing enrolment to cover the entire school-age population needs to be combined with efforts to increase the quality and relevance of school curriculum to equip students with not only academic knowledge, but also values and life-knowledge. The knowledge and skill of the workforce will be one of the major determinants of district’s future rate of economic growth. Currently, only five per cent of the country’s labour forces in the 20-24 age categories have undergone formal vocational training in the district. A comprehensive strategy is required to enhance the districts employable skills, including entire range of vocational skills required to support development expansion of vocational training institutes, widening of the range of vocational skills taught, and active involvement of the private sector in skill delivery. A parallel effort is required to upgrade the skills of the farmers, who represent 55 % of the total main workers and 43% workforce. The

existing Krishi Vigyan Kendra (Farm Science Centre) needs to be expanded and supplemented by farm schools offering practical demonstration and training to farmers in the locality.

### **Hospitals and Health Centres**

The district health system has been envisaged as per the norm set up for the state to achieve the objectives of primary health care, which comprises of preventive, curative and promotive health. The Health system based upon the modern medical care has a wide network of health institutions starting from sub-centre level to tertiary level of healthcare institutions. The network of the health system is such that ideally it can provide health care services at the doorsteps of the common people if properly planned and managed. There is one District Head Quarter Hospital (DHH) at City Hospital, Cuttack, two sub-divisional hospitals at Athagarh & Banki, 4 - UGPHC, 1 - CHC, 9 - PHC, 9 - Area Hospital and 52 - PHC(N) cater to the health care need of the people. There are also 15 Ayurvedic & 21 Homeopathic dispensaries. Health is a prerequisite for human development and is an essential component for the wellbeing of the mankind. The health problems of any community are influenced by interplay of various factors including social, economic and political ones. The common beliefs, customs, practices related to health and disease in turn influence the health seeking behaviour of the community.

### **Veterinary Hospitals**

Animal resources and dairy development being an integral part of agriculture sector bolster the income of the people having land and without land. This sector also quells the fierce of occurring drought conditions. The various programmes of this sector enable the rural households to keep live stock in any form to generate enormous income. It has opened vast employment opportunities for the landless labourers to maintain their livelihood through small and big ruminants.

District is having 27 hospitals and dispensaries, 45 V.A.S & additional V.A.S, 145 Livestock Aid Centres, 124 Livestock inspector and 205 Artificial Insemination Centres. To cater to the need of livestock population, there are veterinary doctors and livestock inspectors forming the livestock service providing infrastructure in the district.

### **Police and Fire Stations**

On 24th April 1981, the existing Cuttack Police district was bifurcated in to two Police districts namely Cuttack Sadar and Cuttack Rural and the new Police district started functioning from 1st May 1981 having their headquarters at Cuttack. The Cuttack (Rural Police District) has 8 Circles, 32 Police Stations and 29 Out Posts. The Cuttack Sadar district had 3 Police circles, 18 PSs, 10 Out Posts and 14 Town Out Posts. Each of the Police circle were managed by Inspectors of Police and a senior Sub-Inspector was placed as the Officer in charge of the Police station, when the OPs remained under the charge of either Sub-Inspector or Asst. Sub-Inspector of

Police. Usually Havildars were posted in the town OPs. On 1st January 2008 the 1st Commissionerate of Police, Urban District was created comprising of the Town Police Stations of both Bhubaneswar and Cuttack. In this process Police Stations like Chauliaganj, Madhupatna, Mangalabag, Purighat, Lalbag, Bidanasi, Mangalabag, Malgodown, Darghabazar, Cantonment, Choudwar, Jagatpur and Sadar became a part of the Urban District headed by Commissioner of Police. After such bifurcation, as many as 14 Police Stations mostly of Rural areas are kept under the Cuttack district. 4 out posts i.e. Nemalo, Nischintakoili, Olatpur and Khuntuni are upgraded to Police Stations. At present there are 18 Police Stations, 15 numbers of Out Posts along with Beat House are in the district. This district has been divided in to Five Police Sub-Divisions and Sub Divisional Police Officers are looking after the functions of different police stations and law and order situations of their areas.

Govt. Rly Police was functioning under the control of Dist. administration Cuttack. Subsequently in the year 1988 was separated from District Administration Cuttack and at present functioning in a building provided by Rly, authority since then. It was the first and foremost duty of Rly Police to safe guard the life & properties of the passengers including VVIPs & Z Categories side by side the national property and to give protection to the passengers towards travelling in the train throughout the District.

This Jail was established during the year 1864 in the heart of the Cuttack City. Due to administrative inconvenience, the said Jail was shifted to Choudwar on dt.01.04.1991 and named as Circle Jail, Cuttack at Choudwar.

The responsibility of Fire Extinction since inception was given to Police as envisaged in Police Manual Rule-101 and as such Odisha Fire Service was recognized as a branch of Police Manual Rule-1B(8) Role of the Fire Stations are as follows

1. Fire Fighting
2. Responding to Rail / Road accidents, drowning cases etc.
3. Response to all disasters and thrust on
  - a. Search and Rescue
  - b. Shifting of causality
  - c. Rehabilitation and Restoration
4. Covering Fire protection to V.V.I.P., V.I.P., at Helipads, meeting places etc along with Law and Order Places.
5. Covering Fire Protection at Public meeting places.
6. Ensuring Fire Prevention in High rising Building, Business, Assembly, Mercantile, Industrial, Hazardous and other places of important and massive gathering.
7. Creating public awareness on Fire Safety by holding training, Mock Drill etc.

### Cooperative Societies

The district has 276 commercial bank branches out of which 111 branches are in rural areas, 17 in semi-urban areas and 148 are urban branches. There are 210 agricultural credit cooperatives with a total membership of 2.51 lakhs of members. Non-agricultural credit cooperatives are 37 with a total membership of 58116 members

### Banks and Post offices

Banks are where people can safely deposit their savings, which banks then pay interest on. If there were no banks, people would have to store and protect their savings themselves, which would involve major risks. Banks are largely responsible for the payments system. Electronic payments are becoming more important as people use less cash. This means that banks are processing more card payments, transfers, direct debits, etc. every day. Banks issue loans to both people and companies. Without banks, it would be very hard for people to buy a home or start a business, or for companies to make investments, for example. Banks do a variety of other things, such as helping corporations with their, often more complex, financial needs. This can range from the various ways to gain access to capital for growth and investments, to assisting in mergers and acquisitions, to converting currencies. The objective of Postal department is to provide mail services at affordable prices and this it cannot increase the prices of these low-end products.

Banks and Post Offices							
Sl. No.	Block	Banks				No. of ATMs	Post Offices
		Commercial Banks	RRBs	Cooperative Banks	Other Banks		
1	ATHAGARH	9	4	1	2		33
2	BANKI	6	4	3	0		25
3	BARAMBA	8	2	2	0		25
4	BARANGA	10	2	0	1		24
5	CUTTACK SADAR	16	7	1	0		89
6	DAMPADA	5	2	1	0		8
7	KANTAPARA	7	2	0	0		13
8	MAHANGA	10	2	1	1		17
9	NARSINGHPUR	9	3	2	0		27
10	NIALI	8	5	1	0		18
11	NISCHINTAKOILI	15	5	1	2		15
12	SALIPUR	11	4	1	3		24
13	TANGI CHOUDWAR	20	4	1	1		23
14	TIGIRIA	4	1	2	0		10
	<b>Cuttack Dist Total</b>	<b>138</b>	<b>47</b>	<b>17</b>	<b>10</b>	<b>579</b>	<b>355</b>

### Road and Railway network

Road and Railway connectivity is a sine qua non of the pace and progress of socio-economic development of the people. It has a cascading impact on other sectors of development for fast movements, mobilization of human resources, movable assets and accelerates social and economic activities. Intensive relationship develops between the rural and urban Centres along with fabulous expansion of trade and commerce. Cuttack is well connected with NH-5, NH-42 and NH-200.

Cuttack district is having 196.01 (km) State Highway, 132.22 (km) Major District Roads and 402.14 (km) Other District Roads (ODR). Thus, Transport sector comprises of Rural Roads, Roads and Bridges and Cement Concrete Road. The District has 115.45 kms of rail network having 18 railway stations, 63.55 km National and 196.01 km State highways. Our vision of the district by 2012-17 is to having a well-developed network of roads and other transportation means, with adequate capacity to handle the growth in transport demand. The volume of road traffic will multiply more than two fold in coming years which will be supported by good road networks.

Sl. No	Infrastructure	Quality Norm(in Kms.)	Actual Status
1	NH		63.55
2	State Highway		196.01
3	Major district roads	All season usability	132.22
4	Other district roads	All season usability	402.14
5	Rural road		1463.28
6	GP roads		3010
7	Forest Road		204.45
8	Panchayat Samiti Road		1265
9	Railway Route length		115.45
10	No Railway Station & PH		18

### Cyclone and Flood Shelters

One of the most successful means of reducing loss of human lives during cyclones is the provision of cyclone shelters. In densely populated areas, where large scale evacuations are not always feasible, community buildings and buildings used for gathering of large number of persons, like schools, dharamshalas, hospitals, prayer halls, etc. can be used as cyclone shelters. It was felt that number of deaths were more in the affected areas during the Super Cyclone due to non-availability of safe shelter buildings in the coastal villages, which could have withstood the intensity of the cyclone and the storm surge. Government of Orissa decided to construct multipurpose cyclone shelters along the Orissa coast to provide safe shelters to the vulnerable people during floods and cyclones.

The locations were identified through a scientific survey conducted by Indian Institute of Technology (IIT), Kharagpur with two major postulates i.e. No person will have to travel more than 2.25 km to get a safe shelter and without crossing a natural Barrier. The building is designed to withstand wind speed up to 300 kmph and moderate earthquakes. Its plinth is above High Flood line (HFL) and standing on a stilted floor, it can remain unaffected in storm surge up to the 1st floor level.

So far, 27 multipurpose cyclone shelters, have been constructed in Cuttack district of Orissa and have been handed over to the community based Cyclone Shelter Management and Maintenance Committees (CSMMC) Apart from these there are 254 School-cum-Cyclone, Flood Shelter Places constructed by Govt. & Pvt. Agencies by district administration. During Emergency Situation these units can be utilised for accommodating the public.

### **Rain gauge and Automatic Weather Stations**

A rain gauge is a simple instrument anyone can install and use. Basically it looks like a transparent cylinder with markings. A rain gauge is an instrument you can use to measure the amount of rainfall your area receives in a given time period. With this, you won't have to rely on local weather reports. You can read the amount of rainfall in inches or millimetres. Yes, it's only a simple instrument but it gives powerful information that you can use to make better decisions. A rain gauge is your ally to making more intelligent decisions about your land and crops. The information you can get from it is more reliable than any sources out there. There are 14 rain gauge instruments installed in Cuttack district. One in at Collectors Res Office, and other 13 are installed in all block headquarter except Banki block.



## Chapter- III

# Hazard, Risk and Vulnerability Assessment

### A. Major Disasters/ Incidents during 2006-2021

A brief profile of major disasters/ incidents occurred in the district (2006 to 2021):

Table No. : 1

Sl. No.	Disaster/ Incident	No. of incidents during (2006-2015)	No. of Deaths	Affected Population	Livestock Loss	Houses Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares)
							School / AWC Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	
<b>Disasters as approved under SDRF/ NDRF Guidelines.</b>											
1	Flood	2006	2	446697	12	-	-	-	-	-	-
2	Flood	2007	-	-	-	-	-	-	-	-	-
3	Flood	2008	20	7,78,868	6343	-	-	-	-	-	-
4	Flash flood	2009	3	26736	-	-	-	-	-	-	-
5	Flood	2011	4	584470	864	12489	-	-	-	-	32212.12
6	Flood	2014	1	522796	-	361	-	-	-	-	3014.317
		2019	4								118309
7	Drought	2013	-	-	-	-	-	-	-	-	-
8	Drought	2015	-	-	-	-	-	-	-	-	72554
9	Hail Storm	-	-	-	-	-	-	-	-	-	-
10	PHAILIN	2013	-	231675	148	29511	-	-	-	-	83439.63
11	Hud Hud (Cyclone)	2014	-	-	-	-	-	-	-	-	-
	Titili	2018	-	-	-	-	-	-	-	-	-
	FANI Cyclone	2019	6	2447071	1080221	120724	974	-	-	-	21649.8
12	Earth Quake	-	-	-	-	-	-	-	-	-	-
13	Tsunami	-	-	-	-	-	-	-	-	-	-
14	Landslide	-	-	-	-	-	-	-	-	-	-
15	Avalanche	-	-	-	-	-	-	-	-	-	-

16	Cloud Burst In Cuttack City	-	-	-	-	-	-	-	-	-	-
17	Pest Attack	-	-	-	-	-	-	-	-	-	-
18	Cold Wave/ Frost	-	-	-	-	-	-	-	-	-	-
<b>State Specific Disasters as per Notification No.1936 Dt. 01.06.2015</b>											
19	Lightning	2006	32	-	-	-	-	-	-	-	-
		2007	30	-	-	-	-	-	-	-	-
		2008	18	-	-	-	-	-	-	-	-
		2012	15	-	-	-	-	-	-	-	-
		2013	-	-	53	-	-	-	-	-	-
		2015	-	-	3	-	-	-	-	-	-
		2016	-	-	46	-	-	-	-	-	-
		2017	22	-	-	-	-	-	-	-	-
		2018	7	-	-	-	-	-	-	-	-
		2019	12	-	-	-	-	-	-	-	-
		2020	9								
2021	17										
20	Heat wave	2005	11	-	-	-	-	-	-	-	-
		2007	6								
		2017	3								
		2018	2								
		2019	6	-	-	-	-	-	-	-	-
		2020	2	-	-	-	-	-	-	-	-
21	Whirlwind	2015	1	-	-	-	-	-	-	-	
22	Tornado	-	-	-	-	-	-	-	-	-	
23	Heavy Rain	-	-	-	-	-	-	-	-	-	
24	Boat Accidents (Other than during Flood)	2021	1	-	-	-	-	-	-	-	
25	Drowning (Other than during Flood)	2006-2015	22	-	-	-	-	-	-	-	
		2017	16	-	-	-	-	-	-		
		2018	13	-	-	-	-	-	-		
		2019	32								

		2020	24								
		2021	56								
		2022	10								
26	Snake Bite(Other than during Flood)	2006-2015	36	-	-	-	-	-	-	-	-
		2017	23	-	-	-	-	-	-	-	-
		2018	19	-	-	-	-	-	-	-	-
		2019	27								
		2020	4								
		2021	36								
		2022	3								
<b>Other Disasters</b>											
27	Animal Menace	-	-	-	-	-	-	-	-	-	-
28	Building Collapse	-	-	-	-	-	-	-	-	-	-
29	Stampede	-	-	-	-	-	-	-	-	-	-
30	Epidemics	-	-	-	-	-	-	-	-	-	-
31	Industrial/ Chemical Accidents	-	-	-	-	-	-	-	-	-	-
32	Road Accidents	2018	11	-	-	-	-	-	-	-	-
33	Railway Accidents	2018	1	-	-	-	-	-	-	-	-
34	Hooch Incidents	-	-	-	-	-	-	-	-	-	-
35	Communal Riot	-	-	-	-	-	-	-	-	-	-
36	Dam Break/ Spill Way related flood.	-	-	-	-	-	-	-	-	-	-
37	Soil/ Coastal erosion	-	-	-	-	-	-	-	-	-	-

38	Fire Accident	2018	3	-	-	-	-	-	-	-
		2019	1							
		2020	2							
		2021	3							
		2022	0	-	-	-	-	-	-	-
39	COVID-19	2021-22	1484	-	-	-	-	-	-	-

[Year wise details of each disaster occurred during the last 10 years is at Table No. 3.1 of Volume II of DDMP]

Vulnerability	Vulnerability against each hazard							
			<i>Flood</i>		Chemical industry			
	<i>Cyclone</i>						<i>Fire</i>	
	Popula tion (appro x)	Area name	Popul ation (appr ox)	Area name	Popula tion (appro x)	Area name	Popu latio n (app rox)	Area name
Road network	15 lacs	All Blocks	5 lacs	Niali, Kantapada, Banki, Salipur, Mahanga, N.Koili, Athgarh, Tigiria	1 lac	Jagatpur, Choudwar	Nil	Nil
Water ways	1 lac	All Blocks	3 lacs	Niali, Kantapada, Banki, Salipur, Mahanga, N.Koili, Athgarh, Tigiria	Nil	Nil	Nil	Nil
Water supply	15 lacs	All Blocks	7 lacs	All Blocks	2 lacs	Jagatpur & Choudwar	Nil	Nil
Sewage	5 lacs	CMC	5 lacs	CMC	50000	Jagatpur & Choudwar	Nil	Nil
Hospital	10 lacs	All Blocks	2 lacs	All Blocks	10000	Jagatpur & Choudwar	2 lacs	Athgarh sub-division

Food stocks & supplies	15 lacs	All Blocks	7 lacs	All Blocks	2 lacs	Jagatpur & Choudwar	2 lacs	Athgarh sub-division
Communication (System)	5 lacs	All Blocks	1 lac	All Blocks	Nil	Nil	Nil	Nil
Embankments	2 lacs	All Blocks	7 lacs	Niali, Kantapada, Banki, Salipur, Mahanga, N.Koili, Athgarh, Tigiria	Nil	Nil	Nil	Nil
Bridges	2 lacs	Banki, Athgarh, Sadar, Niali	3 lacs	Niali, Kantapada, Banki, Salipur, Mahanga, N.Koili, Athgarh, Tigiria	Nil	Nil	Nil	Nil

### **B. Major Disasters/ Incidents in the District during 2019 & 2022:**

Table: 02

Sl. No.	Disaster/ Incident	No. of incidents during 2019 & 2021	No. of Deaths	Affected Population	Livestock Loss	Houses Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares)
							AWC/ School Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	
1	Drowning	122	122	24	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	Snake Bite	70	70	4	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Lightening	38	38	9	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4	COVID-19	NA	1484	All	Nil	Nil	Nil	Nil	Nil	Nil	Nil

### **C. Vulnerability and Risk Assessment related to disasters:**

#### **1. Cyclone:**

Table No. 03: Cyclone vulnerable areas of the district.

All Blocks of Cuttack District

(Detailed list of vulnerable Villages/Wards is at table No. 3.2 of Volume II of the DDMP.)

**Electrical Infrastructure and cyclone Vulnerability:**

Table No. 04

Sl No	Name of the Block / ULB	No. of Grid Station	No. of 33/11KV S/s	No. of Distributing Transformers			Conductor / Electrical lines-11KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11KV (length in Kms.)
				11KV or Less	11KV <and <60KV V	60KV and above				
1	Cuttack Sadar	0	3	243	0	0	439.32	10292	0	37.33
2	CMC	1	6	726	0	0	268.05	11663	39	36.52
3	Kantapada	1	3	437	12	0	313.7	4750	0	21
4	Niali	0	1	720	4	0	732.5	8984	0	12
5	Tangi Choudwar	1	3	538	38	0	698.4	7866	0	36.21
6	Salipur				185	0	132	820		4
7	N.Koili				229	0	145	790		3
8	Mahanga				172	0	118	805		3
9	Narsinghpur	1	2	180	0	0	382	7609	0	35
10	Badamba		1	220	0	0	421	8352	0	15
11	Tigiria		2	60	0	0	163	3201	0	5
12	Athagarh	1	5	210	0	0	368	7298	0	35
13	Banki	1	2	94	2		55.00	917	18	19.00
14	Banki-Dampada		2	411	22		173.60	2896	47	66.40

Table No.05: **Drinking water facility in the Cyclone prone areas:**

Sl. No.	Name of the Block/ ULB	Total No. of Tube Wells	No. of Tube Wells with raised platforms	No. Sanitary Wells	PWS Schemes				Other Drinking Water Sources If any
					Total No.	Length in Mtrs.	No. of Over Head tanks	No. of Stand Points	
1	Cuttack Sadar	1409	57		41	123000	13	820	
2	Baranga	923	15	2	27	81000	10	540	
3	Kantapada	863	47		24	72000	3	480	
4	Niali	1575	64		39	117000	8	780	
5	Banki-1	1196	165	18	21	63000	12	420	
6	Dampara	980	122	2	21	63000	4	420	
7	Tangi-Choudwar	1412	16		40	120000	6	800	
8	Athagarh	1399	67	Nil	74	2,47,412	3	997	
9	Tigiria	695	44	Nil	23	73,845	7	578	
10	Baramba	1392	75	Nil	37	1,66,585	3	648	
11	Narsinghpur	1589	68	Nil	42	1,93,222	6	767	
12	Salipur	2842	40		40	120000	8	800	
13	Mahanga	2695	113		42	126000	14	840	
14	Nischintakoili	3752	68		38	114000	8	760	
15	CMC	2807	00	0	00				
16	CMC-PHD	567	60	0	00				
17	Athagarh NAC	156	80	0	00				
18	Banki NAC	130	00	0	00				
19	Choudwar Municipality	359	140	0	00				
20	<b>Grand Total</b>	<b>26741</b>	<b>1241</b>	<b>22</b>	<b>509</b>				

## 2. Tsunami: Not Applicable

## 3. Flood:

**Details of weak & Vulnerable points of Cuttack District for 2020-21. (To be Updated) in June**

Sl No	Name of the Division	Name of the Block	Name of the Weak River Embankments	Location of the vulnerable points
1	Mahanadi North Division	Badamba	Mahanadi Left Embankment	Bangurusingha Gheri
2		Salipur	Chitrotpala Left Embankment	Near Village Bateswar
3		Mahanga	Nuna Left Embankment	Near Village Sadhak Nagar
4	Prachi Irr Division	Niali	Devi Right Embankment	Near Village Kantisal

Table No. 07 : Flood vulnerable areas of the district in general.

Sl. No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible villages/ Wards	Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
1	Athagarh	14	67	144670	48006	31361	NA	NA	NA	NA
2	Tigiria	5	22	74639	14691	16519	NA	NA	NA	NA
3	Badamba	16	31	149793	37184	35641	NA	NA	NA	NA
4	Narasingpur	23	80	157201	53504	36127	NA	NA	NA	NA
5	Banki	18	99	115402	57997	26673	NA	NA	NA	NA
6	Dampada	16	43	98894	26657	22714	NA	NA	NA	NA
7	Cuttack Sadar	5	9	141693	57356	30668	NA	NA	NA	NA
8	Tangi Choudwar	5	11	157801	52734	32785	NA	NA	NA	NA
9	Salepur	2	4	193938	33417	44942	NA	NA	NA	NA
10	Mahanga	15	58	186930	69148	44326	NA	NA	NA	NA
11	Nischinta Koili	13	29	188599	67229	44377	NA	NA	NA	NA
12	Niali	2	8	147135	79941	33191	NA	NA	NA	NA
13	Banki NAC	1	17	17521		3698	NA	NA	NA	NA
14	Kantapada	2	9	89514	25337	20074	NA	NA	NA	NA

[Note: Based on historical data the tables to be filled up. Only relevant blocks to be mentioned.]

(Detailed list of vulnerable Villages/Wards is at table No. 3.2 of Volume II of the DDMP.) Table No. 08: Causing agent wise flood vulnerable areas of the district:

Sl. No.	Causing agent- Rivers/ Water bodies/Tidal Wave/ Others	No. of Susceptible Blocks/ ULB	No. of Susceptible GPs	No. of Susceptible Villages / Wards	Vulnerable Population	Milch and Draught animals	Houses	Vulnerable Infrastructure			
								School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infra.
1	Mahanadi, Birupa, Chitrotpala	12 Blocks	134 GP	474 Villages	667831	NA	NA	NA	NA	NA	NA
2	Kathajodi	2 Blocks	6 GP	23 Village	32902	NA	NA	NA	NA	NA	NA
3	Flash Flood	9 Blocks	66 GP	258 Village	522796	NA	NA	NA	NA	NA	NA



Table No. 09: Agriculture and Flood Vulnerability

Sl.No.	Name of the Block	Cultivated area (Fig. in Ha)			Area sustainable to flood (Fig. in Ha)		
		Paddy	Non Paddy	Total	Paddy	Non Paddy	Total
1	Cuttack sadar	9770	1869	11639	2155	0	2155
2	Barang	6720	1098	7818	950	0	950
3	Kantapada	5520	2285	7805	0	0	0
4	Niali	10390	3610	14000	850	0	850
5	Tangi choudwar	14320	5743	20063	1150	0	1150
6	Salipur	13380	3060	16440	0	0	0
7	N.Koili	12790	991	13781	0	0	0
8	Mahanga	11420	2674	14094	0	0	0
9	Athagarh	13150	6816	19966	1285	0	1285
10	Tigiria	4130	2459	6589	1850	0	1850
11	Badamba	7520	5773	13293	2250	30	2280
12	Narsinghpur	12200	7433	19633	4500	100	4600
13	Banki-I	7390	3564	10954	3800	150	3950
14	Banki-Dampada	7300	4775	12075	6700	120	6820
<b>District Total:-</b>		<b>136000</b>	<b>52150</b>	<b>188150</b>	<b>25490</b>	<b>400</b>	<b>25890</b>

Table No. 10 : Electrical Infrastructure in the Flood Prone Area

Sl No	Name of the Block / ULB	No. of Grid Station	No. of 33/11KV S/s	No. of Distributing Transformers			Conductor / Electrical lines- 11KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11KV (length in Kms.)
				11KV or Less	11KV <and <60KV	60KV and above				
1	Cuttack Sadar	0	3	243	0	0	439.32	10292	0	37.33
2	CMC	2	6	726	0	0	268.05	11663	39	36.52
3	Kantapada	1	3	437	12	0	313.7	4750	0	21
4	Niali	0	1	720	4	0	732.5	8984	0	12
5	Salipur				122		38.2	452		
6	N.Koili				152		68.4	720		
7	Mahanga				88		22.5	280		

8	Narsinghpur	2		413			275.85	8276	50	
9	Badamba			480			241	7218		
10	Tigiria			211			145	4338		5
11	Athagarh		1	264			188	5649		35
12	Banki	1	2	94	2		55.00	917	18	19.00
13	Banki-Dampada		2	411	22		173.60	2896	47	66.40

Table No.11: Drinking water and Flood Vulnerability:

Sl. No.	Name of the Block/ ULB	Total No. of Tube Wells	No. of Tube Wells with raised platforms	No. Sanitary Wells	PWS Schemes				Other Drinking Water Sources If any
					Total No.	Length in Mtrs.	No. of Over Head tanks	No. of Stand Points	
1	Cuttack Sadar	1409	57		41	123000	13	820	
2	Baranga	923	15	2	27	81000	10	540	
3	Kantapada	863	47		24	72000	3	480	
4	Niali	1575	64		39	117000	8	780	
5	Banki-1	1196	165	18	21	63000	12	420	
6	Dampara	980	122	2	21	63000	4	420	
7	Tangi-Choudwar	1412	16		40	120000	6	800	
8	Athagarh	1399	67	Nil	74	2,47,412	3	997	
9	Tigiria	695	44	Nil	23	73,845	7	578	
10	Baramba	1392	75	Nil	37	1,66,585	3	648	
11	Narsinghpur	1589	68	Nil	42	1,93,222	6	767	
12	Salipur	2842	40		40	120000	8	800	
13	Mahanga	2695	113		42	126000	14	840	
14	Nischintakoili	3752	68		38	114000	8	760	
15	CMC	2807	00	0	00				
16	CMC-PHD	567	60	0	00				
17	Athagarh NAC	156	80	0	00				
18	Banki NAC	130	00	0	00				
19	Choudwar Municipalty	359	140	0	00				
20	<b>Grand Total</b>	<b>26741</b>	<b>1241</b>	<b>22</b>	<b>509</b>				

#### 4. Events/ Festivals/ Functions organized in the district where mass gathering occurs:

[The events where the strength of population gathering is 5000 or above is to be mentioned in the table]

Sl. No.	Name of the Event/ Festival/ Function	Place (Block & Gram Panchayat)	Duration of the event (in No. of days)	Month (as per English Calendar)	Strength of population gathering (Approx.)	Remarks (other vulnerabilities associated with the place/ event, if any to the mentioned)
1	Odisha Day	Cuttack Sadar	One Day	1 <sup>st</sup> April	5000	
2	Car Festival	Cuttack Sadar	Nine Days	June/July	10000	Stampede
3	Independence Day	Cuttack Sadar	One Day	15 <sup>th</sup> August	10000	
4	Durga Puja	Cuttack Sadar		October	200000	
5	Bada Osha	Cuttack Sadar	5 Days	November	1300000	
6	Baliyatra	Cuttack Sadar	8 Days	November	1800000	Stampede
7	Republic Day	Cuttack Sadar	One Day	26-Jan	10000	
8	Mahasivaratri	Athagarh	One Day	February	100000	River

Table No. 12

#### 5. Boat operation points:

Table No. 13:

Sl. No.	Name of the Block	Name of the Ghat/ boat operation point	Name of the water body	No. of Panchayats/ villages connected	Daily to and from movement of people in Nos. (Approx.)	Type of boats operating in Nos.	
						Mechanised	Non-Mechanised
1	Sadar	Ghantikhal	Mahanadi, Kuakhia, Kathajodi	GP-2 V-2	NA	0	17
2	Athagarh	Dhurukudia, Balarampur, Suniamuhan, Barahampur, Campapur, Karakamal, Sasanga, Kumarpur	Mahanadi	GP-15 V-71	NA	5	29
3	Narasinghpur	Siloti Baliput Sanagaon	Mahanadi	GP-2 V-6	NA	0	14

		Chakraprasad Kathakhunta Ekadal Padamal Desa					
4	Banki	Nua Ostia Ratararh Manipur Bilitenttulia Pathapur Kurumchani Sampur	Mahanadi	GP-8 V-19	NA	2	07
5	Baramba	Bangarisingha, Gopinathpur, Bhtarika Gobardhanpur	Mahanadi	GP-11 V-11	NA	0	21
6	Niali	Kalakha Parimal	Devi, Devikandala	GP-23 V-127	NA	5	10
7	Nishintkoili	Asureswar Palada Sadhaknagar Nagaspur	Chhitrotpala, River Nuna	GP-14 V-14	NA	3	06
8	Kantapada	Kula Brahmansailo Ghat Adaspur	River Devi	GP-19 V-81	NA	3	18
9	Dompada	Karabara Muraripur Rana Bridge	Mahanadi	GP-2 V-6	NA	0	02
10	Tangi- Choudwar	Jaripada Nalikula Kayalpada Chasapada	Birupa Mahanadi	GP-4 V-4	NA	2	02
11	Mahanga	Kuhunda Jasarajpur Ghata Tribeniswar Jasarajpur Dharmadaspur Basudevpur	Gobari, Badagenguti	GP-14 V-18	NA	3	00

## 6. Land Slide Vulnerability: Not Available

Table No. 14

**7. Lightning:**

Table No. 15-

Sl. No.	Name of the Block/ ULB	Identifiable incidents of lightning hit in last 5 years		No. of Lightning events	No. fatality/ Deaths	Injured Persons
		No. GPs	No. of Villages/ Wards			
1	Athagarh	NA	11	11	11	0
2	Salepur	NA	5	5	5	0
3	Tigiria	NA	2	2	2	0
4	Baramba	NA	1	1	2	2
5	Narasinghpur	NA	4	4	4	0
6	Tangi Choudwar	NA	8	8	8	0
7	Baranga	NA	1	1	1	0
8	Banki	NA	3	3	3	0
9	Dompada	NA	2	2	2	0
10	Niali	NA	2	2	2	0
11	Cuttack Sadar	NA	4	4	4	0
12	Nischintakoili	NA	1	1	1	0

**8. Major Industrial Establishments/ Chemical & Other hazardous material storage points:**

Table No. 16-

Sl. No.	Name & location of the Industry/ Storage point	Department/ Owner ship	Name of hazardous materials stored	Quantity	Total no. of workers in the establishment	No. of adjacent Villages/ Habitations within 2 Kms. radius	Susceptible Population	House	Vulnerable Infrastructure		
									School Buildings & AWC	Hospitals	The Critical Infra.
1	M/s. SMV Beverages, At/ P.O- Jagatpur, Dist- Cuttack.	Director Factory Broilers & Industries	Ammonia.	1000 Ltrs.	NA	NA	NA	NA	Yes	Yes	
2	M/s. Rams Assorted Cold Storage Limited.	Director Factory Broilers &	Ammonia	1670 Ltrs.	NA	NA	NA	NA	Yes	Yes	

	Telengap intha, Dist- Cuttack.	Indust ries									
3	M/s. Health Food Products At/ P.O- Jagatpur, Dist- Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia	300 Ltrs.	NA	NA	NA	NA	Yes	Yes	
4	M/s. Pragati Milk Product At/P.O- New I.E, Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia	600 Ltrs.	NA	NA	NA	NA	Yes	Yes	
5	M/s. Pragati Milk Product At/P.O- Nishintak oili, Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia	400 Ltrs.	NA	NA	NA	NA	Yes	Yes	
6	M/s. Co- Opeative Cold Storage, At/ P.O- Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia.	500ltr s	NA	NA	NA	NA	Yes	Yes	
7	M/s. Jaiguru Cold Storage At/P.O- Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia	500 Ltrs.	NA	NA	NA	NA	Yes	Yes	
8	M/s. Jaganna th Cold Storage At/P.O- Nischinta koili, Cuttack.	Direct or Factor y Broile rs & Indust ries	Ammo nia	600 Ltrs.	NA	NA	NA	NA	Yes	Yes	

9	M/s. Shakti Freezing At/P.o-Salipur Dist-Cuttack.	Direct or Factory Broilers & Industries	Ammonia	400 Ltrs.	NA	NA	NA	NA	Yes	Yes	
10	M/s. Suvochem Industries I.E, Jagatpur, Cuttack.	Direct or Factory Broilers & Industries	Chlorine	Max. Storage - ltrs each 8 tonnes of capacity 900	NA	NA	NA	NA	Yes	Yes	
11	M/s. CosBoard Industries I.E, Cuttack.	Direct or Factory Broilers & Industries	Chlorine	Max. Storage 6 tonnes or capacity 900 ltrs each	NA	NA	NA	NA	Yes	Yes	
12	M/s. Rajashree Chlorochem I.E, Jagatpur, Cuttack.	Direct or Factory Broilers & Industries	Chlorine	Max. Storage - 6 tonnes of capacity 900 ltrs each.	NA	NA	NA	NA	Yes	Yes	
13	M/s. Paradeep Oxygen, New, I.E, Jagatpur, Cuttack.	Direct or Factory Broilers & Industries	Acetylene	150Nos of cylinder of capacity 5.5 cubic meter.	NA	NA	NA	NA	Yes	Yes	
14	M/s. Manishree Refractories Madhupatana Ind.	Direct or Factory Broilers & Industries	Producer Gas.		NA	NA	NA	NA	Yes	Yes	

	State	ries									
15	M/s. IMFA Ltd., (Unit-I) At/P.O-Choudwar, Cuttack	Direct or Factory Broilers & Industries	LDO, TRANSFORMER OIL, LIQUID OXYGEN		NA	NA	NA	NA	Yes	Yes	
16	M/s. IMFA Ltd.,(Unit-II) At/P.o-Choudwar, cuttack.	Direct or Factory Broilers & Industries	LDO,LIQUID OXYGEN, TRANSFORMER OIL, CO		NA	NA	NA	NA	Yes	Yes	
17	M/s. IMFA Ltd., (Unit-III) At/P.O-Choudwar, Cuttack	Direct or Factory Broilers & Industries	LDO, HSD, TRANSFORMER OIL, CO,HCL		NA	NA	NA	NA	Yes	Yes	
18	M/s. Aarti Steels Ltd., At-Ghnatikhal, P.O-Mahakalabasta,	Direct or Factory Broilers & Industries	LDO,LIQUID OXYGEN, TRANSFORMER OIL,		NA	NA	NA	NA	Yes	Yes	
19	M/s. T.S Alloys Ltd., At-Anantapur, Cuttack.	Direct or Factory Broilers & Industries	LDO. TRANSFORMER OIL, HCL, LIQUID OXYGEN		NA	NA	NA	NA	Yes	Yes	
20	M/s. Bhubaneswar Power (P) Ltd., Anantapur, Cuttack.	Direct or Factory Broilers & Industries	LDO, TRANSFORMER OIL, HCL		NA	NA	NA	NA	Yes	Yes	



**9. Drought:**

[Table to be filled based on data available at the district level. Information for all the blocks of the district to be given]

Table No.- 17

Sl.No	Name of the Block	Annual R.F. on MM	Ground water leavel	Cultivated area( Figure inHect)					
				Paddy			Non Paddy		
				Rainfed	Irrigated	Total	Rainfed	Irrigated	Total
1	2	3	4	5	6	7	8	9	10
1	Cuttack sadar	1424.3	20ft -25ft	157	9613	9770	1185	1405	2590
2	Barang	1424.3	20ft -25ft	2158	4562	6720	1481	1054	2535
3	Kantapada	1424.3	20ft -25ft	112	5408	5520	703	1747	2450
4	Niali	1424.3	20ft -25ft	505	9885	10390	846	3639	4485
5	Tangi choudwar	1424.3	20ft -25ft	6734	7586	14320	1145	1993	3138
6	Salipur	1424.3	20ft -25ft	830	12550	13380	1620	2300	3920
7	N.Koili	1424.3	20ft -25ft	2280	10510	12790	232	2388	2620
8	Mahanga	1424.3	20ft -25ft	587	10833	11420	273	3183	3456
9	Athagarh	1424.3	20ft -25ft	7325	5825	13150	2927	2618	5545
10	Tigiria	1424.3	20ft -25ft	2962	1168	4130	1725	700	2425
11	Badamba	1424.3	20ft -25ft	3933	3587	7520	1574	3796	5370
12	Narsinghpur	1424.3	20ft -25ft	7146	5054	12200	3761	2244	6005
13	Banki-I	1424.3	20ft -25ft	5497	1893	7390	1379	1587	2966
14	Banki-II	1424.3	20ft -25ft	5031	2269	7300	2422	2223	4645
Total		<b>1424.3</b>		<b>45257</b>	<b>90743</b>	<b>136000</b>	<b>21273</b>	<b>30877</b>	<b>52150</b>

Table No. 18: Drought Vulnerability.

Sl. No.	Name of the Block	Year- 2019,2020, 2021				Year – 2016				Year-2015				Year- 2014			
		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost ( in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost ( in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost ( in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost ( in Hectares)	
				Paddy	Non-Paddy			Paddy	Non-Paddy			Paddy	Non-Paddy			Paddy	Non-Paddy
1	Sadar	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	NA	NA	NA	NA	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>	<b>Not Affected</b>
2	Athagarh									29	193	12770	NA				
3	Narasinghpur									33	233	4446	NA				
4	Banki									18	87	7390	NA				
5	Baramba									36	138	31508	NA				
6	Niali									NA	NA	NA	NA				
7	Nishinkoili									NA	NA	NA	NA				
8	Salipur									NA	NA	NA	NA				
9	Kantapada									NA	NA	NA	NA				
10	Tigiria									10	50	9108	NA				
11	Dompada									10	23	4627	NA				
12	Baranga									NA	NA	NA	NA				
13	Tangi-Choudwar									13	75	2695	NA				
14	Mahanga									NA	NA	NA	NA				

[Information to be given for previous 4 drought years and the relevant blocks are to be mentioned in the table. The detailed list of drought prone Villages is at Table No.3.3of Volume II of the DDMP]

## 10. Drinking Water Crisis:

Table No. 19:

Sl. No.	Name of the Block/ ULB	Villages/ Wards without proper source of drinking water		Villages/ Wards having crisis of drinking water during summer season		Fluoride Contamination		Others Arsenic/ Saline/ Iron If any
		No. of Villages / Wards	Population	No. of Villages/ Wards	Population	No. of Villages / Wards	Population	
1	Cuttack Sadar	0	0	0	0	0	0	0
2	Baranga	0	0	5	2250	0	0	4
3	Kantapada	0	0	0	0	0	0	1
4	Niali	0	0	0	0	0	0	23
5	Banki-I	0	0	11	4460	0	0	00
6	Banki-II	0	0	15	6080	0	0	00
7	Tangi-Cdr	0	0	15	7120	0	0	24
8	Salipur	0	0	0	0	0	0	69
9	Mahanga	0	0	0	0	0	0	04
10	Nischintakoili	0	0	0	0	0	0	34
11	Athagarh	0	0	38	28400	0	0	0
12	Baramba	0	0	5	4000	0	0	0
13	Narsinghpur	0	0	32	19200	0	0	0
14	Tigiria	0	0	0	0	0	0	0

## 11. Railway Line Exposed different Hazards:

[*Note: Total length railway line, number of stations and movement of trains to be discussed first followed by the table*]

Table No. 20-

Sl. No.	Hazard	Length of Railway line exposed( in Km.)	Location
1	Flood	NA	NA
2	Land Slide	NA	NA
3	Storm Surge	NA	NA
4	Tsunami	NA	NA

**12. Road Accidents:  
Vulnerable Points of Cuttack District:**

<b>Name of the Road</b>	<b>Name of the Black spots</b>
<b>NH-16 (Phulnakhara to Govindpur)</b>	1. Phulnakhara
	2. Bamphakuda
	3. Pratapnagari
	4. Gopalpur
	5. Sikharpur
	6. Manguli
	Pasupatigada
	8. Bainchua to Gonindpur
<b>NH-55: Manguli to Radhakrushnapur=29Kms.</b>	1. OTM Bazar
	2. Dhumabati Chhak
	3. Kapursingh
<b>OMP chhak to Kandarpur=15Kms.</b>	1. CRRI
	2. Gatiroutpatna
	3. Nahabhanga
<b>SH-9(A)-Jagatpur to Sukarpada= 35 Nos.</b>	1. Khaira Bridge
	2. Paga
	3. Kharakhia
	4. Bhatapada
	5. Nandolagada
	6. Kulia
	7. Katarpada
<b>SH-60 (Phulnakhara to Niali , Jalarpur=35.5Km)</b>	1. Adaspur
	2. Bairoi
	3. Ichhapur
	4. Barahipur
	5. Kaliaghai
<b>SH-65- Raj Athagarh to Narasinghpur=80 KMs.</b>	1. Gopinathpur
	2. Ankula
	3. Ansupa
	4. Darsanpur
	5. Jenapada
	6. Panchagaon
	7. Bindhanima
	8. Sunapal
	9. Champeswar
	10. Karilo chhak to Petrol pump
<b>ODR- Mundali to Athagarh= 17 KMs</b>	1. Baunsadanda chhak
	2. Megha Jungle
	3. Betakholi
	4. Dhaipur
	5. Kantol
	6. Karikol

<b>SH-12 : Kandarpur to Siuli = 12 KM.</b>	7. Dahisara
	1.Kamarpada
	2.Ramkumarpur
	3.Somepur
	4.Gadama
	5.Siuli

Bus Accident on MAHANADI River Bridge

In the year 2018 - 56 Passenger were Injured in this accident and 11 Expired in this Accident.

### 13. Population Requiring Special Care:

Table No: 22-

Sl. No.	Block/ULB	No. of HHs headed by Women	No. of HHs headed by PWD	No. of Persons With Disability		No. of Widow	No. of Children		No. of Orphans		No. of Aged Persons (60 and above)		No. of Pregnant and lactating mothers
				M	F		0-5 Years	6-14 Years	M	F	M	F	
1	Athagarh	4583	1973	1361	795	6717	11700	17998	40	26	11264	10813	2271
2	Banki	96	1951	1115	836	1413	7491	13458	32	38	8337	5558	1431
3	Badamba	2829	2214	1572	642	36	7940	100	21	28	148	106	1445
4	Baranga	25	89	24	18	2	10560	96	19	17	4455	3263	2149
5	Cuttack	1150	1314	476	316	1150	5967	12400	19	22	78121	3372	1120
6	Dampada	22137	1428	625	535	2363	34206	10244	43	43	4506	3785	6542
7	Kantapada	19869	12138	1264	898	962	5286	0	8	9	6310	3390	886
8	Mahanga	74529	2400	1793	607	4433	12317	17320	8	7	11136	7320	2218
9	Narasinghpur	2528	1829	935	791	4041	10743	15250	29	21	6922	6348	1980
10	Niali	72929	2500	1900	950	3350	9733	10484	17	13	7454	5121	1658
11	Nischintak oili	30155	407	1222	1223	3033	11238	6312	13	14	8825	8816	1966
12	Salepur	2039	1797	1074	902	1807	14158	12047	17	18	10925	9322	2543
13	Tangi Choudwar	NA	1395	1052	590	27	14032	NA	56	39	56	44	2463
14	Tigiria	3303	1194	813	381	2146	5373	6425	12	11	12905	11337	1076

[The table is the block wise abstract of population requiring special care. Village wise details are at Table No. 3.16 of Volume II of the DDMP]

Type of Hazards	Jan-Mar				April-June				July-Sep				Oct-Dec				
	H	C	A	I	H	C	A	I	H	C	A	I	H	C	A	I	
Flood										←————→							
Cyclone									←————→								
Earthquake	←————→																
Heatstroke					↔												
Drought									↔								
Hailstorm				↔													

## **CHAPTER – IV**

# **INSTITUTIONAL ARRANGEMENT**

### **4.1 National Disaster Management Authority (NDMA)**

The National Disaster Management Authority (NDMA) was constituted under the Sub-section (1) of Section (3) of National Disaster Management Act 2005. NDMA is the apex body for Disaster Management in the country headed by the Hon'ble Prime Minister of India to lay down policies, plans and guidelines to manage disaster and coordinating their enforcement and implementation for ensuring timely and effective response to disaster.

The Chairperson of the NDMA is the Hon'ble Prime Minister of India (*ex-officio*) and others members not exceeding than nine may be nominated by him. The Chairperson may designate one of the members to be the Vice-Chairperson.

### **4.2 National Executive Committee (NEC)**

The central government has constituted a National Executive Committee (NEC) under sub-section (1) of Section (8) of DM Act-2005 to assist the National Disaster Management Authority in the discharge of its function and also ensure compliance of the directions issued by the central government.

The Union Home Secretary is the Chairpersons (*ex-officio*) of NEC. The Secretaries to the Government of India in the ministries/departments having administrative control of the agriculture, defense, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and chief of the integrated defence staff of the chief of staffs are other members of NEC.

### **4.3 State Disaster Management Authority (SDMA)**

The State Disaster Management Authorities (SDMA) has to be constituted by every State Government under the sub-section (1) & (2) of section 14 of Disaster Management Act 2005. The Hon'ble Chief Ministers of the state is the Chairpersons (*ex-officio*) of SDMA and other members not exceeding than eight may be nominated by the Chairpersons. The Chairman of the State Executive Committee (SEC), Chief Secretary of the State is a member and Chief Executive Officer (*ex-officio*) of SDMA.

The State Disaster Management Authority shall:-

- a) Lays down policies and plans for disaster management in the State.
- b) Approves the State Plan in accordance with the guidelines laid down by the NDMA,
- c) Coordinates the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures.
- d) Review the developmental plans of different departments of the State to ensure the integration of prevention, preparedness and mitigation measures.

- e) Lay down guidelines to be followed by the departments of the State Government for the purpose of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance there for.
- f) Review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government & issue such guidelines as may be necessary.
- g) Lay down detailed guidelines for providing standards of relief (Not less than the minimum standard of relief in the guidelines of NDMA) to persons affected by disaster in the State.

#### **4.4 State Executive Committee (SEC)**

The State Executive Committee (SEC) has been constituted by the State Governments under sub-section (1) & (2) of section (20) to assist the State Disaster Management Authority (SDMA) in the performance of its function and to coordinate action in accordance with the guidelines laid down by the SDMA and ensure the compliances of directions issued by the State Government under the DM act. The Chief Secretaries of the States are the Chairman of SEC (ex-officio). Four Secretaries of State Government are the other member's ex-officio. The Chairperson of SEC use powers delegated by SDMAs and state Governments.

The State Executive Committee shall:-

- a) Coordinate and monitor the implementation of the National Policy, National Plan and State Plan.
- b) Examine the vulnerability of different parts of the State to different forms of disaster and specify measures to be taken for their prevention and mitigation.
- c) Lay down guidelines for preparation of disaster management plans by the departments of the Government of the State and the District authorities and monitor the implementation of the plans.
- d) Evaluate preparedness at all government and non-government levels to respond to any threatening disaster situation or disaster and give all directions where necessary for enhancing such preparedness.

#### **4.5 Revenue and Disaster Management Department:**

The Revenue and Disaster Management Department is responsible for providing immediate relief to the people affected by various calamities like floods, droughts, cyclones, hailstorms, earthquakes, fire accidents, etc. It also takes initiatives for relief, rescue, rehabilitation and restoration work. The Department is headed by the Principal Secretary/Addl. Chief Secretary, Revenue and Disaster Management Department who exercises all administrative and financial powers.

#### **4.6 Special Relief Organization:**

The Special Relief Organisation was established under the Board of Revenue in 1965-66 for carrying out relief and rescue operation during and after various disasters. Since its inception, the scope of Relief Organisation has been diversified. Now it deals with disaster management i.e. response, relief and rehabilitation. It coordinates with districts/departments for quick relief and rescue operation, reconstruction and rehabilitation work. It also promotes disaster preparedness at all levels in the State with the assistance of Odisha State Disaster Management



Authority (OSDMA). Quick response in the natural calamities is the hall-mark of Special Relief Organisation.

#### **4.8 Odisha State Disaster Management Authority (OSDMA):**

Odisha State Disaster Mitigation Authority (OSDMA) was established by the Government of Odisha as an autonomous organization vide Finance Department Resolution No. IFC- 74/99-51779/F dated the 28<sup>th</sup> December 1999 (in the intermediate aftermath of the Super-cyclone in 1999). It was registered under the Societies Registration Act, 1860 on 29.12.1999 as a non-profit making & charitable institution for the interest of the people of Odisha, with its headquarters at Bhubaneswar and jurisdiction over the whole State. The Department of Revenue is the administrative department of OSDMA vide Revenue Department Resolution No.39373/R dated 26th August 2000. Subsequently, the name of the Authority was changed from *Odisha State Disaster Mitigation Authority* to *Odisha State Disaster Management Authority* vide Revenue & Disaster Management Department Resolution No. 42317/R&DM dated 27<sup>th</sup> September, 2008.

The Authority has the mandate not only to take up the mitigation activities but also the relief, restoration, reconstruction and other measures. These activities cover the entire gamut of disaster management including preparedness activities and also include:

- Coordination with the line departments involved in reconstruction,
- Coordination with bilateral and multi-lateral aid agencies,
- Coordination with UN Agencies, International, National and State-level NGOs,
- Networking with similar and relevant organizations for disaster management.

#### **4.6 State Level Committee on Natural Calamity (SLCNC)**

A State Level Committee on Natural Calamity (SLCNC) has been constituted under the Chairmanship of the Hon'ble Chief Minister to oversee disaster preparedness and response activities.

The Function of the SLCNC is -:

- a) To advise the State Government regarding precautionary measures to be taken in respect of flood, drought and other natural calamities.
- b) To assess the situations arising out of the calamities.
- c) To recommend to Government the nature and quantum of relief; and
- d) To recommend to Government the Policy to be adopted in giving such relief in areas affected by such calamities.

#### **4.7 District Disaster Management Authority (DDMA)**

Under the sub-section (1) of section 14 of DM act 2005. District Disaster Management Authority has been constituted by the State Government.

The District Disaster Management Authority (DDMA) consists of the Chairperson and such number of the other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following namely:-

- a) The Collector or District Magistrate or Deputy Commissioner of the District is the Chairperson (*ex-officio*) of DDMA.
- b) The elected representative of local authority is the Co-chairperson (*ex-officio*) of DDMA.

Provided that in the Tribal Areas, as referred to in the Sixth Schedule to the Constitutions, the Chief Executive Member of the district council of autonomous district, shall be the co-Chairperson, *ex officio*

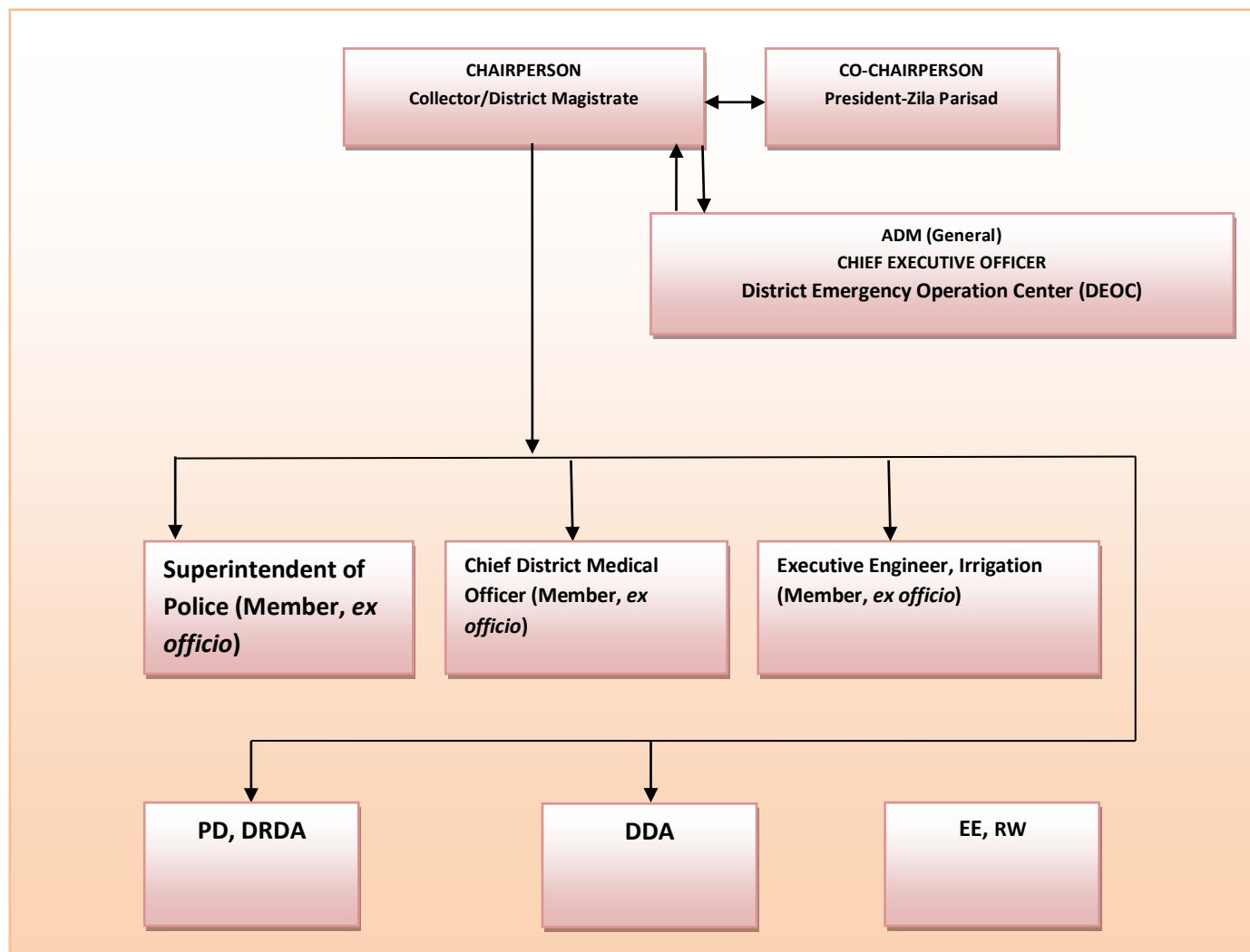
- c) The Chief Executive of the District Authority, *ex officio*;
- d) The Superintendent of Police, *ex officio*;
- e) The Chief Medical Officer of the district, *ex officio*;
- f) Not exceeding two other district level officers, to be appointed by the State Government

The State Government appoints an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be of the District to be Chief Executive Officer of DDMA.

**Table \_\_ : Structure of District Disaster Management Authority**

Sl No.	Name of the Officer	Designation	Position in DDMA	Contact No.
1.	Sri Bhabani Sankar Chayani	Collector & District Magistrate	Chairperson, EX-Officio	9437170693
2.		Chairman, Zilla Parishad	Co-Chairperson, Ex-Officio	9853392129
3.	Shri Jugal Kishor Kumar Banoth, IPS.	Superintendent of Police	Member, EX-Officio	9438916200
4.	Ambar Kumar Kar	Project Director, DRDA	Member	9437147188
5.	Purna Chandra Mishra	Additional District Magistrate (Revenue)	Chief Executive Officer, EX-Officio	9438290100
6.	Dr. Satyabrata Chhotaray	Chief District Medical Officer	Member, EX-Officio	9439990009
7.	Er. Subrat Das	Executive Engineer, Irrigation, Khordha	Member, EX-Officio	9861492846
8.	Er Pratap Choudhry	Executive Engineer, Irrigation, Prachi Division	Member, EX-Officio	9438619566
9.	Er. Ramesh Chandra Mohanty	Executive Engineer, Mahanadi South Div.	Member, EX-Officio	9437156898
10.	Er. Pabitra Parida	Executive Engineer, Lift Irrigation, Cuttack	Member, EX-Officio	8984372350
11.	Er. Santosh Kumar Mishra	Executive Engineer, Rural Development	Member	9437255338
12.	Niranjan Das	Chief District Agriculture Officer	Member	9439650016

Figure \_\_: Organogram of District Disaster Management Authority



The DDMA acts as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by the NDMA and SDMA.

The District Disaster Management Authority (DDMA) shall:-

- Prepare Disaster Management Plan including District Response Plan of the District.
- Coordinate and Monitor the implementation of the National DM Policy, State DM Policy, State DM Plan and District DM Plan.
- Ensure that vulnerable areas of the districts are identified and prevention and mitigation measures are being undertaken by the departments of the Government both at district level and at local level.
- Ensure that guidelines for Prevention and Mitigation measures, Preparedness and Response as lay down by NDMA and SDMA are being followed by all departments of Government both at district and local level.
- Monitor the implementation of Disaster Management Plans prepared by the departments of the Government at the district levels.

- f) Lay down guidelines to be followed by different Government departments both at district level and local level for integrating disaster prevention and mitigation measures in their development plans and projects and provides necessary technical assistance therefor;
- g) Review the state of capability for responding to any disaster or threatening disaster like situation in the district and give directions to the relevant departments or authorities at the district level for their up gradation.
- h) Review the preparedness measures and give directions to the concerned departments at the district level for bringing the preparedness measures to the levels required for responding effectively to any disaster.
- i) Organize, coordinate and facilitate specialized training Programs and awareness Programs for different level of officers, employees, voluntary rescue workers and community members for prevention and mitigation of disaster with support of governmental and non-governmental organization and local authorities.
- j) Set up, maintain, review and upgrade mechanism for early warning and dissemination of proper information to public.
- k) Review development plans prepared by the departments of the government at the district level, statutory authorities with a view to make necessary provisions therein for prevention of disaster or mitigation.
- l) Examine construction in any area in the district and ensure standards for prevention of disaster or mitigation laid down for such construction to be followed by the concerned departments and authorities.
- m) Identify buildings and places which could be used as relief centers or camps in the event of any disaster or disaster like situation and make arrangements for water supply and sanitation in such buildings and places.
- n) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at short notice;
- o) Encourage the involvement of Non-Government Organization and Voluntary social – welfare institutions working at the grass root level in the district for disaster management.
- p) Ensure communication systems are in order and disaster management drills are carried out periodically.
- q) Perform such other functions as the State Government or State Authority may assign to.

### **Specific task assigned to members of DDMA by the Chairperson**

#### **Collector and District Magistrate:**

- Overall supervision of preparedness and response activities
- Monitoring the activities at different level and departments

#### **Superintended of Police:**

- Ensure 24\*7 Control Room Operation
- Ensure the law and order situation in the district at the time of emergency.
- Ensure necessary protection for the supply of relief materials.

#### **Project Director, DRDA:**

- Ensure 24\*7 control room operation at different blocks
- Ensure all the block staff will be in readiness
- Ensure timely preparedness and response activities at the block level
- Ensure and monitor timely evacuation if required from the low lying areas

**CDMO:**

- CDMO ensure the necessary medical arrangement at the Dist. / PHC / CHC level.
- Ensure that necessary medicines with anti snake venoms are piled at different health units.
- Mobile health unit needs to be in readiness.

**Executive Engineer, Irrigation (Cuttack-I &II, Jagatsinghpur, Kendrapara, Khordha & Prachi):**

- Ensure the status of weak embankments and safe guarding of the same
- Liaison with the Deputy Collector and report the status of the embankments
- Stock piling of the flood fighting materials
- Preparation of flood contingency plan
- Monitoring the control room and close watch on the situation

**Chief District Agriculture Officer:**

- Flood contingency planning and monitoring
- Drought management planning
- Capacity building of the farmers as and when required for alternative cropping

**Executive Engineer, RW:**

- Ensure safe drinking water supply at the water scarcity areas
- Ensure development works in rural areas
- Ensure restoration of roads aftermath of the flood in the flood prone areas

**4.7 District Level Committee on Natural Calamity (DLCNC)**

The Codal provision of Odisha Relief Code envisages the constitutions of District Level Committee on Natural Calamity (DLCNC) which is the apex committee at the district to monitor preparedness and suggests improvement in the response mechanism and finalizes the district disaster management plans. The members of DLCNC are as follows:

**Table\_\_ : Structure of District Level Committee on Natural Calamity**

<b>PRIORITY CONTACT NO OF DDMA CUTTACK</b>			
<b>SL.No.</b>	<b>Name</b>	<b>Designation</b>	<b>Mobile No</b>
1	Sri Bhabani Sankar Chayani	Collector, Cuttack	9437170693
2	Sj. Pratap Jena	MLA Mahanga	9437048569
3	Sj. Chandra Sarathi Behera	MLA Sadar Cuttack	9438111777 / 9437227887
4	Kishor Chandra Mishra	President Zila Parisad	7008898571
5	Sj. Bhatruhari Mahatab	M.P. Cuttack	9868180308
6	Smt Rajashree Mallick	M.P Jagatsinghpur	9438174159
7	Sj. Ranendrapratap Swain	MLA Athagarh	9437051340
8	Sj. Devi Ranjan Tripathy	MLA Banki	9861231839
9	Sj. Souvic Biswal	MLA Choudwar-Cuttack	9437225423
10	Dr. Pramod Kumar Malick	MLA Niali	9437013123
11	Sj.Prasant Behera	MLA Salipur	9437228283

12	Sj, Deviprasad Mishra	MLA Badamba	9437053030
13	Bijay Kumar Khandayat Ray	ADM (GEN)	9437325464 / 7008965633
14	Purna Chandra Mishra	ADM (REV)	9438290100
15	Pratap Candra Beura	Sub-Collector, Sadar, Cuttack	9437639901
16	Hemanta Kumar Swain	Sub-Collector, Athagarh	9437169732
17	Ranjan Ku. Jena	Sub-Collector, Banki	9437208573
18	Ananya Das	Commissioner CMC	9602198337
19	Pabitra Behera	E.O Choudwar Municipality	9348961606
20	Prabhu kalyan Das	E.O NAC Banki	9438567523
21	Ashalata Rachma	E.O NAC Athagarh	9773736173
22	Ambar Kumar Kar	Project Director, DRDA, Cuttack	9437147188
23	Dr. Satyabrata Chotray	CDMO Cuttack	9439990009
24	Dr Luci Dash	Superintendent SCB Medical College	9437255580
25	Dr. Satyabrata Mohapatra	City Health Officer-CMC	9437027115
26	Dr. Madhusudan Subudhu	CDVO, Cuttack	9437360145
27	Shri Jugal Kishor Kumar Banoth	SP, Cuttack	9438916200
28	Pratik Singh	DCP, Cuttack	9438035109
29	Bijay Chandra Pradhan	Commandat, ODRAF, 6th B.N	9437656060
30	Sr. Jacob Kispotta	Commandat, NDRF	9437581614
31	S.K. Behera	District / Regional Transport Officer	9437940399
32	Krushna Chadra Nayak	District Educational Officer	9437089771
33	Nalini Kanta Sahoo	District Culture Officer	7008334141
34	Pritibandha Ghadai	District Labour Officer	8763160562
35	Sanjaya Kumar Swain IFS, CTC	District Forest Officer	9437007611
36	Badyanath Munda	District Panchayatraj Officer	9437257156
37	Ramanath Mohapatra	General Manager DIC	8895720343
38	Cittaranjan Behera	Asst Director factories and Boilers I	9438300070
39	Chandrakant Dalei	Asst Director factories and Boilers II	9437167924
40	Manash Ranjan Mohapatra	CDSO, Cuttack	8249640741
41	Rasmita Priyadarshini	ROSPCB	7008841815
42	Niranjan Das	CDAO, Cuttack	9439650016
43	Somendra Narayan Panigrahi	Deputy Director Horticulture Officer	7609887027
44	Sri Simanchal Behera	District Fisheri Officer	9438302718
45	Pravash Majhi	E.E.R&B Cuttack -I Division	9938425349
46	Anup Behera	E.E.R&B Cuttack-II Division	9437164029
47	Er.Rakesh Kumar Rout	NH Division Cuttack	9437297580
48	Nabakishor Samal	S.E. PHD - Cutack Div.	9439263644
49	Suresh Rout	E.E. RWSS-I	8280408036
50	Kalucharan Behera	E.E. RWSS-II	9437032412

51	Ramesh Chandra Mohanty	E.E.Mahanadi (South)	9437156898
52	Artatrana Sahu	E.E.Mahanadi(North)	9438363902
53	Babulal Behera	S.E. Barrage	9937021427
54	Er Pratap Choudhry	EE Irrigation Prachi Division	9438619566
55	Mr. Subrat Dash	EE Irrigation Khurda Division	9861492846
56	Tarini Sen Dhala	S.E. Drainage Divn	9438477985
57	Manoj Kumar Behera	E.E. Drainage Divn	9437274225
58	Pabitra Parida	E.E. Lift Irrigation	8984372350
59	Santosh Kumar Mishra	E.E. R.D- I	9437255338
60	Somonath Parida	E.E. R.D- II	9437255339 / 437133686
61	Sri Debasis Pattanaik	GM TPCODL	9437073722
62	Aswini kumal samal	AGM BSNL	9437022000
63	Abani Kumar Swain	District Asst. Fire Office	9938382010 / 7978035233
64	NN Rajalaxmi Ojha	District Emergency Officer	9853300974
65	Sashanka Sekhar Mishra	Asst. Collector Emergency	9439073392
66	Bapi Bishwajit Sahoo	DPO-OSDMA	8763050065
67	Nirupama Behera	District Social Welfare Officer	9437016505
68	Madhusmita Mohapatra	District Welfare Officer	9437124408
69	Prativa Dash	District Social Security Officer	9938290704
70	Pragati Mohanty	District Child Protection Officer	9853246528
71	Purna Chandra Otta	Deputy Director Planning	8249856968
72	Rajib Lochan Parida	BDO, Cuttack Sadar	9439176005
73	Ashutosh Mishra	BDO, Tangi-Chaoudwar	7873856659
74	Rajib Das	BDO, Salipur	9439560557
75	Nihar Ranjan Mallick	BDO, Mahanga	9938642312
76	Karnadev Samaddar	BDO, Nischintakoili	8249129393
77	Pravakar Panda	BDO, Baranga	9437819064
78	Ashok Kumar Lenka	BDO, Niali	9337098811
79	Santosh kumar Pati	BDO, Kantapada	9861063701
80	Arun Kumar Das	BDO, Athagarh	9938890467
81	Pranab Kumar Behera	BDO, Tigiria	9437651602
82	Utkal Ranjan Acharya	BDO, Badamba	9437274313
83	Pradeepta Ku. Sahu	BDO, Narasinghpur	9439875367
84	Pradeep Kumar Satapathy	BDO, Banki	9861450228
85	Shymala Kumar Ray	BDO, Banki-Dompada	8328909859
86	Sambit Kumar Gadnaya	Tdr, Cuttack-Sadar	9438629092
87	Ajaya kumar Mallick	Tdr, Tangi-Choudwar	9437828260
88	Dibyajyoti Smrutiranjana Deo	Tdr, Salipur	8895287057
89	Umakanta Biswal	Tdr, Mahanga	9438234871
90	Karnadev Samaddar(I/C)	Tdr. Nischintakoili	8249129393
91	Sankalpa Swastik Sahu	Tdr, Baranga	8800305330
92	Bidyadhar Pati	Tdr, Niali	9437264371
93	Meetanjali Dash	Tdr, Kantapada	6370034791

94	Priyabrata Das	Tdr, Athagarh	9437249784
95	Pramod Baskey	Tdr, Tigiria	9439215009
96	Tapan ku Parida	Tdr, Badamba	7873570644
97	Alok kumar Dehury	Tdr, Narasinghpur	9437425230
98	Satya Ranjan Panda	Tdr, Banki	8917298772
99	Khitish Behera	Tdr, Dompada	6370349690
100	Indira Sahoo	Tdr, Kishanagar	8917473364

[Note: Structure and roles and responsibilities of District Level Committee on Natural Calamities (DLCNC) of the respective districts to be elaborated.]

District Level Natural Calamities Committee on used to sit once in a year to review the preparedness activities taken up at different level by different line departments under the chairmanship of the Collector and District Magistrate. In the DLNCC forum different departments used to present their preparedness level, status of stock, alertness at grass root level, planning and the required budget to face any sort of natural exigencies. All the members present used to raise area specific issues or gaps if any in the house so that adequate attention could be given to those issues.

The usual agenda for the DLCNC meeting is:

- Preparation of flood contingency plan of all line Departments.
- Control Room functioning
- Rain Recording and timely reporting
- Joint verification of weak embankments and repairing of the same
- Identification of cyclone and flood shelters
- Deployment of boats at different vulnerable places
- Functioning of telephone lines
- Cleaning of drainage to avoid water logging
- Stock piling of medicines and dry foods inaccessible pockets
- Steps taken in flood areas for agriculture
- Health measures
- Veterinary measures
- Deputation of higher officials at the flood circles
- Coordination among the offices
- Cooperation of NGOs
- Deployment of NDRF / ODRAF Teams

Department wise discussion points are given below:

SI No:	Departments / Offices	Point of Discussion
1.	Chief District Medical Officer	<ul style="list-style-type: none"> <li>• Control Room operation</li> <li>• Stock piling of Medicines at different PHCs &amp; CHCs</li> <li>• Positioning of Staff at the below level</li> <li>• Medical Health centers at different places with the officer in-charge</li> <li>• Provision of Halogen tabs, ORS etc. with the health workers</li> </ul>
2.	Chief District Veterinary Officer	<ul style="list-style-type: none"> <li>• stock of the Cattle feed available</li> <li>• make indent to procure if required</li> </ul>



3.	Civil Supplies officer	<ul style="list-style-type: none"> <li>• Identification of mills for necessary Rice / Chuda Procurement</li> <li>• Stock piling of Rice, Chuda, K.oil at inaccessible points</li> </ul>
4.	Deputy Director Agriculture	<ul style="list-style-type: none"> <li>• Drought contingency plan</li> <li>• Details of seed procurement and distribution</li> <li>• Alternative cropping mechanism</li> </ul>
5.	Executive Engineer, Irrigation	<ul style="list-style-type: none"> <li>• Stock piling of flood fighting materials</li> <li>• Identification of weak embankments and engaging the officials for close watch</li> </ul>
6.	Executive Engineer, RWSS	<ul style="list-style-type: none"> <li>• Provision of safe drinking water at vulnerable rural pockets</li> </ul>
7.	Executive Engineer, PHED	<ul style="list-style-type: none"> <li>• Provision of safe drinking water at vulnerable urban pockets</li> </ul>
8.	Executive Engineer, R&B	<ul style="list-style-type: none"> <li>• Identification of vulnerable roads in vulnerable pockets</li> <li>• Immediate restoration of cut off roads</li> </ul>
9.	Executive Engineer, CESU	<ul style="list-style-type: none"> <li>• Immediate restoration of power supply in case of destruction</li> </ul>
10.	Block Development Officers	<ul style="list-style-type: none"> <li>• Control Room</li> <li>• Deployment of boats at vulnerable pockets</li> <li>• Opening of free kitchens at strategic places</li> </ul>
11.	Tahasildars	<ul style="list-style-type: none"> <li>• Control Room</li> <li>• Assessment of damages</li> </ul>
12.	Fire Officer	<ul style="list-style-type: none"> <li>• Clearing of the roads</li> </ul>

The above review cum discussion aware all the departments about everyone's preparedness level to minimize the losses due to upcoming cyclone and flood.

### Heat Wave:

#### District Task Force, Health

Sl.no	Name of Zone	In Charge Officer	To Supervise
1	Zone-1	SDMO, Athagarh	Berhampur/ part of Subarnapur/ & Athagarh NAC
2	Zone-2	SDMO, Banki	Dampara/BankiNAC/Part of Subarnapur/ & Kalapathar
3	Zone-3	DMO, Cuttack	Mahidharpada/Adaspur/Niali
4	Zone-4	ADMO (FW), Cuttack	Salipur/Mahanga/Nischintakoili
5	Zone-5	DSMO, Cuttack	Kanpur/Maniabandha/Bindhanima
6	Zone-6	ADMO (PH), Cuttack	Cuttack City & Bentkar, Tangi

The District Health Task Force is solely responsible to attend the emergency heat stress disorder patients as and when required. Similarly the following are the control rooms opened at the Block CHCs to tackle the heat wave situation at the block level:

<b>Contact No and Email Address of all Officers under the Administrative control of CDM&amp;PHO Cuttack</b>						
<b>SL No</b>	<b>Name of Block</b>	<b>Institution</b>	<b>Name of Staff</b>	<b>Designation</b>	<b>Phone No</b>	<b>E mail Id</b>
1	Head Quarter	CDM & PHO Cuttack	Dr. Satyabrata Chhotaray	CDM&PHO Cuttack	0671-2301007	cdmcuttack@gmail.com
					9439990009	cdmophocuttack@gmail.com
2	Head Quarter	ADPHO(FW)	Dr. Mamata Mohapatra	ADPHO(FW)	9439995151	<a href="mailto:admofwcuttack@gmail.com">admofwcuttack@gmail.com</a>
						<a href="mailto:adphofwcuttack@gmail.com">adphofwcuttack@gmail.com</a>
3	Head Quarter	DPHO	Dr. Nilakshi Sircar	DPHO	9437105131	<a href="mailto:dsucuttack@gmail.com">dsucuttack@gmail.com</a>
4	Head Quarter	ADPHO(VBD)	Dr. Ranjan Kumar Singh	ADPHO(VBD)	6371938506	<a href="mailto:nvbdcpcuttack@gmail.com">nvbdcpcuttack@gmail.com</a>
5	Head Quarter	ADPHO (TB)	Dr. Dipa Pattanaik	ADPHO (TB)	9439998758	<a href="mailto:dtoorctk@rntcp.org">dtoorctk@rntcp.org</a>
6	Head Quarter	ADPHO (Lep)	Dr. Dipa Pattanaik	ADPHO (Lep)	9439998758	<a href="mailto:dlocuttack@gmail.com">dlocuttack@gmail.com</a>
7	Head Quarter	ADPHO(DC)	Dr.Lokanath Patra	ADPHO(DC)	9437128352	<a href="mailto:dsucuttack@gmail.com">dsucuttack@gmail.com</a>
8	City Hospital Cuttack	DMO(MS)-Supdt. DHH cuttack	Dr. Sudhanu Kumar Giri	DMO(MS)-Supdt. DHH cuttack	9439990016	<a href="mailto:hdtcuttack@gmail.com">hdtcuttack@gmail.com</a>
						<a href="mailto:dhhcut@gmail.com">dhhcut@gmail.com</a>
9	SDH Athagarh	SDH Athagarh	Dr.Bijaya Kumar Mishra	Superintendent	9439994802	<a href="mailto:superintendentsdhathagarh@gmail.com">superintendentsdhathagarh@gmail.com</a>
10	SDH Banki	SDH Banki	Dr. Mrutyunjaya Mohapatra	Superintendent	9437023444	<a href="mailto:sdmobanki@gmail.com">sdmobanki@gmail.com</a>
11	LHH Cuttack	LHH	Dr. Dillip Kumar Jena	Superintendent	9437218918	<a href="mailto:lhcutack@gmail.com">lhcutack@gmail.com</a>
12	Kantapada	CHC Adaspur	Dr Bharat Chandra Mohapatra	Superintendent	9439995222	<a href="mailto:bpmuadapur123@gmail.com">bpmuadapur123@gmail.com</a>
13	Sadar	CHC Bentkar	Dr Basanta Kumar Sahoo	Superintendent	9438245951	<a href="mailto:bpmubentkar@gmail.com">bpmubentkar@gmail.com</a>
14	Athagarh	CHC Berhampur	Dr Dillip Das	Superintendent	9439994800	<a href="mailto:bpmberhampur@gmail.com">bpmberhampur@gmail.com</a>
15	Tigiria	CHC Bindhanima	Dr.Biswabikash Routray	Superintendent	9439830849	<a href="mailto:bpmubindhanima@gmail.com">bpmubindhanima@gmail.com</a>
16		CHC Tigiria	Dr.Biswabikash Routray	Superintendent	9439830849	<a href="mailto:bpmubindhanima@gmail.com">bpmubindhanima@gmail.com</a>
17	Banki Dompada	CHC Dompada	Dr Puspallata Mohapatra	Superintendent	9437274590	<a href="mailto:bpmudompada@gmail.com">bpmudompada@gmail.com</a>
18	Narsingpur	Kanpur	Dr Debasis Jethy	Superintendent	7750910542	<a href="mailto:bpmukanpur2020@gmail.com">bpmukanpur2020@gmail.com</a>
19		Narsingpur CHC	Dr.Prakash Mishra	Superintendent	9437278665	<a href="mailto:bpmukanpur2020@gmail.com">bpmukanpur2020@gmail.com</a>
20		Jodum CHC	Dr Debasis Jethy	Superintendent	7750910542	<a href="mailto:bpmukanpur2020@gmail.com">bpmukanpur2020@gmail.com</a>

21	Mahanga	CHC Mahanga	Dr.Sanjaya Kumar Mohanty	Superintendent	9439551264	<a href="mailto:bpomahanga@gmail.com">bpomahanga@gmail.com</a>
22	Baranga	CHC Mahidharpada	Dr Subhas Chandra Gochhayat	Superintendent	9439995401	<a href="mailto:chc.mahidharpada@gmail.com">chc.mahidharpada@gmail.com</a>
23	Niali	CHC Niali	Dr Saminani Naveen	Superintendent	9938881986	<a href="mailto:bpmuniali@gmail.com">bpmuniali@gmail.com</a>
24	Nischintakoili	CHC Nischintakoili	Dr Amit Kumar Jena	Superintendent	9439990300	<a href="mailto:bpmunischintakoili@gmail.com">bpmunischintakoili@gmail.com</a>
25	Salipur	CHC Salipur	Dr.Bijay Kumar Pradhan	Superintendent	9938199101	<a href="mailto:bpmsalipur@gmail.com">bpmsalipur@gmail.com</a> <a href="mailto:ddo.salipur@gmail.com">ddo.salipur@gmail.com</a>
26	Banki-II	CHC Subarnapur	Dr Amresh Sahoo	Superintendent	9439990245	<a href="mailto:bpmusubarnapur@gmail.com">bpmusubarnapur@gmail.com</a>
27	Tangi	CHC Tangi	Dr Madhusmita Nayak	Superintendent	9437127964	<a href="mailto:bpmtangi@gmail.com">bpmtangi@gmail.com</a>
28	Badamba	Maniabandha CHC	Dr Biswanath Adhek	Superintendent	9439998764	<a href="mailto:bpomaniabandh2@gmail.com">bpomaniabandh2@gmail.com</a>
29		Baramba CHC	Dr Biswanath Adhek	Superintendent	9439998764	<a href="mailto:bpomaniabandh2@gmail.com">bpomaniabandh2@gmail.com</a>

#### 4.9 National Disaster Response Force (NDRF)

The Disaster Management Act 2005 has made the statutory provisions for the constitution of the National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. The NDRF comprises of 12 units of Central Paramilitary Forces (CPMF) that includes 3 units each from Central Reserve Police Forces (CRPF) and Boarder Security Forces (BSF) and 2 Unit each from Central Industrial Security Forces (CISF), Indian Tibbet Boarder Police (ITBP) and Sahastra Seema Bal (SSB). Each battalion has 18 self-contained specialists Search and Rescue teams of 45 personnel. The NDRF team includes Chemical, Biological and Radiological Disaster (CBRN) emergency responders, S&A element, engineers, technicians, electricians, dog squads and paramedics. The NDRF battalions are strategically located at 8 different locations in the country based on the vulnerability profile to cut down response time for their deployment. During the threatening proactive deployment of NDRF is being carried out by NDMA in consultation with the State Governments.

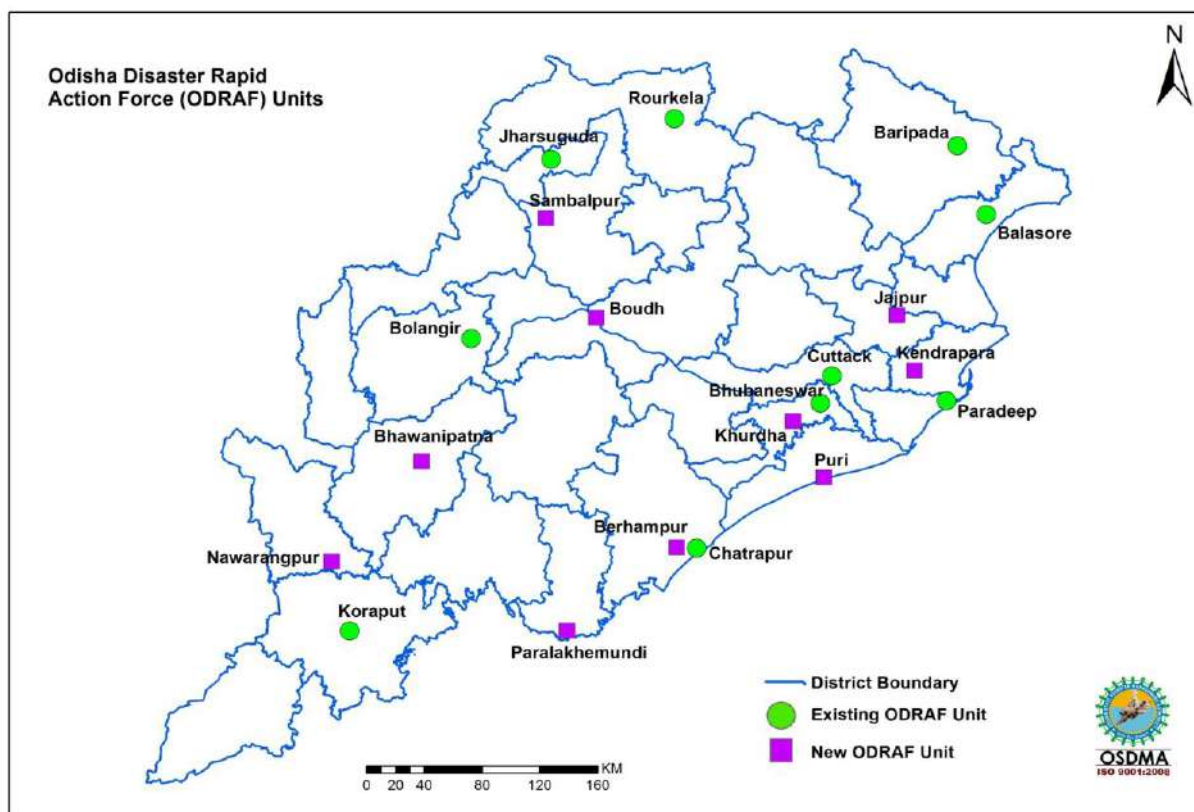
**Table \_\_: Location of National Disaster Response Forces**

Sl No.	Battalion, Location	State	Man power drawn from	Contact Person	Contact No.
1	03 Bn, NDRF, Munduli	Odisha	CISF	Sr. Jacob Kispotta	9437581614
NDRF Help Line: +91-9711077372					

*[Details of NDRF are attached in annexure]*

#### 4.10 Odisha Disaster Rapid Action Force (ODRAF)

The Government of Odisha formed Odisha Disaster Rapid Action Force (ODRAF) vide notification no.939/CD dated 07.06.2001. ODRAF is a multi-disciplinary, multi-skilled, high-tech force for all types of disasters. ODRAF aims at reducing casualties, clearance of communication channels, quick deployment of personnel and equipments and minimize expenditure and time lag and support institutional arrangement. In 3 phases, ten units of ODRAF have been set up. The ODRAF units are strategically located throughout Orissa. Locations of these units are identified on the basis of vulnerability profile to cut down the response time for their deployment. The ODRAF Units do not have any geographical /territorial restrictions in terms of area of operation.

**Map\_\_ : Location of ODRAF Units****4.11 Other Disaster Response Teams in the district****Table\_\_ : List of other Disaster Response Teams in the District**

Sl. No.	Name of the Institutions	Name of the Chief Coordinator of the Organization	Designation	Contact Number	Alternate Contact Number	Number of Volunteers
1	Civil Defense	Mr. Arjun Chandra Majhi	Asst Director Civil Defence	918917352762		143
2	Home Guards	Shri Jugal Kishor Kumar Banoth	Superintendent of Police cum Commandant Home Guards, Cuttack	9438916200	0671-2368301	490
3	National Service Scheme (NSS)	Sh. R Saida Naik Regional Director	Regional Director, NSS	7989598692	0674- 2950250	72
4	National Cadet Crops (NCC) BBSR	Comd. Lalait Kumar Agarwal	Deputy Director General, NCC	9437492288	0674-2432057	
5	National Cadet Crops (NCC)	Col. M.K. Singh	Group Commander	7008563484	0671-2339033	

## District Disaster Management Plan 2022

			NCC Group head Quarter Barabati Stadium			
6	Nehru Yuva Kendra (NYK)	Jai Prakash Sharma	District Youth Coordinator	0674 : 2558351 2558313	0671-2312747	15
7	State Red Cross	Rashmi Rekha Dash	Secretary State Red Cross Branch	8895127297	0674-2390228	
8	District Red Cross	NN Rajalaxmi Ojha	Secretary District Red Cross Branch	9853300974	0671-2507842	9
9	Dist. Nehru Yuba Kendra	Ashok Nayak	District Youth Coordinator	9437137422		

## 4.12 Emergency Communication System

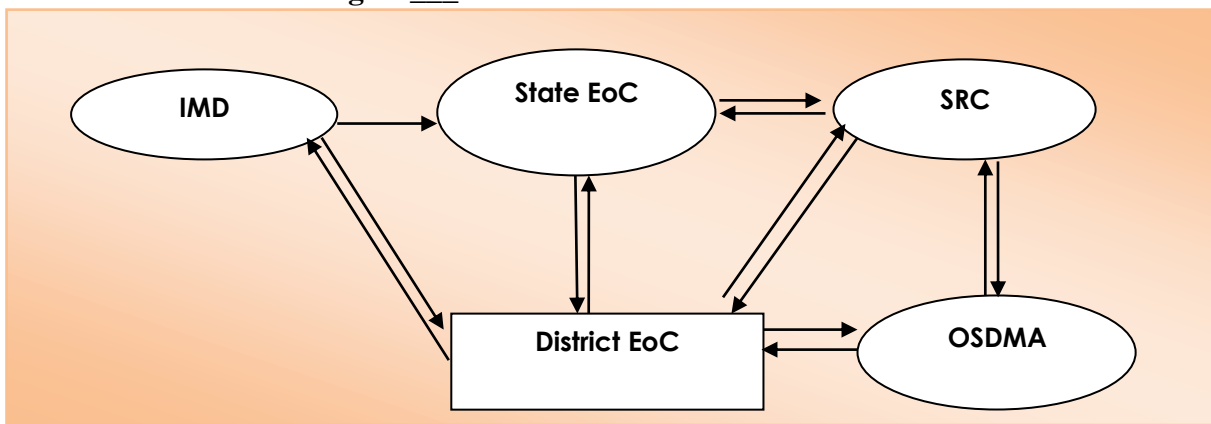
The district machinery used to follow the following methodology to communicate the down line.

- SRC / IMD provide the warning message to the District Administration / DEOC from the SEOC.
- DEOC immediately pass it to the all line departments / BDOs / Tahasildars via cell phone, email or incase required through police VHF message.
- BDOs / Tahasildars used to disseminate the message through their local channel such as VLWs, VAWs, RIs, PRIs etc.
- Sometimes Public address System used to reach the last mile i.e. community at risk.
- Local News channels also used to disseminate the warning depending upon its gravity of the calamity.

### 4.12.1 State Emergency Operation Center (SEOC)

The State Emergency Operation Centre has been made operational at Rajiv Bhawan, Bhubaneswar with state of art communication net-work. The State EOC functions round the clock throughout the year. The Organisation is headed by the Special Relief Commissioner (SRC) who exercises all administrative and financial powers. He is assisted by a group of experienced officers and staff. During any natural disaster, the office functions round the clock in an emergency mode.

**Figure \_\_: Information flow chart from SEOC to Districts**



### 4.12.2 District Emergency Operation Centers (DEOC)

DISTRICT EMERGENCY OPERATION CENTER (DEOC), CUTTACK

TEL: 0671- 2507842

Email id: [eoc-ctc@nic.in](mailto:eoc-ctc@nic.in)

LOCATION: Collectorate Building, Cuttack.

#### ***PRE DISASTER***

**Officer in charge of DEOC:** The DEOC shall be in overall charge of Collector & District Magistrate. In the absence of Collector, ADM's, PD DRDA will be in-charge and Deputy Collector Emergency shall be the focal point for the DEOC. The officer in charge of

Emergency Operation Center shall be personally responsible for implementing the SOP. S/he shall take all decisions as outlined below and sign for the Collector on all reports mentioned below. S/he shall not wait for orders from anybody. The existing staffing pattern of the DEOC:

1. NN Rajalaxmi Ojha, District Emergency Officer, Cell no: 9853300974
2. Sri Bapi Bishwajit Sahoo, District Project Officer, OSDMA, Cell no: 8763050065
3. Sri Subas Chandra Mishra, Senior Clerk, Cell no: 9439900953
4. Mrs. Subhashree Pradhan, Data Entry Operator, Cell no:9348425236

### ***DURING DISASTER***

1. **Assembly in District EOC:** Following staff and officers shall assemble in the DEOC on getting any information from any reliable source about any upcoming emergency / urgency. Apart from this, any other officer or staffs who get the information from any source will reach the DEOC. Control Room duty staff must be present during the duty period.
  - 1.1. Collector, ADMs, PD, DRDA, Sub-Collector, Cuttack, DSWO, CDMO / AMDO (PH), DEO, CSO, DIPRO, District Education Officer, DPC, SSA and ARTO.
  - 1.2. All staffs of Emergency Section.
2. Getting the DEOC ready: DEOC need to be kept in readiness from all aspects during normal period and the following preparatory steps needs to be taken up for keeping the DEOC functional during emergency.
  - Telephone & Internet Connections
  - Electrical Installations
  - Gensets / inverters for Back Up Power Supply
  - DDMP
  - Communication Equipments
  - Information and allied equipments
  - Warning Procedures Check List.
3. Alert message to be give to field officers like BDOs, Tahasildars, MOs, VAS, Police, Industries, Telephone, Agriculture, RWSS, RD, R&B, DSWO / ICDS, Irrigation, CESU, National Highways, PHD, Municipality / ULBs, DEO, Station Director, All India Radio, through VHF / Telephone / e-mail / if required local print and electronic media shall be used.
4. Civil Supplies Officer shall ensure availability of food stuff (*Rice, Chuda & Gur*) and kerosene oil at block headquarters, with storage agents and other inaccessible pockets will be carried out by CSO, Cuttack and report compliance to the Chairman, DDMA. The food stuff placed in different inaccessible pockets should be done in consultation with BDOs concern.
5. Health sector: CDMO will take stock of the following items through Health Emergency Operation Center.
  - 5.1. Medicines, bleaching powder, and halogen/chlorine tablets.
  - 5.2. Movement of medicines, bleaching powder, etc. to PHCs/CHCs if not done early.
  - 5.3. Ensure Medical officers are in place at the PHCs and CHCs through police stations, blocks and Tahasildars.



- 5.4. CDMO shall decide the locations of camps.
6. District Social Welfare Officer to ensure that all CDPOs shall be teamed up with the MO of PHC / CHC with their vehicles and supervisors.
7. Veterinary measures: CDVO will take stock of Cattle feeds and will contact immediately to MD, OMFED after verifying the stocks within the district.
8. Boats: Requisition of boats within district through the Tahasildars.
9. Make a thorough assessment of relief items available in stock at different places.
10. Functional distribution of work: Following functional distribution of works shall be done. Each team will have staff and resources. The team leader will have full powers to take decisions
  - 10.1. Transportation team
  - 10.2. Stock and store team
  - 10.3. Finance team
  - 10.4. Information and office documentation team
  - 10.5. Food and other relief items team
  - 10.6. Civil Society and International Organisations co-ordination team
11. ORDAF & Fire Service shall be in close contact to assist the administration in clearing the relief lines.
12. Civil Society Organisations: Get in touch with civil society Organisations. Allot them areas or functions. Get them introduced to the field functionaries. Ask them to prepare a list of volunteers. Make a quick inventory of their resources. Contact UN agencies & other international relief agencies (if possible). Make a quick assessment of district needs and expectations from different agencies.
13. Press briefings: Press briefings if required will be carried out by the competent authority, decided by the Collector. DIPRO to handle the press related issues.
  - 13.1. Message to public over local cable or alternative networks.
14. Regularly contact required with R.D.C., S.R.C., OSDMA, IMD, Water Resources Deptt. & Dam Safety Divisions for updates.
15. Orders for identifying places for starting free kitchens with the BDOs and Local PRIs. Issue of instruction by looking into the severity of the hazardous event and damage.
16. Regularly checking up the following websites :
 

<a href="http://www.imd.gov.in">www.imd.gov.in</a> ,	Indian Meteorological Deptt.
<a href="http://www.imdbbsr.gov.in">www.imdbbsr.gov.in</a>	Indian Meteorological Deptt.
<a href="http://www.npmoc.navy.mil/jtwc.html">http://www.npmoc.navy.mil/jtwc.html</a> ,	US navy
<a href="http://www.cnn.com/weather">www.cnn.com/weather</a> ,	CNN
<a href="http://www.bbc.co.uk/weather">www.bbc.co.uk/weather</a> ,	BBC
<a href="http://www.weather.co.uk">www.weather.co.uk</a> ,	Weather related news service
<a href="http://www.sat.dundee.ac.uk">www.sat.dundee.ac.uk</a> ,	Dundee satellite receiving station
<a href="http://www.hurricanealley.net">www.hurricanealley.net</a> ,	Information about tropical Cyclones
<a href="http://www.usgs.gov">www.usgs.gov</a> ,	U.S Geological Survey
<a href="http://www.ndmindia.nic.in">www.ndmindia.nic.in</a> ,	National Disaster Management, GOI
<a href="http://www.earthquakenews.com">www.earthquakenews.com</a> ,	EQ related news service from World News service
<a href="http://www.orissawater.com">www.orissawater.com</a> ,	Water Resource Department
<a href="http://www.disasternews.net">www.disasternews.net</a> ,	Disaster Related News service
<a href="http://www.fema.go">www.fema.go</a> ,	Federal Emergency Management Agency

<a href="http://www.redcross.org">www.redcross.org</a> ,	Red Cross
<a href="http://www.alertnet.org">www.alertnet.org</a> ,	Alerting humanitarians to emergencies
<a href="http://www.undp.org">www.undp.org</a> ,	United Nations Development Programme
<a href="http://www.osdma.org">www.osdma.org</a> ,	Orissa State Disaster Mitigation Authority
<a href="http://www.ifrc.org">www.ifrc.org</a>	International Federation of Red cross
<a href="http://www.emergency-management.net">www.emergency-management.net</a>	Information about emergency planning and Response
<a href="http://www.odisha.gov.in">www.odisha.gov.in</a>	Govt. of Odisha
<a href="http://usgs-georef.cos.com">http://usgs-georef.cos.com</a>	USGS data base
<a href="http://www.iaem.com">www.iaem.com</a>	International association of disaster managers
<a href="http://www.eqnet.org">www.eqnet.org</a>	EQ related information
<a href="http://www.esri.com/hazards">www.esri.com/hazards</a>	Disaster and GIS related information

17. Refer the website [www.idrn.gov.in](http://www.idrn.gov.in) for resource mobilization.
18. Keep spare copies of district maps. Jurisdiction maps of all irrigation divisions shall be kept ready in good numbers.
19. Requisition School/ College for army/ police forces staying and movements.
20. Looking at the onset of emergency and after making quick preparations, convene Emergency meeting of important official and non-official agencies. Give them clear instructions.

**Assignment of Senior Officials to supervise the emergency situation:**

<b>Name of the Senior Officers/ Dist. Level Officers</b>	<b>Name of the Flood Zones of the District</b>
A.D.M. (General) Cuttack	Mahanga
A.D.M. (Revenue) Cuttack	Nischintakoili & Salepur
PD DRDA , Cuttack	Baragna & Tangi Choudwar
PD DUDA Cuttack	Cuttack Sadar & Choudwar Municipality
Sub-Collector ,Cuttack Sadar	Nilai, Kantapada
Sub-Collector, Banki	Banki, Banki-Dompada & Banki NAC
Sub-Collector, Athagarh	Athagarh , Tigiria & Athagarh NAC
District Panchayat Officer, Cuttack	Baramba
District Education Officer, Cuttack	Narasinghpur

The Sub- Collectors shall review the flood preparedness measures every week.  
BDOs – Zone Officers of respective Blocks

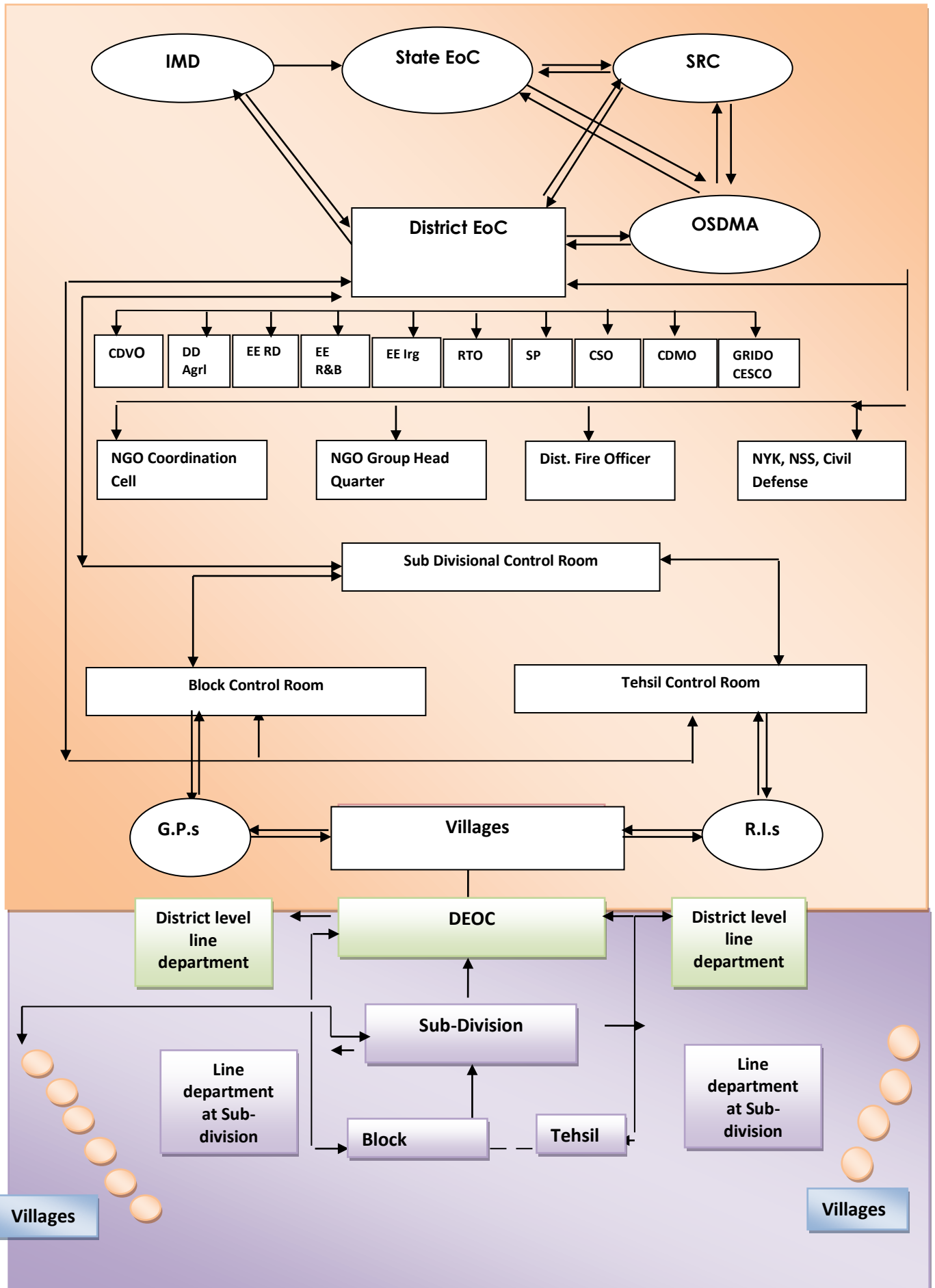
Tahasildars – Addl. Zone Officers of respective Tahasils

GP Extension/Executive Officers – Sub Zone Officers of respective GPs

**Table: 3 Equipments provided to DEoC and their operational status**

SI No	Name of the equipments	Quantity supplied by OSDMA	Quantity in good condition	Quantity in damaged condition	Quantity required for immediate use
1	Desk Top Computer along with its accessories	3	1	2	2
2	Laser Printer	2	1	1	1
3	UPS	3	-	2	2
4	Scanner	1	-	1	1
5	Fax Machine	1	-	1	1
6	Inject Printer	1	-	1	1
7	Multi Utility Machine	1	-	1	1
8	L.C.D Projector	1	1	-	-
9	Digital Steel Camera	1	1	-	-
10	GPS Unit	1	-	1	1
11	Satellite Phone	1	-	1	1
12	VHF Sets	1	-	1	1
13	VHF Hand Sets	4	1	3	3
14	Portable Diesel Generator	1	1	-	-
15	Inverter with Battery	1	-	1	1
16	Inflammable Tower Light	2	2	-	-
17	Power Saw	2	2	-	-
18	Life Jacket	5	5	-	-
19	Life Buoy	5	5	-	-
20	Aluminum Ladder	Not supplied	-	-	1
21	Fire Extinguisher	1	1	-	-
22	Siren	1	1	-	-
23	Colour T.V & stand	1	1	-	-
24	Mobile Phone	2	-	2	2
25	Display Board	2	1	1	1
26	White Board	1	1	-	-
27	Computer Table & Chair	1	1	-	-
28	Rack	1	1	-	-
29	Book Case	1	1	-	-
30	G.I Trunk	1	1	-	-
31	Commando Search Light	1	1	-	-
32	Steel Almirah	1	1	-	-

Figure \_\_ : Information flow chart from District Emergency Operation Center (DEoC) to Villages with early warning



### 4.12.3 Block Emergency Operation Center (BEOC)

As per the standing instruction of Dist. Administration the Control rooms at Block Office shall operate from the month of April and continued up-to November. Control room operates from April & May for Heat wave condition whereas from June to November for Flood like situation. The staff assigned for the control room duty to look after the situation and report compliance if required. Similarly control room operates in Tahasil offices too. There is no institutional arrangement for BEOC at the block level, only control room and report returns done by the existing staff of the Blocks.

However as per the Suggestion of DDMA Cuttack Block Level Disaster Management Committee is formed in each block. This Committee is responsible for managing the Disaster situation in block level and immediately report to the Senior Officers and District Administration. Details as follows

<b>KEY PERSONS AT BLOCK LEVEL FOR SUMMER-CYCLONE -ATHAGARH BLOCK</b>				
<b>SL. NO.</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>CONTACT NO</b>	<b>WHATSAPP NO</b>
1	ARUN KUMAR DAS	BDO	9938890467	9938890467
2	UPENDRA KUMAR JENA	ABDO	7978906602	7978906602
3	PRIYABRATA DAS	TAHASILDAR	9437249784	9437249784
4	ASHOK KUMAR SWAIN	ADD. TAHASILDAR	8917485856	8917485856
5	RITANJALI PRADHAN	CDPO	9437289533	9437289533
6	DR. DILLIP KUMAR DAS	SUPERINTENDENT, BERHAMPUR CHC	9937671096	9937671096
7	DUSMANT KUMAR SWAIN	FIRE OFFICER	7894879102	9861647364
8	BAMADEV SWAIN	IIC, ATHAGARH	9438467132	9438467132
9	BHABANI SHANKAR KHUNTIA	IIC, KHUNTUNI	8328824255	8328824255
10	RANJAN KUMAR PRADHAN	IIC, GURUDIJHATIA	8895499363	8895499363
11	KALU CHANDRA BEHERA	EXECUTIVE ENGINEER RWSS	9437032412	9437032412
12	GHANASHYAM PANDA	AEE, R & B	9438830365	9438830365
13	AJAY KUMAR MOHAPATRA	AEE, R.D	9437179025	9437179025
14	BIDYUTLATA NAIK	MARKETING INSPECTOR(MI)	7809553681	7809553681

15	PABITRAMOHAN SAHOO	EXECUTIVE ENGINEER TPCODL	9437555735	9437555735
16	SANTOSH KUMAR SAMANTRAY	AEE , TPCODL	7894740035	9439654600
17	JAGABANDHU MISHRA	BLOCK AGRICULTURE OFFICER	9438675619	9438675619
18	BISHNU PRASAD SINGH	ADH, ATHAGARH	9556387082	9556387082
19	DR. SUSANT KUMAR BEHERA	BLOCK VETERINARY OFFICER	9937788384	9937788384
20	SUBHALAXMI BISWAL	LAC KANDARPUR	7008603324	7008603324
21	DAMBARUDHARA BISWAL	LAC KHUNTUNI	6370853155	6370853155
22	BISWAJIT PRADHAN	LAC KANDAREI	9348980390	9348980390
23	SAGARIKA MOHAPATRA	LAC RADHAKISHOREPUR	7008033499	7008033499
24	SRUTIDHARA RATHA	LAC CHHAGAON	8018932668	8018932668
25	MANORANJAN LENKA	LAC GOBARA	7894857263	7894857263
26	JAGANATH PATRA	LAC KUMARPUR	8260397192	8260397192
27	ASHOK KUMAR MALLIK	ASST. FISHERY OFFICER	9938181585	9938181585

**KEY PERSONS AT BLOCK LEVEL FOR SUMMER -CYCLONE OF BANKI  
BLOCK**

SI No	Name of the Officer	Designation	Contact No	Whats app NO
1	Pradipta Ku Satapathy	Block Dev. Officer	9861450228	9861450228
2	Suchismita Nayak	Addl BDO	7381184272	7381184272
3	Satyaranjan Panda	Tahasildar,Banki	8917298772	8917298772
	Satyabrata Swain	Asst. Engineer	9437300184	9437300184
4	Rupali Mitra	CDPO,Banki	9437762772	9437762772
5	Amaresh Sahoo	Health Officer,CHC Subarnapur	7008244195	7008244195
6	Prafulla Chandra Ojha	Fire Officer,Banki	7977199524	7977199524
7	Soumendra Tripathy	IIC Police station banki	9437226850	9437226850
8	Satya narayan Rath	Engineer RWSS	9437124401	9437124401
9		Engineer R& B		
10		Engineer RD		

11	Bishnu Priya Nayak	Marketing Inspector	7008329242	7008329242
12	Dhiren Kumar Swain	Engineer TPCODL	7008369076	7008369076
13	Srutijhara Sahoo	Agriculture Officer	8339965925	8339965925
14	Bijaya Kumar panda	Horticulture Officer	9439478919	9439478919
15	Jitendra Prasad Dash	Life stock Inspector	9132662965	8457011022
16	Dinesh Kumar pradhan	Fishery Officer	9439440856	9439440856

<b>IMPORTANT CONTACT NUMBERS OF BARANGA BLOCK</b>				
<b>SL. NO.</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>CONTACT NUMBER</b>	<b>WHATSAAP No</b>
1	Pravakar Panda	BDO	9437819064	9437819064
2	Bijaya Niketan Choudhury	ABDO	9437274360	9437274360
3	Swastik Sankalpa Sahoo	TAHSILDAR	8328933341	8328933341
4	Suwendu Sahoo	ADD.TAHASILDAR	8117085961	8117085961
5	Priyavasini Mohanty	CDPO	8260926329	8260926329
6	Dr. Minakhi Marandi	MEDICAL OFFICER, BARANGA PHC	9438652987	9438652987
7	Dr. Subash Gochayat	Supdt. Mahidharapada	8249975699	8249975699
8	Rajkishore Jena	FIRE OFFICER	9437769484	9437769484
9	Akash Ranjan Rana	IIC , BARANGA	8895004044	8895004044
10	Sudhansu Jena	IIC , CUTTACK SADAR	9437827629	9437827629
11	Suresh Chandra Rout	Supdt. ENGINEER RWSS	8280408036	8280408036
12	Bikash kumar Jena	JE R&B BARANGA	7904941368	7904941368
13	Bhagirathi Das	JE, RD BARANGA	9438289749	9438289749
14	Prasanta Kumar Satpathy	JE, RD NIALI	9438289637	9438289637
15	Ranjan Kumar Behera	TPCCDL, BARANGA	9938003804	9938003804
16	Abhisek Jha	TPCCDL, MUNDULI	9971033237	9971033237
17	Sujata Kamalini Mali	MI, BARANGA	9861193603	9861193603
18	Prasanta Biswal	BVO, BARANGA	7894835838	7894835838
19	Puspita Sahoo	AHO, BARANGA	9658134132	9658134132

<b>KEY PERSONS AT BLOCK LEVEL FOR SUMMER -CYCLONE -KANTAPADA BLOCK</b>				
<b>SL NO</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>CONTACT NO</b>	<b>WHATSAPP NO</b>
1	SRI SANTOSH KUMAR PATI	BDO	9861063401	9861063401
2	SMT RUBY TAPASWINI DAS	ABDO	8249325744	8249325744
3	MITANJALI DAS	TAHASILDAR	6370034791	6370034791
4	SUBHRANU SEKHAR SAHOO	ADDL TAHASILDAR	7077955887	7077955887
5	NIBAS CHANDRA ROURAY	ACCOUNTS OFFICER	8328852153	8328852153

6	PUSPANJALI MISHRA	CDPO	9437930085	9437930085
7	DR BHARAT MOHAPATRA	SUPERINTEDENT ADASPUR CHC	9938463528	9938463528
8	DR NILASRI BAHINIPATO	MEDICAL OFFICER ,PHC, GOBINDPUR	7978506252	7978506252
9	DR SRADHA MALLICK	MEDICAL OFFICER,PHC,BADBIL	7008609635	7008609635
10	SANKHA MARANDI	FIRE OFFICER,ADASPUR	9668278003	9668278003
11	BIJAYA SAHOO	IIC,OLATPUR	9438916219	9438916219
12	ANAM CHARAN NAYAK	IIC,GOVINDPUR	7609004233	7609004233
13	PRAVAKAR SAHOO	ASST. EXECUTIVE ENGINEER RWSS	8280408343	8280408343
14	PREMALATA DAS	JE R & B	9861957819	9861957819
15	MANOJ KUMAR SAHOO	AE RD ADASPUR	7008749319	7008749319
16	POONAM JENA	MARKETING INSPECTOR(MI)	9861793788	9861793788
17	SANTOSH KUMAR KHUNTIA	SDO TPCODL, NIALI	8249530499	8249530499/ 9437551963
18	CHABILA BEHERA	SDO TPCODL,GOPALPUR	9437011319	9437011319
19	JENAMANI BIBHUTI BHUSAN RAY	BLOCK AGRICULTURE OFFICER	9438732955	9438732955
20	JITENDRA MOHARANA	BLOCK VERINARY OFFICER	7008254655	7008254655
21	MIRAMBIKA SAHOO	ASST FISHERY OFFICER	8249559273	8249559273
22	GOPINATH KAR	ASST HORTICULTURE OFFICER	9437101654	9437101654
23	SURAJ KUMAR BEHERA	BPM,OLM	9439638064	9439638064
24	BIJAYA LAXMI TUDU	ASST. EXECUTIVE ENGINEER,KANTAPAD A	7978062107	7978062107
25	NABAGHANA BARIK	SECTION OFFICER	9861372905	9861372905
26	DEBASHRITA PARIDA	GPEO IC	7077268625	7077268625
27	Bharat Bhusan Mishra	PEO	9861612211	9861612211
28	Hemanta ku dash	PEO Bagalpur,Dimiri,Adaspur	9861163104	9861163104



29	Prabhash Ch Parida	PEO,Jharpada,BPS Pur	7008999804	7008999804
30	Samir Mallick	PEO,Postal,Brahmanbati	8018751890	8018751890
31	Tamalilata Mishra	PEO,Kantapada,Utaran	7735726255	7735726255
32	Samapika Mohanty	PEO,Uradha,Govindpur	7606028592	7606028592
33	Laxman ku Hembram	PEO	6370749367	6370749367
34	Nursingh Ch Nayak	PEO,Brahmansailo	9937452664	9937452664
35	Saraswati Nayak	PEO,Nahalpur,Nuagaon	7008127462	7008127462

<b>KEY PERSONS AT BLOCK LEVEL FOR SUMMER-CYCLONE</b>				
<b>MAHANGA BLOCK</b>				
<b>SL.NO.</b>	<b>NAME OF THE OFFICIALS</b>	<b>DESIGNATION</b>	<b>CONTACT NO.</b>	<b>WHATS APP NO.</b>
1	SRI NIHAR RANJAN MALLIK	BDO	8637290260	9938642312
2	SRI JNANA RANJAN PANDA	ABDO	9937020764	9937020764
3	UMAKANTA BISWAL	TAHASILDAR	9438234871	9438234871
4	BABURAM MURMU	ADDL. TAHASILDAR	8917585401	8917585401
5	PRAMODINI DAS	CDPO	9439367585	9439367585
6	NIHAR RANJAN MOHANTY	IIC MAHANGA	9437421833	9437421833
7	SANGRAM KESHARI PARIDA	AEE MAHANGA	9658600703	9658600703
8	SATYA RANJAN DAS	AAO	7751857237	7751857237
9	SMRUTIMAYEE BEHERA	MI	8763347639	8763347639
10	BIBHURANJAN DAS	BVO	9348302298	9348302298
11	SUDHANSU OJHA	AFO	8249052132	8249052132
12	CHAKRADHAR BEHERA	BEO	9910135140	9910135140
13	SK BASKAY	FIRE OFFICER	8984384553	8984384553
14	SURESH CH ROUT	EXECUTIVE ENG. RWS &S	8280408036	8280408036
15	DR. SANJAYA KU MOHANTY	MO, I/C, CHC MAHANGA	9439551264	9439551264
16	DR. TANMAYA BEHERA	PHC NADIA SAHASPUR	9438331331	9438331331

**IMPORTANT CONTACT NUMBERS OF NARSINGHPUR BLOCK**

<b>SL. NO.</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>OFFICE</b>	<b>CONTACT NUMBER</b>
1	PRADEEP KUMAR SAHOO	BDO	BLOCK OFFICE	9439875367
2	ALOK KUMAR DEHURY	TAHSILDAR	TAHSIL OFFICE	9437425230
3	Dr.DEBASISH JETHI	MEDICAL	KANPUR	7750910542

		OFFICER		
4	SUBHA PRAKASH SAHOO	AEE	BLOCK OFFICE	9777811535
5	RABI NARAYAN MISHRA	WEO	BLOCK OFFICE	9437975196
6	DILLIP KUMAR BEHERA	AE	BLOCK OFFICE	6370096305
7	BIJAYA KU. SENAPATI	BVO	VETERINARY OFFICE	9437481121 / 9348325131
8	ABHAYA KUMAR BEHERA	IIC	NARSINGHPUR	7077235950
9	RABINDRA KUMAR BHUJABALA	IIC	KANPUR	8917664894
10	RABINDRA NATH PRADHAN	BEO	NARSINGHPUR	9668681180
11	MANORANJAN MAHALIK , SO	FIRE OFFICER	NARSINGHPUR	9090365361
12	RUDRAMADHAB MALLIK , SO	FIRE OFFICER	BALIJHARI	7978525341
13	BISWAJIT DEHURY	SDO , ELECTRICAL	NARSINGHPUR	9437555782
14	LAXMIPRIYA SWAIN	AAO	NARSINGHPUR	7008445610
15	RAKESH ROSHAN BEHERA	AHO	NARSINGHPUR	8917612945
16	AMAR PRADHAN	AFO	BLOCK OFFICE	8260889048
17	SUBASH CHANDRA BEHERA	GPEO	BLOCK OFFICE	7978923363
18	JYOTI RANJAN SAHOO	BSSO	BLOCK OFFICE	9556759169
19	JACHINDRANATH SWAIN	SRA	BLOCK OFFICE	9668347868
20	NUNGESH PRADHAN	JRA	BLOCK OFFICE	9556532612
21	MRUTYUNJAYA PATNAIK	APO	BLOCK OFFICE	8847827323
22	SUJAYA KUMAR RANA	JE RWSS-II	BLOCK OFFICE	9937471240
23	SANJAY KUMAR PRADHAN	CP	BLOCK OFFICE	8637261182

<b>NIALI KEY PERSONS AT BLOCK LEVEL FOR DISASTER MANAGEMENT</b>		
<b>NAME</b>	<b>DESIGNATION</b>	<b>CONTACT NO.</b>
<b>ASHOK KUMAR LENKA,OAS-I</b>	<b>BDO</b>	<b>9337098811</b>
<b>RABINDRA KUMAR DALAI</b>	<b>ABDO</b>	<b>8342947549</b>
<b>BIDYADHAR PATI,OAS-I</b>	<b>TAHASILDAR</b>	<b>9437264371</b>
<b>SMRUTI REKHA DAS</b>	<b>ADDL.TAHASILDAR</b>	<b>8249196244</b>
<b>MINARVA MOHANTY</b>	<b>CDPO</b>	<b>9437366431</b>
<b>PRATIMA MOHANTY</b>	<b>BEO</b>	<b>8763111469</b>
<b>ANNATA NARAYAN SINGH</b>	<b>ABEO</b>	<b>9937770059</b>
<b>RAMA CHANDRA MARANDI</b>	<b>AFO</b>	<b>8328956429</b>
<b>DR.SAMI NAMI NAVEEN</b>	<b>MEDICAL OFFICER</b>	<b>9938881986</b>
<b>PRAMOD KUMAR SWAIN</b>	<b>BPO,NIALI CHC</b>	<b>9439990307</b>
<b>PATI MOHANTY</b>	<b>FIRE OFFICER</b>	<b>9937312848</b>

BIJAY KU. MALLICK	IIC,NIALI	9438332802
GOVIND CH. MALLICK	AEE, RWS & S	8280408339
CHAANDA CHARAN DEHURY	JE-II,RWS & S	8244727844
MADHUSMITA MAJHI	MARKETING INSPECTOR	9853311900
AKANKHYA PANIGRAHI	AGRICULLTURE OFFICER	9040665006
PRIYANKA DAS	HORTICULTURIST	7008970136
SASANKA SEKHAR NAYAK	BVO	9437175036
RAM RATAN BHUYAN	A.E.E	9937228916
BASANT KUMAR ROUT	ASST. ENGINEER	9937454791
TRILOCHAN MALLICK	LIVESTOCK INSPECTOR(LI),KAPASI	9439046176
KESHAB CHANDRA DHAL	LIVESTOCK INSPECTOR(LI),NUABETENDA	9776195454

<b>NISCHINTKOILI KEY PERSONS DETAILS AT BLOCK LEVEL</b>	
<b>BDO Name</b>	<b>Contat No</b>
Sri Karnadev Samaddar	8249129393
<b>ABDO</b>	
Susanta Kumar Rana	9337629587
<b>Tahasildar</b>	
Sri Karnadev Samaddar	8249129393
<b>Additional Tashasildar</b>	
Krishna Padhi	7008696215
<b>CDPO</b>	
Lelabati sethy	9437313856
<b>Health officer</b>	
Dr.Amit kumara jena	9437295495
<b>Fire officer</b>	
Purna chandra panda	9337836150
<b>Police</b>	
Chinmayee Sahoo(N.koili)	9437730210
Umesh Chandra Sahoo(Nemalo)	8458004344
<b>Engineer RWSS</b>	
Chinmay kumar behera	9439586087

<b>Engineer R&amp;B</b>	
Syam Sundar Das	9437143746
<b>Engineer RD</b>	
Urmi Priyadarshani Das	9438289643
<b>Marketing Inspector</b>	
Pritam Das(ACSO)	9438878585
<b>Engineer CESU</b>	
Manash mohanthly	9437555724
<b>Agriculture officer</b>	
Sidhartha Sarathi Parida(AO)	9437287333
<b>Horticulturist</b>	
Hemanta Kumar Samal(BHO)	8763638840
<b>Livestock inspector (Li)</b>	
Dr.Sujita Sahoo (Addl VAS)	8917329088
<b>Fishery Officer</b>	
Kasinatha Behera	9861257273
<b>Any other important key person</b>	
Satya Ranjan Bhoi(JE-1)	9439797635
Lakhyahira Labanyabati Behera (BEO)	9439693067

**KEY PERSONS AT BLOCK LEVEL FOR SUMMER-CYCLONE, TIGIRIA BLOCK**

SL. NO.	NAME OF THE OFFICER	DESIGNATION	CONTACT NO.	WHATSAPP NO.
1	PRANAB KUMAR BEHERA	B.D.O., TIGIRIA	9437651602	9437651602
2	PRAMOD KUMAR BASKEY	TAHASILDAR, TIGIRIA	9439215009	9439215009
3	SUCHITR JENA	IIC, TIGIRIA	7008332252	7008332252
4	RABIN KUMAR SAREN	FIRE STATION OFFICER, TIGIRIA	8093183125	8093183125
5	BISWABIKASH ROUTRAY	P.H.C., BINDHANIMA	9439830849	9439830849
6	AVIPSA SWAIN	ABDO, TIGIRIA BLOCK	8328842401	8328842401
7	SAMEER KUMAR RATHA	AEE, TIGIRIA BLOCK	6370656866	6370656866
8	ASHOK KUMAR NANDA	AE, TIGIRIA BLOCK	9438317790	9438317790
9	KALU CHANDRA BEHERA	EE, RWS & S	9437032412	9437032412

10	SANJAY KUMAR SAHOO	JE RWS & S, TIGIRIA BLOCK	6371512575	6371512575
11	SARAT KUMAR LENKA	GPEO, TIGIRIA BLOCK	9437871773	9437871773
12	MADHUSMITA SAHOO	AFO, TIGIRIA BLOCK	9439269923	9439269923
13	GANGADHAR BEHERA	BSSO, TIGIRIA BLOCK	9937469191	9937469191
14	SATYABRATA DAS	BVO, TIGIRIA	9437210145	9437210145
15	SMARANIKA	AAO, TIGIRIA	7809484498	7809484498
16	DHANANJAYA ROUT	AHO, TIGIRIA	9556387082	9556387082
17	PABITRA MOHAN SAHOO	EE, ELECTRICAL, ATHGARH	9437555771	9437555771
18	SANTOSH KUMAR SAMANTARAY	SDO, ELECTRICAL, ATHGARH	9437555735	9437555735
19	MANOJ KUMAR SAHOO	JE, ELECTRICAL	9437555796	9437555796
20	GHANASHYAM PANDA	AEE, PWD	9437130365	9437130365
21	MAMATA PATRA	CDPO, TIGIRIA	8328805696	8328805696
22	BIDYUTLATA NAYAK	MI, TIGIRIA BLOCK	7847028828	7847028828

### KEY PERSONS AT SALIPUR BLOCK LEVEL FOR SUMMER CYCLONE

Sl No	Name of the Officer	Designation	Contact No
1	Rajiv Das	BDO, Salipur	9439560557
2	Dibyajyoti Smrutiranjan Deo	Tahasildar, Salipur	8895287057
3	Indira Sahu	Tahasildar, Kishorenagar	8917473364
4	Bijay Pradhan	Medical Officer	9938199101
5	Mrunmaya Senapati	IIC, Salipur	9437355921
6	Rabindranath Meher	IIC, Jagatpur	9439519511
7	Sasmita Rana	IIC, Kishorenagar	8895388071
8	Sisira Behera	Fire Officer, Salipur	8328842781
9	Sujit Sahu	SDO, Electrical, Salipur	9439393305
10	Susama Satpathy	CDPO, Salipur	8637295059
11	Suryakanta Rout	ABDO, Salipur	8917565146
12	Bibhuti Bhusan Nayak	AEE I/C, Salipur	9437107616
13	Parsuram Jena	GPEO, Salipur	9437540045
14	Samaresh Bhuyan	JE, RWS & S Salipur	9439271580
15	Soumya Ranjan Swain	BSSO, Salipur	9776814215

16	Sudhir Ranjan Behera	BAO, Salipur	7978204695
17	Deepak Kumar Senapati	BVO, Salipur	9938387380
18	Rabinarayan Sahu	AFO, Salipur	7789930571
19	Diptiranjana Behera	MI, Salipur	9556144016

<b>IMPORTANT CONTACT NUMBERS OF TANGI-CHOUDWAR BLOCK</b>				
<b>SL NO</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>CONTACT NO.</b>	<b>WHATSAAP NO.</b>
1	ASHUTOSH MISHRA	BDO	7873856659	7873856659
2	SASWATA KUMAR JENA	ABDO	9937574933	9937574933
3	AJAY KUMAR MALLICK	TAHASILDAR	9437828260	9437828260
4	LIPSA RAY	ADDL. TAHASILDAR	8371913441	8371913441
5	MANORAMA SWAIN	CDPO, TANGI	9668447652	9668447652
6	MEDICAL OFFICER, TANGI PHC	MADHUSMITA NAYAK	9437127964	9437127964
	IIC, CHOUDWAR	BICHITRANANDA PATI	9437436075	
7	IIC, TANGI	SUCHITRA BIRYA DAS	9861382305	
8	SURESH CHANDRA ROUT	SUPDT. ENG. RWSS	8280408036	8280408036
9	BEVEKANANDA SAHOO	MI, TANGI	9438577596	9438577596
10	JAI MANGALDEEP SWAIN	FIRE OFFICER, TANGI	8917618270	8917618270
11	SANTOSH KUMAR MOHAPATRA	TPCCDL	9337333922	9337333922
12	SANJEEV RAY	JE, RD CHOUDWAR	9438289727	9438289727
13	PRAFULLA KUMAR BEHERA	JE, R&B CHARBATIA	9437103558	9437103558
14	AJAY KUMAR MALLA	AHO, TANGI	9938134694	9938134694
15	RASHMI RANJAN NAYAK	BVO, TANGI	9668016684	9668016684

<b>KEY PERSON AT BLOCK LEVEL FOR SUMMER-CYCLONE BANKI-DAMPADA BLOCK</b>				
<b>SL. NO.</b>	<b>NAME OF THE OFFICER</b>	<b>DESIGNATION</b>	<b>CONTACT NO.</b>	<b>WHATSAPP NO.</b>
1	SHYAMAL KUMAR RAY	BDO, BANKI-DAMPADA	8328909859	8328909859
2	PALLABI ROUT	ABDO, BANKI-DAMPADA	9438660624	9438660624
3	KHITISH KU. BEHERA	TAHASILDAR, DAMPADA	6370349690	6370349690
4	SATYARANJAN PANDA	TAHASILDAR, BANKI	8917298772	8917298772
5	FULARANI BEHERA	CDPO, I/C	9777383612	9777383612
6	SOUMENDRA KU. TRIPATHY	IIC, BANKI	9437226850	9437226850
7	LAXMIDHAR DHAL	ASI, KAINMUNDI	7978595969	7978595969
8	AMARENDRA DAS	ASI, TALABASTA	9437136829	9437136829

9	PRAFULLA OJHA	FIRE OFFICER, BANKI	7977199524	7977199524
10	SUBAS CH. PATRA	FIRE OFFICER, DAMPADA	9439828226	9439828226
11	PRAVAT KU. ROUT	AE, BANKI-DAMPADA	9438273426	9438273426
12	SMRUTIMAYEE JENA	AEE, BANKI- DAMPADA	8658766740	8658766740
13	AKULANANDA SAHOO	HC, BANKI- DAMPADA	8249888936	8249888936
14	SURYAMANI DHAL	SC, BANKI-DAMPADA	9438300657	9438300657
15	RASMIRANI DAS	WEO, BANKI- DAMPADA	9853328209	9853328209
16	TRINATH JENA	GPEO, BANKI- DAMPADA	9937460013	9937460013
17	SARMISTHA DALABEHERA	MI, BANKI- DAMPADA	9658735578	9658735578
18	RAJGPAL MARANDI	JE, BANKI-DAMPADA	9777816500	9777816500
19	MONALISA MALLIK	JE, BANKI-DAMPADA	7978719858	7978719858
20	TRILOCHAN SAHOO	JE, BANKI-DAMPADA	9437660235	9437660235
21	SARITA SATAPATHY	GPTA, BANKI- DAMPADA	9337801346	9337801346
22	SULEKHA NAYAK	AEE, RD, BANKI	9438289702	9438289702
23	SURESH CHANDRA ROUT	EXECUTIVE ENGINEER, RWSS	8280408036	8280408036
24	BAISHNAB CH. MALLIK	JE-I, RWSS	9439276316	9439276316
25	SMRUTI PRADHAN	JE-II, RWSS,	9853261379	9853261379
26	PUSPALATA MOHAPATRA	MEDICAL OFFICER, CHC, DAMPADA	9439990458	9439990458
27	DEVIDUTTA MOHANTY	AFO, BANKI- DAMPADA	9861853077	9861853077
28	ARPITA PADHI	VAS, DAMPADA	9861698051	9861698051
29	SOURAV RANJAN MOHAPATRA	BLOCK VETERINARY OFFICER	9437365001	9437365001
30	SUBRAT KUMAR PADHI	B.A.O, BANKI	9861189903	9861189903
31	B. P. ROJALIN	A.A.O, DAMPADA	8763935033	8763935033

### KEY PERSONS AT BLOCK LEVEL FOR SUMMER-CYCLONE

SL. NO.	NAME OF THE OFFICER	DESIGNATION	CONTACT NO
1	Utkal Ranjan Acharya	BDO	9437274313
2		ABDO	
3	TAPAN KUMAR PARIDA	TAHASILDAR	7873570644
4		ADD. TAHASILDAR	

5	PRAMILA SETHI	CDPO	8249355868
6	Dr. BISWANATH ADEK	HEALTH OFFICER	9937175921
7	ALEKH CHANDRA SAHOO	FIRE OFFICER	8249349508
8	NIRANJAN DAS	POLICE	9776870364
9	RABINDRA KUMAR SETHI	MARKETING INSPECTOR(MI)	8093461826
10	SIBASISH MISHRA	AGRICULTURE OFFICER	7978664148 / 94739261
11	DILLIP KUMAR BEHERA	EXECUTIVE ENGINEER RWSS	8763860389
12	MADHU SUNDAR DAS	LIVESTOCK INSPECTOR(LI)	9853426788
13	RADHASHYAM SAHOO	ENGINEER RD	9438517214
14	NRUSINGH CHARAN MOHANTY	FISHERY OFFICER	9937885822
15	PRADIP KUMAR MISHRA SRA	ANY OTHER IMPORTANT KEY PERSON	9861638705

### Cuttack Sadar Key Persons at Block level for Disaster Management

SI No	Name	Designation	Cont. No.
1	Rajib Lochan Parida O.A.S 1	B.D.O	9439176005
2	Girija Prasad Barik	ABDO	7978368815
3	Sambit gadanayak O.A.S 1	Tahasildar Sadar	9438629092
4	Sanjay Kumar panda	Addl.Tdr (S)	9861394222
5	Rajesh Kumar Samal	Addl.Tdr (S)	9437001002
6	Basanta kumar Sahoo	Supt. Bentkar CHC	9438245951
7	Saraswati Kanungo	BEO	9438558700
8	Devi Prasad Rout	Asst. Horticulture Officer	9776541991
9	Suresh Chandra Mallick	BAO	9437328664

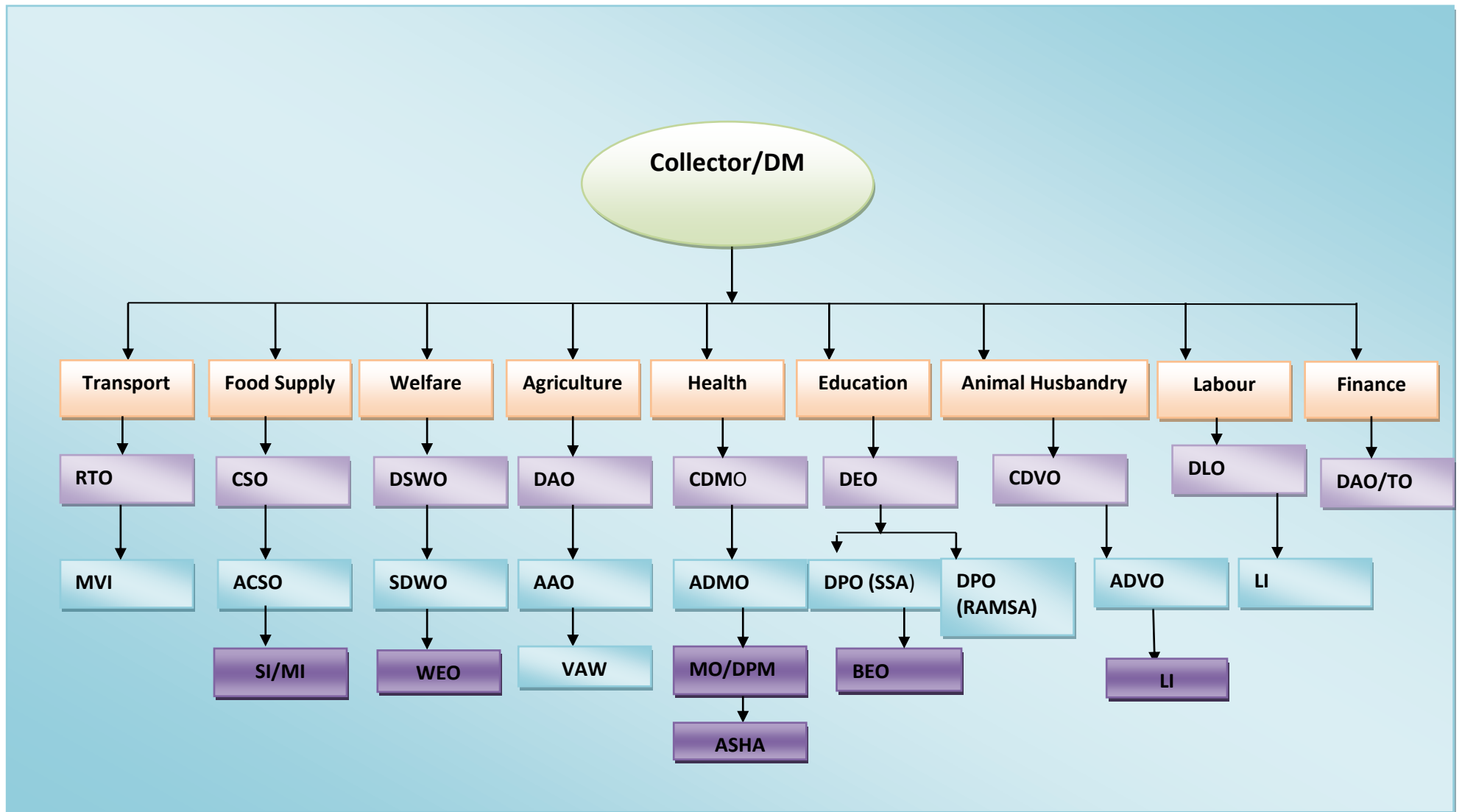


10	Bibhuti Bhusan Biswal	AEE (RWSS )	9439651292
11	Eliza Mallick	AE ( RWSS)	8280408337
12	Sunita Mohanty	JE (RWSS)	8280408651
13	Ananta kumar dehury	ABEO	9337606532
14	Kedarnath Pradhani	MI	7008227449
15	Narayan Chandra Mishra	AFO	9337895193
16	Bikash Chandra Bhuyan	AEE(I/C)	7008863356
17	Pradyot Kumar Sahoo	AE	9438082109
18	Jagyansini Gochhayat	GPEO	7978655479
19	Rashmita Mohanty	CDPO	9861576458

**Health Control Room:** *[Heat Wave]*

The district level control room functions in the office of DEO, Cuttack from 1.3.2022 to 15.6.22 to have a close watch on the heat wave condition. Staff deployed at the control room on a rotation basis. Similarly, at the CHCs control rooms operate under the MO I/C.

4.13 Coordination structure at the District level and down the line



#### **4.14 GO-NGO Coordination before and after disaster in the district**

*NGOs are instructed to provide necessary cooperation during emergency Situation mentioned as follows.*

- IEC activities on disaster management
- Community mobilization
- Ensure regular meeting of NGO co-ordination cell
- Disseminate all government aided programme to the community
- Ensure regular mock drill
- Ensure regular bleaching / use of disinfectants in the drinking water sources
- Organize workshops seminar meeting/training on community based disaster management
- Long term mitigation strategies
- Facilitate that Medical and Para Medical Staffs are available in their respective villages.
- Ensure status of medicine stock
- Provide information of evacuees sheltered in different locations to the medical team.
- Ensure medicines are reached to the affected areas with the help of volunteers.
- Ensure proper treatment of the victims or injured.
- Facilitate Charitable Organizations work hand in hand with UPHC Medical Team.
- Arrange transport both road and water ways to the outside medical team and volunteers, if required
- Facilitate and Co-ordinate village task forces/CBOs Institutions reach the spot without any bottlenecks
- Inform PHC to take immediate action and seek the support of District Administration if any epidemic is noticed.

## District &amp; Block Level Nodal NGO Details

Sl No	NGO Name	NGO Category	Address	E-Mail ID	Contact No.	Expert in Field
1	Utkal Sevak Samaj	District Nodal NGO & Salipur Block Nodal NGO	Nuasahi, Gandarpur, Cuttack- 753003	<a href="mailto:ussngo2014@gmail.com">ussngo2014@gmail.com</a>	7008967838	Disaster Management, Reproductive Child Health, HIV & AIDS Prevention & Control, Child care, water & Sanitation, Psycho-social care & Mental Health
2	Women & Child Welfare Society	Baranga Block Nodal NGO	Cuttack	<a href="mailto:wcsminati@gmail.com">wcsminati@gmail.com</a>	9437534224	Awareness on Fuel and Energy saving (Petroleum Consumption), Child Labor Prevention, Road safety, Climate Change & Energy Consumption
3	Suprativa	Cuttack Sadar Block Nodal NGO	Fakirpada, Biribati Cuttack, pin- 754100	<a href="mailto:suprativa@gmail.com">suprativa@gmail.com</a>	8763356348	Social Sector
4	Banki Anchalika Adibasi Harijan Kalyan Parisad	Banki Block Nodal NGO	Banki, Cuttack	<a href="mailto:beherabarendra@gmail.com">beherabarendra@gmail.com</a>	7978652874	Tribal Affair, Social Empowerment, Old Age Home, PRI Training, Disaster Management
5	Maa Bindhyabasini CCI	Narsinghpur Block Nodal NGO	Narsinghpur, Cuttack	<a href="mailto:mbasorphanagedorg@gmail.com">mbasorphanagedorg@gmail.com</a>	8917474559	Child Welfare

6	Committee for Legal Aid to poor (CLAP)	Badamba Block Nodal NGO	At- Bimaladevi Memorial Building, Sector-6, Markat Nagar, CDA, Cuttack-753014	<a href="mailto:info@clapindia.org">info@clapindia.org</a> , <a href="mailto:bikash@clapindia.org">bikash@clapindia.org</a>	9439062986	Human Rights, Legal Aid to poor, Legal literacy
7	AWAHAN	Mahanga Block Nodal NGO	Sector-7, CDA, Cuttack-14	<a href="mailto:mohantykamala@52gmail.com">mohantykamala@52gmail.com</a>	9437441224	Mother & Child Health
8	The Sanskara	Athagarh Block Nodal NGO	JobraMallhasahi, P-College Square, Cuttack-753003	<a href="mailto:thesanskar2000@gmail.com">thesanskar2000@gmail.com</a>	9439041997	Education, Sanitation, Agriculture, Skill Development, IGP & Rehabilitation
9	Netaji SmarakiPathagar	Kantapada Block Nodal NGO	BabajiUttarna, Cuttack	<a href="mailto:pradiptamohankanungo@gmail.com">pradiptamohankanungo@gmail.com</a>	9439007923	Education, Health & Environment
10	Niyati Foundation	Nischintakoili Block Nodal NGO	Nischintakoili, Cuttack	<a href="mailto:nirmal.panda@niyateefoundation.org">nirmal.panda@niyateefoundation.org</a>	9438148804	
11	SabitriJanaseva	Dompada Block Nodal NGO	At- Bakhrabad P- Chandinichowk, PS- Purighat,	<a href="mailto:Sabitrijanaseva@gmail.com">Sabitrijanaseva@gmail.com</a>	9861197679	
12	Vikash	Tigiria Block Nodal NGO	Tigiria, Cuttack		9078155381	
13	Basudev Pathagara	Niali Block Nodal NGO	Niali, Cuttack	<a href="mailto:bpngo_ctc@rediffmail.com">bpngo_ctc@rediffmail.com</a>	9437411541	
14	Uddhar Foundation	Tangi Choudwar	Tangi Choudwar, Cutack	-	966818324	Reproductive Child Health, HIV & AIDS Prevention & Control, Child care, water & Sanitation

## List of Flood Shelters Constructed by OSDMA out of Chief Minister Relief Funds of Cuttack District

Sl. No.	District	Block	GP	Village	Location	MCS/ MFS	Under Scheme	5 KVA DG Status	Inflatable Tower Light	Telescopic Tower Light	Chain Saw
1	Cuttack	Athagarh	Katika Sahi	Patenigaon	Patenigaon, Sarbaswar Bidyapitha	MFS	CMRF (By RD dept-post Phailin)		2	1	2
2	Cuttack	Athagarh	Mahakalabasta	Dahisara	Dahisara School	MFS	CMRF (By RD dept-post Phailin)		2	1	2
3	Cuttack	Banki	Anuary	Baigani	Majjori Up Graded High School,	MFS	CMRF (By RD dept-post Phailin)		2	1	2

4	Cuttack	Banki	Bandalo	Bandalo	Near Maa Durga Girls High School	<b>MFS</b>	CMRF		2		2
5	Cuttack	Banki	Ostia	Ostia	Backside of Dadhi Baman Temple	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
6	Cuttack	Banki-Dompeda	Bilipada	Pakharakhal	Adjacent to Bhagabata Goswami Bidyapitha, Pakharakhal	<b>MFS</b>	CMRF (RD Dept)		2	1	2

7	Cuttack	Baramba	Bangirisingha	Bangirisingha	Adjacent to Bangirisingha M.E School	<b>MFS</b>	CMRF		2		2
8	Cuttack	Baramba	Gopinathpur	Gopinathpur	Samir Kumar Girls High School, Gopindthpur	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
9	Cuttack	Baramba	Sankhameri	Sankhameri	Adjancet to Budhi Sahoo Nodal UP School, Sankhameri	<b>MFS</b>	CMRF (RD Dept)		2	1	2



10	Cuttack	Banki-Dompada	Dompada	Gadajit	Dompada College	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
11	Cuttack	Kantapada	Uttaran	Babaja	Netaji Smarak Pathagara	<b>MFS</b>	CMRF		2		2
12	Cuttack	Mahanga	Mulabasanta	Mulabasanta	Bagmi Biswanath Bidyaniketan, Mulabasanta	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2

13	Cuttack	Narasinghpur	Ekdal	Ekdal	Adjancet to Bauti Nodal Bidyapitha, Ekdal	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
14	Cuttack	Niali	Ekaberuan	Ekaberuan	Ekaberuan U.P.School	<b>MFS</b>	CMRF (RD Dept)		2	1	2
15	Cuttack	Niali	Eranch	Eranch	Near Eranch Kendra Prathaika Bidyapitha	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2

16	Cuttack	Niali	Kasharda	Kasharda	Laxminagaryan Bidyapitha, Kasharda.	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
17	Cuttack	Niali	Sadansa	Karanga	Sidhmangala Bidyaniketan, Karanga	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
18	Cuttack	Nischintkoili	Daudpur	Daudpur	Naiguan Daudpur High School	<b>MFS</b>	CMRF		2		2

19	Cuttack	Nischintkoili	Nagaspur	Nagaspur	Infront of Jayanti Bidyapithya, Nagspur	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
20	Cuttack	Nischintkoili	Sirlo	Brahmankhanda	Sirlo M.E. School	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
21	Cuttack	Sadar Block	Bentakar	Jharkata	Jharkata UP School	<b>MFS</b>	CMRF		2		2

22	Cuttack	Tangi Choudwar	Kayalpada	Kayalpada	Near Kayalapadd G.P.Office	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2
23	Cuttack	Tigiria	Badanauput	Boulanga	Near UGME School Boulanga	<b>MFS</b>	CMRF		2		2
24	Cuttack	Tigiria	Badanauput	Hatamala	Hatamala Primary School	<b>MFS</b>	CMRF (By RD dept-post Phailin)		2	1	2

25	Cuttack	Tigiria	Gadadharpur	Gadadharpur	Near Gadadharpur Nodal Uper Primary School	MFS	CMRF (RD Dept)		2	1	2
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No of power Boats Available in different Blocks to manage the Flood situation

Sl.No	Name of the Block	Nos. of Power Boats Available
1	Cuttack Sadar	0
2	Tangi-Choudwar	2
3	Salipur	0
4	Mahanga	4
5	Nischintkoili	3
6	Baranga	1
7	Niali	3
8	Kantapada	2
9	Athagarh	0
10	Tigiria	4
11	Baramba	2
12	Narsinghpur	0
13	Banki	2
14	Dompada	3
<b>Total:-</b>		<b>26</b>

**Apart from these Flood cum Cyclone Centers there are 298 Multipurpose flood centers in Cuttack District.**

<b>Sl.No</b>	<b>Name of the Block</b>	<b>Nos. of School-Cum-Flood/Cyclone Center</b>
1	Cuttack Sadar	17
2	Tangi-Choudwar	40
3	Salipur	25
4	Mahanga	10
5	Nischintkoili	38
6	Baranga	17
7	Niali	64
8	Kantapada	14
9	Athagarh	31
10	Tigiria	7
11	Baramba	6
12	Narsinghpur	8
13	Banki	8
14	Dompada	13
<b>Total:-</b>		<b>298</b>

# Chapter – V

## Prevention & Mitigation

### 5.1 Ways & Means to prevent or reduce the impact of various disasters:

To minimize the disaster risk and vulnerability of people district has to develop infrastructure in the district prioritizing the most vulnerable areas of the district. Promote a culture of prevention and mitigation through curriculum revision, Information Education Communication (IEC) awareness campaign, and preparation of DM plans at all level, mock drills, communicating hazards, risk and vulnerability at community level, streamlined and institutional techno-legal framework. To build the capacity of all stakeholders in the State to cope with the disasters and promote community based disaster management. Mainstreaming disaster management concerns into the developmental planning process. Develop efficient disaster response/relief mechanism in the State with identified roles and responsibilities of the stakeholders. To provide clarity on roles and responsibilities for all stakeholders concerned with disaster management.

#### DISASTER SPECIFIC MEASURES AND APPROACHES

Heat Wave Meeting: For pre arrangement to face heat wave calamities

- Operation of Control Room
- Rescheduling of School College timing
- Measures taken by Health and Animal Care
- Paniya Jala Seva Kendra / Jalachatra
- Provision of drinking water
- Measures by RWSS, PHED, School and Mass Education and ICDS

Natural Calamity Meeting: For pre flood arrangements and response mechanism for flood managements

- Opening of Control room
- Flood zoning
- Storage of food stuff at vulnerable points
- Pre flood arrangements by irrigation dept.
- Health measures
- Animal Care
- Assignment of duties
- Arrangements of boats, rescue, volunteers etc.
- Co-ordination with state level agencies
- Arrangements of relief materials

Response to Cyclone:



1. Construction of Cyclone shelter
2. Equipped of Cyclone shelter
3. Training and capacity building of shelter level volunteers in First Aid, Rescue and Counselling

Response to Tsunami:

1. Formation of DMTs at the Tsunami prone villages
  - . Mock Exercises
3. Early Warning dissemination and formation of WhatsApp group of Govt. stakeholders and volunteers
4. Effective co-ordination among departments, volunteers, NGOs and management groups

## **CLIMATE CHANGE ACTION PLAN**

### **Cyclone**

<b>Department/Sector</b>	<b>List out impacts against each disaster</b>	<b>Existing coping practices</b>
Cuttack Municipality	<ul style="list-style-type: none"> <li>• Damage to houses</li> <li>• Damage to street lights</li> </ul>	<ul style="list-style-type: none"> <li>• Sensitizing people</li> <li>• Evacuating people in a safe place</li> <li>• Arranging free kitchen for people</li> </ul>
<ul style="list-style-type: none"> <li>• Rural Works Department</li> </ul>	<ul style="list-style-type: none"> <li>• Damage to houses and buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of cyclone shelter and shifting of communities</li> </ul>
<ul style="list-style-type: none"> <li>• Civil Supply</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of food stuff increases during emergencies</li> </ul>	<ul style="list-style-type: none"> <li>• Availing sufficient amount of rice in advance</li> </ul>
Animal Resource Department	<ul style="list-style-type: none"> <li>• Loss of pasture lands</li> <li>• Livestock faces problem for grazing</li> <li>• Chances of epidemic increases</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-vaccination before the monsoon and throughout the year</li> <li>• Farmers are advised not to lose their livestock outside</li> </ul>
<ul style="list-style-type: none"> <li>• Education</li> </ul>	<ul style="list-style-type: none"> <li>• Damage to infrastructure</li> <li>• Increased debris of tree and shrubs</li> <li>• Increased necessity of manpower and equipment for immediate restoration</li> <li>• Increased cost of maintenance</li> <li>• Closing of schools</li> </ul>	<ul style="list-style-type: none"> <li>• Shifting the students</li> <li>• Providing dry foods</li> <li>• Awareness generation through PRI members</li> <li>• Providing Medicine and first aid</li> </ul>
<ul style="list-style-type: none"> <li>• Damages to crop</li> <li>• Pest attack</li> </ul>	<ul style="list-style-type: none"> <li>• A forestation</li> </ul>	<ul style="list-style-type: none"> <li>• Damages to crop</li> <li>• Pest attack</li> </ul>
<b>Fisheries</b>	<ul style="list-style-type: none"> <li>• Damage to houses</li> <li>• Damage to nets and boats</li> <li>• Damage to embankments of tank</li> </ul>	<ul style="list-style-type: none"> <li>• Providing relief</li> <li>• Providing nets and boats at subsidized rate</li> </ul>

• Public Health Engineering	• Power failure	• Operating DG system to ensure water supply
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**Flood and heavy rains:**

Department/Sector	List out impacts against each disaster	Existing coping practices
Agriculture	<ul style="list-style-type: none"> <li>• Damage of seeds sawn/seedling</li> <li>• Post flood pest attack</li> </ul>	<ul style="list-style-type: none"> <li>• Compensation to farmers</li> <li>• Afforestation Activities</li> </ul>
Rural water supply & sanitation/R.D. Department	Submerged tube well in flood water	<ul style="list-style-type: none"> <li>• Disinfection of tube wells in flood affected areas</li> <li>• Providing portable drinking water through tankers</li> </ul>
Cuttack Municipality	<ul style="list-style-type: none"> <li>• Water logging in low line areas</li> </ul>	<ul style="list-style-type: none"> <li>• Evacuating people in a safe place</li> <li>• Arranging free kitchen for people</li> <li>• Using heavy duty motors for dewatering the low line areas.</li> </ul>
• Civil Supply	<ul style="list-style-type: none"> <li>• Availability of food stuff increases during emergencies</li> </ul>	<ul style="list-style-type: none"> <li>• Availing sufficient amount of rice in the district prior to rainy season</li> </ul>
Animal Resource Department	<ul style="list-style-type: none"> <li>• Non availability of cattle feed and fodders</li> <li>• Spreading of infectious diseases</li> <li>• Death of animals</li> </ul>	<ul style="list-style-type: none"> <li>• Organizing vaccination and health camps in the affected areas</li> <li>• Disposal of carcass preventing spreading infections</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Inundation of infrastructure</li> <li>• Damage to school building</li> <li>• Damage to reading materials</li> <li>• Closing of schools</li> <li>• Illness among the children</li> </ul>	<ul style="list-style-type: none"> <li>• Repairing of buildings</li> <li>• Repairing of roads and approaches to government buildings</li> <li>• Creating awareness among the parents</li> <li>• Shifting students to the cyclone shelter</li> <li>• Providing dry foods</li> </ul>
Health and family welfare Dept	<ul style="list-style-type: none"> <li>• Acute diarrhoea spread in population</li> <li>• Increase in cases of snake bite</li> <li>• Increase in cases of skin diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Supply of anti-diarrheal medicines like ORS in flood prone areas</li> <li>• Opening of medical relief centre in flood affected area</li> <li>• Mobilization of health teams, doctors and paramedics</li> </ul>

		•
Public Health Engineering	<ul style="list-style-type: none"> <li>• Submergence of drinking water points</li> <li>• Submergence of pump machine and other equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Super chlorination of water sources</li> <li>• Sinking pump machines</li> <li>• Installation of water storage tanks</li> <li>• Installation of DG sets</li> </ul>
Fisheries	<ul style="list-style-type: none"> <li>• Overflowed the tanks and ponds</li> <li>• Damage the tanks embankment of pisciculture projects</li> <li>• Washed away the operating nets of the fisherman</li> <li>• Displaced the position of fishing boat</li> <li>• Sand covered the bottom of the tank</li> <li>• Damaged the fisherman village situated on the river banks</li> <li>• Fish seed gets hampered</li> </ul>	<ul style="list-style-type: none"> <li>• Provide relief and cash</li> <li>• Providing net and boat at subsidized rate</li> <li>• Providing loans</li> </ul>

**Heat Wave:**

Department/ Sector	List out impacts against each disaster	Existing coping practices
• Education	<ul style="list-style-type: none"> <li>• Irregularity of children in schools</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness generation for children</li> </ul>
Public Works Department	<ul style="list-style-type: none"> <li>• Impact on work site in terms of possibilities of sun-stroke among workers and labourers</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in working hours</li> <li>• Reduction in overall working hours</li> </ul>
Animal Husbandry Department	<ul style="list-style-type: none"> <li>• Dehydration</li> <li>• Scarcity of drinking water</li> </ul>	<ul style="list-style-type: none"> <li>• Availing sufficient numbers of life saving drugs and saline.</li> <li>• Sinking more numbers of tube wells and hand pump</li> </ul>

Public Health Engineering	<ul style="list-style-type: none"> <li>• Ground water depletion</li> <li>• Dysfunction of hand pumps and tube wells etc</li> </ul>	<ul style="list-style-type: none"> <li>• Installation of water storage tanks in scarcity pockets</li> </ul>
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**Drought:**

Department/ Sector	List out impacts against each disaster	Existing coping practices
Agriculture	<ul style="list-style-type: none"> <li>• Wilting</li> </ul>	<ul style="list-style-type: none"> <li>• Lift Irrigation from farm ponds</li> <li>• Polythene mulching</li> <li>• Shallow bore well/river lift through Jalanidhi Yojna</li> </ul>
Animal Husbandry Department	<ul style="list-style-type: none"> <li>• Non availability of feeds and fodders</li> </ul>	<ul style="list-style-type: none"> <li>• Arranging feeds and fodders for cattle immediately</li> </ul>

**PRE, DURING, AND POST ACTIVITIES**  
**WARNING DISSEMINATION PHASE**

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> <li>▪ Verify inventory of Resources</li> <li>▪ Setting up of Control Rooms</li> <li>▪ Communication link with all concerned with disaster preparedness</li> <li>▪ Coordinate with blocks and neighbouring districts</li> <li>▪ Coordinate with NGOs and NGO Coordination Committee</li> <li>▪ Ensure functioning of all communication and warning system</li> <li>▪ Update databank</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide information to all areas about weather</li> <li>▪ Collection of information and providing it to the state</li> <li>▪ Expending funds for emergency needs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide information about the relief and rehabilitation programme</li> <li>▪ Order CESCO to disconnect electricity supply for the affected area</li> </ul>
BDOs and Tahasildars	<ul style="list-style-type: none"> <li>▪ Alert all departments to be present at their headquarters</li> <li>▪ Convene meeting of DDMC</li> </ul>	<ul style="list-style-type: none"> <li>▪ Collection of information and providing it to the DCR</li> <li>▪ Procuring locally needed emergency</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report to the district administration on information from field level</li> </ul>
Revenue	<ul style="list-style-type: none"> <li>▪ Close contact with</li> </ul>	<ul style="list-style-type: none"> <li>▪ Disseminate day to</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure cooperation of</li> </ul>

		<ul style="list-style-type: none"> <li>district administration</li> <li>Alert officials to remain in HQ</li> </ul>	<ul style="list-style-type: none"> <li>day information of the position of the blocks</li> </ul>	<ul style="list-style-type: none"> <li>the public / task force during damage assessment</li> </ul>
Police/ Defence/ Brigade	Civil Fire	<ul style="list-style-type: none"> <li>Make all available Police persons in the district available to the district administration</li> </ul>	<ul style="list-style-type: none"> <li>Inform BDOs on receipt of any information</li> <li>Recruit casual labourers</li> </ul>	<ul style="list-style-type: none"> <li>Report of the District Collector</li> </ul>
		<ul style="list-style-type: none"> <li>Ensure functioning of Police Stations</li> <li>Alert police officers to remain in HQ</li> <li>Activate a public information centre</li> </ul>		
Irrigation		<ul style="list-style-type: none"> <li>Organize round the clock inspection and repair of breaches, culverts, irrigation channels, bridges and embankments</li> <li>Arrange additional sand bags, cement bags, bamboo mats and bamboos</li> </ul>	<ul style="list-style-type: none"> <li>Organize round the clock inspection and repair of pumps, generators, motor equipments and station building</li> <li>Provide all technical assistance in disaster affected area</li> </ul>	<ul style="list-style-type: none"> <li>Inspect the inlet and outlet to tanks to check obstruction by trees and vegetation</li> </ul>
Agriculture		<ul style="list-style-type: none"> <li>Review and update precautionary agricultural measures</li> <li>Check available stock of equipment and materials</li> <li>Stock agricultural equipments</li> </ul>	<ul style="list-style-type: none"> <li>Determine what damage, pests or disease may be expected</li> <li>Determine what drugs and insecticide item will be required</li> </ul>	<ul style="list-style-type: none"> <li>Provide information to all concerned about diseases, likely damage to crop and plantation</li> <li>Inform ways to protect crop and plantation</li> </ul>
Animal Husbandry		<ul style="list-style-type: none"> <li>Check and stock emergency medical equipments</li> <li>Check and stock surgical packs</li> <li>Prepare an area of the hospital to receive large number of livestock</li> </ul>	<ul style="list-style-type: none"> <li>Determine expected injuries/ illness to cattle</li> <li>Assemble and sterilize surgical packs</li> <li>Develop emergency admission procedure</li> </ul>	<ul style="list-style-type: none"> <li>Provide information to all staff of veterinary hospitals and centers about the disaster, likely damages and effects</li> <li>Activate public information centre</li> </ul>
CESCO		<ul style="list-style-type: none"> <li>Arrange and procure additional generator from local market</li> <li>Check emergency tool kits</li> <li>Assemble additional equipments needed</li> </ul>	<ul style="list-style-type: none"> <li>Assist the district authorities to make arrangements for standby generators in hospitals, RWSS, Collectorate, Meteorological Stations</li> </ul>	<ul style="list-style-type: none"> <li>Review the total extent of damages to the power supply installations</li> </ul>

RWSS	<ul style="list-style-type: none"> <li>▪ Inform people to store emergency supply of drinking water</li> <li>▪ Arrange standby water supply</li> <li>▪ Establish procedures for emergency distribution of water, if necessary</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organize monitoring of wells, intake structures, pumping stations, treatment plant</li> <li>▪ Make provision for distributing water on emergency basis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cover pumps and restore with adequate protection to prevent damage</li> <li>▪ Establish emergency work gangs for immediate post disaster repairs</li> </ul>
PWD	<ul style="list-style-type: none"> <li>▪ Review and update precautionary measures and procedures</li> <li>▪ Extra transport vehicles, filled with fuel to be stationed at strategic spots along routes likely to be affected</li> <li>▪ Secure work under construction</li> <li>▪ Secure heavy equipment's</li> <li>▪ Issue two way communication to all teams</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inspect all roads and bridges by a bridge engineer, foundation and piers</li> <li>▪ Inspect all govt. buildings and structures</li> <li>▪ Assemble emergency tool kits like axes, power saws, pulley block, etc</li> <li>▪ Identify and mark strategic routes to evacuation and relief</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establish priority listing of roads (to hospitals and main trunk routes) to be opened first</li> </ul>
NGOs/ Volunteers	<ul style="list-style-type: none"> <li>▪ Ensure that the correct news reaches the public</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assess the situation from time to time</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inform people to return to their home after the danger is receded</li> </ul>

## EVACUATION PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> <li>▪ Order evacuation on priority basis of seriously injured, sick, children, women, handicapped, old people and able bodies</li> <li>▪ Requisite for additional rescue equipment's such as boats, transport vehicles, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provision of food to rescue population through CSO</li> <li>▪ Ensure precautionary measures through student mass</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure evacuation done safely</li> <li>▪ Road clearance.</li> <li>▪ Eviction of encroachments</li> </ul>
PWD	<ul style="list-style-type: none"> <li>▪ Check evacuation routes and assist people in evacuating an areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Community assistance mobilized for road clearing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Despatch extra transport vehicles from headquarters</li> </ul>

Health	<ul style="list-style-type: none"> <li>▪ Deploy senior medical officer</li> <li>▪ Make arrangement of medical facilities</li> <li>▪ Develop emergency admission procedure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure potable water supply or packed water</li> <li>▪ Provide medical help</li> <li>▪ Help the injured to move to hospital</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure priority for shifting of those seriously injured to hospital</li> <li>▪ Provide first aid</li> </ul>
Police	<ul style="list-style-type: none"> <li>▪ Deployment of police staff and armed force for evacuation</li> <li>▪ Arrangement for the safety of the property of the people</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organize emergency transport for seriously injured people to hospital</li> <li>▪ Maintain law and order</li> </ul>	<ul style="list-style-type: none"> <li>▪ Take assistance from community leaders for appropriate security during evacuation</li> </ul>
BDOs and Tahasildars	<ul style="list-style-type: none"> <li>▪ Ensure adequate warning mechanism</li> <li>▪ Prepositioning of task force</li> </ul>	<ul style="list-style-type: none"> <li>▪ Send search Groups to rescue people from risk areas</li> <li>▪ Help the injured people to move to the hospital</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assistance to community in evacuation process</li> <li>▪ Keep record of missing persons</li> <li>▪ Inform the family members</li> </ul>
RTO / MVI	<ul style="list-style-type: none"> <li>▪ Arrange sufficient number of transport</li> </ul>	<ul style="list-style-type: none"> <li>▪ Alert truck Owners/ other vehicles to coordinate with district administration</li> <li>▪ Organize Transport for immediate assistance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transport people from evacuated area to their homes</li> </ul>
Revenue / RI	<ul style="list-style-type: none"> <li>▪ Propagation for evacuation</li> <li>▪ Arrangement for the safety of property of the people</li> <li>▪ Arrange rescue kits</li> </ul>	<ul style="list-style-type: none"> <li>▪ Send search Group to rescue people from risk areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Locate missing persons</li> <li>▪ Keep a record of the missing persons</li> <li>▪ Inform their family members</li> </ul>
NGO/ Volunteers	<ul style="list-style-type: none"> <li>▪ Mobilize response group</li> <li>▪ Help the evacuees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Keep close contact with community and district administration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assist community to find the missing persons</li> </ul>

## SEARCH AND RESCUE PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> <li>▪ Intimate police to make arrangement for army assistance</li> <li>▪ Inform BDOs to coordinate with local NGOs</li> <li>▪ Requisition for extra boats</li> <li>▪ Provision of food to rescued populace</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure volunteers carry out the search and rescue operation with the assistance of police</li> <li>▪ Identification of Casualties</li> </ul>	<ul style="list-style-type: none"> <li>▪ Keep record of the search and rescue operation and make assessment of active NGOs</li> <li>▪ Preparing reports on UD cases</li> </ul>
Police	<ul style="list-style-type: none"> <li>▪ Deployment of police</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organize Emergency</li> </ul>	<ul style="list-style-type: none"> <li>▪ Find out the missing</li> </ul>

	<p>personnel at risk points</p> <ul style="list-style-type: none"> <li>▪ Arrangement for the safety of the property of the people</li> </ul>	<p>transport for seriously injured people to hospital</p> <ul style="list-style-type: none"> <li>▪ Guard and rescue at the breach points</li> </ul>	<p>persons and keep a record of them</p> <ul style="list-style-type: none"> <li>▪ Inform their family members</li> </ul>
Block/ Panchayat Samiti/ Revenue/ RI	<ul style="list-style-type: none"> <li>▪ Work division to the officers and NGOs for rescue operation</li> <li>▪ Prepositioning of food stuff, lifesaving drugs, cattle feed, polythene</li> <li>▪ Deployment of RIs and other supporting staff to assist in rescue operation</li> <li>▪ Propagation for evacuation</li> <li>▪ Arrange rescue kits</li> </ul>	<ul style="list-style-type: none"> <li>▪ Send search group to rescue the left behind persons in the risk areas</li> <li>▪ Arrange boats and transport for the people who are stranded</li> <li>▪ Reaching out to people with food stuff and other essential items</li> </ul>	<ul style="list-style-type: none"> <li>▪ Find out the missing persons and keep a record of them</li> <li>▪ Inform their family members</li> <li>▪ Provide tarpaulins as and when necessary and help the people to return to their homes</li> <li>▪ Arrange exgratia for the family of missing persons</li> </ul>
PWD/ RD/ Irrigation	<ul style="list-style-type: none"> <li>▪ Arrangement of materials for repairing of roads and breaches for post disaster preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Arrange casual labour on emergency basis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Immediate repair of the road and breaches for communication and transportation</li> </ul>
RTO/ MVI	<ul style="list-style-type: none"> <li>▪ Meeting with the owners of the vehicles</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide necessary vehicles to district level functionaries</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide vehicle required for transportation of people to return to their homes</li> </ul>
NGO/ Volunteers	<ul style="list-style-type: none"> <li>▪ Mobilize volunteers</li> <li>▪ Work distribution among volunteers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Help the injured to move to the hospital</li> <li>▪ Deployment of Volunteers and resources at shelter points</li> </ul>	<ul style="list-style-type: none"> <li>▪ Help people to return to their homes</li> </ul>
Health	<ul style="list-style-type: none"> <li>▪ Arrangement of medical help at shelter points</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide medical help</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide first aid</li> </ul>
RWSS	<ul style="list-style-type: none"> <li>▪ Pre arrangement of drinking water at shelter places</li> </ul>	<ul style="list-style-type: none"> <li>▪ Arrange standby drinking water if required</li> </ul>	<ul style="list-style-type: none"> <li>▪ Carry out immediate post disaster repair</li> </ul>



**MEDICAL AID PHASE**

Responsible Department	Activities		
	Pre	During	Post
Collector	<ul style="list-style-type: none"> <li>▪ Ascertain the medical stock position</li> </ul>	<ul style="list-style-type: none"> <li>▪ Monitor the operation of medical help</li> </ul>	<ul style="list-style-type: none"> <li>▪ Assess the medical aid for further improvement</li> </ul>
Health	<ul style="list-style-type: none"> <li>▪ Arrange drugs and medical equipment for all possible diseases during disaster</li> <li>▪ Ensure extra supplies of medical items are obtained quickly</li> <li>▪ Discharge all ambulatory and non-ambulatory patients whose release does not pose a health risk to them</li> <li>▪ Enlist private doctors</li> <li>▪ Establish Medical Relief Camps</li> <li>▪ Clarify procedures between peripheral hospitals, private hospitals, blood banks and general hospitals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Determine type of injury/ illness</li> <li>▪ Assemble and sterilize surgical packs, if required</li> <li>▪ Prepare an area of the hospital to receive large number of patients</li> <li>▪ Take help of private doctors in case of shortage of staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report to the Collector</li> <li>▪ Check stock of equipment and drugs likely to be most needed after disaster</li> <li>▪ Assess the level of medical supply in stock</li> </ul>
Veterinary and Animal Husbandry	<ul style="list-style-type: none"> <li>▪ Establish cattle camps and veterinary aid centers at disaster sites</li> <li>▪ Designate Officer in Charge for the camps</li> <li>▪ Estimate requirement of water, fodder and animal feed for cattle camps.</li> <li>▪ Preventive vaccination against common contagious diseases of Cattle and Buffalos to be taken up.</li> <li>▪ Special Medicines and lifesaving drugs may be made</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organize transfer of seriously injured livestock from village to veterinary aid centers</li> <li>▪ Ensure adequate sanitary conditions to avoid outbreak of epidemics.</li> <li>▪ The VAS/AVAS/ LIs to remain present in their respective headquarters and keep regular contact with CDVO/Sub-divisional Veterinary Officer, Local Revenue Officers, BDOs, Public</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report to Emergency Operation center and District Control Room</li> <li>▪ Animal health camps will be conducted in the disaster affected villages and preventive vaccination will be carried out in case of outbreak in any area of the district</li> </ul>

	<p>available out of SRC grant to meet the emergency situations during disaster, as the normal quota of the medicine may not be adequate.</p> <ul style="list-style-type: none"> <li>▪ Cattle feed like rice bran/ pre mixed cattle feed/ straw to be kept ready at different storing points preferably in Panchayat Samiti godowns since there is no storage facility in Veterinary dispensaries.</li> </ul>	<p>Representatives, Villagers &amp; NGOs working for animal welfare and take care and rescue their livestock.</p> <ul style="list-style-type: none"> <li>▪ Veterinary Mobile teams to be stationed in each block and VD headquarters who will visit the marooned villages for treatment of affected animals.</li> <li>▪ Control Room will function from 1<sup>st</sup> June to till the end of Rainy season.</li> </ul>	
NGO/ Volunteers	<ul style="list-style-type: none"> <li>▪ Preparation volunteers of medical aid response group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Help the medical personnel</li> <li>▪ Inform the medical officer regarding epidemic, if any</li> </ul>	<ul style="list-style-type: none"> <li>▪ Help the medical team in vaccination procedure</li> <li>▪ Disease surveillance</li> </ul>

#### 5.4 Scope for integrating different schemes for Disaster Risk Reduction (DRR) Activities.

Sl. No.	Scheme	Possible activities for DRR
1	Member of Parliament Local Area Development Scheme (MPLADS)	<ul style="list-style-type: none"> <li>- Construction of flood control embankments</li> <li>- Construction of common shelters for cyclones, Floods and handicapped</li> <li>- Purchase of motor boats for flood and cyclone prone areas</li> <li>- Fire tenders for Government organization</li> <li>- Retrofitting of essential lifeline buildings, viz Govt. hospitals, Govt. Schools and public buildings to be used as shelters in an emergency.</li> <li>- Early Warning Systems for effective disaster mitigation.</li> <li>- Construction of roads, approach roads, link roads, Pathways.</li> <li>- Drinking water facility</li> </ul>
2	Indira Awas Yojana (IAY)	<ul style="list-style-type: none"> <li>- Construction of disaster-resilient houses</li> </ul>
3	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	<ul style="list-style-type: none"> <li>- Construction of river embankments</li> <li>- Construction of roads in remote areas</li> <li>- Construction of multi-hazard shelters</li> </ul>
4	National Rural Livelihood Mission	<ul style="list-style-type: none"> <li>- Creation of SHGs</li> </ul>
5	Pradhan Mantri Gram Sadak Yojana (PMGSY)	<ul style="list-style-type: none"> <li>- Construction of roads in remote areas</li> </ul>
6	National Health Mission (NHM) (NRHM and NUHM)	<ul style="list-style-type: none"> <li>- Rapid Action Force for Emergency Medical Response</li> <li>- Emergency ambulances</li> <li>- Preparedness for mobile Field Hospitals</li> </ul>
7	Scheme for Animal Health Care in the State	<ul style="list-style-type: none"> <li>- Vaccination drives</li> </ul>
8	Rashtriya Swasthya Bima Yojana	<ul style="list-style-type: none"> <li>- Insurance (Disaster Insurance)</li> </ul>
9	Pradhan Mantri Awas Yojana (PMAY)	<ul style="list-style-type: none"> <li>- Construction of disaster resistant houses</li> </ul>
10	Pradhan Mantri Suraksha Bima Yojana (PMSBY)	<ul style="list-style-type: none"> <li>- Insurance</li> </ul>
11	The Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)	<ul style="list-style-type: none"> <li>- Insurance</li> </ul>
12	Sarva Shiksha Abhiyan	<ul style="list-style-type: none"> <li>- Disaster resilient construction of new school buildings</li> <li>- Retrofitting in existing school buildings</li> <li>- Essential response preparedness and planning at school level</li> </ul>
13	Mission Shakti: Empowering Women through SHGs	<ul style="list-style-type: none"> <li>- Capacity building of women on adaptation and risk reduction behaviors and preparedness at household level to face climatic extremes</li> <li>- Linking livelihood promotion with sustainable natural resource management</li> </ul>
14	Gopabandhu Gramin Yojana	<ul style="list-style-type: none"> <li>- The roads must be assessed for future climatic extremes and should be location wise designed to be resilient. The same applies to the other two sectors. The integration can be done from design to implementation, monitoring</li> </ul>

		<p>and evaluation that the infrastructure is created maintained keeping in mind future possibilities and rising frequency and magnitude of extremes.</p> <ul style="list-style-type: none"> <li>- A life cycle analysis based on (probable life of the infrastructure and expected future climatic extreme events) history of extremes and climatic projections can ensure resilient design, construction and maintenance. For this capacity building of planners, contractors and engineers on themes such as, assessment of climate and disaster risks, resilient designs, monitoring and evaluation will be required</li> </ul>
15	Biju Pucca Ghar Yojana	<ul style="list-style-type: none"> <li>- Disaster Resilient housing for the beneficiaries by the trained Engineers and Masons</li> <li>- Awareness among the beneficiaries to take up disaster resilient housing</li> </ul>
16	Jalanidhi: Harnessing Ground and Surface Water for Agriculture	<ul style="list-style-type: none"> <li>- Prior assessment of feasibility of ground water level in future climate scenario as well as sustainability</li> <li>- Installation of resilient infrastructure based hazard and vulnerability assessment of the field location</li> <li>- Installation of structural mitigation measures for protecting the existing infrastructure</li> <li>- Agreement and sensitization of beneficiaries for efficient and smart use of water for sustainability</li> <li>- Measures for ground water recharge</li> </ul>
17	Odisha Tribal Livelihood Programme Plus: Empowerment & Sustainable Livelihood Opportunity for Tribals	<ul style="list-style-type: none"> <li>- Base Line Survey can include in climate and disaster risk assessment as part of PRA.</li> <li>- The design of project intervention must consider present and future climate scenario and projections</li> <li>- Infrastructure to be created must be DRR inclusive analysing the risks associated with disasters and climate change</li> <li>- Livelihood risk transfer through appropriate risk transfer mechanism should be a core component based on risk analysis.</li> <li>- The program has the potential to produce DRR-CCA integrated model practices for development through integration of DRR and CCA</li> </ul>
18	Jeebika - Orissa Rural Livelihood Programme: Watershed Development – A Means to a Better Livelihood	<ul style="list-style-type: none"> <li>- Livelihood promotion activities should be selected based on local level climate and disaster risk assessment</li> <li>- The component of climate change and disaster resilient capital creation can be taken up. e.g., practices that can withstand future climatic extreme events such as high speed cyclones, extreme floods</li> <li>- Improvement of WASH through awareness, resilient infrastructure like raised toilets, hand pumps can be focussed during design and implementation of project activities</li> <li>- Integrating livelihood and weather index based insurance with livelihood options for greater adaptation. e.g. if tailoring is promoted as non-farm based livelihood, the tool such as the sewing machine, the tailoring centre (Infrastructure) must be insured against climatic extreme events</li> </ul>

19	Biju Gram Jyoti Yojana: Illuminating Villages – A State Initiative	<ul style="list-style-type: none"> <li>- The infrastructure installed under the program must be designed considering high speed cyclones and floods for adaptation and sustenance.</li> <li>- Building Energy Conservation Standards must be done and beneficiaries must be sensitized for energy conservation</li> </ul>
20	Biju Saharanchal Vidyutikarana Yojana: Electricity for Slums and Habitation in Urban Areas	<ul style="list-style-type: none"> <li>- Same as above</li> </ul>
21	Capital Expenditure System Improvement for Reduction of AT&C Programme: loss in Electricity Distribution Sector	<ul style="list-style-type: none"> <li>- Strengthening existing infrastructure with focus on extreme events (current and projected). The energy infrastructure must be structurally strong enough to withstand cyclone speed of 300 KMPH or more and provision for rapid recovery (strategies and resources) should exist in the scheme.</li> </ul>

***[Activities/ Projects for 5.3 and 5.4:***

- *Construction of multipurpose cyclone and flood shelters.*
- *Removal of hoardings before specified cyclone period*
- *Trimming of trees and shrubs and removal of damaged and decayed parts of trees close to localities and critical infrastructure*
- *Public safety norms and constructions in places of worship and mass gathering*
- *Soil erosion control and riverbank stabilization*
- *Road and Highway Stabilization*
- *Bridge abutment stabilization*
- *Protection of Roads, Culverts and Bridges against flood- grass plantation*
- *Repair and Maintenance of Embankments against flooding and erosion. Retrofitting of vulnerable spots to prevent embankment breaches*
- *Cross Drainage Works:- Construction of causeways and culverts sufficient for carrying water more than historical records to prevent flash floods in downstream villages*
- *Drinking Water:*
  - *Habitations to be covered under pipe water supply scheme*
  - *Water supply in scarcity areas in during summer season*
  - *Raising of hand pumps in flood prone areas*
  - *Repair/ Replacement of non-functional hand pumps*
- *Sanitation:*
  - *Community Mobilization*
  - *Construction of Toilets*
  - *Municipal Waste Management*
  - *Sewerage System in ULBs*
- *Plantation: River bank plantation, AR, ANR, Hill Slope Plantation, Fodder Plantation, Agro forestry etc.*

- *Soil conservation works.*
- *Water harvesting*
- *Prevention of Road Accidents:*
  - *Putting up of signage in accident prone zones*
  - *Light reflectors*
  - *Diversion boards for roads and bridges*
  - *Repair of potholes & construction of Speed breakers*
- *Immunization*
- *Preventive measures against vector borne diseases*
- *Risk Transfer: Crop insurance/ livestock insurance*
- *Measures against animal depredation- Trenching/ Fencing*
- *Awareness generation programmes on disaster prevention and mitigation*
- *Mainstreaming Disaster Risk Reduction (DRR) in development activities*

## Chapter – 6

### Climate Change Adaptation: -

#### 6.1 Climate Change Adaptation & Mitigation

Weather and climate are the results of complex interactions Between anthropogenic and natural factors. Evidence of global climate change include higher average temperatures, changes in precipitation, ocean warming, ocean acidification, sea level rise, decreasing sea ice, and changes in physical and biological systems. Observed climate change can be linked with the increase of greenhouse gas concentrations in the atmosphere since the industrial revolution. Global surface temperature changes for the end of the 21st century is likely to reach 4°C if no drastic mitigation actions are taken. Various sources of climate data exist that can support planning for climate change.

Greenhouse gases (GHGs) are trace gases in the atmosphere that absorb and emit long wave radiation. They naturally blanket the earth and keep it at about 33° C warmer than it would be without these gases in the atmosphere. The table features the seven most important greenhouse gases as regulated under the Kyoto Protocol. The seven gases each have a different capacity to trap heat in the atmosphere, or a so-called “*global warming potential*” (GWP). They all belong to the group of long-lived greenhouse gases (LLGHGs), because they are chemically stable and persist in the atmosphere over time scales of a decade to centuries or longer, so that their emission has a long-term influence on climate. Some of the GHGs occur naturally (e.g. CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) but increases in their atmospheric concentrations over the last 250 years are due largely to human activities. Other greenhouse gases are entirely the result of human activities (e.g. HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>).

**Table: 6.1**

Greenhouse Gas	Global Warming Potential (GWP) (over 100 years)	% of Total Anthropogenic GHG Emissions(2010)
Carbon dioxide (CO <sub>2</sub> )	1	76%
Methane (CH <sub>4</sub> )	25	16%
Nitrous oxide (N <sub>2</sub> O)	298	6%
Hydrofluorocarbons (HFCs)	124-14,800	< 2%
Perfluorocarbons (PFCs)	7,390-12,200	< 2%
Sulphur hexafluoride (SF <sub>6</sub> )	22,800	< 2%
Nitrogen trifluoride (NF <sub>3</sub> )	17,200	< 2%

#### 6.2 Important Greenhouse Gases : Carbon Dioxide(CO<sub>2</sub>)

Most important greenhouse gas (contributes ~64% to total radiative forcing by long-lived GHGs). Half of CO<sub>2</sub> emitted by human activities is being absorbed in the biosphere and in the oceans. Rest remains in the atmosphere for hundreds to thousands of years

The most important anthropogenic GHG is carbon dioxide (CO<sub>2</sub>). It accounts for around 64% of total radiative forcing due to LLGHGs. Carbon dioxide does not have a specific lifetime because it is continuously cycled between the atmosphere, oceans and land biosphere and its net removal from the atmosphere involves a range of processes with different time scales. CO<sub>2</sub> is primarily emitted as a result of burning of fossil fuels, deforestation and forest degradation and iron and steel production. Oceans and forests are the main sequesters of carbon i.e. sinks that can absorb CO<sub>2</sub> from the atmosphere. Carbon dioxide is the gas to which all other gases are compared when speaking of Global Warming Potential. Emissions of other greenhouse gases can be converted into *CO<sub>2</sub> equivalent emissions*.

**Table: 6.2 Not Available**

### **6.3 Important Greenhouse Gases : Methane(CH<sub>4</sub>)**

Second most significant greenhouse gas (contributes ~18% to total radiative forcing by long-lived GHGs). Approximately 40% of methane is emitted into the atmosphere by natural sources. About 60% comes from human activities & Stays in the atmosphere for approximately 12 years.

The second most significant anthropogenic GHG is methane (CH<sub>4</sub>) which contributes to approximately 18% of total radiative forcing due to LLGHGs. Approximately 40% of methane is emitted into the atmosphere by natural sources (e.g. wetlands and termites). About 60% comes from human activities (e.g. cattle breeding, rice agriculture, fossil fuel exploitation, landfills and biomass burning). Methane is mostly removed from the atmosphere by chemical reactions, persisting for about 12 years. Thus, although methane is an important greenhouse gas, its effect is relatively short-lived.



#### **6.4 Important Greenhouse Gases : Nitrous Oxide(N<sub>2</sub>O)**

The third most significant greenhouse gas (contributes ~6% to total radiative forcing by long-lived GHGs). Stays in the atmosphere for approximately 114 years. Nitrous oxide is emitted into the atmosphere from both natural (about 60%) and anthropogenic sources (approximately 40%).

Nitrous oxide is the third most significant GHG, contributing to about 6% of radiative forcing due to LLGHGs. The primary human sources of N<sub>2</sub>O are fertilizer production and use in agriculture and various industrial processes. It is estimated that N<sub>2</sub>O stays in the atmosphere for an estimated 114 years. Its impact on climate, over a 100-year period, is 298 times greater than equal emissions of carbon dioxide. It also plays an important role in the destruction of the stratospheric ozone layer which protects us from the harmful ultraviolet rays of the sun.

#### **6.5 Important Greenhouse Gases : Fluorinated Gases**

Global warming effect up to 23,000 times greater than carbon dioxide. Stay in the atmosphere up to 50,000 years. Three main groups: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Mainly developed as substitutes for ozone-depleting substances

Fluorinated gases are a family of man-made gases used in a range of industrial applications. Sources include refrigerants, air-conditioning, solvents, aluminium and magnesium production, etc. Many fluorinated gases have very high global warming potentials (GWPs) relative to other greenhouse gases. That means small atmospheric concentrations can have large effects on global temperatures. They can also have long atmospheric lifetimes, in some cases, lasting thousands of years. Fluorinated gases are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere. In general, fluorinated gases are the most potent and longest lasting type of greenhouse gases emitted by human activities. There are three main categories of fluorinated gases: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).

- Hydrofluorocarbons (HFCs) are the most common group of *F-gases*. They are used in various sectors and applications, such as refrigerants in refrigeration, air-conditioning and heat pump equipment; as blowing agents for foams; as solvents; and in fire extinguishers and aerosol sprays.
- Perfluorocarbons (PFCs) are typically used in the electronics sector (for example for plasma cleaning of silicon wafers) as well as in the cosmetic and pharmaceutical industry. In the past PFCs were also used in fire extinguishers and can still be found in older fire protection systems.
- Sulphur hexafluoride (SF<sub>6</sub>) is used mainly as an insulating gas, in high voltage switchgear and in the production of magnesium and aluminium.

#### **6.6 Important Green House Gases :Chlorofluoro Carbons(CFCs)**

Chlorofluorocarbons (CFCs) an important Green House Gas contribute about 12% to radiative forcing by long-lived GHGs has not been included in the Kyoto Protocol because they are already regulated under the Montreal Protocol on Substances that Deplete the Ozone Layer which entered into force in 1989. The Montreal Protocol includes, for example, chlorofluorocarbons (CFCs) which contribute about 12% to total radiative forcing by LLGHGs. CFCs can stay in the atmosphere for more than 1,000 years. CFCs have a global warming potential (GWP) that ranges between 4,750 and 14,400 (over 100 years' time span). CFCs are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials, as solvents, and asrefrigerants.

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## 6.7 Green House Gas Sequestration

In order to prevent dangerous anthropogenic interference with the climate system, actions need to be taken to stabilize greenhouse gas concentrations in the atmosphere. Such actions are referred to as “climate change mitigation”. More specifically, climate Change mitigation involves:

- reducing GHG emissions, e.g. by making older equipment more energy efficient;
- preventing new GHG emissions to be released in the atmosphere, e.g. by avoiding the construction of new emission-intensive factories;
- preserving and enhancing sinks and reservoirs of GHGs, e.g. by protecting natural carbon sinks like forests and oceans, or creating new sinks (“carbon sequestration”).

### Major Greenhouse Gases Contributors (Anthropogenic) to Climate Change

**Table: 6.7**

Greenhouse Gas	Human Source (Examples)	% of Total Global GHG Emissions(2010)
Carbon dioxide (CO <sub>2</sub> )	Fossil fuel combustion, land use changes, cement production, etc	76%
Methane (CH <sub>4</sub> )	Fossil fuel mining/distribution, livestock, rice agriculture, landfills, etc	16%
Nitrous oxide (N <sub>2</sub> O)	Agriculture (fertilisers) and associated land use change, etc	6%
Hydrofluorocarbons (e.g. HFCs)	Liquid coolants, etc	< 2%
Perfluorocarbons (e.g. PFCs)	Refrigerant, electronics industry and aluminium industry, etc	< 2%
Sulphur hexafluoride (SF <sub>6</sub> )	Insulator in electronics and magnesium industry, etc	< 2%
Nitrogen trifluoride (NF <sub>3</sub> )	Electronics and photovoltaic industries, etc	< 2%

Source: Reproduced from IPCC 2007, UNEP 2012, and FERN

The global community has committed itself to hold warming below 2°C (compared to pre-industrial temperatures) to prevent dangerous climate change. The 2013 IPCC report on the physical science basis of climate change provides a “budget approach” to this goal, looking at total allowable CO<sub>2</sub> emissions level to meet the 2°C target. The report states that in order to have a greater than two in three chance of keeping *global warming* below 2°C, cumulative emissions of CO<sub>2</sub> cannot exceed 1,000 Gigatonnes of carbon (GtC). As of 2011, more than half this amount, or over 500 GtC, has already been emitted since 1861-1880. When the effects of other greenhouse gases are included, even less CO<sub>2</sub> could be emitted to keep below a 2°C warming.

Current annual emission levels are at 9.5 Gt C and are likely to grow every year due to population growth and economic development patterns. If annual emissions continue to grow as in past years (“business as usual” scenario) the carbon budget will be exhausted in the next three decades.

*Source: IPCC (2013). Climate Change 2013 – The Physical Science Basis, Summary for Policymakers*

## 6.8 Details of forest as a major Carbon sink (District) Not Available

## 6.9 Sectors with High Mitigation

Potential Table :6.9

Sl No	Sectors	Mitigation Options
1	Energy	<ul style="list-style-type: none"> <li>• Use of renewable heat and power (hydropower, solar, wind, geothermal and bio-energy)</li> <li>• Improved supply and distribution efficiency</li> <li>• Carbon capture storage(CCS)</li> <li>• Combined heat and power</li> </ul>
2	Transport	<ul style="list-style-type: none"> <li>• More fuel-efficient vehicles</li> <li>• Use of alternative energy sources (biofuels, cleaner diesel, etc.)</li> <li>• Better land-use and transport planning</li> <li>• Shift from individual transport to public transport systems</li> <li>• More efficient driving practices</li> <li>• Non-motorized transport (cycling, walking)</li> </ul>
3	Industry	<ul style="list-style-type: none"> <li>• Process-specific technologies that improve efficiency and reduce emissions</li> <li>• Material recycling and substitution</li> <li>• Heat and power recovery/cogeneration</li> <li>• Control of greenhouse gas emissions</li> </ul>
4	Agriculture	<ul style="list-style-type: none"> <li>• Manure and livestock management to reduce CH<sub>4</sub>emissions</li> <li>• Improved fertilizer application techniques to reduce N<sub>2</sub>O emissions</li> <li>• Improved crop and grazing land management to increase soil carbon storage</li> <li>• Restoration of cultivated peaty soils and degraded lands</li> <li>• Agro-forestry practices</li> </ul>
5	Forestry	<ul style="list-style-type: none"> <li>• Reduced deforestation</li> </ul>
		<ul style="list-style-type: none"> <li>• Afforestation/reforestation</li> <li>• Forest management</li> <li>• Tree species improvement to increase biomass productivity and carbon sequestration</li> </ul>

6	Waste	<ul style="list-style-type: none"> <li>• Landfill methane recovery</li> <li>• Waste incineration with energy recovery</li> <li>• Composting of organic waste</li> <li>• Controlled wastewater treatment</li> <li>• Recycling and waste minimization</li> <li>• Bio covers and bio filters to optimize CH<sub>4</sub>oxidation</li> </ul>
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### 6.10 Sector Specific Climate Change mitigation Projects: Not Available

**Table : 6.10**

SI No	Sector	Project Title	Period		Mitigation Targets
			From	To	

(N.B.: Please fill in the above table with Project undertaken exclusively for Climate Change Mitigation)

Statutory Compliance of the Factories/ Industries			
	Organisation Name	Address	Consent Under Air Act and Water Act (CTO Validity)
1	Aarti Steel Limited	At-Ghantikhal, Po- Mahakalabasta, Via- Athagarh, Cuttack	31.03.2023
2	Bhubaneswar Power Pvt. Ltd.	At-Anantapur, PO-Dhurusia, Tehsil- Athagarh, Cuttack	31.03.2023
3	Dhan Shree Smelters	Plot No-154/C & D, NIE, Jagatpur, Cuttack	31.03.2021
4	Dalmia Cement (Bharat) Ltd., Unit- Kapilas Cement Manufacturing Works	At-Biswali, Po- Barunia, Ps-Tangi, Jagatpur, Cuttack- 754082	31.03.2022
5	Manishree Refractories & Ceramic	At/Po- Madhupatana, ist- Cuttack	31.03.2025
6	Odisha Cement Plant (A Unit of Shree Cement Ltd.)	Chandrabali, Shyampur, Athagarh, Cuttack.	31.03.2026
7	Shree Durga Petrochemical	Plot No. 89-A, NIE, Phase-II, Jagatpur, Cuttack	31.03.2026
8	Susim Enterprises	154/F & G, NIE, Jagatpur, Cuttack	31.03.2022
9	Suvochem Industries (P) Ltd. (Unit-I)	S-3/A-19, NIE, Jagatpur, Cuttack	31.03.2022
10	Suvochem Industries (P) Ltd. (Unit-II)	S/74, NIE, Jagatpur, Cuttack	31.03.2026
11	T.S. Alloys Ltd.	At-Anantapur, PO-Dhurusia, Tehsil- Athagarh, Cuttack	31.03.2026
12	Varun Breverage Ltd.	Jagatpur, Cuttack	31.03.2022
13	Utkal Galvanizer	At-Kapursingh, PO- Oranda,	31.03.2021

		Cuttack	
14	Viraja Steel & Power (P) Ltd.	At-Suniamuhan, PO- Mancheswar, Athagarh, Cuttack	31.03.2022
15	Indian Metals & Fero Alloys Ltd.(2x60MW)	At- Kapaleswar, PO- Choudwar, Dist.-Cuttack	31.03.2022
16	Indian Metals & Fero Alloys Ltd.(108 & 30 MW)	At- Kapaleswar, PO - Choudwar, Dist.-Cuttack	31.03.2022
17	Indian Metals & Fero Alloys Ltd. (1x48 MVA)	At- Kapaleswar, PO- Choudwar, Dist.-Cuttack	31.03.2026
18	Indian Metals & Fero Alloys Ltd.(2x27 MVA)	At- Kapaleswar, Choudwar, Dist.-Cuttack	31.03.2026
19	Orient Refractories Ltd	At/Po-Bainchua, Ps- Tangi, Cuttack	31.03.2025
20	RSB Transmission (I) Ltd.	At-Mania,Po- Uchapada, Dist-Cuttack	31.03.2022
21	Hardev Steel (P) Ltd.	At- Suniamunha, Po- Bali, Dist- Cuttack	31.03.2022
22	J.K. Laxmi Cement Limited	At-Ghantikhal, Po-Khuntuni, Via-Athagarh, Dist-Cuttack	31.03.2023
23	Green Waves (P) Ltd.	At- Baula,Po- Bali athagarh, Dist-Cuttack	31.03.2025

9.1 Factories or Storage Unit Details of the District									
	Organisation Name	Type (Large / Medium / Small / Micro)	Manufacturing Process & Capacity	Address	Lat/ Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email	Site Operator Head Mobile Number
1	Aarti Steel Ltd.	Large	Sponge Iron (DRI Kiln I & II)-2x 500 TPD, WHRB Based power plant- 2x10 MW, CFBC Based power plant- 50 MW, AFBC based power plant- 30 MW, Coal Washery-1 MTPA, Ferro alloy plant- 2x9 MVA & 1x 18 MVA, Chrome Briquette-25 TPH, Steel Melting Shop Used Spent Oil- 30T/A, Waste/ Residues Containing Oil-1.7 T/A, Spent Resin from DM Plant- 3.5T/A	At-Ghantikhal, Po- Mahakalabastara, Via- Athagarh, Cuttack		Mr. Rajeev Mittal	Director	<a href="mailto:cuttack@aartisteelsltd.com">cuttack@aartisteelsltd.com</a>	9437083942
2	Bhubaneswar Power Pvt. Ltd.	Large	Electricity (2 X 67.5 MW)-135 MW Used Oil	At-Anantapur, PO-Dhurusia, Tehsil- Athagarh, Cuttack		Mr. K. Rama Rao	Sr Manager & Head (Env.)	<a href="mailto:office@bhubaneswarpower.com">office@bhubaneswarpower.com</a>	7894433667

3	Dhan Shree Smelters	Small	Lead bearing waste-108 TPA, Lead Ash/Particulate from flue gas-12 TPA	Plot No-154/C & D, NIE, Jagatpur, Cuttack		Mr Rabi Narayan Mishra	Proprietor	<a href="mailto:clpatelctc@sify.com">clpatelctc@sify.com</a>	9437032399
4	Dalmia Cement (Bharat) Ltd., Unit- Kapilas Cement Manufacturing Works	Large	Used Oil-10 TPA, Waste/ Residues Containing Oil-0.5 TPA, Spent ion exchange resin containing metal- 1.15TPA	At-Biswali, Po- Barunia, Ps-Tangi, Jagatpur, Cuttack- 754082		Mr. Manoranjan Sahoo	Deputy Executive Director	<a href="mailto:sahoo.manoranjan@dalmiacement.com">sahoo.manoranjan@dalmiacement.com</a>	9437490414
5	Manishree Refractories & Ceramic	Medium	Refractories (Bricks, Mortar & castables) from chamber kiln- 2000 MT/Month Refractories Bricks from Tunnel Kiln- 600 MT/ Month	At/Po- Madhupatana, ist- Cuttack		Mr. Biswajit Mohanty	Managing Director	<a href="mailto:mohantysatyajit@hotmail.com">mohantysatyajit@hotmail.com</a>	9238387006
6	Odisha Cement Plant (A Unit of Shree Cement Ltd.)	Large	Cement (PPC, PSC, OPC and composite Cement)- 3 MTPA, DG set( 1250 KVA)-1MW	Chandrabali-Shyampur, Athagarh, Cuttack.	Long- 20°31'48.92 " N to 20°31'41.91 " N Lat- 85° 43' 19.28" E to 85° 43' 55.42" E	Mr. Prakash Sharma	Addl. GM,	<a href="mailto:sharmaprakash@shreecement.com">sharmaprakash@shreecement.com</a>	9214337464



7	Shree Durga Petrochemical I	Small	Refined Lubricating Oil (Engine Oil & Spindle Oil )-139.5 KL/Month Lighter Fraction Oil-13.5 KL/Month, Blending of Lube Oil- 300 MTM, Industrial Grease-300MTM Spent Clay-100MTA Oily Sludge-50 Ton Organic Residue & Bottom residue from distillation-360 KL Spent clay containing oil-100 Ton	Plot No. 89-A, NIE, Phase-II, Jagatpur, Cuttack	Mr. Harihar Puhan Mr. Saroj Kumar Puhan	Proprietor Marketing Executive	<a href="mailto:shreedurgapetrochem@yahoo.co.in">shreedurgapetrochem@yahoo.co.in</a>	9437021103
8	Susim Enterprises	Small	Re claimed oil-75 KL/Month, Light diesel oil-7 KL/Month Used / Spent Oil-1200 T/A Spent Clay Containing Oil/Oily Sludge or emulsion / Organic Residue from process-275.24 T/A	154/F & G, NIE, Jagatpur, Cuttack	Biswa Ranjan Das	Proprietor	<a href="mailto:continental.lubricant@gmail.com">continental.lubricant@gmail.com</a>	947024235

9	Suvochem Industries (P) Ltd.(Unit-I)	Medium	2,4-D Sodium Salt -60 MTM,2,4-D Amine Salt - 30 MTM, 2,4-D Ester salt- 10 MTM, Phenolic sludge & Discarded container	S-3/A-19, NIE, Jagatpur, Cuttack		Mr. Gaurav Singh	Director	<a href="mailto:sipl_ctc@rediffmail.com">sipl_ctc@rediffmail.com</a>	9999579059
10	Suvochem Industries (P) Ltd. (Unit-II)	Medium	Dichlorophenol-28 MTM, Monochlorophenol- 30 MTM,Used Oil-700 Ltrs, Discarded Containers	S/74, NIE, Jagatpur, Cuttack		Mr. Gaurav Singh	Director	<a href="mailto:sipl_ctc@rediffmail.com">sipl_ctc@rediffmail.com</a>	9999579059
11	T.S. Alloys Ltd.	Large	High carbon ferrochrome/ High carbon silico manganese/ Medium carbon silico manganese/ High carbon ferro manganese (2 x 16.5 MVA)-59400 MTPA  Used Oil-12 KL/A, Wastes/ Residue Containing Oil- 0.24 T/A	At-Anantapur, PO-Dhurusia, Tehsil- Athagarh, Cuttack		Mr. Bibhudutta Nanda	Managing Director	<a href="mailto:bd.nanda@tatasteel.com">bd.nanda@tatasteel.com</a>	9238087009

1 2	Varun Beverage Ltd.	Medium	1. Soft drinks- 11,67,000 Cases/Month (695 BPM) 2. Packaged drinking water- 2,10,000 Cases/ Month (45 BPM) 1. Used oil- about 150 ltr 2. Spent carbon- about 7 Ton / Annum 3. ETP sludge- about 7 Ton 4. Furnace oil bottom sludge- Nil Discarded containers	Jagatpur, Cuttack		Sri Kamlesh Kumar Jain	Director	<a href="mailto:info@rjcorp.in">info@rjcorp.in</a>	876894616 2
1 3	Utkal Galvanizer		Used Oil-1.5TPA, Zinc Dross/Ash-5.0 TPA	At-Kapursingh, Po-Oranda, Cuttack		Mr. Nandan Mohanty	Director	<a href="mailto:utkalho@gmail.com">utkalho@gmail.com</a>	943706163 7
1 4	Viraja Steel & Power		Spong Iron-50TPD, Used oil- 0.6 KL/A Cotton waste- 60kg/ Annum	At- Suniamuhan, PO- Mancheswar, Athagarh, Cuttack		Mr. Digambar Nandi	Managing Director	<a href="mailto:vspl1234@hotmail.com">vspl1234@hotmail.com</a>	943703789 0
1 5	Indian Metals & Fero Alloys Ltd.(2x60MW CPP)	Large	Electricity-120 MW LDA- 175000 MTA Used oil-10 KL/ Annum, Waste containing oil & OI contaminated cotton waste-1	At- Kapaleswar, PO- Choudwar, Dist.-Cuttack		Mr. Mukhopadhyay	DGM (QC)	<a href="mailto:mmukhopadhyay@imfa.in">mmukhopadhyay@imfa.in</a>	977758861 2

			TPA, Discarded containers-2TPA, Sludge contaminated with oil-0.02 TPA						
16	Indian Metals & Ferro Alloys Ltd.(108 & 30 MW CPP)	Large	Electricity-138 MW, Used oil-74 KL/ Annum, Waste containing oil & Oil contaminated cotton waste-1 TPA, Discarded containers-3TPA, Spent resin-1.3 TPA, Sludge contaminated with oil-0.01 TPA	At-Kapaleswar, PO-Choudwar, Dist.-Cuttack		Mr. Mukhopadhyay	DGM (QC)	<a href="mailto:mmukhopadhyay@imfa.in">mmukhopadhyay@imfa.in</a>	9777588612
17	Indian Metals & Ferro Alloys Ltd. (1x48 MVA CCP), Unit-I	Large	High Carbon Ferro Chrome, Charge Chrome- 72,000 MT/ Annum	At-Kapaleswar, PO-Choudwar, Dist.-Cuttack		Mr. Mukhopadhyay	DGM (QC)	<a href="mailto:mmukhopadhyay@imfa.in">mmukhopadhyay@imfa.in</a>	9777588612
18	Indian Metals & Ferro Alloys Ltd.(2x27 MVA CCP), Unit-II	Large	High Carbon Ferro Chrome, Charge Chrome- 96,000 MT/ Annum	At-Kapaleswar, Choudwar, Cuttack		Mr. Mukhopadhyay	DGM (QC)	<a href="mailto:mmukhopadhyay@imfa.in">mmukhopadhyay@imfa.in</a>	9777588612
19	Orient Refractories Ltd	Small	Down draft Kiln (2 No.s)-360 MT/Month	At/Po-Bainchua, Ps-Tangi, Cuttack		Mr. Pramod Sagar	Managing Director	<a href="mailto:ho@orlindia.com">ho@orlindia.com</a>	9778820001

20	RSB Transmission (I) Ltd.		Auto Components-30 TPD (two stream) Used oil-1.8KL/Annum Waste or residue containig oil-1.2 T/Annum	At-Mania,Po-Uchapada, Dist-Cuttack		Mr. Subrat Acharya	HR Manager	<a href="mailto:subrat.b@rsbglobal.com">subrat.b@rsbglobal.com</a>	7260812080
21	Hardev Steel (P) Ltd.	Medium	Spong Iron-100 TPD, Used oil- 0.02 KL/A	At-Suniamunha, Po- Bali, Dist-Cuttack		Mr. Pankaj Kakar	Director	<a href="mailto:sri.hardevhcl@gmail.com">sri.hardevhcl@gmail.com</a>	9439995238
22	J.K. Laxmi Cement Limited	Large	Cement Grinding Unit-1.5 MTPA, DG Set - 2x 6 MW	At-Ghantikhhal, Po-Khuntuni, Via-Athagarh, Dist-Cuttack		Mr Girish Tiwari	Head Grinding Unit	<a href="mailto:jklccuttack@durg.jkmail.com">jklccuttack@durg.jkmail.com</a>	7328820220
23	Green Waves (P) Ltd.	Large	Chloro Pheniramine Maleate- 3 MTM, Bromo Pheniramine Maleate- 2 MTM, Pheniamene Maleate-3 MTM Used oil-300 Ltr/Annum Distilation residue- 2.5 TPA, ETP Sludge- 1TPA, Discarded Container	At- Baula,Po-Bali athagarh, Dist-Cuttack		Mr. Gopananda Mishra	Managing Director	<a href="mailto:gmishra@greenwaves.net">gmishra@greenwaves.net</a>	6742381414

## **Chapter VII**

### **Inclusive Disaster Risk Reduction: -**

#### **7.1 Background: A need to include Persons with Disabilities**

Different populations may face similar risks of exposure to the negative effects of environmental and man-made disasters, but their actual vulnerability is dependent on their socio-economic conditions, civic and social empowerment, and access to mitigation and relief resources. Individuals with disabilities are disproportionately affected in disaster, emergency, and conflict situations due to inaccessible evacuation, response (including shelters, camps, and food distribution), and recovery efforts.

Besides psychological impact of disasters, this population does not have adequate access to food, water, shelter and health services. There has been inadequate access to their specific needs including assistive devices, rehabilitation and interpreters. Disabled populations face discrimination and exclusion and therefore are confronted with considerable challenges in accessing the same opportunities as the rest of the population in disaster situations.

Common experience reveals that persons with disabilities are more likely to be left behind or abandoned during evacuation in disasters and conflicts due to a lack of preparation and planning, as well as inaccessible facilities and services and transportation systems. Most shelters and refugee camps are not accessible and people with disabilities are many times even turned away from shelters and refugees' camps due to a perception that they need "complex medical" services.

Furthermore, the needs of persons with disabilities continue to be excluded over the more long-term recovery and reconstruction efforts, thus missing another opportunity to ensure that cities are accessible and inclusively resilient to future disasters. Thus it is important that the Indian Disaster management system includes the needs of persons with disability faced in disaster risk management.

#### **7.2 Legal framework to support the inclusion of persons with disabilities**

The United Nations Convention on the Rights of Persons with Disabilities was adopted in December 2006. The Convention marks a "paradigm shift" in attitudes and approaches to persons with disabilities. Article 11 on Situations of risk and humanitarian emergencies, pays particular attention to the obligation of States parties to undertake "all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters." Furthermore, Article 4.1, states that "States Parties undertake to ensure and promote the full realization of all human rights and fundamental freedoms for all persons with disabilities without discrimination of any kind on the basis of disability" and Article 32, recognizes the importance of international cooperation to address the limited capacities of some States to respond to situations of risk and humanitarian crises.

The Millennium Development Goals have the potential to make life better for billions of people in the world's poorest countries. However, disability is currently not included in indicators and targets to help evaluate and monitor the achievement of the MDGs. Furthermore, persons with disabilities are often excluded from international and national poverty reduction strategies. Environmental dangers and natural disasters can lead to the onset of many types of disabilities, and inaccessible environments prevent persons with

disabilities from taking part in economic and social activities. Human and environmental recovery is vital for the achievement of MDG Goal 7, “Ensure Environmental Sustainability”. The MDGs cannot be achieved without the inclusion of all persons in society, including persons with disabilities.

The Rights of persons with Disabilities act (RPWDA) 2016 of India and UNCPRD form the overarching legal framework which identify and protect disability rights in India. The RPWDA mandates the participation of persons with disabilities in the disaster risk management process. In the Act DRM is articulated in the article 8 which stipulates that persons with disabilities shall have equal protection and safety in situations of risk, armed conflict, humanitarian emergencies and natural disasters. The Act refers to the Disaster Management Act 2005 Clause (e) Section 2 for the safety and prevention of persons with disabilities

The District Disaster Management Authorities (DDMA) under Section 25 are specially mentioned to maintain the record of details of persons with disabilities in the district and inform such persons of any such situations of risk so as to enhance disaster preparedness. The authorities are to consult the state Commissioners in accordance with the accessibility requirements of Persons with Disabilities. The rights of Persons with Disabilities Act 2017 elaborate an implementable strategy specifically in accessibility of infrastructure, transport & communication technology which are important aspects in the context of disaster risk reduction

The Government of India approach to disaster management is that development cannot be sustainable unless disaster mitigation is built in to the development process. Built on this approach, the National Disaster Framework covering institutional mechanisms at the national, state & district exist where the disability related structures are also available which could be used to implement inclusive policies

### **7.3 Responding to the needs of persons with disabilities**

Several studies show us that including the needs and voices of persons with disabilities at all stages of the disaster management process, and especially during planning and preparedness, can significantly reduce their vulnerability and increase the effectiveness of Government response and recovery efforts. However, despite an increasing worldwide focus on disaster risk reduction as opposed to mere disaster response, most city and related Government agencies fail to adequately plan for – or include – persons with disabilities in their disaster management activities. This causes severe inequities in access to immediate response, as well as long-term recovery resources for people who have disabilities prior to the disaster and those who acquire a disability as a result of the disaster.

Rehabilitation and reconstruction efforts must not only be inclusive and responsive to the needs of all people, including persons with disabilities, but should include the participation of persons with disabilities, to ensure that their needs and rights are respected. Women with disabilities are a particularly vulnerable group whose needs should be included at all stages of recovery and reconstruction efforts.

Actors involved in Disability Inclusive Disaster Risk Reduction (DIDRR) include Government at the different levels, national to local including cities and communities at local level, the UN System, Academic Institutions, Disabled People’s Organizations Private actors, Armed Forces, Civil Society, Media, local community’s Local emergency response organizations.

#### 7.4 Data Collection

Data is essential to understanding the risks that people face during disasters and climate change situations. It is important to give effect to policies and establish norms. The Census in 2011 identifies 2.68 Crore persons with disabilities constituting 2.21% of the country's population.

#### 7.5 Policy, Institutional Mechanisms and Inclusive Standards

Policies and their implementation need to be inclusive. Odisha State Disaster Management Plans has already laid the foundation of an inclusive strategy. OSDMA has set up a cell for persons with disabilities headed by a person with disability. The cell will look into inclusion in EWS, SER, rehabilitation and resettlement. Impart training for response forces ODRAF, Red Cross, Civil Defense and community level task force volunteers. Monitoring accessibility in shelters will also be work of the cell.

The Odisha State Disaster Management Plan 2017 takes note of the vulnerability of disabled persons and the specific provision provided is related to inclusive education of children with disabilities during disasters. It also makes special mention of children with disabilities and specifically 'mentally retarded' (Intellectual Disability).

For preparation of the inclusive DDMP the following data at district level are to be collected

**Table-7.1-Information on PWD**

<b>Information on Population Requiring Special Care</b>										
Sl. No.	Blocks	Numbers of Gram Panchayats	Numbers of Villages	Total No. of HHs	Total Population	No. of HHs Having by PWD	No. of Persons with Physical Disability (PWD)		No of persons with Mental disability	
							M	F	M	F
1	Athagarh	34	237	35383	174110	1973	1361	795	257	126
2	Banki	20	103	26673	115402	1951	1115	836	197	83
3	Banki-Dampada	17	43	22714	98894	1428	625	535	188	80
4	Baramba	38	138	35641	149793	2214	1572	642	403	212
5	Barang	16	78	3601	84068	89	24	18	6	4
6	Cuttack Sadar	23	118	30757	154091	1314	476	316	297	225
7	Kantapara	14	88	19869	88532	12138	1264	898	0	0
8	Mahanga	37	195	44626	186930	2400	1793	607	121	32
9	Narasinghpur	37	227	36127	157201	1829	935	791	115	100
10	Niali	23	124	33472	148479	2500	1900	950	144	72
11	Nischintakoli	41	221	30155	188599	407	1222	1223	52	33
12	Salipur	35	161	44942	193938	1797	1074	902	381	74
13	Tangi-Choudwar	24	172	32785	154720	1395	1052	590	90	88
14	Tigiria	14	48	16519	74639	1194	813	381	185	47
<b>Grand Total</b>		<b>373</b>	<b>1953</b>	<b>413264</b>	<b>1969396</b>	<b>32629</b>	<b>15226</b>	<b>9484</b>	<b>2436</b>	<b>1176</b>



**Table-7.2-Information on vulnerable women and children**

Sl. No.	Blocks	No. of HHs headed by Women	Child Population per village		No. of Widow	No. of Orphans	
			0-5 Years	6-14 Years		M	F
1	Athagarh	4583	11700	17998	6717	40	26
2	Banki	96	7491	13458	1431	32	38
3	Banki- Dampada	22137	7490	10244	2363	21	28
4	Baramba	2829	10560	100	36	19	17
5	Barang	25	5967	96	2	19	22
6	Cuttack Sadar	1150	34206	12400	1150	43	43
7	Kantapara	19869	5286	0	962	8	9
8	Mahanga	74529	12317	17320	4433	8	7
9	Narasinghpur	2528	10743	15205	4041	29	21
10	Niali	72929	9733	10484	3350	17	13
11	Nischintakoili	30155	11238	6312	3033	13	14
12	Salipur	2039	14158	12047	1807	17	18
13	Tangi- Choudwar	NA	14032	NA	27	56	39
14	Tigiria	3303	5373	6425	2146	12	11
<b>Grand Total</b>		<b>236172</b>	<b>160744</b>	<b>122089</b>	<b>31498</b>	<b>334</b>	<b>306</b>

Table-7.3-Information on people needing special care (Aged and Pregnant Women)

Table-7.3-Information on people needing special care (Aged and Pregnant Women)								
Information on Population Requiring Special Care								
Sl. No.	Blocks	Numbers of Gram Panchayats	Numbers of Villages	Total No. of HHs	Total Population	No. of Aged Persons (60 and above) in villages		No. of Pregnant and lactating mothers per village during the information collection
						M	F	
1	Athagarh	34	237	35383	174110	11264	10813	2271
2	Banki	20	103	26673	115402	8337	5558	1431
3	Banki-Dampada	17	43	22714	98894	4506	3785	1445
4	Baramba	38	138	35641	149793	148	106	2149
5	Barang	16	78	14436	84068	4455	3263	1120
6	Cuttack Sadar	23	118	30757	154091	78121	3372	6542
7	Kantapara	14	88	19869	88532	6310	3390	886
8	Mahanga	37	195	44626	186930	11136	7320	2218
9	Narasinghpur	37	227	36127	157201	6922	6348	1980
10	Niali	23	124	33472	148479	7454	5121	1658
11	Nischintakoili	41	221	30155	188599	8825	8816	1966
12	Salipur	35	161	44942	193938	10925	9322	2543
13	Tangi-Choudwar	24	172	32785	154720	56	44	2465
14	Tigiria	14	48	16519	74639	12905	11337	1076
<b>Grand Total</b>		<b>373</b>	<b>1953</b>	<b>424099</b>	<b>1969396</b>	<b>171364</b>	<b>78595</b>	<b>29750</b>

After compiling the database of the people who need special attention in the wake of a disaster and to make the district disaster management plan more inclusive, the following may be considered during District Disaster Management Plan preparation.

- **Pre-Disaster:** Identification of special needs of physically challenged and mentally challenged persons. Make necessary Planning for evacuation of people with special needs with special care and compassion. The DDMP should outline adequate training and orientation of field level functionaries who are normally engaged as frontline worriers of disaster management at grass roots. Special responsibility may be entrusted with the appropriate

officials at block level to ensure the execution of the plan. The district must ensure that the committees and groups created in the district for the disaster management pursuits **has adequate representation from the vulnerable section of the society** as outlined above.

- **During Disaster:** Appropriate Relocation of the people in the shelter with special care, priority in meeting the needs of such population, organizing medical attention if needed.

**Post disaster:** Ensuring careful & safe return of such people to home, prioritisation during relief distribution, prioritisation of rehabilitation

## Chapter – 8

### **Safety of Schools and Child Care Institutions: - Implementation of School Safety Policy Guidelines 2016 (SSP-2016 Guidelines)**

#### **8.1 Order on WP(C) 483/2004 of Hon’ble Supreme Court**

The Hon’ble Supreme Court vide orders of dated 14.08.2017 in WP (C) 483/2004, directs vide letter no 2437/2004/SC/PIL/(WRIT) dt. 23.08.2017 that the School Safety Policy (SSP) 2016 guidelines issued by NDMA are statutory in nature and shall be implemented in letter and spirit by all concerned authorities for all schools. The direction of the Supreme Court in Implementation of the School Safety Policy Guidelines Inter- alia postulates as follow:

- Time bound implementation of the Guidelines
- District Disaster Management Authority to ensure and monitor compliance of the said Guidelines
- District Education Officer of each District to be a "Nodal officer" with responsibility, liability and obligation as well as powers and functions to ensure strict compliance with the Guidelines within the district of his jurisdiction.
- Joint Monitoring Committee consisting of representations of both Department of School Education & Literacy, Ministry of HRD and NDMA
- Quarterly compliance reports from the Chief Secretary to MHRD and NDMA on the actions taken.

Hon’ble Supreme Court has also defined few actions at different levels to ensure school safety

<b><u>State &amp; District Level</u></b>	<b><u>School Level</u></b>
<ul style="list-style-type: none"> <li>• Policy for safety audits in all schools</li> <li>• ‘Stability certificate’ by Government-certified engineer.</li> <li>• Manual for fire safety procedures and other safety precautions</li> <li>• The National Building Code of India, 2005, to construct fire-safe buildings. (Revised2016)</li> </ul>	<ul style="list-style-type: none"> <li>• Schools must take appropriate safety measures and an emergency response plan that delineates staff responsibilities, communication modes, and training and updating procedures for all members of the faculty, staff and students.</li> <li>• Fire insurance coverage should be made mandatory for all schools.</li> <li>• Ensuring that the kitchen in the precincts of the school has adequate safety mechanisms.</li> </ul>

#### **8.2 Guidelines on School Safety Policy, 2016-NDMA**

The School Safety encompasses “the creation of safe environments for children starting from their homes to their schools and back.” This as well includes safety from large-scale natural hazards, human made risks, pandemics, violence as well as more frequent and smaller-scale fires, transportation and other related emergencies and environmental threats that can adversely affect the lives of children.

**Ref.:** *Fire Safety Measures in Schools (Section 3.1 p-23) / Training of School Teachers & Other Staff (Section 3.1 p-25) / School Building Specifications (Section 3.1 p-27) Clearance & Certificates (Section 3.1 p-29) SC. Judgement on WP(C)483/2004*

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#### **Vision:**

- The Guidelines stand for a vision of India where all children and their teachers, and other stakeholders in the school community are safe from any kind of preventable risks that may threaten their wellbeing during the pursuit of education.
- Educational continuity is maintained/resumed even in the immediate aftermath of a disaster so that Children are physically, mentally and emotionally secure within their schools.

#### **Approach and Objectives**

- All hazard approaches.
- All schools; all stakeholders 2. Strengthening existing policy provisions to make schools safer
- School Safety as an indicator of quality for continued planning, execution and monitoring
- Primary objective is to ensure the creation of safe learning environment for children.
- Also seek to highlight specific actions towards school safety that can be undertaken by different stakeholders within the existing framework of delivery of education.

#### **Applicability**

- The National School Safety Policy Guidelines apply to all schools in the country- whether government, aided or private, irrespective of their location in rural or urban areas.
- They apply to all stakeholders involved in delivery of education to Children in India

#### **All hazard approaches**

- School Safety efforts needs to take cognizance of all kinds of hazards that may affect the wellbeing of children.
- Hazards include structural and non-structural factors.
- Structural factors include dilapidated buildings, poorly designed structures, faulty construction, poorly maintained infrastructure, loose building elements, etc.
- Non-Structural factors include loosely placed heavy objects such as almirahs, infestation of the campus by snakes and any other pests, broken or no boundary walls, uneven flooring, blocked evacuation routes, poorly designed and placed furniture that may cause accidents and injury, inadequate sanitation facilities, etc.

#### **Right to Education Act 2009**

- The Act sets minimum norms and standards with regard to location and quality of schools and in Clause 19, lays down that no school shall be established, or recognized unless it fulfills the norms and standards specified in the schedule.
- One of the key standards is in relation to access to “all weather buildings”; in “areas with difficult terrain, risk of landslides, floods, lack of roads and in

- general, danger for young children in the approach...
- the State Government / Local Authority shall locate the school in such a manner as to avoid such dangers”.
  - The Act lays down the formation of the School Management Committee for planning of infrastructure and other requirements with respect to operational functioning of schools.
  - The School Development Plan, as laid out by the Act, spells out the physical requirements of additional infrastructure and equipment to meet the norms spelt out in the schedule (in relation to all weather buildings).

### Key Action Areas

#### 1. Institutional strengthening at the State & District levels

- Co-opting senior officials of the Department of Education in SDMA and DDMA.
- Nomination of School Safety Focal Point Teacher & Sensitization of School Management Committee on DM.

#### 2. Planning for Safety

- Structural Measures (including sitting, design and detailing for structural safety).
- Nonstructural Measures.
- Preparation & implementation of School Disaster Management Plan.
- Lever aging existing flagship programmes to make school campus safer.

#### 3. Capacity building for safe schools

- Training for students and school staff
- Specialized training and skill building of Education officers, representatives of SCERT and DIET, SDMA, DDMA, etc on school safety
- Mock Drills

#### 4. Disaster Management in Core Curriculum

#### 5. Regular monitoring of risk and revision of School Safety Plans (including Safety Audits & Availability of Emergency Equipment).

### 8.3 Category & type of schools Table-8.1

8.3 Category & Type of schools								
Name of the Block	Government Schools				Government Aided		Private Schools	
	Elementary		Secondary		Elementary	Secondary	Elementary	Secondary
	Rural	Urban	Rural	Urban				
ATHGARH	145	9	19	1	3	14	29	2
Banki	92	0	15	0	3	8	12	1
BARAMBA	112	0	25	0	0	29	26	1
BARANGA	82	2	11	1	6	9	25	4
CUTTACK MC	28	94	16	22	9	14	76	45
CUTTACK SADAR	76	42	22	0	2	4	74	5
DOMPARA	84	8	7	1	0	14	11	2
KANTAPADA	82	0	16	0	1	5	15	2
MAHANGA	180	0	33	0	19	19	27	5
NARASINGHPUR	146	0	21	0	9	17	26	0

NIALI	129	0	22	0	5	7	20	1
NISCHINTAKOILI	183	0	34	0	13	14	40	4
SALIPUR	182	0	28	0	6	10	33	12
TANGI	100	48	4	11	3	14	39	6
Tigiria	57	0	8	0	4	5	14	0
<b>Grand Total</b>	<b>1678</b>	<b>203</b>	<b>281</b>	<b>36</b>	<b>83</b>	<b>183</b>	<b>467</b>	<b>90</b>

#### 8.4 School Safety Advisory Committee(District)

1. Date of Formation 20.08.2018
2. Institutional Architecture

**Table-8.2**

8.1 School Safety Advisory Committee (District)				
1. Date of Formation:20/08/2018				
2. Institutional Architecture				
Sl No	Name & Designation	Contact No.	Email ID	Remarks
1	Collector Cum Chairman, RTE-SSA,Cuttack ,	9437170693	<a href="mailto:dm-cuttack@nic.in">dm-cuttack@nic.in</a>	Chairpers on.
2	Superintendent of Police, Cuttack	9438916200	<a href="mailto:spctc.orpol@nic.in">spctc.orpol@nic.in</a> ,	Co-Chairpers on.
3	District Fire Officer, Cuttack	9938382010 / 7978035233	<a href="mailto:cghomeguardsodisha@gmail.com">cghomeguardsodisha@gmail.com</a>	Member.
4	District Welfare Officer, Cuttack	9437124408	<a href="mailto:dwo.cuttack@nic.in">dwo.cuttack@nic.in</a>	Member.
5	District Social Welfare Officer, Cuttack	9437016505	<a href="mailto:dswocuttack@nic.in">dswocuttack@nic.in</a>	Member.
6	Chief District Medical Officer, Cuttack	9439990009	<a href="mailto:dsucuttack@gmail.com">dsucuttack@gmail.com</a>	Member.
7	Executive Engineer RWSS/PWD, Cuttack	8280408036	<a href="mailto:eerwssathagarh@gmail.com">eerwssathagarh@gmail.com</a>	Member.
8	District Emergency Officer, Cuttack	9853300974	<a href="mailto:eoc-ctc@nic.in">eoc-ctc@nic.in</a>	Member.
9	Panchayat Raj Officer, , Cuttack	9437257156	<a href="mailto:dpo.od-cut@nic.in">dpo.od-cut@nic.in</a>	Member.
10	Principal DIET, Cuttack	0674 – 2502928	<a href="mailto:info@scertodisha@nic.in">info@scertodisha@nic.in</a>	Member.
11	Block education Officer, Cuttack Sadar	9437089771	<a href="mailto:deocuttack@gmail.com">deocuttack@gmail.com</a>	Member.
12	Secretary,The saviour, Shreevihar Colony, Tualisipur,Cuttack			Member.
13	Secretary, The Neaheha ,Firingi Bazar,Cuttack			Member.
14	District Project Coordinator, RTE-SSA,Cuttack	9437089771	<a href="mailto:dpccuttackssa.opepa@nic.in">dpccuttackssa.opepa@nic.in</a>	Member.
15	District Education Officer, Cuttack	9437089771	<a href="mailto:deocuttack@gmail.com">deocuttack@gmail.com</a>	Nodal Officer

## 8.5 Details of School Safety in the district Table-8.3

Details of School Safety in the district																		
SI No	Activity	Total School	Achieved															Total
			ATHGARH	Banki	BARAMBA	BARANGA	CUTTACKMC	CUTTACKSADAR	DOMPARA	KANTAPADA	MAHANAGA	NARASINGHPUR	NIALI	NISCHINTAKOILI	SALIPUR	TANGI	Tigiria	
1	Schools having School Safety Advisory Committee (Number)	3021	177	116	142	101	129	138	114	70	218	220	140	269	252	237	77	2400
2	Schools having School Disaster management Plan (Number)	3021	177	116	162	80	150	137	114	70	225	220	145	276	252	237	78	2439
3. A	Schools having conducted Safety Audits (Structural)(Number)	3021	120	116	162	80	132	159	0	52	217	220	145	276	252	0	0	1931
3. B.	Safety Audits (Non-Structural)(Number)	3021	0	116	162	91	135	157	0	56	211	220	145	276	252	0	0	1821
4	Schools having conducted Annual Mock Drills (Number)	3021	208	110	157	98	141	209	105	70	218	187	145	276	252	237	77	2490



5	Schools Having Fire Extinguisher (Number)	3021	0	1	0	101	144	189	9	40	169	178	10	10	252	237	77	1417
6	Schools Adhering to safety norms in storing inflammable & Toxic Material (Number)	3021	208	116	157	101	154	215	105	48	249	187	145	0	252	0	88	2025
7	Schools confirming safety standards as per local building bye-laws (Latest) (Number)	3021	0	0	142	23	148	217	0	0	232	187	0	0	252	0	0	1201
8	Schools having issued Recognition certificate under sub-Rule (4)-Rule 15 of RTE rules 2010 (only to schools that comply with Structural safety norms)(Number)	3021	29	0	162	0	161	205	0	0	195	196	0	26	252	45	10	1281

9	<b>Schools where students &amp; teachers undergo regular training on School Safety &amp; Disaster Preparedness (Number)</b>	3021	177	112	142	23	102	215	111	3	104	0	0	235	252	237	77	1790
10	Schools where disaster management is being taught as part of the curriculum (Number)	3021	0	116	142	47	131	205	11	78	161	220	145	276	252	237	57	2078

### 8.6 Disaster management Education (School Safety and School Disaster Preparedness):

*[Disaster management education should include organizing awareness generation programmes in schools and colleges and conducting basic mock drills for fire and other disasters. For the purpose ,in the first phase district level high schools and colleges (both govt. and private) may be taken in to consideration.]*

**Table-8.4**

<b>Disaster management Education (School Safety and School Disaster Preparedness):</b>				
<b>Sl. No.</b>	<b>Name of the Programme</b>	<b>No. of Schools, Colleges and Other Educational institutions to be covered during the year 2020-21</b>	<b>Time Line</b>	<b>Remarks</b>
1	Awareness generation and mock drills for fire/ earth quake etc.	84	2020-2021 and 2021-22	Only NCC /NSS school and some schools in Baranga and CMC
2	Preparation of School disaster management plan	2464	2020-2021 and 2021-22	In all Govt and Aided School

8.7 Details of Child Care Institutions Table-8.5

SI No	Block	Name and Address of the Organization		Boys	Girls	Total No of Children	Name and Contact no. of the Shift-in- Charge		Fire Safety Equipment	Staff Training on Fire Safety Equipment	Nearby open space for evacuation	Alternative Shelter /s Identified
	/ ULB								(Fire Extinguisher, Alarm)			
1	ULB	Utkal Balashram, Nuapada, Cuttack	Nuapada, Cuttack-753010	54	0	54	Pragyaseni Pradhan	9439895793,7873220852	Fire Extinguisher	Yes	Yes	Yes
2	ULB	Basundhara, Bidanasi, Cuttack(Children' Home)	Basundhara, Bidanasi, Cuttack	23	37	60	Saila Behera	0671-2503178/2504892, 9853924187	Fire Extinguisher	Yes	Yes	Yes
3	ULB	Basundhara, Bidanasi, Cuttack(SAA)	Basundhara, Bidanasi, Cuttack	10	17	27	Saila Behera	0671-2503178/2504892, 9853924187	Fire Extinguisher	Yes	Yes	Yes
4	ULB	Basundhara, Bidanasi, Cuttack(Open Shelter)	Basundhara, Bidanasi, Cuttack	6	18	24	Saila Behera	0671-2503178/2504892, 9853924187	Fire Extinguisher	Yes	Yes	Yes
5	Tangi-Choudwar Block	Servants Of India Society, Choudwar, Cuttack(Children' Home)	Choudwar, Cuttack	48	44	92	srimant nayak	9238598829 /06712394398	Fire Extinguisher	Yes	Yes	Yes
6	Tangi-Choudwar Block	Servants Of India Society, Choudwar, Cuttack(SAA)	Choudwar, Cuttack	2	7	9	Srimant nayak	9238598829 /06712394398	Fire Extinguisher	Yes	Yes	Yes

7	Banki Block	Lokanayak Club, Patapur, Banki, Cuttack	Patapur, Banki, Cuttack-754008	23	12	35	Mr. Prahallad Swain	7978635240	Fire Extinguisher	Yes	Yes	Yes
8	Salepur Block	KGNM Trust, Satyabhamapur, Cuttack	Satyabhamapur, Cuttack	0	28	28	Sandhyarani Mallick	0671-2358753, 9668563881, 7540948862	Fire Extinguisher	Yes	Yes	Yes
9	Salepur Block	Swapneswar Balashram, Boilo, Purunahat, Kishorenagar.	Boilo, Purunahat, Kishorenagar.	33	0	33	Subas Chandra Sahoo	9437227216, 6370836571	Fire Extinguisher	Yes	Yes	Yes
10	ULB	International Indecency Prevention Movement, Sobhaniyanagar, Abhinav Bidanasi, Cuttack	Sobhaniyanagar, Abhinav Bidanasi, Cuttack	0	41	41	Satyabhama Devi	9178805044, 9438681695/8249023833	Fire Extinguisher	Yes	Yes	Yes
11	Narsinghpur Block	Maa Bindhyabaasini Anatha Sikhyashram, Jagannathpur, Jillinda, Cuttack	Jagannathpur, Jillinda	61	41	102	Pramodini Nayak	8018947146, 9178898960	Fire Extinguisher	Yes	Yes	Yes
12	ULB	Swami Bichitrananda Kalyan Ashram, Dagarpada, Cuttack	,Dagarpada, Cuttack-753002	38	0	38	Dr. Hemanta Kumar Parida	9937127862, 7978815590	Fire Extinguisher	Yes	Yes	Yes

13	ULB	LOVE CHARITY CHILDREN'S HOME, Bidanasi,Cuttack	Bidanasi,Cuttack	7	6	13	Mr.Naresh.Ku. Parichha	0671-2506512,236486, 9437181770,8093148393	Fire Extinguisher	Yes	Yes	Yes
14	ULB	ORISSA Orphanage, Bidanasi,CUTTACK	ORISSA Orphanage, Bidanasi,CUTTACK	5	10	15	T.K.Anthony	9777267567, 9387744477, 9438815997,9337125687	Fire Extinguisher	Yes	Yes	Yes
15	ULB	Jashoda Sadan,College Square,Cuttack	College Square,Cuttack-753003	25	16	41	Indramani Mallick	0671-2549121, 9437670891, 9437076550,Trupti-9438584294	Fire Extinguisher	Yes	Yes	Yes
16	ULB	ADRUTA Children Home(A unit of RAWA Academy),Tulasipur, P.S-Chhandin Chowk,Cuttack	Tulasipur,P.S-Chhandin Chowk,Cuttack-	0	23	23	Miss Supriti Mohanty	9438553647, 8339045178 7978919169	Fire Extinguisher	Yes	Yes	Yes
17	Mahanga-Block	BAPUJI SISHU MANDIR,Swarnakshetra, Mahanga Pin-754206	Swarnakshetra, Mahanga Pin-754206	27	0	27	Mr Ashok Ku Jena	0671-2767101,2767201, 9776033785/9776629024,	Fire Extinguisher	Yes	Yes	Yes
18	Tangi-Choudwar Block	VAROSA Ashram,At-Mangarajpur,Choudwar,Cuttack	At-Mangarajpur,Choudwar,Cuttack	0	15	15	Chabila Ku Naik	7077276154/9439271464,9178883 964,7788959556	Fire Extinguisher	Yes	Yes	Yes
19	ULB	Ashray the Shelter(Home for CP, MR Spl need Children)	Cuttack Municipality Corporation(CMC), Ward No.05	34	14	48	Sujata Pattanaik	9937005961	Fire Extinguisher	Yes	Yes	Yes

## **Chapter- 9**

### **Chemical (Industrial), Nuclear and Radiological Disaster: -**

#### **A. Chemical (Industrial) Disaster:**

The growth of chemical industries has led to an increase in the risk of occurrence of incidents associated with hazardous chemicals (HAZCHEM). A chemical industry that incorporates the best principles of safety, can largely prevent such incidents. Common causes for chemical accidents are deficiencies in safety management systems and human errors, or they may occur as a consequence of natural calamities or sabotage activities. Chemical accidents result in fire, explosion and/or toxic release. The nature of chemical agents and their concentration during exposure ultimately decides the toxicity and damaging effects on living organisms in the form of symptoms and signs like irreversible pain, suffering, and death. Meteorological conditions such as wind speed, wind direction, height of inversion layer, stability class, etc., also play an important role by affecting the dispersion pattern of toxic gas clouds. The Bhopal Gas tragedy of 1984—the worst chemical disaster in history, where over 2000 people died due to the accidental release of the toxic gas Methyl Isocyanate, is still fresh in our memories. Such accidents are significant in terms of injuries, pain, suffering, loss of lives, damage to property and environment. A small accident occurring at the local level may be a prior warning signal for an impending disaster. Chemical disasters, though low in frequency, have the potential to cause significant immediate or long-term damage.

A critical analysis of the lessons learnt from major chemical accidents exhibited various deficiencies. Laxity towards safety measures, no conformation to techno-legal regimes and a low level of public consultation are a few such shortcomings. The scenario called for concerted and sustained efforts for effective risk reduction strategies and capacity development under a national authority to decrease the occurrence of such incidents and lessen their impact. Although tremendous efforts have been made to minimize such accidents and to improve emergency preparedness at all levels, substantial efforts are still required to predict the occurrence of disasters, assess the damage potential, issue warnings, and to take other precautionary measures to mitigate their effects. Another pressing need is to properly assess the potential of chemical emergencies and develop tools for emergency planning and response to minimize the damage in case of any eventuality.

Odisha is also an Industrial State and many Large, Medium and Small-Scale Industries are operating in the state. Many large industries are operating in the districts like Jagatsinghpur, Angul, Jharsuguda, Sambalpur and Rayagada and many medium and small industries are operating in other districts of the State. The District administration of the industrial district must be prepared to face any kind of Chemical (Industrial) disasters and always be prepared with the Off-site Emergency Plan of the District. The Off-site emergency plan needs to be updated on regular frequency.

Thus, it is highly essential to take all the preparedness measures and minimize the risk of any Chemical (Industrial) disasters in the industrial districts of the State. The following information are required to be fulfilled and be updated every year in the District Disaster Management Plan of the District.



## 9.1 Factories or Storage Unit Details of the District

Table-9.1

Organisation Name	Type (Large/ Medium /Small/ Micro)	Manufacturing Process & Capacity	Address	Lat/ Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email	Site Operator Head Mobile Number
INDIAN METALS & FERRO ALLOYS LTD., CHOUDWAR, UNIT- I, II & III	Large	Manufacturing of High Carbon Ferro Crome - 108 MVA, Generation of Thermal Power 200 MW, Production of Fly Ash Bricks, Low Density Aggregate/ Light Weight	AT/P.O- Kapaleswar, Choudwar, Dist- Cuttack. Pin-754071	200 31' N 85O 54' E	Sri. Bijayananda Mohapatra	Sr. Vice President & EIC	bijayanandamohapatra@imfa.in	9777575659
Dalmia Cement (Bharat) Limited. Unit: Kapilas Cement Manufacturing Works	Large	Cement Manufacturing Process	At - Biswali, PO - Barunia, PS - Tangi Dist - Cuttack, PIN - 754082	Lat - 200 37'26'' to 200 37'53'' N Long - 850 59'45'' to 860 00' 23'' E	Sh Santosh Kr Singh	General Manager	singh.santosh@dalmiacement.com	9733280001
Manishri Refractories & Ceramics Pvt. Ltd.	Medium	Refractories	At/PO. Madhupatna, Cuttack-753010	20°27'30" N / 85°52'30" E	Rudraprasad Mohanty	Chief Operating Officer	srusti.mohanty.mrcpl@gmail.com	9437020617
RSB CASTINGS LTD	LARGE	CAST AUTO COMPONENTS	VLG;- MANIA, P:O- UCHAPADA, DT: CUTTACK,754022		S RATHINASAMY	COO/ FACTORY MANAGER	s.rathinasamy@rsbglobal.com	9944800226
Ferro Alloys Plant, Athagr, Tata Steel Mining Limited	Large Scale	2 X 16.5 MVA submerged arc furnace for the production of Ferro Alloys with	Anantapur, Dhurusia, Athgarh, Cuttack	Lat: 200 28'11" N to 200 28'56" N Long: 850 44'43" E to 850	Shri Sidharth Seth	Asst. Divisional Manager/ Factory Manager	sidharth.seth@tatasteelmining.com	9238407210

		capacity of 59400 TPA		45°11' E				
JK Lakshmi Cement Limited	Large	Cement & 0.75 MTPA	Radheshyampur, Ghantikhal, Cuttack	20°31'19.62" to 20°32'17.50"N / 85°44'1.06"E to 85°44'31.17"E	Girish Tiwari	Sr.GM	girish.tiwari@durg.jkmail.com	7077704788
Bhubaneswar Power Pvt. Ltd.	Large Scale	Thermal Power Generation, 135 MW	Anantapur, Dhurusia, Athgarh, Cuttack	Lat: 200 28'11" N to 200 28'56" N Long: 850 44'43" E to 850 45'11" E	Shri Debasish Pattnaik	Vice President/ Factory Manager	deb.pattnaik@bhubaneswarpower.com	7894433678

M/s. Aarti Steels Ltd.		Sponge Iron - DRI - Kiln I & II, 2x500 TPD	Ghantikhal, Mahakalabasta, Athagarh, Cuttack		Mr. Shreenibas Nayak	VP-Iron		9776969741
		WHRB Base Power Plant (DRI - I & II) - 2x10MW			Mr. P. Bhattacharyya	VP- Power Plant		9776011740
		CFBC Based Power Plant 1x50MW						
		AFBC Based Power Plant 1x30MW						
		Coal Washery 1 MTPA			Mr. Shreenibas Nayak	VP-Iron		9776969741
		Ferro Alloy Plant 2x9 MVA			Mr. Amitesh Sinha	VP-Steel & Ferro		9776556071
		Ferro Alloy Plant 1x18 MVA						
		Chrome Briquette - 25 Ton/hour (1x25TPH Briquette Plant)			Mr. Amitesh Sinha	VP-Steel & Ferro		9776556071

		Steel Melting SHOP (SMS a) Electric Arc Furnace (EAF) 1x35 Ton b) Vacuum De-Gasification (VD) 1x35 Ton c) Ladle Refinery furnace (LRF) & Billet Caster 2x26 Ton				Mr. Amitesh Sinha	VP-Steel & Ferro		9776556071
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9.2 Hazardous Chemical Storage Details

Table-9.2

Hazardous Chemical Storage Points Details											
Organis ation Name	Hazardous Chemicals/ Substances Name	Hazardous Chemicals Type (Flammable/ Reactive/ Explosive/ Toxic)	Hazardous Chemicals Quantity (Volumetric Capacity/	Type of Storage (Under Ground/ Submerged/	Type of Container (Spherical	Type of Alignment (Horizontal / Vertical)	Hazard Anticipated (Fire/Explosion/	MSDS	Vulnerable Zone in case of Emergency (Radius in Km/Meter)	Down wind Distance	Total Number of People in the Vulnerability Zone
			Max Qty can be Stored/ Inventory)	On the Ground/ Above Ground)	/Box Type/Cylindrical)	Toxic release)	(Material Safety Data Sheet) of the				

								<b>Chemicals</b>			
Pragati Milk Products Pvt.Ltd	<b>Ammonia</b>	<b>Hazardous</b>	<b>1200kg</b>	Above Ground)	<b>Ammonia Vessels</b>	Horizontal	<b>Toxic</b>	YES	0.2	0.2	500
Pragati Milk Products Pvt.Ltd	<b>Diesel (HSD)</b>	<b>Flammable/Explosive</b>	<b>600 ltrs</b>	Above Ground)	<b>Store in a HDPE Barrel</b>	Vertical	Explosive	YES	0.05	0.05	100
Pragati Milk Products Pvt.Ltd	<b>COAL</b>	<b>Flammable</b>	<b>30 TONs</b>	On the Ground/	<b>Coal Yard</b>		Fire	NO	0.02	0.02	10
Pragati Milk Products Pvt.Ltd	<b>Nitric Acid</b>	<b>Hazardous</b>	<b>1500kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Sulphuric Acid</b>	<b>Hazardous</b>	<b>300kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Caustic Soda Flakes</b>	<b>Hazardous</b>	<b>2000kg</b>	Above Ground)	<b>Store in a LDPE Bag</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Diversey VC 99</b>	<b>Hazardous</b>	<b>5000kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Diversy Pascal VAS</b>	<b>Hazardous</b>	<b>120Kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5

Pragati Milk Products Pvt.Ltd	<b>Diversy SU 321</b>	<b>Hazardous</b>	<b>2000Kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Alstasan Activ 150</b>	<b>Hazardous</b>	<b>1000kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Sodium Hydrochloride</b>	<b>Hazardous</b>	<b>300kg</b>	Above Ground)	<b>Store in a HDPE Jar</b>	Vertical	Toxic	YES	0.005	n/a	5
Pragati Milk Products Pvt.Ltd	<b>Packing Materials</b>	<b>Flammable</b>	<b>30 TON</b>	Above Ground)	<b>Fire Retardant Area</b>	Vertical	Toxic	YES	0.005	n/a	5

INDIAN METALS & FERRO ALLOYS LTD., CHOUDWAR, <b>UNIT- I, II &amp;III</b>	LDO, HSD, Sulphuric Acid (98%), Hydrochloric Acid (33 %), Caustic Lye (48%), Transformer Oil, Furnace Off gas (Containing 50 % CO ), Liquid Oxygen,	CO = Toxic, explosive. Transformer oil = Flammable.	<b>At Unit-I,</b> Light Diesel Oil (LDO)- 95 KL, HSD- 30 KL, Transformer Oil- 82.57KL, Liquid Oxygen- 5.1 KL, Furnace Off gas- 10000 to 15000 Nm3/Hr. <b>Unit-II,</b> Light Diesel Oil (LDO)- 31.6 KL, Transformer Oil- 69.34 KL, Liquid Oxygen- 10 KL <b>&amp; Unit-III,</b> Light Diesel Oil (LDO)- 100 KL, High Speed Diesel (HSD)- 1.45	Above Ground	Cylindrical & Vertical	Horizontal	Fire & explosion hazard due to transformer oil and CO gas. CO gas poisoning hazard.	<b>YES</b>	NA	NA	NA
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			KL, Transformer Oil- 127.33 KL, Furnace Off gas- 13500 Nm <sup>3</sup> /hr, Sulphuric Acid-17.5 MT, HCL-55 MT, Caustic Lye-60MT									
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Dalmia Cement (Bharat) Limited. Unit: Kapilas Cement Manufacturing Works	No Hazardous Chemicals used										
STP-1,CDA SECTOR-1	Chlorine gas		10.8 kg(12 nos of cylinders 900 kg capacity each tonner)	Over ground							
STP-1,CDA SECTOR-II	Chlorine gas		5.4 ton kg(6 nos of cylinders 900 kg capacity each tonner)	Over ground							
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	Chlorine gas		8 to9 nos of cylinders900 kg each .	Over ground							



JOYGURU COLD STORAGE PVT. LTD.	Ammonia		60 kg	Over ground							
Furnace Oil	Flammable	41 KL	Above Ground	Cylindrical	Vertical	Fire	YES	NA	NA	NA	
Liquid Oxygen	Flammable	13 KL	Above Ground	Cylindrical	Vertical	Fire	YES	NA	NA	NA	
Transformer Oil	Flammable	83 KL	Above Ground	Stored in Barrel (Under the Shed)	Vertical	Fire	YES	NA	NA	NA	
RSB CASTINGS LTD	USED OIL	FLAMMABLE	300LTRS PER YEAR	STORE IN A CONTAINER IN CLOSED ROOM ON CONCERT FLOOR	CYLINDRICAL	VERTICAL	FIRE	YES	NA		NA
JK Lakshmi Cement Limited	Used oil	Flammable	400 ltr	Above Ground	Cylindrical	Vertical	Fire	YES			Nil
Bhubaneswar Power Pvt. Ltd.	Light Diesel Oil (LDO)	Flammable	2 X 50 KL	Above Ground	Cylindrical	Vertical	Fire	YES	NA	NA	NA
Bhubaneswar Power Pvt. Ltd.	Hydrochloric Acid (HCL)	Reactive	2 X 10 T	Above Ground	Cylindrical	Horizontal	NA	YES	NA	NA	NA

Bhubaneswar Power Pvt. Ltd.	Sodium Hydroxide (NaOH)	Reactive	2 X 7 T	Above Ground	Cylindrical	Horizontal	NA	YES	NA	NA	NA
Bhubaneswar Power Pvt. Ltd.	Sulphuric Acid (H <sub>2</sub> SO <sub>4</sub> )	Reactive	2 X 16 T	Above Ground	Cylindrical	Horizontal	NA	YES	NA	NA	NA
Bhubaneswar Power Pvt. Ltd.	Hydrazine Hydrate (N <sub>2</sub> H <sub>4</sub> .H <sub>2</sub> O)	Toxic	500 L	On the Ground	HDPE Barrels	NA	NA	YES	NA	NA	NA
Bhubaneswar Power Pvt. Ltd.	Anhydrous Ammonia	Toxic	200 L	On the Ground	HDPE Barrels	NA	NA	YES	NA	NA	NA
M/s. Aarti Steels Ltd.	Light Diesel Oil		20KL	Above Ground (DRI)	Cylindrical	Horizontal	Fire	Yes			
M/s. Aarti Steels Ltd.	Light Diesel Oil		20KL	Above Ground (Power Plant)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	Furnace Oil		40KL (2X20KL)	Above Ground (SMS)	Cylindrical	Horizontal	Fire	Yes			
M/s. Aarti Steels Ltd.	Transformer Oil		2.09 KL	OnGround in Shed (Central Store)	Barrels	Horizontal	Fire	Yes			
M/s. Aarti Steels Ltd.	Liquid Oxygen		31.5KL	Above Ground (SMS)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	Liquid Oxygen		20KL	Above Ground	Cylindrical	Vertical	Fire	Yes			

				(SMS)							
M/s. Aarti Steels Ltd.	Furnace Oil		100KL	Above Ground (Rolling Mill)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	Furnace Oil		70KL	Above Ground (Rolling Mill)	Cylindrical	Horizontal	Fire	Yes			
M/s. Aarti Steels Ltd.	LDO		20KL	Above Ground (Rolling Mill)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	LDO		10KL	Above Ground (Rolling Mill)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	LPG		34KG	Above Gound (SMS)	Cylindrical	Vertical	Fire	Yes			
M/s. Aarti Steels Ltd.	LPG		34KG	Above Gound (FAP)	Cylindrical	Vertical	Fire	Yes			

## 9.2 Critical Facilities/Infrastructure situated within close proximity of the Factories/Industries or Chemical Storage Points

Table-9.3

Factories/ Industries Name	Critical Facilities (with in Close Proximity) Name	Facility Type (School, AWC Hospitals etc)	Location Address	Lat- Long	Facility in-charge Name	Facility in charge email	Facility in charge mobile number	Total Population in the Close Proximity
INDIAN METALS & FERRO ALLOYS LTD., CHOUWAR, UNIT- I, II & III	Nil	Kalinga Public School, Since 1969	Choudwar	20° 31' N 85° 54' E	Mrs. S Tripathy	–	9437039397	
INDIAN METALS & FERRO ALLOYS LTD., CHOUWAR, UNIT- I, II & III		Kalinga Public High School, Since 1965	Choudwar	20° 31' N 85° 54' E	Mr. S K Dixit	–	7978344236	
INDIAN METALS & FERRO ALLOYS LTD., CHOUWAR, UNIT- I, II & III		Kalinga Vidyapitha, Since 1961	Choudwar	20° 31' N 85° 54' E	Mr. G Acharya	–	9937482292	

Ferro Alloys Plant,Athagrh,Tata Steel Mining Limited	Community Health Centre, Berhampur	Hospital	Community Health Centre, Berhampur, Kakhadi, Athagarh, Cuttack		Dr. Dilip Kumar Das		9439994800	3400 (approx.)
Ferro Alloys Plant,Athagrh,Tata Steel Mining Limited	Anantapur Primary School, Anantapur	School	Anantapur Primary School, Anantapur, Dhurusia, Athagarh, Cuttack		Mr. Ajay Sethi		8249428252	3400 (approx.)
Ferro Alloys Plant,Athagrh,Tata Steel Mining Limited	Panchayat High School, Dhurusia	School	Panchayat High School, Dhurusia, Athagarh, Cuttack		Mr. Baikuntha Ch. Biswal		9438424005	3400 (approx.)
Ferro Alloys Plant,Athagrh,Tata Steel Mining Limited	Sastri Nodal UP School, Dhurusia	School	Sastri Nodal UP School, Dhurusia, Athagarh, Cuttack		Mr. Gadhadhar Das		9437666988	3400 (approx.)

Ferro Alloys Plant, Athagrh, Tata Steel Mining Limited	AWC, Anantapur	AWC	AWC, Anantapur, Dhurusia, Athagarh, Cuttack		Mrs. Sandhyarani Sahoo			3400 (approx.)
Ferro Alloys Plant, Athagrh, Tata Steel Mining Limited	AWC, Dhurusia	AWC	AWC, Dhurusia, Athagarh, Cuttack		Ms. Rubina Sahoo		7855022934	3400 (approx.)
Bhubaneswar Power Pvt. Ltd.	Community Health Centre, Berhampur	Hospital	Community Health Centre, Berhampur, Kakhadi, Athagarh, Cuttack		Dr. Dilip Kumar Das		9937671096	3400 (approx.)
Bhubaneswar Power Pvt. Ltd.	Anantapur Primary School, Anantapur	School	Anantapur Primary School, Anantapur, Dhurusia, Athagarh, Cuttack		Mr. Ajay Sethi		8249428252	3400 (approx.)
Bhubaneswar Power Pvt. Ltd.	Panchayat High School, Dhurusia	School	Panchayat High School, Dhurusia, Athagarh, Cuttack		Mr. Baikuntha Ch. Biswal		9438424005	3400 (approx.)

Bhubaneshwar Power Pvt. Ltd.	Sastri Nodal UP School, Dhurusia	School	Sastri Nodal UP School, Dhurusia, Athagarh, Cuttack		Mr. Gadhadhar Das		9437666988	3400 (approx.)
Bhubaneshwar Power Pvt. Ltd.	AWC, Anantapur	AWC	AWC, Anantapur, Dhurusia, Athagarh, Cuttack		Mrs. Sandhyarani Sahoo			3400 (approx.)
Bhubaneshwar Power Pvt. Ltd.	AWC, Dhurusia	AWC	AWC, Dhurusia, Athagarh, Cuttack		Ms. Rubina Sahoo		7855022934	3400 (approx.)
AARTI STEELS LTD.	Community Health Centre, Berhampur	Hospital	Community Health Centre, Berhampur, Kakhadi, Athagarh, Cuttack		Dr. Dilip Kumar Das		9439994800	

## 9.3 Statutory Compliance of the Factories/Industries

Table-9.4

Statutory Compliance			
Organisation Name	Status of licence under different Acts/Rules	Status of Safety &	Safety Management System
Pragati Milk Products Pvt.Ltd	Factories Act, 1948 & Orissa Factories Rules	Guidelines & Procedure Available	Status of Stability Certificate wrt plant & buildings
Pragati Milk Products Pvt.Ltd		Guidelines & Procedure Available	Constitution of Safety Committee and regular
Pragati Milk Products Pvt.Ltd	Consent under Air Act & Water Act from SPCB, Odisha		meetings
Pragati Milk Products Pvt.Ltd	NOC from Fire Department	Guidelines & Procedure Available	Deployment of Safety & Welfare Officers
Pragati Milk Products Pvt.Ltd	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		
Pragati Milk Products Pvt.Ltd	2001		Safety Report
Pragati Milk Products Pvt.Ltd			Safety Audit
Pragati Milk Products Pvt.Ltd			On Site Emergency Plan



Pragati Milk Products Pvt.Ltd			Risk Assessment Study
Pragati Milk Products Pvt.Ltd			Mock Drills
Pragati Milk Products Pvt.Ltd			Periodical Inspection
Pragati Milk Products Pvt.Ltd			Training & Awareness
INDIAN METALS & FERRO ALLOYS LTD., CHOUDWAR, UNIT- I, II & III	Factories Act, 1948 & Orissa Factories Rules	Submitted	Status of Stability Certificate wrt plant & buildings
	CK-445, CK-650 & CK-698	Constituted and meeting conducted.	Constitution of Safety Committee and regular meetings
	Consent under Air Act & Water Act from SPCB, Odisha	Renewal CTO of 80 MW PP and 120 MW PP (valid upto 31.03.2022) obtained from SPCB, Bhubaneswar. Renewal CTO of Unit I furnace & Unit II furnace obtained from SPCB BBSR valid up to 31.03.2026)	

	<b>NOC from Fire Department-</b> Inspection by Govt Fire Official Central Range Cuttack has been completed on 13/03/2021.	Deployed.	Deployment of Safety & Welfare Officers
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001	NA	
		On going Process	Safety Report
		On going Process	Safety Audit
		Approved & Updated OEP for Unit – III were submitted on 10.02.2021 . Updated OEP for Unit – I & II submitted on 19.02.21	On Site Emergency Plan
		<u>Risk Assesment study on Furnace Off gas (CO) pipeline conducted 18/04/2017.</u>	Risk Assessment Study
		Internal mock drill & Full scale mock drill conducted as per plan in presence of DCG group.	Mock Drills

		Inspection of boilers conducted by ADF&B	Periodical Inspection
		Training imparted as per Training Need Identification.	Training & Awareness
	Factories Act, 1948 & Orissa Factories Rules	Safety & Health Policy available, Stability certificates of Plant and buildings available	Status of Stability Certificate wrt plant & buildings
		Safety Committee constituted and meetings conducted once in a month.	Constitution of Safety Committee and regular
	Consent under Air Act & Water Act from SPCB, Odisha	Consent under Air Act & Water Act from SPCB, Odisha taken	meetings
	NOC from Fire Department	Applied for NOC after expire of first NOC and Fire Officer, Central Range, Cuttack visited our site on 06.04.21. Safety Officer & Welfare Officer deployed.	Deployment of Safety & Welfare Officers-
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001	Conducting safety audit periodically	Safety Report

		On Site Emergency Plan available and approved	Safety Audit
		Conducting Mock Drill periodically	On Site Emergency Plan
		Doing safety inspection and training/awareness program at site	Risk Assessment Study
			Mock Drills
			Periodical Inspection
			Training & Awareness
Manishri Refractories & Ceramics Pvt. Ltd.	Factories Act, 1948 & Orissa Factories Rules	Updated	Status of Stability Certificate wrt plant & buildings
		Updated	Constitution of Safety Committee and regular
	Consent under Air Act & Water Act from SPCB, Odisha		meetings
Manishri Refractories & Ceramics Pvt. Ltd.	NOC from Fire Department	In Process	Deployment of Safety & Welfare Officers
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001	Updated	
			Safety Report
Manishri Refractories & Ceramics Pvt. Ltd.			Safety Audit

Manishri Refractories & Ceramics Pvt. Ltd.			On Site Emergency Plan
			Risk Assessment Study
Manishri Refractories & Ceramics Pvt. Ltd.			Mock Drills
			Periodical Inspection
Manishri Refractories & Ceramics Pvt. Ltd.			Training & Awareness
STP-1,CDA SECTOR-1	Factories Act, 1948 & Orissa Factories Rules- CK 804, valid upto 31 dec 2021		Status of Stability Certificate wrt plant & buildings
STP-1,CDA SECTOR-1			Constitution of Safety Committee and regular
STP-1,CDA SECTOR-1	Consent under Air Act & Water Act from SPCB, Odisha		meetings
STP-1,CDA SECTOR-1	NOC from Fire Department	Safety Officer applied for approval pending for approval.	Deployment of Safety & Welfare Officers
STP-1,CDA SECTOR-1	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		
STP-1,CDA SECTOR-1	2001		Safety Report
STP-1,CDA SECTOR-1			Safety Audit

STP-1,CDA SECTOR-1			On Site Emergency Plan
STP-1,CDA SECTOR-1			Risk Assessment Study
STP-1,CDA SECTOR-1			Mock Drills
STP-1,CDA SECTOR-1			Periodical Inspection
STP-1,CDA SECTOR-1			Training & Awareness
STP-1,CDA SECTOR-II	Factories Act, 1948 & Orissa Factories Rules, CK - 838, valid upto 31 dec 2021		Status of Stability Certificate wrt plant & buildings
STP-1,CDA SECTOR-II			Constitution of Safety Committee and regular
STP-1,CDA SECTOR-II	Consent under Air Act & Water Act from SPCB, Odisha		meetings
STP-1,CDA SECTOR-II	NOC from Fire Department	Safety Officer applied for approval pending for approval.	Deployment of Safety & Welfare Officers
STP-1,CDA SECTOR-II	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		
STP-1,CDA SECTOR-II	2001		Safety Report
STP-1,CDA SECTOR-II			Safety Audit
STP-1,CDA SECTOR-II			On Site Emergency Plan

STP-1,CDA SECTOR-II			Risk Assessment Study
STP-1,CDA SECTOR-II			Mock Drills
STP-1,CDA SECTOR-II			Periodical Inspection
STP-1,CDA SECTOR-II			Training & Awareness
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	Factories Act, 1948 & Orissa Factories Rules, CK - 527 valid upto 31 dec 2023		
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Constitution of Safety Committee and regular
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	Consent under Air Act & Water Act from SPCB, Odisha		meetings
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	NOC from Fire Department	Has safety officer	Deployment of Safety & Welfare Officers
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR	2001		Safety Report

SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Safety Audit
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			On Site Emergency Plan
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Risk Assessment Study
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Mock Drills
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Periodical Inspection
SUVOCHEM INDUSTRIES PVT LTD(UNIT-II) JAGATPUR			Training & Awareness
JOYGURU COLD STORAGE PVT. LTD.	Factories Act, 1948 & Orissa Factories Rules, 356, valid upto 31 dec 2021		
JOYGURU COLD STORAGE PVT. LTD.			Constitution of Safety Committee and regular
JOYGURU COLD STORAGE PVT. LTD.	Consent under Air Act & Water Act from SPCB, Odisha		meetings



JOYGURU COLD STORAGE PVT. LTD.	NOC from Fire Department	No safety officer	Deployment of Safety & Welfare Officers
JOYGURU COLD STORAGE PVT. LTD.	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		
JOYGURU COLD STORAGE PVT. LTD.	2001		Safety Report
JOYGURU COLD STORAGE PVT. LTD.			Safety Audit
JOYGURU COLD STORAGE PVT. LTD.			On Site Emergency Plan
JOYGURU COLD STORAGE PVT. LTD.			Risk Assessment Study
JOYGURU COLD STORAGE PVT. LTD.			Mock Drills
JOYGURU COLD STORAGE PVT. LTD.			Periodical Inspection
JOYGURU COLD STORAGE PVT. LTD.			Training & Awareness
RSB CASTINGS LTD	Factories Act, 1948 & Orissa Factories Rules	COMPLIED	Status of Stability Certificate wrt plant & buildings
		CONSENT WAS VALID UPTO 31ST MARCH '21. NOW UNDER PROCESS IN SPCB FOR RENEWAL	Constitution of Safety Committee and regular
	Consent under Air Act & Water Act from SPCB, Odisha		meetings
	NOC from Fire Department	NA	Deployment of Safety & Welfare Officers

	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001		Safety Report
			Safety Audit
			On Site Emergency Plan
			Risk Assessment Study
			Mock Drills
			Periodical Inspection
			Training & Awareness
Ferro Alloys Plant, Athagrh, Tata Steel Mining Limited	<b>Factories Act, 1948 &amp; Orissa Factories Rules -</b> In force, License No. CK-655, valid up to 31-03-2022	<b>Safety &amp; Helath Policy - Yes</b>	<b>Status of Stability Certificate wrt plant &amp; buildings - Yes</b>
	<b>Consent under Air Act &amp; Water Act from SPCB, Odisha -</b> In force, CTO no. 4906/IND-I-CON-2166 dt: 24-03-2021, valid up to 31-03-2026		<b>Constitution of Safety Committee and Regular meetings - Yes</b>
	<b>NOC from Fire Department -</b> Under Progress		<b>Deployment of Safety &amp; Welfare Officers - Yes</b>

	<b>Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001 - Not Applicable</b>		<b>Safety Report - Yes</b>
			<b>Safety Audit - Yes</b>
			<b>On Site Emergency Plan - Yes</b>
			<b>Risk Assessment Study - Hazop Study done</b>
			<b>Mock Drills - Yes</b>
			<b>Periodical Inspection - Yes</b>
			<b>Training &amp; Awareness - Yes</b>
JK Lakshmi Cement Limited	Factories Act, 1948 & Orissa Factories Rules		Status of Stability Certificate wrt plant & buildings
		Valid upto 31/03/2023	Constitution of Safety Committee and regular
	Consent under Air Act & Water Act from SPCB, Odisha		meetings
	NOC from Fire Department	Under Process	Deployment of Safety & Welfare Officers
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules,		

	2001		Safety Report
			Safety Audit
			On Site Emergency Plan
			Risk Assessment Study
			Mock Drills
			Periodical Inspection
			Training & Awareness
Bhubaneswar Power Pvt. Ltd.	<b>Factories Act, 1948 &amp; Orissa Factories Rules</b> - In force, License No. CK-725, valid up to 31-12-2021	<b>Safety &amp; Helath Policy</b> - Yes	<b>Status of Stability Certificate wrt plant &amp; buildings</b> - Yes
	<b>Consent under Air Act &amp; Water Act from SPCB, Odisha</b> - In force, CTO no. 3702/IND-I-CON-6375 dt: 12-03-2021, valid up to 31-03-2023		<b>Constitution of Safety Committee and Regular meetings</b> - Yes
	<b>NOC from Fire Department</b> - Under Progress		<b>Deployment of Safety &amp; Welfare Officers</b> - Yes
	<b>Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001</b> - Not Applicable		<b>Safety Report</b> - Yes
			<b>Safety Audit</b> - Yes

			<b>On Site Emergency Plan -</b> Yes
			<b>Risk Assessment Study -</b> Hazop Study done
			<b>Mock Drills -</b> Yes
			<b>Periodical Inspection -</b> Yes
			<b>Training &amp; Awareness -</b> Yes
			Periodical Inspection
			Training & Awareness
M/s. Aarti Steels Ltd.	Factories Act, 1948 & Orissa Factories Rules  <b>Registration No. CK-647</b> <b>Sl. No.- 04730</b> <b>DoE: 31.12.2021</b>	AVAILABLE	Status of Stability Certificate wrt plant & buildings
	Consent under Air Act & Water Act from SPCB, Odisha  <b>3266/IND-I-CON/4904 Dt.</b> <b>21.032018 Validity Up to</b> <b>31.03.2023</b>  <b>10254/IND-I-CON/4904</b> <b>Dt. 01.10.2019 Validity</b> <b>Up to 31.03.2023</b>		Constitution of Safety Committee and regular meetings

	NOC from Fire Department <b>NA</b>		Deployment of Safety & Welfare Officers
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001		Safety Report
			Safety Audit
			On Site Emergency Plan
			Risk Assessment Study
			Mock Drills
			Periodical Inspection
			Training & Awareness
M/s. Aarti Steels Ltd.	Factories Act, 1948 & Orissa Factories Rules <b>Registration No. CK-647</b> <b>Sl. No.- 04730</b> <b>DoE: 31.12.2021</b>	AVAILABLE	Status of Stability Certificate wrt plant & buildings

M/s. Aarti Steels Ltd.	Consent under Air Act & Water Act from SPCB, Odisha  <b>3266/IND-I-CON/4904 Dt. 21.032018 Validity Up to 31.03.2023</b>  <b>10254/IND-I-CON/4904 Dt. 01.10.2019 Validity Up to 31.03.2023</b>		Constitution of Safety Committee and regular meetings
M/s. Aarti Steels Ltd.	NOC from Fire Department  <b>NA</b>		Deployment of Safety & Welfare Officers
M/s. Aarti Steels Ltd.	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001		Safety Report
M/s. Aarti Steels Ltd.			Safety Audit
M/s. Aarti Steels Ltd.			On Site Emergency Plan
M/s. Aarti Steels Ltd.			Risk Assessment Study
M/s. Aarti Steels Ltd.			Mock Drills
M/s. Aarti Steels Ltd.			Periodical Inspection
M/s. Aarti Steels Ltd.			Training & Awareness

#### 9.4 Nearest Hospital Details of the Factories/Industrial Units Table-9.5

Organisation Name	Nearest Hospitals (Govt/Private) Name	Hospital Address	District Name	City	Pin Code	Lat-long	Chief Medical Officer / Hospital Superintendent Name	Chief Medical Officer / Hospital Superintendent Mobile Number	Chief Medical Officer / Hospital Superintendent Email	Infrastructural Facilities
Pragati Milk Products Pvt.Ltd	Sadguru Medical & Research Centre Pvt Ltd	Jagatpur Industrial Estate	Cuttack,	Cuttack,	754021	20.49 - 85.94	Dr. Ashok Kumar Mohanty	7205096011	mail@sadgurumedical.com,	
Pragati Milk Products Pvt.Ltd	Nimpur UPHC	Nimpur	Cuttack,	Cuttack,	754021	20.49 - 85.94	Govt PHC	N/A	<a href="mailto:jagatpur.uphchwc@gmail.com">jagatpur.uphchwc@gmail.com</a>	
Pragati Milk Products Pvt.Ltd	ESIC Hospiptal	Jagatpur Industrial Estate	Cuttack,	Cuttack,	754021	20.49 - 85.94	Govt ESIC	N/A		



INDIAN METALS & FERRO ALLOYS LTD., CHOUDWAR, UNIT- I, II &III	ESI Cottage Hospital / Jansevak Hospital & SCB Hospital	Choudwar & Cuttack	Cuttack	Choudwar	754071		Dr. Sanjukta Lenka, Joint Director Medical Superintendent ESI Choudwar	70087779 58	NA	ICU,BURN WARD,VENTILATOR,AMBULANCE
Dalmia Cement (Bharat) Limited. Unit: Kapilas Cement Manufacturing Works	Community Health Centre	At - Tangi PS - Tangi PO - Kotasahi	Cuttack	Cuttack	754022		Dr Madhusmita Nayak	94371279 64		ICU,BURN WARD,VENTILATOR,AMBULANCE
Manishri Refractories & Ceramics Pvt. Ltd.	SCB Medical College & Hospital	Mangalabag, Cuttack	Cuttack	Cuttack	753007		Dr. Manorama Dei	99370209 64		ICU, BURN WARD, VENTILATOR, AMBULANCE

Manishri Refractories & Ceramics Pvt. Ltd.	Khapuria ESI Dispensary, Cuttack	Kalyani Nagar, Cuttack	Cuttack	Cuttack	753010		Dr. Manorama Dei	9937020964		ICU, BURN WARD, VENTILATOR, AMBULANCE
RSB CASTINGS LTD	TANGI PH/ SCB MEDICAL	TANGI	CUTTACK	TANGI	754022	NA		0671-2301007		ICU, BURN WARD, VENTILATOR, AMBULANCE
Ferro Alloys Plant, Athgarh, Tata Steel Mining Limited	Community Health Centre, Berhampur	Berhampur, Kakhadi, Athgarh, Cuttack	Cuttack	Cuttack	754027	Lat: 20°29'46"N Long: 85°45'40"E	Dr. Dilip Das	9439994800		ICU, BURN WARD, VENTILATOR, AMBULANCE
JK Lakshmi Cement Limited	CHC	Berhampur	Cuttack	Athgarh	754029	20°31'19.62" to 20°32'17.50"N-85°44'1.06"E to 85°44'31.17"E	Dr. Dilip Das	9439994800	<a href="mailto:bpumberhampur@gmail.com">bpumberhampur@gmail.com</a>	WARD, OPD, AMBULANCE

Bhubaneswar Power Pvt. Ltd.	Community Health Centre, Berhampur	Berhampur, Kakhadi, Athgarh, Cuttack	Cuttack	Cuttack	754027	Lat: 20°29'46"N Long: 85°45'40"E	Dr. Dilip Das	9937671096		
M/s. Aarti Steels Ltd.	Govt	CHC Barhampur	Cuttack	Nuasasan	754029		Dr. Dilip Das	9439994800		ICU
M/s. Aarti Steels Ltd.	Govt	PHC, Khunutuni	Cuttack	Khuntuni	754029					BURN WARD
M/s. Aarti Steels Ltd.	Private	GIMSAR, Madhaput	Cuttack	Mahakala basta	754029		Dr. R N Mishra	9937099091		VENTILATOR
M/s. Aarti Steels Ltd.	Govt	Sub Divisional Hospital	Cuttack	Athagarh	754029		Dr. Bijay K Mishra	9439994802		AMBULANCE

## 9.5 Nearest Fire Station of the Factories/Industries

Table-9.6

Fire Stations Details											
Organisation Name	Area fire station name	Hospital address	District Name	City	Pin code	Lat-long	Fire Officer Name	Fire Officer Designation	Fire Officer Email-id	Fire Officer Mobile Number	Facilities Available
Pragati Milk Products Pvt.Ltd	Fire Station,Mahanadi Vihar	Sadguru Medical & Research Centre Pvt Ltd	Cuttack	Cuttack	753004	20.49 - 85.94	Nirmal Ku.Singh	officer in-charge	n/a	9861441882	Fire,Tender/Capacity,Foam Materials,Hoods
INDIAN METALS & FERRO ALLOYS LTD., CHOUDWAR, UNIT- I , II & III	Tangi Choudwar Fire Station	ESI Cottage Hospital /Jansevak Hospital & SCB Hospital	Cuttack	Choudwar	754071		Sri Jay Mangal Swain	Fire Station Incharge	focr-ctc@gov.in	0671-2494111	Fire,Tender/Capacity,Foam Materials,Hoods

Dalmia Cement (Bharat) Limited. Unit: Kapilas Cement Manufacturing Works	Buxibazar, Cuttack		Cuttack	Cuttack	754000		Sh BB Das	Ch. Fire Officer		0671-2307825/3688	Fire,Tender/Capacity,Foam Materials,Hoods
Manishri Refractories & Ceramics Pvt. Ltd.	Fire Station Buxi Bazar.		Cuuack	Cuttack	753001		Abani Kumar Swain	Asst. Fire Officer			Fire,Tender/Capacity
Manishri Refractories & Ceramics Pvt. Ltd.	Fire Brigade Office, Naya Bazaar		Cuttack	Cuttack	753010						Foam Materials,Hoods
RSB CASTINGS LTD	CHOU DW AR		CUTTA CK	CHOU DW AR		NA	NA	NA	NA	101 / 0671-2306409	Fire,Tender/Capacity,Foam Materials,Hoods

Ferro Alloys Plant, Athgarh, Tata Steel Mining Limited	Fire Station, Athgarh	Community Health Centre, Berhampur	Cuttack	Cuttack	754029		Shri Dusmant Swain	Asst. Fire Officer		7894879102	Fire, Tender/Capacity, Foam Materials, Hoods
JK Lakshmi Cement Limited	Athgarh	CHC, Berhampur	Cuttack	Athgarh	754029	20 031'19 .62" to 200 32' 17.50" N-850 44'1.0 6"E to 850 44'.31. 17"E	Dusmanta Swain	Inspector	<a href="mailto:athgarhfs06@gmail.com">athgarhfs06@gmail.com</a>	7894879102	Fire Tender
Bhubaneswar Power Pvt. Ltd.	Fire Station, Athgarh	Community Health Centre, Berhampur	Cuttack	Cuttack	754029		Shri Dusmant Swain	Asst. Fire Officer		7894879102	
M/s. Aarti Steels Ltd.	Athgarh	Sub Divisional Hospital	Cuttack	-	754029		Mr. D Swain	Incharge- Fire Station	-	9861647364	Fire, Tender/Capacity, Foam Materials, Hoods

### 9.7 Stakeholders to be informed in case of an Industrial Accident

**Table-9.7**

Designation	Organisation/ Department name	Name	Mobile Number	Office Phone	Email
Nodal Officer,	SRC				
Controlling Officer, Supervising Officer					
District Project Officer	OSDMA	Bapi Bishwajit Sahoo	9861126954		
	District Administration (Collector, Emergency Officer, ADM)	BHABANI SHANKAR CHAINI	0671-2301001		
	Home department				
	State pollution control board	SOHAN GIRI	9438883891		
	RTO				
	Department of Factories and Boiler	CHITA RANJAN BEURA	9438300070		
	CSO				
	NDRF				

	ODRAF				
	NGO				
	FIRE	DIST FIRE OFFICER			
	OIL INDUSTRIES (HPCL, BPCL, IOCL)				
Nodal Officer,	SRC				
Regional Officer	State pollution control board	Mr. Sohan Giri	9437278633		
	RTO				
Asst. Director	Department of Factories and Boiler	Er. Chittaranjan Beura	9438300070		<a href="mailto:chitta_19@yahoo.co.in">chitta_19@yahoo.co.in</a>
	CSO				
Commandant	NDRF	Mr. Jacob Kispota	9437964571		
	ODRAF				
	NGO				
Asst. Fire Officer	FIRE	Abani Kumar Swain	9938382010		
	OIL INDUSTRIES (HPCL, BPCL, IOCL)				
Nodal Officer,	SRC				
Controlling Officer, Supervising Officer					
	OSDMA	Dr. M K Pradhan	9439210915		



	District Administration (Collector, Emergency Officer, ADM)	Mr. Bhabani Shankar Chaini (Collector) Bijaya Ku Khandayat Ray (Adm- Misc)	9437170693 9437325464		
	Home department				
	State pollution control board	Mr. S K Panda	9439338788		
	RTO	Mr. Sanjay Behera			
	Department of Factories and Boiler	Mr. Abani Nayak (Dy. Director) Cuttack Office	9437503877		
	CSO				
	NDRF				
	ODRAF	Maheswar Swain	9437056220		
	NGO				
	FIRE	Mr. Babu (DFO)	9853117001		

## **B. Nuclear & Radiological Disaster:**

India has traditionally been vulnerable to natural disasters on account of its unique geo climatic conditions and it has, of late, like all other countries in the world, become equally vulnerable to various man-made disasters. Nuclear and Radiological Emergencies as one such facet of man-made disasters is of relevance and concern to us. Any radiation incident resulting in or having a potential to result in exposure and/or contamination of the workers or the public in excess of the respective permissible limits can lead to a Nuclear/Radiological Emergency

For improving the quality of life in society, India has embarked upon a large programme of using nuclear energy for generation of electricity. As on date, India has 17 power reactors and five research reactors in operation along with six power reactors under construction. It is also planned to explore setting up Thorium based reactors to meet its ever-increasing energy needs. Further, the country utilizes radioisotopes in a variety of applications in the non-power sector, viz., in the field of industry, agriculture, medicine, research, etc. Due to the inherent safety culture, the best safety practices and standards followed in these applications and effective regulation by the Atomic Energy Regulatory Board, the radiation dose to which the persons working in nuclear/radiation facilities are exposed to, is well within the permissible limits and the risk of its impact on the public domain is very low.

However, nuclear emergencies can still arise due to factors beyond the control of the operating agencies; e.g., human error, system failure, sabotage, earthquake, cyclone, flood, etc. Such failures, even though of very low probability, may lead to an on-site or off-site emergency. To combat this, proper emergency preparedness plans must be in place so that there is minimum avoidable loss of life, livelihood, property and impact on the environment.

Although, the State of Odisha does not have any major Nuclear/Radiological set up or power plants, still the Districts need to be prepared in case of any Emergencies especially Medical Preparedness and Capacity Building of the Response Forces. Mock Exercises on Nuclear and Radiological Disasters or Emergencies at regular intervals is also highly essential. Districts are required to keep and updated the following information given in the table ever year for minimizing the risk of Nuclear/Radiological Disaster.

## Chapter-10

### Biological Disaster and Public Health in Emergencies: -

#### 10.1 Biological Disaster Management & Medical Preparedness

Biological disasters, be they natural or man-made, can be prevented or mitigated by proper planning and preparedness. The primary responsibility of managing biological disasters vests with the state government. The central government would support the state in terms of guidance, technical expertise, and with human and material logistic support to develop the policies, plans and guidelines for managing biological disasters in accordance with the national guidelines and those laid down by SDMAs.

The H&FW would be the nodal Department for managing biological disasters in the State. Further, Home department will be the nodal for Bio-terrorism, Bio War, F&ARD Department will be the nodal department for animal health and Agriculture & Farmers Empowerment Department will be the nodal department for agro-terrorism. Besides, the community, medical care, public health and veterinary professionals, etc., must also remain in complete preparedness for such eventualities.

**Table 10.1 Nodal Departments for Managing Biological Disaster**

Sl No.	Bio Disaster	Nodal Department	Contact person	Contact details (Office/Mobile)
1	Biological Disaster	H&FW Department	CDMO (District)	Dr. Satyabrata Chotray 9437029020
2	Bio Terrorism/ War	Home Department	SP	Shri Jugal Kishor Kumar Banoth,IPS. 9438916200
3	Animal Health Disaster	F&ARD Department	CDVO (District)	Dr. Madhusudan Subudhu 9437360145
4	Agro - Terrorism	A&FE Department	CDAO	Sri Sanajy Mohanty 9437205093

#### 10.2 Legal Framework

Stringent Legal frameworks must be drawn & enforced in order to:

- Prevention, mitigation and control of the spread of biological disaster at all level.
- Managing the prevailing and foreseeable public health concerns, threat of biological weapons by adversaries and cross-border issues.
- Notify the affected area, restrict movements or quarantine the affected area, enter any premises to take samples of suspected materials and seal them.
- Establish controls over biological sample transfer, biosecurity and biosafety of materials/laboratories.

#### 10.3 Institutional & Operational Framework

SDMA will coordinate all the disasters including those of biological origin in the state. A multi-sectoral approach must be adopted involving H&FW, Home Department, PR&DW, SSEPD, F&ARD and A&FE.

- The intelligence and deterrence required & the management structure must be identified and strengthened so as to act as one crisis management structure, committees, task forces and technical expert groups preferably within the Nodal department

**Table 10.2- Crisis Management Committee**

SL	Member	Dept./Instt.	Contact Details
1	Sri Bhabani Sankar Chayani	Collector & District Magistrate	9437170693
2	Cittaranjan Behera	Asst. Director Factories and Boilers I	9438300070
3	Prateek Singh	DCP, Cuttack	9438035109
4	Purna Chandra Mishra	ADM (REV)	9438290100
5	Chandra Sarathi Behera	MLA Sadar Cuttack	9437227887
6	Ranendra Pratap Swain	MLA Athagarh	9658651986
7	Souvic Biswal	MLA Choudwar-Cuttack	9437225423
8	Mohammad Moquim	MLA Cuttack , Barabati	9437011009
9	Shri Jugal Kishor Kumar Banoth,IPS.	SP, Rural Cuttack	9438916200
10	N N Rajalaxmi Ojha	District Emergency Officer	7008136201
11	Abani Kumar Swain	Asst. Fire Officer Cuttack	7978035233
12	Ashok Saranghi	DIPRO, Cuttack	9938231484
13	Krushna Chandra Nayak	District Educational Officer	9437089771
14	Dr. Luci Dash	Superintendent SCB Medical College	9437255580
15	Dr. Satyabrata Chotray	CDMO Cuttack	9439990009
16	Niranjan Das	Chief District Agriculture, Cuttack	9439650016
17	Suresh Ch Rout	E.E. RWSS-I, Cuttack	8280408036
18	Kalucharan Behera	E.E. RWSS-II, Athagarh	9437032412
19	S.K. Behera	Regional Transport Officer	9437940399
20	Ananya Das	Commissioner CMC	9602198337
21	Bijay Chandra Pradhan	Commandant, ODRAF, 6th B.N	9437656060
22	Pritibandhan Ghadei	District Labor Officer	8763160562
23	Cittaranjan Behera	Asst. Director Factories and Boilers I	9438300070
24	Chandrakant Dalei	Asst. Director Factories and Boilers II	9437167924
25	Dr. Madhusudan Subudhi	CDVO Cuttack	9437360145

**Table 10.3 Task Force**

SL	Member	Dept./Instt.	Contact Details
	Cittaranjan Behera	Asst. Director Factories and Boilers I	9438300070
	Chandrakant Dalei	Asst. Director Factories and Boilers II	9437167924

	Pratap Chandra Beura	Sub-Collector, Sadar, Cuttack	9437639901
	Hemanta Kumar Swain	Sub-Collector, Athagarh	9437169732
	Ranjan Ku. Jena	Sub-Collector, Banki	9437208573
	Dr. Satyabrata Chotray	CDMO Cuttack	9439990009
	Dr. Madhusudan Subudhi	CDVO, Cuttack	9437360145
	Prateek Singh	DGP, Cuttack	9438035109
	Shri Jugal Kishor Kumar Banoth,IPS.	SP, Rural Cuttack	9438916200
	Bijay Chandra Pradhan	Commandant, ODRAF, 6th B.N	9437656060
	Sr. Jacob Kispotta	Commandant, NDRF	9437581614
	Abani Kumar Swain	Asst. Fire Officer Cuttack	7978035233
	N N Rajalaxmi Ojha	District Emergency Officer	7008136201
	S.K. Behera	Regional Transport Officer	9437940399
	Ambar Kumar Kar	Project Director, DRDA, Cuttack	9437147188
	Rasmita Priyadarshini	RO SPCB	7008841815
	Krushna Chandra Nayak	District Educational Officer	9437089771

**Table 10.4 Technical Experts**

SL	Member	Dept./Instt.	Contact Details
1	Sr. Jacob Kispotta	Commandant, NDRF	9437581614
2	Bijay Chandra Pradhan	Commandant, ODRAF, 6th B.N	9437656060
3	Abani Kumar Swain	Asst. Fire Officer Cuttack	7978035233

Name and Address of Organization	Name of the trained staff/Person	Trained on	Contact Details
CDM & PHO office	Dr Nilakhi Sirkar DPHO	Medical Response & quarantine Care	9439995017
CDM & PHO office	Dr. Nursingha Behera (Epidemiologist)	Medical Response & quarantine Care	7008325853
CDM & PHO office	Dilip Kumar Tarai (Epidemiologist)	Medical Response & quarantine Care	9439990015

DHH, Cuttack	Dr. Nihar Tanja Tripathi (Pathologist)	Medical Response & quarantine Care	9437080602
DHH, Cuttack	Dr. Akhya Kumar satapathy (Pead)	Medical Response & quarantine Care	9437408855

- A public health institution of eminence, matching international standards needs to be created, with following measures:
  - All existing public health institutions providing technical expertise in the area of field epidemiology, surveillance, teaching, training, research, etc., need to be strengthened. The core capacity needs to be developed for surveillance, border control at ports and airports, quarantine facilities, etc.
  - Each District will strengthen its public health infrastructure, including public health institutions which would collect epidemiological intelligence, share information with IDSP, provide for outbreak investigations and manage outbreaks.
  - Hospitals will develop capabilities to attend to mass casualties and public health emergencies with isolation facilities. In the districts, DDMA's will provide the requisite management structure for district DM functioning in the requirements for managing biological disasters.
- The strategic approach for management of biological disasters must be done with responsible participation of the government, private sector, NGOs and civil society.

### 10.5 Nodal Public Health Institution

Name of the Institution, Address & Contact details of the contact (Nodal) Person	No. of trained Doctors (Biological Disaster)	No. of trained Paramedical staffs (Biological Disaster)	Facilities available	Equipment's available
SCB MCH Dr. Santosh Kumar Swain (7848812570)	All	All	ICU, Ventilator & Oxygen facilities available	All
ASWINI COVID Hospital, DCH Dr. Bibhuti Bhusan Nayak	All	All	ICU, Ventilator & Oxygen facilities available	All
Sadguru Hospital Dr. Santosh Kumar Sahoo, Spl. ENT (9438082192)	All	All	ICU, Ventilator & Oxygen facilities available	All
SHRUSTI Hospital Dr. Promod Kumar Dey 9437163046	All	All	ICU, Ventilator & Oxygen facilities available	All
South Point Hospital Dr. Narayan Sethi (7325919964)	All	All	ICU, Ventilator & Oxygen facilities available	All
Unique Hospital Dr. Sachidananda Satapathy (9437001673)	All	All	ICU, Ventilator & Oxygen facilities available	All

Omm Subham Dr. Bibhuti Bhusan Nayak (9437005437)	All	All	ICU, Ventilator & Oxygen facilities available	All
Rudra Hospital Dr. Promod Kumar Dey 9437163046	All	All	ICU, Ventilator & Oxygen facilities available	All
GIMSAR Dr. Subhasis Das, CHC Berhampur 7008681218	All	All	ICU, Ventilator & Oxygen facilities available	All
BOSE Computer Lab CCC Dr Manabhanjan Satapathy 9437112977	All	All	( Isolation Beds) available without Oxygen	All
IMIT CCC Dr Manabhanjan Satapathy 9437112977	All	All	( Isolation Beds) available without Oxygen	All
High Court CCC Dr. Debajani Das (9439505800)	All	All	( Isolation Beds) available without Oxygen	All
L & T Balikuda CCC Dr. Sanjaya Swain (9437029089)	All	All	( Isolation Beds) available without Oxygen	All
Govt. ITI Boys Hostel, Khapuria Dr. Sanjaya Swain (9437029089)	All	All	( Isolation Beds) available without Oxygen	All
Badamba CCC Dr. Udayajyoti Mallick (9439020164)	All	All	( Isolation Beds) available without Oxygen	All
DRIEMS CCC Dr. Madhusmita Nayak 9437127964	All	All	( Isolation Beds) available without Oxygen	All
Dr. Subhasis Das, CHC Berhampur 7008681218	All	All	( Isolation Beds) available without Oxygen	All
Popara, Tigiria, CCC Dr. Laxmi Jashmine Rout 9437127964	All	All	( Isolation Beds) available without Oxygen	All
Narsinghpur (DIET) CCC Dr. Saroj Kumar Dsah 7855006810	All	All	( Isolation Beds) available without Oxygen	All
Amrapalli, Baranga CCC Dr. Subash Gochhyat 9439371116	All	All	( Isolation Beds) available without Oxygen	All
BOSE Vivekananda New Hostel CCC Dr Manabhanjan Satapathy 9437112977	All	All	( Isolation Beds) available without Oxygen	All

Swami Chidananda Inst. Of Medical Science CCC	All	All	( Isolation Beds) available without Oxygen	All
Sri Sri Collage of Ayurvedic Science and Reserch Ravi Shanka University CCC Dr. Arpita Priyadirsani	All	All	( Isolation Beds) available without Oxygen	All
SAI Samartha Hospital Jatamundia, Banki CCC Dr .Nilipta Mohanty(8658171575)	All	All	( Isolation Beds) available without Oxygen	All

### 10.6 Collaborative Institutions

Name of the NGO/CSO/ Private Sector	Expertise	Contact Person	Contact Details (Number & Email ID)	Address
Utkal Sevak Samaj	Disaster Management, Reproductive Child Health, HIV & AIDS Prevention & Control, Child care, water & Sanitation, Psycho-social care & Mental Health	Pramod Kumar Ojha	9437036135	Nuasahi, Gandarpur, Cuttack- 753003
Women &Child Welfare Society	Awareness on Fuel and Energy saving (Petroleum Consumption), Child Labor Prevention, Road safety, Climate Change & Energy Consumption		9437534224	Cuttack
Suprativa	Social Sector	Pramod Kumar Das	8763356348	Fakirpada, Biribati Cuttack, pin-754100
Banki Anchalika Adibasi Harijan Kalyan Parisad	Tribal Affair, Social Empowerment, Old Age Home, PRI Training, Disaster Management	Barendra Behera	7978652874	Banki, Cuttack
Maa Bindhyabasini CCI	Child Welfare		8917474559	Narsinghpur, Cuttack
Committee for Legal Aid to poor(CLAP)	Human Rights, Legal Aid to poor, Legal literacy		9439062986	At- Bimaladevi Memorial Building, Sector- 6, Markat Nagar, CDA, Cuttack- 753014



AWAHAN	Mother & Child Health		9437441224	Sector-7, CDA, Cuttack-14
The Sanskara	Education, Sanitation, Agriculture, Skill Development, IGP & Rehabilitation	Mr Anil kumar Mohanty.	9439041997	Jobra Mallhasahi, P-College Square, Cuttack-753003
Netaji Smaraki Pathagar	Education, Health & Environment	Pradipta Mohan Kanungo	9439007923	Babaja,Uttarna, Cuttack
Sabitri Janaseva	Mother & Child Health		9861197679	At- Bakhrabad P-Chandinichowk, PS- Purighat
Basudev Pathagara	Education, Health & Environment		9437411541	Niali, Cuttack
Uddhar Foundation	Reproductive Child Health, HIV & AIDS Prevention & Control, Child care, water & Sanitation	Narottam Das	9853853298	Tangi Choudwar, Cutack

#### 10.4 Preventive Measures

Prevention and preparedness shall focus on the assessment of bio-threats, medical and public health consequences, medical countermeasures and long-term strategies for mitigation. The important components of prevention and preparedness would include

- An epidemiological intelligence gathering mechanism to deter a BW/ BT attack;
- A robust surveillance system that can detect early warning signs, decipher the epidemiological clues to determine whether it is an intentional attack;
- Capacity building for surveillance, laboratories, and hospital systems that can support outbreak detection, investigation and management.
- Developing a biological disaster response plan
- Pre-exposure immunization (preventive, if available any) of first responders against anthrax and smallpox must be done to enable them to help victims' post-exposure.

##### 10.4.1 Pre-Disaster Preventive Measures

- Important buildings and those housing vital installations need to be protected against biological agents wherever deemed necessary through security surveillance.
- Restricting the entry to authorized personnel only by proper screening,
- Installation of High Efficiency Particulate Air (HEPA) filters in the ventilation systems to prevent infectious microbes from entering the circulating air inside critical buildings.
- Those exposed to biological agents may not come to know of it till symptoms manifest because of the varied incubation period of these agents. A high index of suspicion and awareness among the community and health professionals will help in

the early detection of diseases.

- Environmental monitoring can help substantially in preventing these outbreaks.
  - Water Supply: A regular survey of all water resources, especially drinking water systems, & proper maintenance of water supply and sewage pipeline will go a long way in the prevention of biological disasters and epidemics of water borne origin.
  - Personal hygiene: Necessary awareness must be created in the community about the importance of personal hygiene, and measures to achieve this, including provision of washing, cleaning and bathing facilities, and avoiding overcrowding in sleeping quarters, etc. Other activities include making temporary latrines, developing solid waste collection and disposal facilities, and health education.
  - Environmental engineering work and generic integrated vector control measures including.
    - Elimination of breeding places by water management, draining of stagnant pools and not allowing water to collect by overturning receptacles, etc.
    - Biological vector control measures e.g. Gambusia fish, as an important measure in vector control.
    - Outdoor fogging and control of vectors by regular spraying of insecticides.

**Table 10.7 Important/Critical Infrastructure**

SI	Infrastructure/ Institution Type	Dept./Instt.	Contact person with contact Details				
SI	Block	Name and Address of Health Centre	Facilities (Numbers)			Facility In-charge	
			Wards	Beds	Ventil ators	Name	Contact
1	Narsinghpur	Kanpur CHC	2	16	0	Dr. Debasish Jethy	7750910542
2	Tigiria	Bindhanima CHC	2	6	0	Dr. Biswabikas Routray	9439830849
3	Badamba	Manaibandha	2	30	0	Dr. Biswanath Adhek	9439998764
4	Banki	Subarnapur CHC	2	6	0	Dr. Amaresh Sahoo	9439990245
5	Dompada	Dompada CHC	2	6	0	Dr. Bishwajit Panda	9439990458
6	Mahanga	Mahanga CHC	3	50	0	Dr. Tanmaya Kumar Behera	9438331331
7	Nischintakoili	Nischintakoili CHC	2	6	0	Dr. Amit Kumar Jena	9439990300
8	Salipur	Salipur CHC	2	16	0	Dr. Amit Kumar Jena	9439990300
9	Tangi	Tangi CHC	2	16	0	Dr. Madhusmita Nayak	9439995475
10	Cuttack sadar	Bentkar CHC	2	6	0	Dr. Basanta Kumar Sahoo	9439995055
11	Niali	Niali CHC	2	16	0	Dr Saminani Naveen	9439995078

12	Kantapada	Kantapada CHC	2	16	0	Dr Basudev Marandi	9439995222
13	Baranga	Mahidharpada CHC	2	6	0	Dr. Subash chandra Gochhayat	9439371116
14	Athagarh	Berhampur CHC	2	6	0	Dr. Dilip Kumar Das	9439994800
15	Athagarh	Athagarh SDH	5	70	0	Dr. Bijaya Kumar Mishra	9439994802
16	Banki	Banki SDH	5	60	0	Dr. Mrutyunjaya Mahapatra	9437023444
17	Cuttack M. Corp	CDA UCHC	2	16	0	Dr. Kanti Naik	9437666452
18	Cuttack M. Corp	Chauliaganj UCHC	2	16	0	Dr. Pradip Kumar Mallick	9337454077
18	Cuttack M Corp	DHH Cuttack	6	130	0	Dr. Sudhanshu Sekhara Giri	9439990016

#### 10.4.2 Post-Disaster Preventive Measures

- When exposure is suspected, the affected persons shall be quarantined and put under observation for any atypical or typical signs and symptoms appearing during the period of observation.
- Health professionals who are associated with such investigations will have adequate protection and adopt recognized universal precautions.
- It often may not be possible to evolve an EWS. However, sensitization and awareness will ensure early detection.
- Dead bodies resulting from biological disasters increase risk of infection if not disposed off properly. Burial of a large number of dead bodies may cause water contamination. With due consideration to the social, ethnic and religious issues involved, utmost care will be exercised in the disposal of dead bodies.

#### 10.7 Infrastructure that can be used as quarantine centres

Sl	Block	Name and Address of Health Centre	Facility In-charge	
			Name	Contact
1	Narsinghpur	Kanpur CHC	Dr. Debasish Jethy	7750910542
2	Tigiria	Bindhanima CHC	Dr. Biswabikas Routray	9439830849
3	Badamba	Manaibandha	Dr. Biswanath Adhek	9439998764
4	Banki	Subarnapur CHC	Dr. Amaresh Sahoo	9439990245
5	Dompada	Dompada CHC	Dr. Bishwajit	9439990458

			Panda	
6	Mahanga	Mahanga CHC	Dr. Tanmaya Kumar Behera	9438331331
7	Nischintakoili	Nischintakoili CHC	Dr. Amit Kumar Jena	9439990300
8	Salipur	Salipur CHC	Dr. Amit Kumar Jena	9439990300
9	Tangi	Tangi CHC	Dr. Madhusmita Nayak	9439995475
10	Cuttack sadar	Bentkar CHC	Dr. Basanta Kumar Sahoo	9439995055
11	Niali	Niali CHC	Dr Saminani Naveen	9439995078
12	Kantapada	Kantapada CHC	Dr Basudev Marandi	9439995222
13	Baranga	Mahidharpada CHC	Dr. Subash chandra Gochhayat	9439371116
14	Athagarh	Berhampur CHC	Dr. Dilip Kumar Das	9439994800
15	Athagarh	Athagarh SDH	Dr. Bijaya Kumar Mishra	9439994802
16	Banki	Banki SDH	Dr. Mrutyunjaya Mahapatra	9437023444
17	Cuttack M. Corp	CDA UHC	Dr. Kanti Naik	9437666452
18	Cuttack M. Corp	Chauliaganj UHC	Dr. Pradip Kumar Mallick	9337454077
18	Cuttack M Corp	DHH Cuttack	Dr. Sudhanshu Sekhara Giri	9439990016

### 10.5 Disease Containment by Isolation and Quarantine Methodologies:

- Isolation refers to isolating suspected cases in hospital settings. In the case of biological disasters such as pandemic influenza which affects millions, home isolation may have to be recommended to those who can be treated at home.
- Quarantine refers to not only restricting the movements of exposed persons but also the healthy population beyond a defined geographical area or unit/institution (airport and maritime quarantine) for a period in excess of the incubation period of the disease.
- Restrictions in the movement of the affected population is an important method to contain communicable diseases. The status of the law-and-order mechanism of the state and district is an important factor in helping health authorities in this regard.

### 10.6 Preparedness and Capacity Development

An important aspect of medical preparedness in Biological Disaster Management includes the integration of both government and private sectors. The important components of

preparedness include planning, capacity building, well-rehearsed hospital DM plans, training of doctors and paramedics, and upgradation of medical infrastructure at various levels to reduce morbidity and mortality. A biological disaster response plan is to be evolved on the basis of the national guidelines with due participation of health officials, doctors, various private and government hospitals, and the public at the national, state and district levels. The government health departments also need to be equipped with state-of-the-art tools for rapid epidemiological investigation and control of any act of biological threat. The important components of preparedness are.

#### **10.6.1 Establishment of Command, Control and Coordination Functions**

The incident command system needs to be encouraged and instituted so that the overall action is brought under the ambit of an incident commander who will be supported by logistics, finance, and technical teams etc. EOCs will be established in all the state health departments with an identified nodal person as Director (Emergency Medical Relief) for coordinating a well-orchestrated response.

- **Human Resource Development:** The DHO, in consultation with the state epidemiological cell, will develop a simple & informative format for daily data collection, depending upon quantum of information available at each level.
- **Control rooms** will be nominated/ established at different levels in or derto get all the relevant information and transmit it to the concerned official. The addresses and telephone numbers of the district collector, DHO, hospitals, specialists from various medical disciplines like paediatrics, anaesthesia, microbiology etc., and a list of all stakeholders from the private sector will be available in the control room.
- **Manning the health Facilities:** The shortfall of public health specialists, epidemiologists, clinical microbiologists and virologists will be fulfilled over a stipulated period of time. Teaching/training institutions for these purposes will be established.

#### **10.7 Training & Education**

- Necessary training /refresher training must be provided to medical officers, nurses, emergency medical technicians, paramedics, drivers of ambulances, and QRMTs/ MFRs to handle disasters due to natural epidemics/ Bio-disaster.
- Structured education and web-based training must be given for greater awareness and networking of knowledge so that they are able to detect early warning signs and report the same to the authorities, treat unusual illnesses, and undertake public health measures in time to contain an epidemic in its early stage.
- Refresher training will be conducted for all stakeholders at regular intervals. An adequate number of specialists will be made available at various levels for the management of cases resulting from an outbreak of any epidemic or due to a biological disaster.
- Standardized training modules for different medical responder's /community members for capacity building in the area of disaster management developed by state government or national government should be followed to create adequate training facilities for the same.
- Selected hospitals will develop training modules and standard clinical protocols for specialized care, and will execute these programs for other hospitals .Table-top exercises using different simulations will be used for training at different levels followed by full-scale mock drills twice a year.
- A district-wise resource list of all the laboratories and handlers who are working on various types of pathogenic organisms and toxins will be prepared.
- BDM related topics will be covered in the various continuing medical education

programmes and workshops of educational institutions in the form of symposia, exhibition/demonstrations, medical preparedness weeks, etc.

- Biological disaster related education shall be given in various vernacular languages. Simple exercise models for creating awareness will also be formulated at the district level.
- Biological disaster plans will be rehearsed as a part of training every six months.
- Knowledge of infectious diseases, epidemics and BT activities will be incorporated in the school syllabi and also at the undergraduate level in medical and veterinary colleges.

### **10.8 Community Preparedness**

Community members including public and private health practitioners are usually the first responders, though they are not so effective due to their limited knowledge of BDM. These people will be sensitized regarding the threat and impact of potential biological disasters through public awareness and media campaigns. The areas which need to be emphasized are:

- **Risk communication to the community**
  - Community education/awareness about various disasters and development of Dos and Don'ts.
  - The public will be made aware of the basic need for safe food, water and sanitation. They will also be educated about the importance of washing hands, and basic hygiene and cleanliness. The community will also be given basic information about the approach that health care providers will adopt during biological disasters.
  - Toll-free numbers and a reward system for providing vital information about any oncoming Biological disaster by a nearby responder or the public will be helpful.
  - Definition of predisposing existing factors, and emeriti of diseases, various morbidity and mortality indices. The availability of such data will help in planning and executing response plans.
- **Community participation**
  - Providing support to public health services, preventive measures such as chlorination of water for controlling the possibility of epidemics, sanitation of the area, disposal of the dead, and simple non-pharmacological interventions will be mediated through various resident welfare associations, ASHA /ANM, village sanitation committees, and PRIs.
  - Community level social workers who can help in rebuilding efforts, create counselling groups, define more vulnerable groups, take care of cultural and religious sensitivities, and also act as informers to local medical authorities during a biological disaster phase, will be created after proper training and education.
  - NGOs and Voluntary Organizations (VOs) will be involved in educating and sensitizing the community.
  - Supporting activities like street shows, dramas, posters, distribution of reading material, school exhibitions, electronic media, and publicity, etc., will be under taken.

A legally mandated quarantine in a geographic area, isolation in hospitals, home-quarantine of contacts, and isolation management of less severe cases at homes would only be possible with active community participation.

### 10.9 Medical Preparedness

Medical preparedness will be based on the assessment of bio-threat and the capabilities to handle, detect and characterize the microorganism. Specific preparedness will include pre-immunization of hospital staff and first responders who may come in contact with those exposed to anthrax, small pox or other agents. It further relates to activities from an agreement of diseases caused by biological agents, EMR, quick evacuation of casualties, well-rehearsed hospital DM plans, training of doctors and paramedics and upgradation of medical infrastructure at various levels which will reduce morbidity and mortality. Medical preparedness will also entail specialized facilities including chains of laboratories supported by skilled human resource for collection and dispatch of samples. The major aspects of medical preparedness are e.g. Hospital DM Plan.

Hospital planning will include both internal hospital planning, and for hospitals being part of the regional plan for managing casualties due to biological disasters. The major features will include the following:

- Hospital disaster planning will consider the possibility & needs to evacuate or quarantine or divert patients to other facilities.
- The plan will be 'all hazard', simple to read and understand, easily adaptable with normal medical practices and flexible enough to tackle different levels and types of disasters.
- The plan will include capacity development, development of infrastructure over a period of time and be able to identify resources for expansion of beds during a crisis.
- The plan will be based on the need assessment analysis of mass casualty incidents. There will be a triage area and emergency treatment facilities for at least 50 patients and critical care management facilities for at least 10 patients.

- The quality of medical treatment of serious/ critical patients will not be compromised. The development plan will aim at the survival and recuperation of as many patients as possible.
- Hospitals will plan to recruit a sufficient number of personnel, including doctors and paramedical staff, to meet the patients' needs for emergency care.
- It is essential that all hospital DM plans have the command structure clearly defined, which can be extrapolated to a disaster scenario, with clear-cut job definitions when an alert is sounded. Emergency services provided must be integrated with other departments of the hospital.
- The hospitals will submit data on their capabilities to the district authorities and on the basis of the data analysis, the surge capacities will be decided by the district administration.
- There is no universal hospital DM plan which can be implemented by all hospitals in all situations. Therefore, on the basis of their specific considerations, each hospital will develop a disaster plan specific to itself. The plan shall be available with the district administration and tested twice a year by mock drills.
- The hospital DM plan will cater to the increased requirement of beds, ambulances, medical officers, paramedics and mobile medical teams during a disaster. The additional requirement of disease related medical equipment, disaster-related stockpiling and inventory of emergency medicines will also be factored into the hospital DM plan. The DM plan must be strengthened by associating the private medical sector.
- Networking between public and private hospitals must be done and hospital DM plans need to be updated at the district/state level through frequent mock drills.
- The registration and accreditation policy must make it mandatory to have a hospital DM plan.
- The existing infectious diseases hospitals will be remodeled to manage diseases with microorganisms that require a high degree of bio safety, security and infection control practices. There will be one such hospital in each state capital. In addition, the district hospitals and medical colleges will have isolation wards to manage such patients. Also, identified hospitals in vulnerable states will be strengthened for managing CBRN disaster victims by putting in place decontamination systems, critical care Intensive Care Units (ICUs) and isolation wards with pressure control and lamellar flow systems. The infectious control practices will include the following:
  - When dealing with biological emergencies, the health workers associated with the investigation of such exposures will have adequate personal protection.
  - Depending upon the risk, the level of protection will be scaled up from use of surgical masks and gloves, to impermeable gowns, N-95 masks or powered air-purifying respirators. They will follow aid down SOPs for use of PPE.
  - Infection control practices will be followed at all health care facilities, including laboratories.
  - Of the potential biological disaster agents, on plague, small pox and VHFs are spread readily from person to person by aerosols and require more than standard infection control precautions (gowns, masks with eye shields, and gloves).
  - The suspected victims and those who have been in contact with them will be advised to follow simple public health measures such as using masks/ handkerchief tied over the nose and mouth, frequent washing of hands, staying away from other people by at least a meter, etc.



- To handle biological disasters, a hospital DM plan will have the following facilities:
  - Medical and paramedical staff: It is important to train medical staff and paramedics properly in universal safety precautions, use of PPE, communication, triage, barrier nursing, and collection and dispatch of biological samples. A team of specialists must be made available to handle infectious diseases affecting various body systems and they will be suitably immunized against agents such as anthrax and small pox.
  - Expansion of casualty area: If the hospital casualty ward is unable to accommodate a large number of casualties, provision will be made to use the patients' waiting hall, duly reoriented, to receive the casualties. Each major hospital will cater to at least 50 additional patients at times of disaster.
  - Isolation wards: Adequate number of isolation wards are required to be planned with surge capacity to accommodate a large number of patients of infective disease. If required, side rooms, seminar rooms, other halls can be improvised for this purpose.
  - Security arrangements: Hospital security staff will prepare SOPs to prevent overcrowding of hospitals by visitors, relatives, VIPs, and the media at the time of a disaster. Help of the district administration will be sought, if required.
  - Identification of patients: The process will start at the time of giving first aid and triage. A system of labelling and identifying patients during spot registration by giving a serial number to the patient and putting an identification tag around the wrist can be done. In mass casualties, it can be supplemented by giving colour coded tags, such as red for serious patients, yellow for moderately serious patients, blue for those in need of observation and black for the dead.
  - Brought dead: All those brought in dead and patients who die while receiving resuscitation will be segregated and shifted to the mortuary through a separate route. Temporary mortuary facilities will be created to cater for a mass casualty incidence.
  - Diagnostic services: All laboratories and radio diagnostic services will be kept fully operational and utilized as and when required. These services will be available within the emergency treatment areas.
  - Communication: Both intra & inter communication facilities will be made available. These can be further augmented by the use of mobile phones.
  - Medical supplies: Adequate supply of essential drugs and non-drug items will be made available for at least 50 patients in the emergency complex itself for immediate use. Additionally, hospital medical stores will have adequate buffer stocks.
  - Blood bank services: The services will cater for an adequate supply of safe blood and its components. Voluntary blood donations will be encouraged to fulfil the increased demand of blood.
  - Other logistic support: Adequate, uninterrupted supply of water and electricity will be ensured for proper management of casualties. The laying down of public health standards for hospitals and strengthening of CHCs across the nation for basic specialties on 24x7 basis under NRHM by GoI are steps in the right direction to strengthen medical care facilities in rural areas. NRHM initiatives will be expedited to reach every nook and corner of the country.

Table 10.9

Sl.	Facility	Unit	Existing Capacity	Extension Capacity	Remarks
1	Medical Staff	In Nos.	<b>304</b>	<b>411</b>	
2	Paramedical Staff	In Nos.	<b>510</b>	<b>408</b>	
3	Specialists	In Nos.	<b>86</b>	<b>44</b>	
4	Technical experts	In Nos.	<b>2</b>	<b>2</b>	
5	Casualty Section	In Nos.	<b>18</b>	<b>18</b>	
6	Isolation wards	In Nos.	<b>14</b>	<b>12</b>	
7	Security arrangement	In Nos.	<b>108</b>	<b>108</b>	
8	Diagnostics Services	In Nos.	<b>14</b>	<b>12</b>	
9	Medical Supplies	In Nos.	<b>All are available</b>		
10	Blood Bank Services	In Nos.	<b>0</b>	<b>0</b>	
11	Mortuary	In Nos.	<b>8</b>	<b>8</b>	
12	Other logistics	In Nos.	<b>66</b>	<b>66</b>	

- **Mobile Hospitals and Mobile Teams**

States will acquire and locate at least one mobile hospital at strategic locations. These hospitals can be attached to earmarked hospitals for their use in non-disaster periods. These will be manned by trained manpower and perform the following functions:

- To be mobilized to the disaster site for management of cases at times of any epidemic outbreak or biological disaster.
- Provide on-site medical treatment to casualties as per triage and evacuation guidelines. The teams will also make a complete assessment of the situation and transmit information to the appropriate authorities.
- Additional medical teams will be mobilised to assist in handling the large number of casualties in the wake of a mass casualty event.
- Adequate stock of medical stores, including essential drugs, will be stocked and made available to the medical teams.
- The stocking of emergency medical stores shall be done by the state government. Stock of medical stocks capable of treating 25/50/100 casualties will be kept ready to move with mobile units at short notice.
- Drills will be conducted at regular intervals by mobile hospitals and mobile teams to keep them in a functional mode at all times.

Table 10.10 Mobile Hospitals &amp; Health Teams: Not Applicable

- **Stockpile of Antibiotics and Vaccines**

- Government medical stores will stock sufficient quantities of essential drugs, antibiotics and vaccines based on the risk assessment. State and local public health authorities have to develop plans for distributing and administering these materials. There is a need to have a supply of readily available anthrax, smallpox and other vaccines, which will be administered

rapidly in the event of an outbreak to contain the spread of the disease. All first responders will be vaccinated in an impending disaster situation.

- A plan will be prepared to define the availability of antibiotics, anti-virals, vaccines, sera and other drugs from private pharmaceutical companies who will be able to supply these items at short notice.

**Table-10.11-Stockpile of Medicines: NA**

- **Public Health Issues**

- Panic is a critical element in a disaster and, therefore, DM plans will address measures to allay public anxiety and fear arising out of Bio Terrorisms.
- Availability of safe food, clean water, and minimum standards of hygiene and sanitation will be ensured. Vulnerable groups such as children, pregnant women, the aged and patients suffering from diseases like HIV/AIDS will be given special attention.
- The routine training of medical undergraduates, nurses and health workers for mental health services is grossly inadequate. There is virtually no emphasis on the mental health aspects of disasters even in the routine postgraduate training in psychiatry. There is a need for coordinated training services and monitoring at the district and state levels.
- Most victims at the scene of a disaster suffer from psycho-social problems. Some people, including relief workers, may develop post-traumatic stress disorders. The plan will involve community level social workers who can help victims of psychosocial problems.
- Complete ban on the press or media is not the right approach in such circumstances. The media is very useful for disseminating proper information and educating the community during a disaster.

- **Emergency Medical Response**

A biological disaster can lead to mass casualty incidences, both intentional or otherwise. The development of infectious diseases depends on various factors such as type of agents, incubation period, immune status of individuals, amount of infectious agent entering the body, etc. However, a large number of cases arising in a short span of time may require prompt establishment of medical posts near the incident site. They would triage the patient, provide basic life-support if required at the site, and transport patients to the nearest identified health facility along with collection and dispatch of biological and environmental samples. If the incident command system is implemented, then the RRT/MFR will be integrated with the ICP and function under the over all directions of the incident commander. Important components of an EMR plan are as follows:

- Pre-hospital care shall be established and operationalized using a trained medical force. EMR at the site will depend upon the quick and efficient response of MFRs.
- MFRs must be trained in the use of PPE and in collection and dispatch of samples from air, water, food and biological materials. The standards for detection and basic life support (airway maintenance, ventilation support, anti-shock treatment and preparation for transportation) will also be developed. EMR will be integrated with ICP and will function under the overall directions of the incident commander

- There will be periodic mock drills for checking response time and reducing it to a minimum. Periodic training and refresher training schedules will also be prepared.
- The medical posts shall provide evacuation services, specialized healthcare, food, shelter, sanitation, etc. These will coordinate with other functionaries involved in search, rescue, helplines and information dissemination, transport, communication, power and water supply, and law and order.
- SOPs for providing hospital care and a command control centre with the district collector as supreme head, will be laid down and rehearsed using mock exercises.
- The modes of communication will be dovetailed with emergency services of the district. Inter-hospital and inter-services communication will be established at all levels.
- Mechanisms for checking the status of coordination in planning, operations and logistics management will be developed.

### **10.10 Psycho Social Care**

Disasters usually leave a trail of human agonies including loss of human life, livestock, damage to properties, loss of livelihood, and all development works. In any disaster the magnitude of psychosocial and mental health problems is enormous. Apart from logistic and material help, relief and rehabilitation, the sufferings of human beings will require psychosocial and mental health interventions. It has been recognized that most of the disaster affected persons' experience stress and emotional reactions after disaster as a 'normal response to an abnormal situation', and are able to cope well with a little psychosocial support. However, a significant proportion of people are not able to cope effectively with the situation in the absence of appropriate/ adequate support system and they experience significant signs and symptoms requiring psychosocial support and mental health services. The symptoms are directly related to trauma experience. The Greater the trauma, the more severe is the response if other factors are same.

Psychosocial support in the context of disasters refers to comprehensive interventions aimed to help individuals, families and groups to restore social cohesion and infrastructure along with maintaining their independence and dignity in the aftermath of a disaster.

Psychosocial support helps in reducing the level of actual and perceived stress that may prevent adverse psychological and social consequences among disaster affected people.

### **11 Disaster Mental Health Services**

The Psycho-Social Support and Mental Health Services (PSSMHS) should be considered as a continuum of the interventions in disaster situations. While psychosocial support will comprise of the general interventions related to the larger issues of relief work needs, social relationships and harmony to promote or protect psychosocial wellbeing, the mental health services will comprise of interventions aimed at prevention or treatment of psychological symptoms or disorders. The experiences of the people subsequent to the disaster have direct relevance to recovery. The more the problems and life difficulties the survivors experience during the recovery phase, the more persistent will be their emotional reactions. This warrants appropriate interventions in accordance with the phase of recovery of the affected population with the diminished social supports being built for speedy recovery.

### 13 Community Based Disaster Psychosocial Care

The psychosocial aspects of disasters on human beings have been acknowledged as an international agenda (WHO, 1992). However, in India, the psychosocial aspects have never been emphasized until very recently after tsunami, 2004. The Bhopal gas tragedy (1984) was the most important disaster to draw the national attention due to its severe impact and the sensitivity of the politico-economic issues involved. The psychosocial impact was studied systematically although intervention programmes were more of psychiatric in nature. Marathwada earthquake (1993), and Andhra Pradesh Super Cyclone (1996) were disasters in which mental health professionals took an active part in terms of providing mental health services and undertaking research to study the psychosocial impact of these disasters.

The ICMR studies over last twenty years have provided strong base for integration of mental health services with general health care services and sensitization of the community members and rescue workers. Further, In the post Tsunami phase in India, the WHO along with the Department of Social Welfare, United Nations Team for (UNTRS), and partners have developed a model for providing sustained, low-cost community-based volunteer provided support systems. Community level workers who are the anchor for this programme are selected from various categories of people, including teachers, health workers, and members of Self-Help Groups etc, who have volunteered for this purpose. However, the finer details of the mechanisms and strategies for integration of mental health services with general health care services still need to be worked out.

**Table-10.14 Volunteers & Paramedical Staffs (Community) NA**

Name of Volunteers	Institution/ Organisation	Contact Person with contact details	Contact Details (Number & Email ID)	Address

#### Concept of Social Support Network

The psychological response to a disaster depends on three main factors

**Table-10.15**

<b>Disaster</b>	<b>Community</b>	<b>Survivor</b>
<ul style="list-style-type: none"> <li>» Place of occurrence</li> <li>» Magnitude</li> <li>» Suddenness</li> <li>» Type</li> </ul>	<ul style="list-style-type: none"> <li>» Level of preparedness</li> <li>» Social support network</li> <li>» Leadership</li> <li>» Past disaster experience</li> </ul>	<ul style="list-style-type: none"> <li>» Age / Sex</li> <li>» Level of education/ exposure</li> <li>» Marital status</li> <li>» Physical health / » Disability</li> <li>» Personality/ » Coping skills</li> <li>» Magnitude of losses</li> <li>» Social support available</li> </ul>

The psychological reactions that people experience as a result of the disaster may be either adaptive or maladaptive.

**Table-10.16**

<b>Adaptive</b>	<b>Maladaptive</b>
<ul style="list-style-type: none"> <li>• Adaptive responses allow individuals to overcome the difficulties caused by the disaster.</li> <li>• For instance, obtaining information or developing effective survival skills.</li> </ul>	<ul style="list-style-type: none"> <li>• Maladaptive reactions can include denial, ineffective actions etc. reactions can be prevented from occurring and if they do occur then they can be treated.</li> <li>• The incident of a young girl can be considered here from Orissa cyclone. The rescue team saw her hanging from a tree after five hours, but she was not having any clothes on her body. After accepting the clothes from the rescue team, she immediately jumped in the floodwater and committed suicide.</li> </ul>

After a disaster there are four main phases, which the survivors go through. The first phase is considered as rescue which is up to 72 hours after the disaster. These cons phase is relief which continues for three months after the disaster. The third phase is rehabilitation, which lasts for one to two years and the last phase is rebuilding, or reconstruction, which extends over lifetime. Reconstruction phase is the longest period when the population rebuilds personal skills, social support and leadership. This overlaps with the rebuilding phase.

**Table-10.17**

<b>Phases after a Disaster</b>	<b>Duration</b>	<b>Characteristics</b>
Occurrence of the disaster	Hours	Apathy, Disorientation, Wandering Surprise, Fear, Perplexity Anxiety, Helplessness
Heroic	Up to 1-2 weeks	Feeling strong, Direct feeling of savior, egoism, Solidarity, Optimism
Honeymoon	2 weeks to 3 to 6 months	Great solidarity, Eagerness to rebuild, Sharing of common experience
Disillusionment	2months to 2 years	Withdrawal, Loneliness, Anger, frustration, Community disorganization, Negativity, Hostility, Impulsiveness, Violence, Alcohol and drug abuse
Reconstruction	2-5 years and Lifetime	Acceptance of losses Realistic assessment of the situation, Search for alternatives to rebuild lives

#### **14. Coping with Loss & Circles ofSupport**

It is very clear that the usual social support systems are eroded after a disaster. The family and the neighborhood no more exist as a functional unit. The tertiary level of support system exists to some extent in terms of larger community, government and other external agencies. So, it is essential to pull these external resources (out of the affected community) for rebuilding the social support system and normalize the life of the survivors. At the third level the government and external agencies take the main role to rebuild the entire support system. Apart from the government agencies a lot of other players also come to the forefront. These include:

- Professionals from the medical, legal and other such fields.
- Student volunteers
- Religious social service groups
- Non-government organizations both national and international
- Business communities
- Civil society bodies
- Individuals in their own capacity contributing their skills or money.

#### **15. Needs of More Vulnerable Groups**

The reactions to and impact of a single disaster event may vary among specific groups of survivors with in the affected community, i.e. people with special needs or more vulnerable groups viz. children, people with disability, women, elderly people and people needing special medical care facilities. Lot of inter group and intra group variations are there in terms of vulnerabilities as detailed below

**Table-10.18**

<b>Category</b>	<b>Exposure/Vulnerability</b>
Children	<ul style="list-style-type: none"> <li>• Children who were physically, neurologically, mentally and sensory challenged in the pre-disaster period and those who became disabled after the disaster</li> <li>• Children who need critical medical care facilities e.g. children suffering from cancer, diabetic, asthma, poor heart condition, blood borne diseases, HIV-AIDS, etc.</li> <li>• The children with special needs who become orphans after a disaster, are most vulnerable to different types of exploitation.</li> <li>• Orphaned and unaccompanied Adolescent children, especially girls Children whose parents are missing or remarried</li> </ul>
Women	<ul style="list-style-type: none"> <li>• Pregnant and lactating women</li> <li>• Disabled women</li> <li>• Women on critical health care facility</li> <li>• Women who lost their children and plan to undergo recanalization surgery</li> <li>• Elderly women</li> <li>• Women with prior history of psychiatric illness</li> </ul>
Elderly	<ul style="list-style-type: none"> <li>• Reduced physical &amp; mental capabilities, delayed response syndrome,</li> </ul>
	<ul style="list-style-type: none"> <li>• increased transfer trauma &amp; the array of emotional difficulties,</li> <li>• dementia, and rigidity</li> </ul>

As per the PWD Act (1995) of Govt. of India, people with disabilities are a highly diverse group. Thus, each disability has its unique characteristics and disability specific needs. Since, their life conditions even prior to disaster are at a higher deprivation level, life conditions after a disaster become even worse. This could induce higher level of psychological distress and negative emotional reactions, which in turn could jeopardize their whole life functions. Therefore, psychosocial care givers should take extra caution to safeguard their self-respect and cater to their mental health needs. In case special intervention programme is needed to address their overall safety, dignity and needs, more emphasis should be placed on the inter-sectoral collaborations for their betterment. The following aspects & vulnerabilities should receive special attention of the care givers in the post-disaster phase:

- Accessibility to shelters and availability of basic amenities
- Availability of auxiliary aids, equipment's and services during the relief
- Special livelihood programme
- Treatment for any associated psychiatric illness
- Long-term community rehabilitation
- People on Dialysis
- People with organ transplantation
- Alcohol/drug dependents
- Heart patients
- People living with HIV/AIDS(PLWHA)
- People on Specific therapies (such as Cancer patients)
- Insulin dependent diabetics on high doses of insulin

#### **16. Principles of Psychosocial Support**

- No one who experiences or witnesses the event is untouched by it



- Disaster stress and grief reactions are normal responses to an abnormal situation
- Disaster results in two types of trauma i.e. individual and collective trauma. Individual trauma manifests itself in stress and grief reactions, while collective trauma can lead to deterioration in the social ties of survivors with each other.
- Disaster mental health services must be tailored to the needs of specific communities to be served
- Interventions must be appropriate to the phase of disaster 1. Initial phase: listening, supporting, ventilation, catharsis and grief resolution are helpful and 2. latter phase: handling frustration, anger and disillusionment
- Support systems are crucial for recovery
- Attitude of the caregiver

#### **17. Basic Techniques of Disaster Psychosocial Care**

- Ventilation: ventilation is a process to help the disaster survivors in expressing their thoughts, feelings and emotions related to the disaster and the resulting living conditions.
- Empathy: “looking at the event from the other person’s perspective and trying to realize the trauma of the other person by keeping himself/herself in that situation”. This skill of developing empathetic attitude towards survivors comes
  - through regular habit of active listening of the survivor.
  - Active listening Active listening is an important skill to facilitate ventilation and develop empathy, which in turn facilitate the whole process of providing

emotional support. The following guidelines can help the care givers in achieving better results.

- Look at the person while he/she is talking:
- Respond occasionally while listening:
- Avoid interruptions
- Be tolerant & Empathies:
- Social support: Social support networks are extremely important for feeling comfortable and secure. In a disaster situation all the support systems get disrupted, hence the need to rebuild and restore.
- Externalization of Interests: Engaging them in small but productive activity/work (keeping age, gender, physical status, skills and interest as considerations) would help them in imbibing a positive thinking and feelings.
- The Value of Relaxation: Introducing relaxation activities for children (for instance some games, songs, dancing, painting, colouring and other things) and adults involving physical movement has proved to be very beneficial in helping survivors recover from their trauma and pain.
- Turning towards Religion and Spirituality: Helping people to turning towards his/her practiced religious rituals and practices (e.g. daily worship, prayer and related activities) would also facilitate the ventilation process, whereby there is a possibility of verbal/nonverbal expression of feeling/emotions and thus, making the survivor more peaceful in mind.

**18. Understanding of Stress Symptoms & Management**

The concept of stress was first used by Selye (1956) in his biological stress theory. It was defined as a set of specific physiological responses to environmental stimuli, e.g. chronic fatigue, nervous breakdown, physical damage etc. The important role of psychological factors remain in understanding the occurrence and modification of stress response.

**Table 10.19**

Emotional	Interpersonal	Sensational	Biological	Behavioural	Cognitive
Anxiety Guilt Embarrassment Depression Hurt Jealousy Feel like dying Cry frequently Moody	Cannot keep relationships Suspicious Gossip Competitive Withdraw Fearful and unassertive Aggressive	Heart rate Headaches Nausea Aches and pain Tremble Fainting Numbness Dry mouth Stomach cramps Sweaty Indigestion	Digestion problems Blood pressure Heart problems Tiredness Allergies Low immunity Mental problems	Substance dependence Sleep problems Tea smoking Restless Eating problems Aggression Irritation Speech problems Accident prone Eat, talk, walk faster Unkempt and untidy Low productivity	I must do well Life should not be like this I must have what I want This is terrible I cannot take this any longer Everyone should like me Working long hours » Not getting time to

				Bad time management	relax and take care of personal issues » Not able to contact the family members » The weather in the area etc
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**Diverse Stress Responses Table 10.20**

<b>Cognitive Responses:</b>	<b>Emotional Responses:</b>	<b>Self-image</b>	<b>Psychosomatic/Physiological Responses</b>
Low awareness of the environment » Restricted scope of perception » Lowered ability to concentrate » Disturbed memory functions » Hesitation in decision making » Change in content of thinking » Low creativity and change in performance » Less ability to utilise relevant information	» Feelings of deprivation, guilt, anxiety, tension, aggression, irritation, worry, sadness, hopelessness and maladjustment.	» Low self confidence » Identity problem » Depression & Helplessness	» Headache & Body Ache » Muscular tension and pain » Gastrointestinal disorders/low appetite » Sleeplessness » Difficulty in breathing » High Blood Pressure (Source: Zimbardo, 1979) » Vague pain in different parts of the body » Increased heart beat & palpitation » Sweating in palms and feet » Shaking of the body & Fatigue » Butterfly sensation in the stomach

**Relaxation Exercises**

**Table 10.21**

<b>Abdominal breathing</b>	<ul style="list-style-type: none"> <li>» Sit comfortably</li> <li>» Close your eyes</li> <li>» Put one hand on the abdomen</li> <li>» Focus on your breathing and try and see that you are breathing from your abdomen rather than your chest</li> <li>» Concentrate on the fact that your stomach is rising as you breath in and falling as you breath out</li> </ul>
<b>Count breathing</b>	<ul style="list-style-type: none"> <li>Sit comfortably</li> <li>» Close your eyes</li> <li>» Count 1-2 two as you inhale</li> <li>» Release your breath slowly counting 1-2-3-4 (double the count of your inhalation)</li> <li>» Practice this till you feel relaxed</li> </ul>
<b>Nostril breathing</b>	<ul style="list-style-type: none"> <li>» Inhale naturally and then let out with a whooshing sound. Hold for some time and then let out again</li> <li>» Breathe through one nostril and breathe out through the other one</li> <li>» Combine breathing with visualization that you are getting energy and refreshment</li> <li>» Listening to some music while practicing these will enhance positive impact of the techniques</li> </ul>
<b>Free Meditation</b>	<ul style="list-style-type: none"> <li>» Sit comfortably or lie down and close your eyes</li> <li>» Put on some music and listen to the music</li> <li>» Do not try to think of anything, just concentrate on your breathing</li> <li>» If any thoughts come in do not try to control them or force them out, instead spend time on them and let them go as they come</li> <li>» Do it initially for about 5 minutes and slowly as you become better at it go on increasing the time period to about 20 –25 minutes and it would prove to be very relaxing</li> </ul>
<b>Candle meditation</b>	<ul style="list-style-type: none"> <li>» Sit comfortably</li> <li>» Light a candle or a lamp in front of you</li> <li>» Concentrate on the flame</li> <li>» Spend time just looking at the flame glowing and flickering</li> <li>» If you feel after some time close your eyes and look at the image in your mind</li> <li>» Slowly open your eyes after you are completely at ease</li> <li>» Do it initially for about 5 minutes and slowly as you become better at it go on increasing the time period to about 20 –25 minutes. It would prove to be very relaxing</li> </ul>
<b>Relaxation</b>	<ul style="list-style-type: none"> <li>» Lie down on the ground</li> <li>» Slowly move from your feet to your head saying the following to yourself</li> </ul>

**Disaster Psychosocial Referrals Table-10.22**

<p><b>Within Caregiver’s Control if the Survivor:</b>                  » Is aware of who s/he is, where s/he is, and what has happened with him/her.                  » Is only slightly confused or dazed or show Slight difficulty in thinking and decision making or Finding difficulty in concentrating</p>	<p><b>Referral if the Survivor:</b>                  » Is unable to tell/recall his/her name, name of the place and what has happened to him/her in past 24 hours                  » Complains about what is happening with him/her</p>
<b>Behavior</b>	
<p>Is restless, mildly agitated and excited                  » Has sleep difficulty and decreased appetite                  » Sad, rigid, clenches the fists</p>	<p>Is apathetic, immobile and unable to move around                  » Is withdrawn and mutilates himself/herself, does not take care of self                  » Violent and causes harm to others</p>
	<p>» Uses alcohol or drugs                  » Repeats ritualistic acts as compulsions</p>
<b>Emotions</b>	
<p><b>Within Care giver’s Control if the Survivor</b>                  » Is crying and weeping consistently by reiterating about the incident                  » Has blunt emotions, is numb and hardly reacts correctly to his/her environment                  » Easily irritated and angered over trivial issues                  » Shows high spirits or laugh excessively                  » Very quiet with no emotions</p>	<p><b>Consider Referral if the Survivor</b>                  » Is unable to be aroused and is completely withdrawn                  » Is excessively emotional and shows inappropriate emotions                  » Is excessively happy, or sad and depressed</p>
<b>Perception</b>	
<p>Has all senses intact and has no perceptual disturbance, like seeing the ghosts of those expired</p>	<p>Hears voices in absence of the actual living organism                  » Sees things in absence of any living organisms’ existence                  » Has complaints about vague bodily sensations                  » Takes a constant peculiar body position for days together</p>
<b>Thought</b>	
<p><b>Within Care giver’s Control if the Survivor</b>                  » Talks excessively about the disaster                  » Refuse to talk much                  » Has rapid or stammered speech</p>	<p><b>Consider Referral if the Survivor</b>                  » Is talking irrelevant                  » Shows overflowing of incoherent speech                  » Does not talk at all for days together</p>
<b>Thought</b>	

<p>Has a feeling of despair and worthlessness?                  » Has a doubt on his/her own recovery                  » Is over concerned about unimportant things and neglects important things                  » Denies what happened to him/her and blames Others</p>	<p>Is excessively preoccupied with one idea or thought                  » Has bizarre thoughts, which have no answerable reason in that situation                  » Has a false but extremely firm and strong belief of something that is going to happen to him/her                  » Is attempted suicide or has suicidal thoughts</p>
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**19. Ethics & Confidentiality**

- Never make false promises to the survivors
- Maintain the confidentiality of the very private information/problems what the survivors share with you.
- Have the commitment and strive to help and support the survivors in an unbiased manner
- Helping the co-workers and taking care of your self is very crucial.
- Whenever, the pressure of work or dealing with human suffering become stressful for you, seeking help and support is a must.
- Keep smiling and spread smiling among others.

# **CHAPTER – XI**

## **CAPACITY BUILDING**

### **11.1 Approach**

Developing a DDMP without building capacity or raising awareness amongst stakeholders can be detrimental to the development of a successful and sustainable plan. Stakeholders and communities are critical components to a successful, long-term, sustainable disaster management plan. Capacity Building develops and strengthens skills, competencies and abilities of both Government and non-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters.

Developing institutional capacity is very important. At the same time, by making the local community part of the process and solution would help in ensuring that disaster mitigation measures are more likely to be implemented and maintained over time.

### **11.2 Capacity Building of Govt. Officials, PRI Members etc.:**

*[Note: a training strategy should be formulated for training of major government and non-governmental cadres in the district who can aid in disaster management. Programmes to be finalized by the district based on need and requirement.*

*Districts to first utilize the funds available under different schemes at the district level, for capacity building activities. Besides, funds are also available under State Disaster Response Fund (SDRF). District Administration to prepare the Capacity Building plan for the district and send the same with detailed budget to SDMA for necessary funding.]*

**Table – 11.1:**

<b>Tentative Capacity Building Activities of Cuttack District</b>							
<b>Sl. No</b>	<b>Activity-cum-Training</b>	<b>Participants</b>	<b>Strength (Tentative)</b>	<b>No. of Batches</b>	<b>Duration</b>	<b>Budget (Tentative)</b>	<b>Organised by</b>
1	Heat Wave Awareness/ Preparatory Workshop & Implementation of Heat Wave Action Plan	District Level Line Departments Officers, all BDOs/all Tahasildars	90	2	1 Day	45,000.00	DDMA/DEOC
2	NGO Coordination Meeting	NGOs / Volunteers	25	1	1/2 Day	2,500.00	DDMA/DEOC
3	District level workshop for Preparation/ Updation of District/Block	District /Block Level Line Dept. Officer & Others.	90	1	1 Day	45,000.00	DDMA/DEOC

	Disaster Management Plan(DDMP/B DMP)						
4	District Level Workshop on Plastic waste (Disposal) Management	District /Block Level Line Dept. Officer & Others.	60	1	1 Day	30,000.00	CES/DDMA/DEOC
5	District Level Workshop on preparation of VDMP (Village Disaster Management Plan)	District/ Block Level Officers, Nodal Officers / NGOs	50	1	1 Day	25,000.00	DDMA/DEOC
6	District Orientation training programme on Disaster Management.	ADM, Sub-Collector All BDOs, Tahasildars, Head of line Departments, Police & Fire Dept. etc.	70	1	1 Day	35,000.00	OSDMA/DDMA/DEOC
7	District level hands on training programme for officials on IDRN	District level Officials of different departments and stakeholders.	60	1	1 Day	30,000.00	OSDMA/DDMA/DEOC
8	Role of NGOs/VOs/CBOs in disaster management.	NGOs / Volunteers	30	1	1 Day	15,000.00	OSDMA/DDMA/DEOC
9	Preparatory meeting for Flood of DLNCC & DDMA Meet	Blocks/ Tahasils/ Line Departments / PRIs	80	1	1 Day	40,000.00	DDMA/DEOC
10	Role of PRIs & ULBs in Disaster Management.	Chairman/Councilors ULBs, Officials	80	1	1 Day	40,000.00	DDMA/DEOC



11	Role of PRI members (ZP) in Disaster Management.	President/Vice President,ZP/All Members of ZP.	250	1	1 Day	1,25,000.00	DDMA/DEOC
12	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	2	1 Day	25,000.00	DDMA/BDO
13	Preparation of City Disaster Management Plan	CMC , Line Departments & District Officials	40	1	1 Day	20,000.00	CMC/UNDP/DEOC
14	Workshop/ Training on Preparation of School Disaster Management Plan.	DEO,DPC(SSA),all BEOs,CRCC and Others	40	1	1 Day	20,000.00	OSDMA/DDMA/DEOC
15	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	20,000.00	DEO/BEO
16	District level Preparatory meeting Mock Exercise on Cyclone/Flood	District/Block Officials CSMMC / MFSMMC members	60	1	1 Day	30,000.00	DDMA
17	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	3	1 Day	25,000.00	DDMA/BDO
18	Mock Exercise on Flood/Cyclone	District Level/Block/MFS	30	1	1 Day	15,000.00	DDMA

	on 19th June.	Level					
19	District Level awareness/capacity building /action plan workshop on Lightning	District/Block Officials and Medical staff	100	1	1 Day	50,000.00	DDMA
20	District Level Workshop on Role of NGOs/VOs/CBOs in Disaster Management.	NGOs / Volunteers	100	1	1 Day	50,000.00	DDMA/DEOC
21	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	3	1 Day	25,000.00	DDMA/BDO
22	District Level ToT on Drought Management for Farmers Clubs Members	Staff of Agriculture/Revenue/Co-operation.	60	1	1 Day	30,000.00	DDMA/DDA
23	Training of Community Volunteers	Community Volunteers	75	1	2	37,500.00	OSDMA/ DEOC
24	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	3	1 Day	25,000.00	DDMA/BDO
25	Training of HMs on Preparation of School Disaster Management Plan/School Safety	Head Masters of High Schools	40	2	1 Day	20,000.00	DEO/BEO

	Programme.						
26	Review of City Disaster Management Plan and Modification	CMC , Line Departments & District Officials	40	1	1 Day	20,000.00	CMC/UNDP/DEOC
27	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	3	1 Day	25,000.00	DDMA/BDO
28	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	20,000.00	DEO/BEO
29	Orientation Workshop on DM Protocol for Child Care Institutions	Representatives of the CCIs, Key Line Agency Officials & Stakeholders	30	1	1 Day	15,000.00	DDMA/DEOC
30	Preparatory Meeting for observation of DP Day	Dist. Level Line Departments	30		1/2 Day	3,000.00	DDMA/DEOC
31	Observation of DP day	Dist. Level Line Departments/ School students/ Fire Service, etc.	300	15	1 Day	1,50,000.00	DDMA/DEOC
32	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch &PS Member.	50	2	1 Day	25,000.00	DDMA/BDO

33	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	20,000.00	DEO/BEO
34	Workshop on Activities of District Crisis Group (DCG)	DCG Members & Stakeholders	30	1	1/2 Day	3,000.00	DDMA/DEOC/ Asst. Director, Factories & Broilers,Cuttack
35	Role of PRI members (ZP) in Disaster Management.	President/Vice President,ZP/All Members of ZP.	250	1	1 Day	1,25,000.00	DDMA/DEOC

### 11.3 Table-top Exercise:

The objective of Table Top exercise is:

- To review the District Disaster Management Plan for Mitigation & Management of Cyclone / Flood / Heat wave.
- To facilitate in checking the adequacy of the Emergency
- To review the Response Plan of districts to meet the exigency.
- To highlight the roles and responsibilities of the concerned stakeholders at the District level.
- To enhance the coordination and synergize efforts of various Emergency Support Functions at the District level.
- To identify gaps if any, in the resources, manpower, equipment, communication and systems.
- To chalk out the empowerment plan the vulnerable groups to face disaster squarely with enhanced resilience.

DDMA along with other line department officials discussed the following:

- Heat wave action plan discussed and plan chalked out to take up the measures to combat the heat wave situation. All the departments such as CDMO, CDVO, BDOs, Tahasildars, RWSS, PHED instructed to present their plan of action for the year 2020 with respect to Cuttack district. The gaps identified in the discussion were addressed.
- The DDMP for the year 2018 was reviewed by the DEO & DPO which was presented to the house and the content discussed.
- The new outline prepared for preparation of DDMP for the year 2020 discussed and all the line departments were instructed to provide the necessary information for the purpose.
- It was decided to discuss the flood preparedness measures on next exercise and the line departments instructed to bring their departmental preparedness and action plan to the exercise.
- The detailed empowerment plan for different stakeholders is given in Table 6.1, 6.3, 6.4, 6.5 in which different plans were chalked out to provide training.

#### 11.4 District/ Block level Mock Drills:

Table – 11.2:

Sl. No.	Type of Mock Drill	Officials / Institutions to be involved	Month / Date	Remarks
1.	Flood	All Blocks / Tahasildars / Line department Officials like EE, Irrigation (Khordha, Prachi, Kendrapara, Jagatsinghpur, Cuttack I & Cuttack II), EE-CESU, CSMMCs, NGOs	June	
2.	Cyclone	All Blocks / Tahasildars / Line department Officials like EE, Irrigation (Khordha, Prachi, Kendrapara, Jagatsinghpur, Cuttack I & Cuttack II), EE-CESU, CSMMCs, NGOs	June	
3.	Industrial Accidents/ Industry Specific Mock drills	Industrial safety wings/ NDRF / ODRAF / Fire Service / Director, Factories & Boilers / Administration	Quarterly	
4.	Railway Mock Drill	Railway Division Khordha / Administration / NDRF/ ODRAF/Fire Service	February	

#### 11.5 Disaster management Education (School Safety and School Disaster Preparedness):

Table – 11.3:

Sl. No.	Name of the Programme	No. of Schools, Colleges and Other Educational institutions to be covered during the year	Time Line	Remarks
1	Awareness on disasters and its impacts on students & Teachers	20	July - Dec	Schools will reopen by 18 <sup>th</sup> June 18, after that only we can organise the activities.
2	Preparation of School disaster management plan	20	July - Dec	
3	Training of Students and Teachers on First Aid Techniques	20	July - Dec	
4	Training Students and Teachers on Search & Rescue Techniques	20	July - Dec	
5	Mock drills for fire/ Cyclone /earth quake etc.	20	July - Dec	

### 11.6 Community Capacity Building and Community Based Disaster Management:

As per the discussion held at ROTI on 3<sup>rd</sup> and 4<sup>th</sup> Mar, it was instructed to chalk out plan for 20% of villages of the district to conduct the community based disaster management programme in the villages.

**Table- 11.4:**

Sl. No.	Block Name	Total No of Villages	No. of vulnerable villages to be covered during 2022-23	No. of VDMC and task force member to be oriented	No. NGOs to be involved in the process	Time line	Remarks
1.	Cuttack Sadar	95	36	36*10	1	June - Dec	
2.	Tangi-Chaoudwar	167	32	32*10	1	June - Dec	
3.	Salipur	167	34	34*10	1	June - Dec	
4.	Mahanga	198	42	42*10	1	June - Dec	
5.	Nischintakoili	83	45	45*10	1	June - Dec	
6.	Baranga	80	31	31*10	1	June - Dec	
7.	Niali	258	33	33*10	1	June - Dec	
8.	Kantapada	89	27	27*10	1	June - Dec	
9.	Athagarh	201	36	36*10	1	June - Dec	
10.	Tigiria	51	12	12*10	1	June - Dec	
11.	Badamba	138	23	23*10	1	June - Dec	
12.	Narasinghpur	249	44	44*10	1	June - Dec	
13.	Banki	110	29	29*10	1	June - Dec	
14.	Banki-Dompada	49	16	16*10	1	June - Dec	

### 11.7 Capacity building of Cyclone and Flood Shelter Maintenance & Management Committee and Task Force members:

**Table – 11.5:**

Sl. No.	Name of the Training Programme	Total No. of Persons to be trained	No. of Training Programmes to be organized	Time Line	Remarks if any
1	Orientation of CSMMC and FSMMC	500 (10 MFS & 10 MCS)	20	May – Dec	
2	Training of task force members on Search & Rescue	250	10	May – Dec	
3	Training of task force members on First Aid	250	10	May – Dec	
4	Dist. Level Trg. Of Trainers (SAR & FA)	40 – SAR 40 - FA	1 1	May June	

**11.8 Shelter level mock drills:**

Sl. No.	Type	No. of Cyclone/ Flood Shelters to be covered	No. of villages to be covered.	Month/ Date
1	Cyclone Mock drill	25 MFC Buildings , 14 Block Headquarters and District Headquarter	25	July - Aug
2	Tsunami Mock drill	Not Required	Not Required	
3	Flood Mock drill	25 MFC Buildings , 14 Block Headquarters and District Headquarter	25	June -July

- Note: All shelter villages will be covered.

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## Chapter – XII

### Preparedness

#### 12.1 Relief Lines : District to Blocks

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (Blocks)
	From	To			
1	Cuttack	Athagarh	60 Km	Block Head quarter is connected with all Weather road	
2	Cuttack	Banki	54 Km	Block Head quarter is connected with all Weather road	
3	Cuttack	Baramba	98 Km	Block Head quarter is connected with all Weather road	
4	Cuttack	Baranga	15 Km	Block Head quarter is connected with all Weather road	
5	Cuttack	Cuttack Sadar	0 Km	Block Head quarter is connected with all Weather road	
6	Cuttack	Dampada	50 Km	Block Head quarter is connected with all Weather road	
7	Cuttack	Kantapada	32 Km	Block Head quarter is connected with all Weather road	
8	Cuttack	Mahanga	50 Km	Block Head quarter is connected with all Weather road	
9	Cuttack	Narasinghpur	129 Km	Block Head quarter is connected with all Weather road	
10	Cuttack	Niali	47 Km	Block Head quarter is connected with all Weather road	



<b>11</b>	Cuttack	Nischintakoili	40 Km	Block Head quarter is connected with all Weather road
<b>12</b>	Cuttack	Salipur	30 Km	Block Head quarter is connected with all Weather road
<b>13</b>	Cuttack	Tangi-Choudwar	15 Km	Block Head quarter is connected with all Weather road
<b>14</b>	Cuttack	Tigiria	73 Km	Block Head quarter is connected with all Weather road

### 12.2 Relief Line Channels : **Block to GPs & Villages**

SI No	Name of the road			Type of road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (Block)
	From (In Km)	To (In Km)				
1		2	3	4	5	6
1	R.N.Road	0/0	33/0	SH-65	30/300 km to 30/900 km (Submerge during high flood)	Tigiria
		33/0	59/200		-	Baramba
		59/200	80/400		79/800 km to 80/400 km (Submerge during high flood)	Narasinghpur
	Raj-Athagarh Railway station road	0/0	2/200		-	
2	Narasinghpur Hindol road	0/0	23/0	SH-64	-	Narasinghpur
3	Tangi Haripur road	0/0	20/0	MDR - 17	-	Tangi Choudwar
4	Gopamathura Bangurisingha Road	0/0	13/0	MDR-90	5/300 km to 6/0 km (Submerge during high flood)	Baramba
5	NH-42 at Kalinga Chhak to ARC Main gate	0/0	2/0	ODR	-	Tangi Choudwar

6	Charbatia Railway station road	0/0	1/0	ODR	-	Tangi Choudwar
7	Charbatia Mangarajpur road	0/0	9/070	ODR	-	Tangi Choudwar
8	Choudwar Town road	0/0	2/0	ODR	-	Tangi Choudwar
9	Nuntikiri Barpada road	0/0	9/250	ODR	-	Tangi Choudwar
10	Choudwar Canel Emabnkment road	0/0	2/260	ODR	-	Tangi Choudwar
11	NH-5 at Nurgundi Junction to Link road joining to NH-42 at Choudwar	0/0	4/0	ODR	-	Tangi Choudwar
12	OLD C.S Road	0/0	37/0	ODR	11/183 km to 13/100 km, 14/0 km to 14/400 km 16/900 km to 20/500 km, 21/100 km to 21/500 km, 24/800 km to 26/0 km (Submerge during high flood)	Tangi Choudwar/ Athagarh
13	Chhatia Kalakala road	0/0	16/500	ODR	-	Barachana
14	Tangi Bypass road	0/0	2/0	ODR	-	Tangi Choudwar
15	Chhatia Town road	0/0	2/0	ODR	-	Barachana
16	Chhatia Salepur road	0/0	2/0	ODR	-	Barachana
17	Tangi Bhatimunda road	0/0	5/500	ODR	-	Tangi Choudwar
18	Baruan Balichandrapur road	13/0	23/850	ODR	13/100 km to 14/500 km, 18/0 km to 21/900 km, 22/0 km to 23/850 km (Submerge during high flood)	Barachana, Dharmasala
19	Barachana Darpani road	0/0	12/500	ODR	-	Barachana
20	Approach road to Mahavinayak Templer	0/0	1/500	ODR	-	Barachana
21	Approach road to Chandi Templer	0/0	1/500	ODR	-	Barachana
22	Lalitgiri, Udayagiri and Ratnagiri road	0/0	9/050	ODR	5/800 km to 7/0 km (Submerge during high flood)	Bari, Barachana
23	Badachana Balichandrapur road	0/0	12/500	ODR	-	Barachana

24	Bramani Bridge with approach on Ramchandrapur ratnagiri road	0/0	0/700	ODR	0/230 km to 0/465 km (Submerge during high flood)	Barachana
25	Road from NH-5(A) Krushnadaspur to Udayagiri, Ratnagiri road	0/0	18/120	ODR	8/0 km to 9/0 km (Submerge during high flood)	Barachana
26	Athagarh Megha Katakiasahi road	0/0	23/0	ODR	12/100 km to 13/400 km, 15/100 km to 16/450km, 19/400 km to 21/200 km (Submerge during high flood)	Athagarh
27	Athagarh Town road	0/0	8/0	ODR	-	Athagarh
28	Nidhipur road	0/0	6/500	ODR	-	Athagarh
29	Oranda Gurudijhatia road	0/0	2/230	ODR	-	Athagarh
30	Radhakishorepur Gurudijhatia Chhagon Balipur road	0/0	13/700	ODR	-	Athagarh
31	Mahalaxmipur road	0/0	6/500	ODR	-	Athagarh
32	Doradadeopada road	0/0	0/930	ODR	-	Athagarh
33	Rajnagar Kantol road	0/0	4/600	ODR	0/350 km to 0/900 km (Submerge during high flood)	Athagarh
34	Athagarh Kandarpur road	0/0	5/530	ODR	-	Athagarh
35	Chhagon Railway station to Bali road	0/0	5/0	ODR	-	Athagarh
36	Baramba Town road	0/0	2/800	ODR	-	Baramba
37	Baramba Sankhamari road	0/0	6/0	ODR	3/200 km to 4/200 km (Submerge during high flood)	Baramba
38	Gopapur sasanga road	0/0	6/0	ODR	5/300 km to 6/200 km (Submerge during high flood)	Baramba
39	Bindhanima Khandahata road	0/0	14/800	ODR	0/640 km to 1/0 km, 14/300 km to 14/800 km (Submerge during high flood)	Tigiria, Banki
40	Tigiria Town road	0/0	1/500	ODR	-	Tigiria
41	Bindhanima Old road	0/0	1/520	ODR	-	Tigiria
42	Narasinghpur Town road	0/0	4/800	ODR	-	Narasinghpur

43	Narasinghpur Baliput road	0/0	25/0	ODR	23/800 km to 25/0 km (Submerge during high flood)	Narasinghpur
44	Narasinghpur Kakudia road	0/0	4/800	ODR	-	Narasinghpur
45	Chempeswar kanpur road	0/0	5/0	ODR	4/0 km to 5/0 km (Submerge during high flood)	Narasinghpur
46	Ekdal Bagadharia road	0/0	5/0	ODR	1/0 km to 2/700 km (Submerge during high flood)	Narasinghpur
47	Mundali Bridge with approach road	0/0	2/458	ODR	-	Athagarh
48	Khuntakata Subranapur road	0/0	7/150	ODR	6/500 km to 7/0 km (Submerge during high flood)	Banki
49	Maitri Nagar Road	0/0	0/650	ODR	-	Athagarh
50	Utarachandi road	0/0	0/700	ODR	-	Athagarh
51	Totapada Madhurapur road via Radharamanpur	0/0	2/0	ODR	-	Athagarh
52	Ramashyampur to Bishnupur road	0/0	2/100	ODR	-	Athagarh
53	Khuntuni truck Association to Khuntuni Bus stand	0/0	1/100	ODR	-	Athagarh
54	Electrict office to Athagarh Stadium road	0/0	1/0	ODR	-	Athagarh
55	Old C.S. road to Indranipatna	0/0	1/500	ODR	-	Tangi Choudwar
56	Bali Baula to Pahilabara, Jemadeipur road	0/0	5/0	ODR	-	Athagarh
57	Railway level crossing road Sankarpur to Badasamantarapur road	0/0	3/755	ODR	-	Tangi Choudwar
58	Mangarajpur to Rajbati road	0/0	1/200	ODR	-	Tangi Choudwar

59	Rajbati to Kochilanuagaon road	0/0	4/0	ODR	-	Tangi Choudwar
60	Rajbati to Ambilijhari road	0/0	3/800	ODR	-	Tangi Choudwar
61	Krushnadaspur NH 5A to Sipura	0/0	0/965	ODR	0/0 km to 0/965 km (Submerge during high flood)	Mahanga
62	Dasarathipatnana Transformer to Charigharia Chhak via Mandapada Church	0/0	3/500	ODR	-	Tangi Choudwar
63	Birupa left to Balarpur boundary wall via Harinathpur	0/0	2/500	ODR	-	Tangi Choudwar
64	Fulnakhara Niali Madhab road	Fulnakhara	Madhab	35.500		Kantapadaq,Niali and Baranga
65	Bagalpur-Sailo Jharapada road	Bagalpur	Jharapada	11		Kantapada
66	Olatpur Hospital road	Nialimadhab	Olatpur Hospital	0.500		Kantapada
67	Old Cuttack-Puri road	NH-5	Sakhipatana	4.000		Cuttack Sadar
68	Jharapada to Ichhapur road	Jharapada	Ichhapur	7.700		Kantapada
69	Kantapada to Kendubilwa road	Kantapada	Kendubilwa(Jayadev Pitha)	6.000		Kantapada,Balianta
70	Bachhasailo --Sithalo Bridge embankment to Alipingal Bachhasailo bridge with approach till Sithalo Square road	Sithalo Bridge	Bachhasailo	6.000		Niali

71	Sithalo to Adaspur road	Sithalo	Adaspue	6.000		Niali,Kantapada
72	Taandikana Arisol road	Tandikana	Arisol	1.400		Kantapada
73	Fly Over to Jail Road Via - Dolamunai, Seminary Chhak From 0/0km to 2/300 km.			ODR & 2/300 Km.		Under CMC, Cuttack
74	NH5 to Kosthashram (Old Jagannath road) From 0/0km to 5/100 km.			ODR & 5/100 Km.		Under CMC, Cuttack
75	Badambadi Madhupatna (Link Road) From 0/0km to 2/200 km.			ODR & 2/200 Km.		Under CMC, Cuttack
76	Old Malgodown to New Malgodown From 0/0km to 2/0 km.			ODR & 2 Km.		Under CMC, Cuttack
77	Malgodown Thakuraghar to Taladanda canal to Nuasahi From 0/0km to 1/300 km.			ODR & 1/300 Km.		Under CMC, Cuttack
78	Press Chhak to Nuapada From 0/0km to 1/100 km.			ODR & 1/100 Km.		Under CMC, Cuttack
79	Mangala Mandir to Dr. D. Sahoo residence via Sanjibani Chhak Cuttack. From 0/0km to 1/500 km.			ODR & 1/500 Km.		Under CMC, Cuttack
80	Jagannath Temple to connecting road in the district of Cuttack. From 0/0km to 0/650 km.			ODR & 0/650 Km.		Under CMC, Cuttack
81	NH-5 to Puri Main canal via - Kudasahi, Cuttack From 0/0km to 1/0 km.			ODR & 1 Km.		Under CMC, Cuttack

82	Bisinabar Main Road from 0/0 km to 0/600 & 0/200km to 0/290km in the district of Cuttack			ODR & 1 Km.		Under CMC, Cuttack
83	Sani Mandir to Mahima Nagar via - Cuttack College, Cuttack From 0/0km to 0/500 km.			ODR & 0/500 Km.		Under CMC, Cuttack
84	Kathjodi Embkt to Danda Mahavir Temple at Srikoruan, Cuttack From 0/0km to 0/700 km.			ODR & 0/700 Km.		Under CMC, Cuttack
85	Nuapada Village to Tilottama Das House at Balisahi, Cuttack From 0/0km to 0/700 km.			ODR & 0/700 Km.		Under CMC, Cuttack
86	Purighat to Jublee tower via - Town Hall (Choudhury Bazar) Cuttack From 0/0km to 1/0 km.			ODR & 1 Km.		Under CMC, Cuttack
87	Bajrakabati Culvert to Chhatra Bazar Professor Para Culvert (MSWC) road, Cuttack From 0/0km to 0/500 km.			ODR & 0/500 Km.		Under CMC, Cuttack
88	Ultra Hospital to Kendrapara Canal, Cuttack From 0/0km to 0/700 km.			ODR & 0/700 Km.		Under CMC, Cuttack
89	Plot No. 1051 to Ramakanta Lenka Res. Along with U.G.M.E School and Womens College lane at Mahanadivihar, Cuttack. From 0/0km to 0/980 km.			ODR & 0/980 Km.		Under CMC, Cuttack

90	Ananta Gopal Ashram to Sikharpur Chhak via - Justice Chhak at Mahanadivihar. From 0/0km to 1/500 km.			ODR & 1/500 Km.		Under CMC, Cuttack
91	Celebration Mandap to Jagannath temple and Sub-lane at Mahanadivihar Ward No.43. From 0/0km to 0/560 km.			ODR & 0/560 Km.		Under CMC, Cuttack
92	Shakti Hospital to P.C Samal Res. At Mahanadivihar. From 0/0km to 0/320 km.			ODR & 0/320 Km.		Under CMC, Cuttack
93	Mahanga to Katikata Road via - Chatratota-Goudpada From 0/0km to 20/610 km.			ODR & 20/610 Km.		Under CMC, Cuttack
94	Jhinkiria-Bentakar-Chanduli road (17.20 Km). From 0/0km to 17/200 km.			ODR & 17/200 Km.		Under Sadar Block, Ctc.
95	Old Jagannath Sadak PWD road to Reliance Fresh via Sabarmati Hospital, Mahandi Vihar. From 0/0km to 1 km.			ODR & 1 Km.		Under CMC, Cuttack
96	Gosala Jagannath Sadak to Darkhapatna Jagabandhu Sahu Lane From 0/0km to 1 km.			ODR (ULB) & 1 Km.		Under CMC, Cuttack
97	Mahanadi Vihar R&B Road to Jagannath Sadak via Binayak Nagar. From 0/0km to 1 km.			ODR (ULB) & 1 Km.		Under CMC, Cuttack
98	Cuttack-Govindpur-Banki-Simar road Balikuda to Tulasipur			MDR-77 51.70 Km.		Baranga Block-15 Km. Banki-Damapada Block-36.70 Km.



99	Banki-Baideswar-Kalapathar road Banki to Kalapathar			ODR 26.00 Km.		Banki-Dampada Block-7 Km. Banki Block-19 Km.
100	Right Approach to Mundali road Mundali Bridge to Govindpur			ODR 3.80 Km.		Under Banki-I Block
101	Trisulia-Barang road Trisulia to Baranga			MDR-77 4.98 Km.		Under Baranga Block
102	Baranga Bye Pass road Baranga to Nandankanan			ODR 1.60 Km.		Under Baranga Block
103	Jatamundia-Subarnapur road jatamundia to Subarnapur			ODR 3.877 Km.		Banki-Dampada Block-0.52 Km. Banki Block-3.357 Km.
104	Banki-Kacheri Road Banki post office chhak to Medical chhak			ODR 3.00 Km.		Under Banki-Dampada Block
105	Road Jagannath Temple to connecting road PWD road to MDR-77 Sisua			ODR 0.60 Km.		Under Banki-Dampada Block
106	Baranga Block Square to Dhakulei connecting NH-5 Baranga to NH-5			ODR 5.951 Km.		Baranga Block-4.0 Km. Cuttack Sadar Block-1.951 Km.
107	Nischit koili Lalitgiri			ODR - 22.40 km		Nischit koili - 0/0 to 7/0 km. Mahanga - 7/0 to 22/40 Km.
108	Mahanga katikata			ODR - 20.61 km		Mahanga - 0/0 to 14/0 Km. Nischit koili - 14/0 to 20/610 Km.
109	Nischit koili block chhak Narendrapur			ODR - 18.112 km		Nischit koili - 18/112 Km.

110	Barkolia Nagesh pur			ODR - 8.28 km		Nischit koili - 8/28 Km.
111	khaira pola Asureswar			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 18/0 Km. Nischit koili - 18/0 to 34/0 Km.
112	Paga Gopinathpur kuan pal			ODR - 17.882 km		Salipur - 0/0 to 9/800 Km. Mahanga - 9/800 to 17/882 Km.
113	Kuan pal Balichandrapur			ODR - 7.00 km		Mahanga - 0/0 to 5/800 Km. Badachana - 5/800 to 7/0 Km.
114	Balichandrapur Lalitgiri			ODR - 7.00 km		Badachana - 0/0 to 2/40 Km. Mahanga 2/40 to 5/20 Km. Badachana 5/20 to 7/0 Km.
115	Salipur Chhatia			ODR - 28.06 km		Salipur - 0/0 to 9/500 Km. Mahanga - 9/500 to 28/060 Km.
116	Kulia kendupatna			ODR - 1.504 km		Nischintikoili - 0/0 to 1/504 Km.
117	Nischitkoili medical Chhak G P office			ODR - 2.27 km		Nischintikoili - 0/0 to 2/27 Km.
118	Old cuttack SBP road (Barrage chhak ) R D office Chhak			ODR - 2.90 km		Tangi Choudwar - 0/0 to 2/900 Km.
119	Ultra hospital Pattamundai canal			ODR - 0.675 km		Tangi Choudwar - 0/0 to 0/675 Km.

120	Birupa Barrage Sunakhala			ODR - 5.00 km		Tangi Choudwar - 0/0 to 5/00 Km.
121	Paga Gopinathpur			ODR - 6.37 km		Salipur 0/0 to 6/370 Km.
122	Cuttack Chandbali road(Jagat pur) Sukar pada			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 22/0 Km. Nischit koili - 22/0 to 34/0 Km.
123	Nischit koili Lalitgiri			ODR - 22.40 km		Nischit koili - 0/0 to 7/0 km. Mahanga - 7/0 to 22/40 Km.
124	Mahanga katikata			ODR - 20.61 km		Mahanga - 0/0 to 14/0 Km. Nischit koili - 14/0 to 20/610 Km.
125	Nischit koili block chhak Narendrapur			ODR - 18.112 km		Nischit koili - 18/112 Km.
126	Barkolia Nagesh pur			ODR - 8.28 km		Nischit koili - 8/28 Km.
127	khaira pola Asureswar			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 18/0 Km. Nischit koili - 18/0 to 34/0 Km.
128	Paga Gopinathpur kuan pal			ODR - 17.882 km		Salipur - 0/0 to 9/800 Km. Mahanga - 9/800 to 17/882 Km.

129	Kuan pal Balichandrapur			ODR - 7.00 km		Mahanga - 0/0 to 5/800 Km. Badachana - 5/800 to 7/0 Km.
130	Balichandrapur Lalitgiri			ODR - 7.00 km		Badachana - 0/0 to 2/40 Km. Mahanga 2/40 to 5/20 Km. Badachana 5/20 to 7/0 Km.
131	Salipur Chhatia			ODR - 28.06 km		Salipur - 0/0 to 9/500 Km. Mahanga - 9/500 to 28/060 Km.
132	Kulia kendupatna			ODR - 1.504 km		Nischintikoili - 0/0 to 1/504 Km.
133	Nischitkoili medical Chhak G P office			ODR - 2.27 km		Nischintikoili - 0/0 to 2/27 Km.
134	Old cuttack SBP road (Barrage chhak ) R D office Chhak			ODR - 2.90 km		Tangi Choudwar - 0/0 to 2/900 Km.
135	Ultra hospital Pattamundai canal			ODR - 0.675 km		Tangi Choudwar - 0/0 to 0/675 Km.
136	Birupa Barrage Sunakhala			ODR - 5.00 km		Tangi Choudwar - 0/0 to 5/00 Km.
137	Paga Gopinathpur			ODR - 6.37 km		Salipur 0/0 to 6/370 Km.
138	Cuttack Chandbali road(Jagat pur) Sukar pada			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 22/0 Km. Nischit koili - 22/0 to 34/0 Km.

**Block to GP**

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Athagarh	Dhurusia	10 km	Flood	8	3985
2	Athagarh	Mancheswar	11km	Flood	12	5079
3	Athagarh	Megha	10km	Flood	5	4057
4	Athagarh	Katakiashai	10km	Flood	5	4398
5	Athagarh	Oranda	18km	Flood	6	4726
6	Athagarh	Chhagaon	20km	Flood	9	3995
7	Athagarh	Rajangar	6km	Flood	6	3247
8	Athagarh	Bentapada	5km	Flood	4	3734
9	Athagarh	Tarading	5km	Flood	6	2963
10	Athagarh	Mahakalbasta	8km	Flood	10	5283
11	Athagarh	Kulailo	3km	Flood	8	3618
12	Athagarh	Ghantikhal	10km	Flood	5	3364
13	Athagarh	Kumarpur	17km	Flood	5	5738
14	Athagarh	Dalabhaga	12km	Flood	3	2025
15	Athagarh	Kandarpur	7km	Flood	3	3247
16	Baramba	Ratapat	12km	Flood	5	4893
17	Baramba	Gopalpur	10km	Flood	5	3928
18	Baramba	Managarajpur	10km	Flood	2	2737
19	Baramba	Sankhameri	8km	Flood	2	5108
20	Baramba	Mugagahir	10km	Flood	3	4029
21	Baramba	Banagarisingha	20km	Flood	3	5977
22	Baramba	Diniary	7km	Flood	4	2855
23	Baramba	Gadapokhari	4km	Flood	6	5076

24	Baramba	Gopinathpur	10km	Flood	2	7151
25	Baramba	Manpur	15km	Flood	3	3874
26	Baranga	KHALARDA	20km	Flood	3	4499
27	Baranga	KORKARA	23km	Flood	6	2122
28	Baranga	USUMA	20km	Flood	4	4027
29	Baranga	HARIANTA	12km	Flood	13	3996
30	Baranga	SAINSO	18km	Flood	6	4304
31	Mahanga	Madhupur	13km	Flood	5	5186
32	Mahanga	Samsarpur	13km	Flood	6	4398
33	Mahanga	Basudevpur	12km	Flood	6	6644
34	Mahanga	Koliatha	12km	Flood	1	3389
35	Mahanga	Mulabasanta	12km	Flood	11	8491
36	Mahanga	kuhunda	8km	Flood	5	4489
37	Mahanga	kusupur	10km	Flood	2	4249
38	Mahanga	Kundi	10km	Flood	4	4616
39	Mahanga	Barahipur	13km	Flood	3	3442
40	Mahanga	Bheda	10km	Flood	5	4867
41	Mahanga	Anandapur	10km	Flood	7	3852
42	Mahanga	Nurtanga	8km	Flood	3	3592
43	Mahanga	Chahapada	8km	Flood	10	5382
44	Niali	Sithalo	18 Km	Flood	4	6343
45	Niali	Eranch	15 km	Flood	5	8147
46	Niali	Kasarda	14km	Flood	5	7383
47	Niali	Raniola	13km	Flood	8	8274
48	Niali	Sagadailo	15km	Flood	7	5962
49	Niali	Ekaberuan	18km	Flood	4	3368
50	Niali	Bilasuni	7km	Flood	8	5851
51	Niali	Pokharigaon	8km	Flood	5	5997
52	Niali	Alana	5km	Flood	12	7574

53	Niali	Pahanga	12km	Flood	4	5200
54	Niali	Baharana	6km	Flood	6	7170
55	Niali	Kapasi	12km	Flood	5	5103
56	Niali	Tihudi	12km	Flood	4	2894
57	Niali	Sadansa	14km	Flood	9	7848
58	Niali	Krushnaprasad	15km	Flood	9	8244
59	Niali	Nivaran	22km	Flood	5	2862
60	Niali	Ratanpur	20km	Flood	3	3434
61	Niali	Madhab	10km	Flood	3	7596
62	Niali	Jallarpur	2km	Flood	5	6780
63	Niali	Niali	0km	Flood	5	7904
64	Niali	Nuagaon	2km	Flood	4	7945
65	Niali	Anlo	7km	Flood	6	8553
66	Niali	Binishpur	18km	Flood	4	6703
67	Nischintakoili	Kendupatna	4km	Flood	9	5628
68	Nischintakoili	Buhalo	6km	Flood	6	5088
69	Nischintakoili	Tarat sasan	22km	Flood	6	4593
70	Nischintakoili	Kentala	7km	Flood	6	6164
71	Nischintakoili	Tilakana	9km	Flood	8	3206
72	Nischintakoili	Palada	10km	Flood	3	2615
73	Nischintakoili	Janardanpur	16km	Flood	7	4479
74	Nischintakoili	Kalamishiri	14km	Flood	4	4444
75	Nischintakoili	santpur	13km	Flood	7	3483
76	Nischintakoili	nagaspur	17km	Flood	5	5147
77	Nischintakoili	Daudpur	16km	Flood	8	1208
78	Nischintakoili	Sirlo	20km	Flood	8	6173
79	Nischintakoili	Asureswar	10km	Flood	6	5947
80	Nischintakoili	Baliapada	8km	Flood	4	4988
81	Salipur	Champati	22km	Flood	3	6459

82	Salipur	Balisahi	2km	Flood	3	6933
83	Salipur	Tarito	4km	Flood	4	4674
84	Salipur	Gopinathpur	6km	Flood	4	4201
85	Salipur	Rameswar	12km	Flood	9	6845
86	Salipur	Malasasan	18km	Flood	2	4304
87	Salipur	Narda	20km	Flood	6	4169
88	Tigiria	Gadadharpur	15km	Flood	8	7713
89	Tigiria	Badanauput	12km	Flood	4	3911
90	Tigiria	Hatamal	10km	Flood	5	4482
91	Tigiria	Puruna Tigiria	6km	Flood	3	6155
92	Banki	Golaganda	15km	Flood	5	4588
93	Banki	Subarnapur	12km	Flood	3	4207
94	Banki	Bandalo	15km	Flood	3	4753
95	Banki	Baunsaput	16km	Flood	4	4877
96	Banki	Ostia	17km	Flood	5	4528
97	Narasinghpur	Adhei Gundi	12km	Flood	6	4171
98	Narasinghpur	Balijhari	17km	Flood	6	6938
99	Narasinghpur	Balisahi	8km	Flood	7	5230
100	Narasinghpur	Basantapur	15km	Flood	9	5949
101	Narasinghpur	Baselihata	15km	Flood	3	3883
102	Narasinghpur	Champeswar	12km	Flood	6	6932
103	Narasinghpur	Ekdal	12km	Flood	4	5111
104	Narasinghpur	Jayamangal	5km	Flood	5	3207
105	Narasinghpur	Jodumu	10km	Flood	6	7923
106	Narasinghpur	Kakudia	3km	Flood	5	3328
107	Narasinghpur	Kamaladiha	35km	Flood	5	4348
108	Narasinghpur	Kanjiapada	15km	Flood	2	3081
109	Narasinghpur	Kanpur	13km	Flood	6	6158
110	Narasinghpur	Kokalaba	9km	Flood	5	3396



111	Narasinghpur	Nimasahi	4km	Flood	10	5320
112	Narasinghpur	Nuapatna	7km	Flood	5	3121
113	Narasinghpur	Nukhapada	4km	Flood	6	4939
114	Narasinghpur	Padamal	16km	Flood	3	2655
115	Narasinghpur	Paikabarabati	8km	Flood	7	5210
116	Narasinghpur	Phulapada	5km	Flood	6	3355
117	Narasinghpur	Regeda	25km	Flood	8	5591
118	Narasinghpur	Rusipada	14km	Flood	2	3224
119	Narasinghpur	Sardhapur	13km	Flood	7	6138

## 12.2 Resources available : Response force &amp; Volunteers

Sl. No	Response Force/	Capacity (In Nos.)	No. of trained person			Name of Nodal Person	Contact Details (Mobile/Phone)
			Search /Rescue	First Aid	Relief line Clearance		
1	NDRF	1065	1065			Sr. Jacob Kispotta	9437581614
2	ODRAF	43	43			Bijaya Chandra Pradhan	9437656060
3	Police	464	NA			Shri Jugal Kishor Kumar Banoth	94389-16200
4	Home Guards	492	NA				
5	Civil Defense	143					

6	NCC			Col. M.K. Singh	7008563484
7	NSS	72			
8	NYK	15		Ashok Nayak	9437137422
9	Trained Task force				

### 12.3 Preparedness at District level:

Task	Activity
District Emergency operation Centre (DEOC)	<ul style="list-style-type: none"> <li>• Test Checkup of all communication Interfaces in regular interval</li> <li>• Proper manning of the Control Room as per Para-10 of the Odisha Relief Code</li> <li>• A dedicated vehicle must be earmarked for Control Room</li> </ul>
Upward & Downward Communication	<ul style="list-style-type: none"> <li>• Have a list of Nodal person with contact details</li> <li>• Establish regular linkages with all important stakeholders</li> <li>• Contact SEOC regularly</li> </ul>
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> <li>• DDMA must meet twice every year &amp; before any disaster</li> <li>• Fix time &amp; venue for regular Preparedness meeting to Assess preparedness of District /Department /Civil Society /Block Community /Family /Individual level regularly</li> <li>• Circulate the minutes of the meeting with clear-cut role &amp; responsibility</li> <li>• Instruct CESU, PHED, RD, RWSS &amp; CDMO to arrange DG sets in advance to restore electricity immediately after any emergency situation.</li> <li>• Instruct CSO, Commissioner of Municipality and Eos of different NACs &amp; BDOs to arrange the dry foods for immediate need during emergency situation.</li> </ul>
Capacity Building	<ul style="list-style-type: none"> <li>• Identifying &amp; designating Nodal Officer for different Dept.</li> <li>• Capacity building &amp; skill upgradation of ODRAF/Fire services/ Police/Home Guard</li> <li>• Identify Volunteer like Civil Defense/Cyclone shelter Task Force/NCC/NSS/Scout &amp; Guide &amp; train them on Search &amp; Rescue, First aid, evacuation etc.</li> </ul>

	<ul style="list-style-type: none"> <li>• Take stock of required materials for search &amp; rescue, first aid, casualty management, evacuation, relief etc. &amp; update IDRN portal regularly</li> <li>• Assess preparedness through Mock drill at District, Block &amp; Community level</li> </ul>
Shelter Management	<ul style="list-style-type: none"> <li>• Take necessary steps for operation &amp; maintenance of shelters</li> <li>• Test Check of various Equipment at shelter level &amp; repair of the defective ones</li> <li>• Ensure regular meeting of Shelter committee</li> <li>• Assess Shelter level preparedness through Mock drill I</li> </ul>
Planning & Reporting	<ul style="list-style-type: none"> <li>• Collect &amp; transmit Rain fall data regularly</li> <li>• Collect &amp; transmit weather report regularly</li> <li>• Ensure preparation of Disaster Management Plans &amp; Safety plans at all levels</li> <li>• Capacity building of all Stake holders</li> <li>• Integrate the District plan with block &amp; Village disaster management Plans</li> <li>• Develop healthy media partnership</li> </ul>

### 12.3 Preparedness at Community Level

Task	Activity
Early Warning Dissemination	<ul style="list-style-type: none"> <li>• Build regular linkages with BEOC &amp; DEOC</li> <li>• Test Check of various Equipment at shelter level &amp; repair of the defective ones</li> <li>• Keep updates from BEOC/DEOC</li> <li>• Monitor &amp; Transmit updates to BEOC</li> <li>• Supply required information to BEOC &amp; DEOC</li> </ul>
Ensuring Preparedness	<ul style="list-style-type: none"> <li>• Have a list of Nodal person deployed in the village with contact details</li> <li>• Identification of safer routes &amp; shelters</li> <li>• Identify possible ways to reach persons like Farmers/Fisherman/NTFP collectors etc. who ventures into fields, sea &amp; forest respectively</li> </ul>

	<ul style="list-style-type: none"> <li>• Build teams from among the task force on Search &amp; Rescue, First aid, Damage &amp; loss assessment</li> <li>• Assess preparedness at Family/Individual level</li> <li>• Test Check-up of equipment's</li> </ul>
	<ul style="list-style-type: none"> <li>• Understand Local dynamics exposed &amp; vulnerable to different disaster</li> <li>• local Social Economic &amp; weather conditions</li> <li>• Develop Village DM plan</li> <li>• List of emergency contact Nos. &amp; display it in Centre places.</li> <li>• Participate in the activities of Preparing village Disaster Management, developing Safety plans, Capacity building Programmes &amp; Mock Drills</li> </ul>

12.4 Preparedness at Family Level

Task	Activity
Warning Communication	<ul style="list-style-type: none"> <li>• List the minimum Important requirements Keep all the important Documents in a water proof polythene</li> <li>• Record the Safe &amp; alternative routes to shelter</li> <li>• Keep News update in Radio/TV</li> </ul>

<p>Preparedness</p>	<ul style="list-style-type: none"> <li>• Always keep in readiness a “Ready to go Emergency Kit” containing Dry food (for 72 hours x Family member), Drinking water (2ltr/per person per day), Hand wash/soap, Important Documents/Valuables, Whistle/match box/lighter/ torch/battery/ umbrella, Mobile &amp; charger / radio</li> <li>• Family must have a “Ready to go First Aid Kit” containing Iodine/ Band aids/ Cotton/ Medicines/ ORS/ ointments/ scissor/ halogens etc.</li> <li>• Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels &amp; Kerosene (as per need)</li> <li>• Replace the damaged outdated or expired materials with new ones.</li> </ul>
<p>Capacity Building</p>	<ul style="list-style-type: none"> <li>• Participate &amp; involve in the activities of village disaster Management plan, preparation of Safety plans, participate in Capacity building Programmes &amp; involve in Mock Drills</li> </ul>

## 12.5 Preparedness at Individual Level

Task	Activity
Early Warning Dissemination	<ul style="list-style-type: none"> <li>• List &amp; keep a ready to go minimum Important requirements</li> <li>• Record the Safe &amp; alternative routes to shelter</li> <li>• Keep News update in Radio/TV</li> </ul>
Ensuring Preparedness	<ul style="list-style-type: none"> <li>• Every individual/children must have a Personal Identity information like a copy of Aadhar card/ Voter ID / School Identity Card &amp; Contact numbers of Preferably two who can be contacted in time of emergency</li> <li>• Family members especially kids must be sensitized about family gathering point during disaster &amp; crowded places</li> <li>• Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels &amp; Kerosene (as per need)</li> </ul>
Capacity development	<ul style="list-style-type: none"> <li>• Participate &amp; involve in the activities of</li> <li>• Disaster Management</li> <li>• Safety plans</li> <li>• Capacity building Programmes</li> <li>• Mock Drills &amp; FAMEX</li> </ul>

## 12.6 Preparedness of Departments

Name of the Department	Normal Time
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> <li>• Ensure regular meetings of District Disaster Management Authority</li> <li>• Develop &amp; update Disaster Management Plan, carry out Hazard analysis in the district</li> <li>• Identify safe alternate routes to cyclone shelters.</li> <li>• Keep a list of Contacts of EoCs, Nodal officer of different departments, Important stake holders, Village leaders, shelters</li> <li>• List of Relief lines &amp; storage places</li> <li>• List &amp; maintenance of SAR equipment</li> <li>• Capacity building of stakeholders &amp; volunteers</li> <li>• Asses preparedness through Mock Drills for different disasters at district department, block &amp; community level</li> <li>• Adopt sustainable mitigation measures</li> <li>• Integrate DM &amp; DRR features in development programmes</li> </ul>
CDMO	<ul style="list-style-type: none"> <li>• Disaster Management Plans &amp; Safety plans for Hospitals</li> <li>• Capacity building of Medical &amp; Para Medical Staffs</li> <li>• Assess preparedness through Mock Drills &amp; familiar exercises</li> <li>• Integrate department plans with plans with Village &amp; Block Plans and development programmes</li> <li>• Develop media partnership</li> <li>• Develop capacity of hospitals with advance equipment, proper manning &amp; disaster resilient infrastructures</li> <li>• List out the staff with contact address</li> <li>• Stock position of the sub-center and PHC/ AWCs</li> <li>• Prepare the plan and indent for stock</li> <li>• Train paramedical staff/ ANMs/ Male Health Workers/ Volunteers/ Task Forces/ Anganwadi Workers for use and providing minimum health services to the community.</li> <li>• Arrange for mobile health unit for inaccessible areas</li> <li>• DDC at village level</li> </ul>

	<ul style="list-style-type: none"> <li>• Health Awareness Campaign</li> <li>• Reinstall telephone connection</li> <li>• Arrangement of vehicle for uninterrupted mobility</li> <li>• Repair of Sub Centers buildings</li> <li>• Registration of Birth/ Death and other vital events</li> <li>• Dis-infections of Drinking water Sources thrice before flood season at least, one month before</li> </ul>
Superintendent of Police (SP)	<ul style="list-style-type: none"> <li>• Ensure functioning of the warning system.</li> <li>• Formation of team</li> <li>• Delegation of areas</li> <li>• Formation of Zones/ Sub-Zones</li> </ul>
Revenue Department	<ul style="list-style-type: none"> <li>• Holding of natural calamity meeting in the month of May and October.</li> <li>• Joint inspection</li> <li>• Formation of Zones/ Sub-Zones</li> <li>• Review progress</li> <li>• Arrangement of boats and transport, based on the risk assessment, for evacuation</li> <li>• Provision/ arrangement of rescue kit at risk prone area.</li> <li>• Equipments to be ready</li> <li>• Formation of team</li> <li>• Delegation of areas</li> </ul>
EE- RWSS	<ul style="list-style-type: none"> <li>• Installation of tube-wells</li> <li>• Site visit and report preparation</li> <li>• Awareness generation for using bleaching</li> <li>• Helping BDO during emergency</li> <li>• Supply of drinking water during emergency</li> <li>• Site selection and water test in Palasuni (BBSR)</li> <li>• Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories</li> </ul>



	<ul style="list-style-type: none"> <li>• Area wise deployment of staff, fitter, Mason, APD</li> <li>• Arrange DG sets for restoring the water supply immediately after Disaster.</li> </ul>
EE- Irrigation	<ul style="list-style-type: none"> <li>• Holding of natural calamity meeting in the month of May and October</li> <li>• Awareness Generation</li> <li>• Formation of Zones/ Sub- Zones</li> <li>• Review Progress</li> <li>• Provision/ arrangement of sand bags in risk prone area</li> <li>• Equipments to be ready</li> <li>• Formation of team</li> <li>• Arrangement of vehicle</li> <li>• Delegation of areas</li> </ul>
Animal Resource Development Department	<ul style="list-style-type: none"> <li>• List out staff members with contact address</li> <li>• Vaccination of cattle population</li> <li>• Provision of supply of yearly medicines</li> <li>• Arrangement of mobile health units in inaccessible areas</li> <li>• Health awareness campaign</li> <li>• Arrangement of vehicle for uninterrupted mobility</li> <li>• Repair of LI centers and other necessary equipments</li> </ul>
DAO- Agriculture	<ul style="list-style-type: none"> <li>• Information provided about the disaster and likely damages to crop and plantation</li> <li>• Organized transport, storage and distribution of seeds/fertilizers/pesticides</li> <li>• Cleaning operation carried out to avoid water-logging and salinity</li> <li>• Surveillance for pests and diseases being carried out.</li> <li>• Establishment of public information centers requirements for salvage or re-plantation assessed damage.</li> <li>• Identification of different areas to be affected by different hazard</li> <li>• Listing of irrigation sources with status.</li> </ul>
EE- Rural Works	<ul style="list-style-type: none"> <li>• Route strategy for evacuation and relief marked will be prepared</li> <li>• Clearance of blocked village roads</li> </ul>

	<ul style="list-style-type: none"> <li>• Community assistance mobilized for road clearing.</li> <li>• All staff informed about the disasters, likely damages and effects</li> </ul>
EE- Public Works	<ul style="list-style-type: none"> <li>• Route strategy for evacuation and relief marked will be prepared</li> <li>• Clearance of blocked roads</li> <li>• Community assistance mobilized for road clearing.</li> <li>• All staff informed about the disasters, likely damages and effects</li> </ul>
DTO-Telecom	<ul style="list-style-type: none"> <li>• Inspection and repair of poles etc.</li> <li>• Standby arrangements for temporary electric supply or generators</li> <li>• Identification of materials required for response operations</li> <li>• All staff informed about the disasters, likely damages and effects</li> </ul>
CDVO	<ul style="list-style-type: none"> <li>• Availability of food stuffs for the animals</li> <li>• Availability of vaccines and medicines for animals</li> <li>• Regular check up of animals by mobile health unit</li> <li>• Sensitize the public about the animal care</li> <li>• Ensuring of basic infrastructure i.e. veterinary hospitals and mounds</li> <li>• Availability of Doctors and other staff</li> </ul>
RTO/MVI	<ul style="list-style-type: none"> <li>• Regular checking of DL and other documents of vehicles</li> <li>• Awareness about road safety in roads by displaying hoardings</li> <li>• Patrolling in night to detect the drunk drivers</li> <li>• Regular checking for over loading vehicles in public transport</li> <li>• Heavy penalty for the road rule breakers</li> </ul>
DFO-	<ul style="list-style-type: none"> <li>• Avoid the fire in forests</li> <li>• Fire fighting items and water availability in order to tackle forest fire.</li> <li>• Special team formation to capture the thieves of forest products</li> </ul>
Railway	<ul style="list-style-type: none"> <li>• Regular inspection of railway lines in order to avoid rail accidents</li> <li>• Regular maintenance of the electronic equipments</li> <li>• Capacity building of staffs in order to tackle the disaster situation</li> <li>• Fire fighting items should be regularly checked</li> <li>• Availability of water in order to avoid the fire accident situations is stations.</li> </ul>

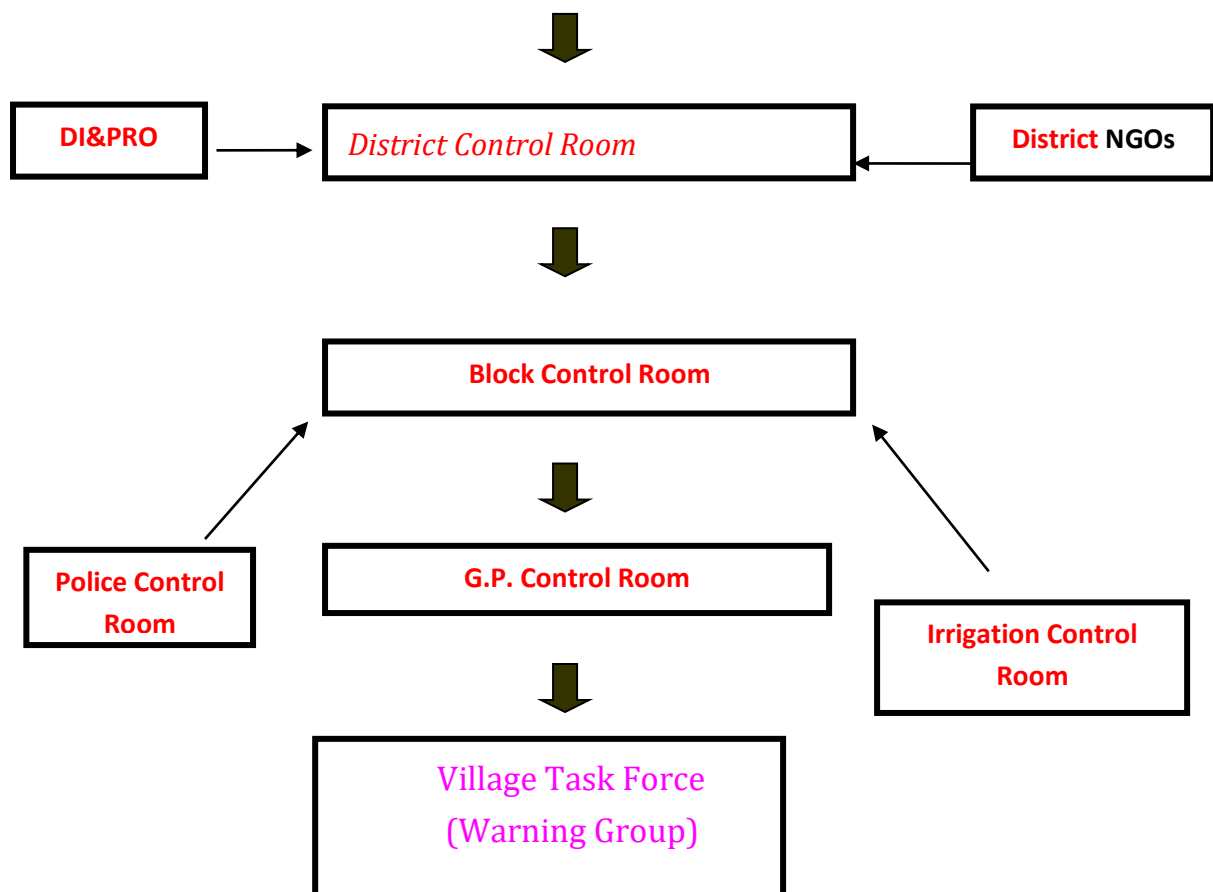
EE- Electricity	<ul style="list-style-type: none"> <li>• Regular identification of faults</li> <li>• Regular checking and repair of weak points. Transformers</li> <li>• Stockpiling of equipments/ accessories</li> <li>• Skill development training / orientation</li> <li>• Precautions/ protections near high voltage electric equipments installed</li> <li>• Stopping illegal consumption of electricity</li> <li>• Arrange DG sets in advance for immediate restoration of electricity.</li> </ul>
EE - PHED	<ul style="list-style-type: none"> <li>• Super chlorination of water sources</li> <li>• Sinking pump machines</li> <li>• Installation of water storage tanks</li> <li>• Installation of DG sets at pumping stations.</li> </ul>
DEO- School & Mass Education	<ul style="list-style-type: none"> <li>• Repairing of school buildings</li> <li>• Repairing of roads and approaches to school buildings</li> <li>• Creating awareness among the parents &amp; students regarding different disasters</li> </ul>
DEO - Higher Secondary Education	<ul style="list-style-type: none"> <li>• Repairing of college buildings</li> <li>• Repairing of roads and approaches to college buildings</li> <li>• Creating awareness among the parents &amp; students regarding different disasters</li> </ul>
Non Government Organisations (NGOs)	<ul style="list-style-type: none"> <li>• IEC activities on disaster management</li> <li>• Community mobilization</li> <li>• Ensure regular meeting of NGO co-ordination cell</li> <li>• Disseminate all govt. aided programme to the community</li> <li>• Ensure regular mock drill</li> <li>• Ensure regular bleaching / use disinfectants in the drinking water sources</li> <li>• Organize workshops seminar meeting/ training on community based disaster management</li> <li>• Long term mitigation strategies</li> </ul>

## Chapter – XIII

### Response

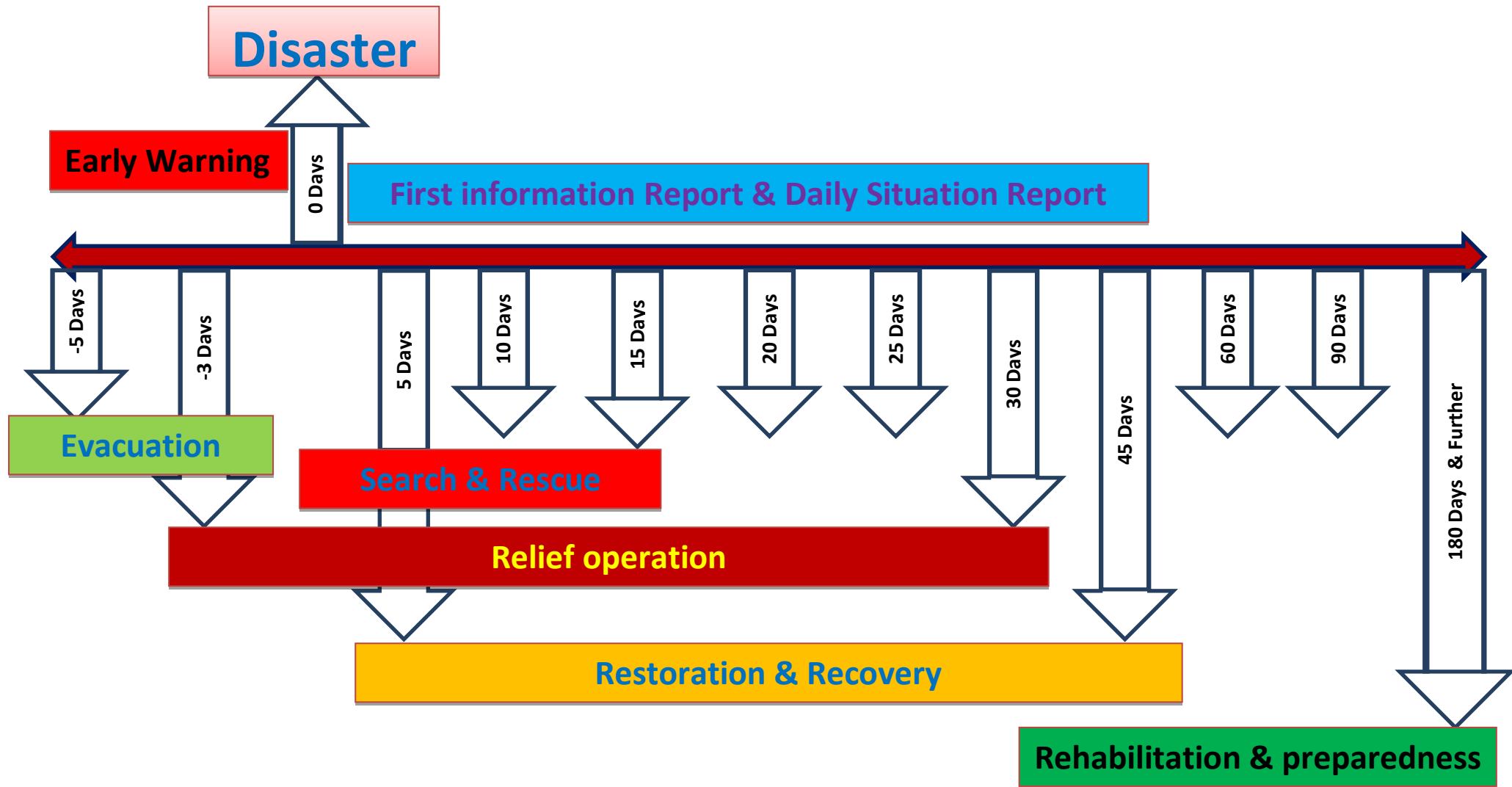
Response refers to activities done for handling disaster to bring the situation to normalcy not exceeding fifteen days from the abatement of disaster. The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential life support and community systems, to mitigate further damage or loss and provide the foundation for subsequent recovery. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue, evacuation, etc.

#### Early Warning Dissemination

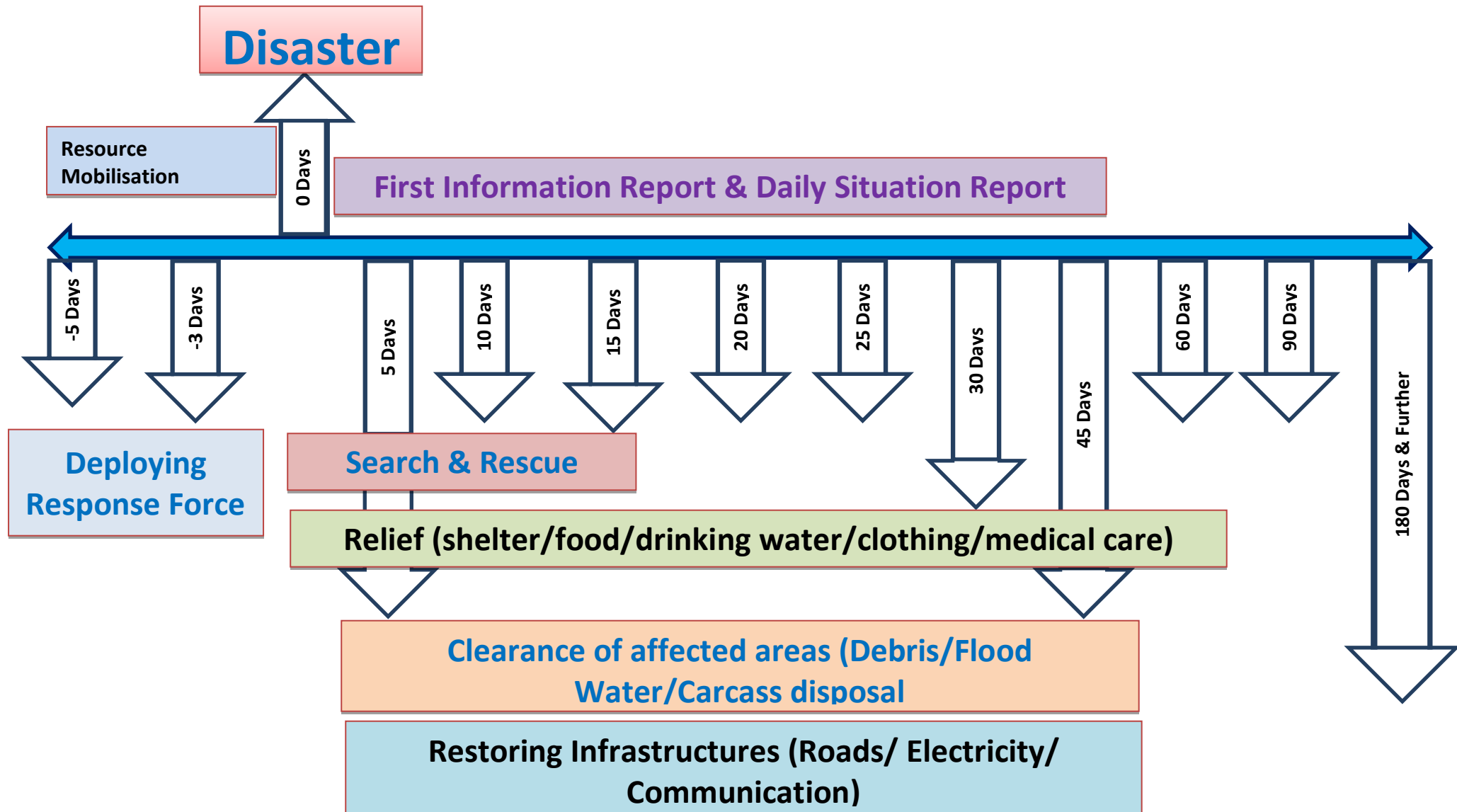


Response plan of Cuttack district describes standard response mechanism as directed in 'Odisha Relief Code'. It also describes standard operating procedures for line department in response and relief operations. The resources to be used in response like boats, Shelters, storage locations, medical institutions etc. are given for ready reference. Rapid loss and damage assessment format is also attached with plan.

### 13.1 Phases of Response : Timeline



13.2 Relief Management: Timeline



**13.3 Response**

<b>Response: District Task</b>	<b>Activity</b>
Warning Communication	<ul style="list-style-type: none"> <li>• Warning dissemination to the list of Nodal person &amp; concerned BDOs</li> <li>• Recording the receipt of information &amp; regular Status update</li> <li>• Transmitting updates to SEOC in regular interval as instructed</li> </ul>
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> <li>• Collector to take up a department coordination meeting &amp; distribute works among all the Departments</li> <li>• Collector issues circular to keep Govt. offices open cancelling all holidays.</li> <li>• A fixed time to be finalized every day for reporting at all level.</li> <li>• A nodal officer is identified for media management</li> <li>• Circulate the minutes of the meeting with clear-cut role &amp; responsibility</li> </ul>
Pre-positioning of staff, resources & Evacuation	<ul style="list-style-type: none"> <li>• Identifying &amp; designating Nodal Officer for different stages of disaster &amp; affected areas.</li> <li>• Positioning of ODRAF/NDRF/Fire services/ Police/Home Guard in the affected areas</li> <li>• Pooling Volunteer services (Civil Defense/Task Force/NCC/NSS/Scout &amp; Guide)</li> <li>• Take stake of required materials for search &amp; rescue, first aid, casualty management, evacuation, relief etc.</li> <li>• Make necessary arrangements of shelters for evacuation</li> <li>• Constitute a special team for special care to vulnerable section like Specially abled, Sr. Citizen, Pregnant &amp; lactating women, Infants &amp; children etc.</li> </ul>
Response	<ul style="list-style-type: none"> <li>• EOCs to Ensure back up (Power/Fuel/internet/ Communication at Dist/Dept. &amp; Block levels</li> <li>• Response force under guidance of Nodal officers ensure complete Evacuation (Human/ Animal), carry out Search &amp; Rescue, clear relief lines,</li> <li>• Collector to submit requisition of vehicle/boat/ helicopters &amp; list of support from state &amp; Centre to all concerned authorities</li> <li>• CSO to store required relief materials (Chhuda. Gur, Dry Foods) in the nearby storage points</li> <li>• CDVO to store, transport &amp; distribute required fodders for animals to the affected areas</li> </ul>

	<ul style="list-style-type: none"> <li>• Cyclone shelter committee &amp; Village Disaster management committee to organize free kitchen in the shelters with help of revenue dept.</li> <li>• EE- RWSS &amp; CDMO to ensure supply of drinking water, disinfection of water &amp; maintain Health &amp; hygiene in the shelters</li> <li>• CDMO to carry out First aid &amp; casualty management             <ul style="list-style-type: none"> <li>• Collector to collect &amp; transmit First Information Report (FIR) &amp; Daily Situation Report as per requirement</li> </ul> </li> </ul>
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**13.4 Response : Community Level**

Activity
<ul style="list-style-type: none"> <li>• DEOC to disseminate warning communication to BEOC &amp; Community</li> <li>• Response force to ensure Power/Fuel/internet/ Communication at Shelters back up</li> <li>• Supply Inspectors &amp; Marketing Inspectors to distribute relief materials with response force, Task force &amp; volunteers</li> <li>• Response force to carry out Search &amp; Rescue measures, Emergent relief operation, Relief line clearance, distribution of relief</li> <li>• Doctors to carry out First aid &amp; casualty management, Carcass disposal &amp; sufficient mortuary facility in the affected areas</li> </ul>

**13.5 Response: Family & Individual Level**

Task	Activity
Response	<ul style="list-style-type: none"> <li>• Listen to the instruction of the response force &amp; warnings</li> <li>• Economic use of "Ready to go Emergency Kit" Ready to go First Aid Kit</li> <li>• Cooperate the response force/officers &amp; Render volunteer service if asked for</li> <li>• Maintain cleanliness &amp; hygiene at shelter</li> </ul>



### 13.6 Response: Standard Operating Procedures for Departments

Name of the Department	On Receiving Warning	Response time	Post Disaster
Collector/ADM /	<ul style="list-style-type: none"> <li>• Review the situation in DDMC</li> <li>• Activate EOC &amp; Early Warning</li> <li>• Work distribution for operation</li> <li>• Circular to keep offices open</li> <li>• Arrange vehicle &amp; activate Evacuation (Normal/Forceful)</li> <li>• Holding of natural calamity meeting in the month of May and October.</li> <li>• Joint inspection</li> <li>• Formation of Zones/Sub-Zones</li> <li>• Review progress</li> <li>• Arrangement of boats and transport, based on the risk assessment, for evacuation</li> <li>• Provision/arrangement of rescue kit at risk prone area.</li> <li>• Equipment to be ready</li> <li>• Formation of team</li> <li>• Delegation of areas</li> <li>• Close contact with EO</li> <li>• Informing all concerned /public through revenue field</li> <li>• Functionaries</li> <li>• Alert revenue officials to remain at the Head Quarter</li> </ul>	<ul style="list-style-type: none"> <li>• Activate Search &amp; Rescue</li> <li>• Arrange temporary shelters</li> <li>• Arrange logistics in shelters</li> <li>• Workout financial estimates (evacuation / relief /recovery)</li> <li>• Collection of on the spot report from field functionaries</li> <li>• Dissemination of day to day position about the disaster at all levels</li> <li>• Liaison with block</li> </ul>	<ul style="list-style-type: none"> <li>• Activate relief line clearance</li> <li>• Proper relief Distribution</li> <li>• Start damage assessment</li> <li>• Facilitate Ex-gratia &amp; Compensation</li> <li>• Start primary damage estimate</li> <li>• Pool resources for SAR/shifting of critical patients</li> <li>• Collection of on the spot report from field functionaries</li> <li>• Dissemination of day to day position about the disaster at all levels</li> <li>• Liaison with district, sub-division and down the line</li> </ul>
Emergency Officer	<ul style="list-style-type: none"> <li>• Setting up Control Room and ensuring</li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination of information</li> </ul>	<ul style="list-style-type: none"> <li>• Providing information about</li> </ul>

	<p>round the clock functioning</p> <ul style="list-style-type: none"> <li>• Assignment of duties to the District Level officials and Sub collectors/Tahasildars/BDO</li> <li>• Arrangement of vehicles and public announcement system with RTO &amp; DIPRO for warning dissemination</li> <li>• NGO coordination and assignment of duty</li> <li>• Proper record keeping and transmission of information to all the levels</li> <li>• Early warning to fishermen</li> <li>• Holding of Natural Calamity meeting</li> <li>• Ensure proper maintenance and functioning of warning s &amp; communication systems</li> <li>• Awareness generation among public on natural hazards</li> <li>• Ensure Mock drill</li> <li>• Monitor functioning of DCR round the clock</li> <li>• Coordination with District Level officials and Sub collectors/ Tahasildars/BDOs</li> <li>• Coordination with RTO/DIPRO for vehicles and public announcement system for warning dissemination</li> <li>• NGO coordination and assignment of duty</li> </ul>	<p>regarding status of the disaster &amp; submission of report to state, INGOs and media.</p> <ul style="list-style-type: none"> <li>• Try to check rumors.</li> </ul>	<p>the precedence of disaster and information about the relief and rehabilitation programme undertaken by the district administration.</p>
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	<ul style="list-style-type: none"> <li>• Proper record keeping and transmission of information to all the levels</li> <li>• Holding of DDMC meeting</li> <li>• Ensure proper maintenance and functioning of warning s &amp; communication systems</li> </ul>		
CDMO	<ul style="list-style-type: none"> <li>• Disseminate the alert to all concerned (Staff list)</li> <li>• Arrangement of medicine, First aid kits &amp; teams</li> <li>• Mobile Health units for inaccessible pockets</li> <li>• Identifying &amp; shifting patients requiring intensive care to safer places</li> <li>• Supply of medicines &amp; pre-positioning of medical teams to vulnerable areas</li> <li>• Vaccination for prevention of communicable diseases</li> <li>• Measures to dis –infect drinking water</li> <li>• Availability of Blood Banks/Ambulance</li> </ul>	<ul style="list-style-type: none"> <li>• Mass Casualty Management units &amp; Triage</li> <li>• First Aid Centers</li> <li>• Medical surgical teams</li> <li>• Adequate mortuary facility</li> <li>• Measures to shift patients requiring intensive care</li> <li>• Pool of Blood donors (Preferably each group)</li> <li>• Additional laboratories</li> <li>• Carcass disposal team &amp; units</li> </ul>	<ul style="list-style-type: none"> <li>• Psycho-Social Counseling</li> <li>• Post Disaster Disease surveillance system</li> <li>• Special attention to vulnerable section</li> <li>• Networking with &amp; promote treatment in Private Hospitals</li> <li>• Carcass Management &amp; Issuance of Death Certificate</li> </ul>
Superintendent of Police (SP)	<ul style="list-style-type: none"> <li>• Ensure functioning of the warning system.</li> <li>• Formation of team</li> <li>• Delegation of areas</li> <li>• Formation of zones/Sub-Zones</li> <li>• Keeping close contact with DEO</li> <li>• Deploy personnel to guard vulnerable embankment points</li> <li>• Alert Police officials to remain at the</li> </ul>	<ul style="list-style-type: none"> <li>• Collection of vital information</li> <li>• Inform DEO after getting authentic message</li> </ul>	<ul style="list-style-type: none"> <li>• Support District officials and volunteers during search and rescue operation</li> <li>• Assist fire brigade personnel in their efforts</li> <li>• Maintain law and order situation</li> </ul>

	Head Quarter		
EE- RWSS	<ul style="list-style-type: none"> <li>• Installation of tube-wells</li> <li>• Site visit and report Pre- Paragraphing</li> <li>• Awareness generation for using bleaching</li> <li>• Helping BDO during emergency</li> <li>• Supply of drinking water during emergency</li> <li>• Site selection and water test in Pallasuni (BBSR)</li> <li>• Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories</li> <li>• Area wise deployment of staff, fitter, Mason, APD</li> <li>• To inform all its staff members to report their respective headquarters</li> <li>• Close contact with DEO</li> <li>• Arrangement of water tankers</li> <li>• Procurement collection of water purifiers</li> <li>• Stockpiling of accessories</li> <li>• Repairing the defunct tube-wells</li> <li>• Raising platforms/height of the tube wells in low lying areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination of the information and keeping a strict vigil over the situation and act accordingly.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>
EE- Irrigation	<ul style="list-style-type: none"> <li>• Holding of natural calamity meeting in the month of May and October</li> <li>• Awareness generation</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination of the information and keeping a strict vigil over the situation</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> </ul>

	<ul style="list-style-type: none"> <li>• Formation of Zones/Sub-zones</li> <li>• Review progress</li> <li>• Provision/ arrangement of sand bags in risk prone area</li> <li>• Equipment to be ready</li> <li>• Formation of team</li> <li>• Arrangement of vehicle</li> <li>• Delegation of areas</li> <li>• Suspension or cancellation of all leaves of instruction to the concerned person to join head quarter immediately.</li> <li>• Arrangement of all-important telephone line and number in order</li> <li>• Arrangement or requisition of Jeeps/ Trekkers/ Auto Rickshaw to disseminate received warning information to the population of vulnerable/ weak places.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> <li>• Deployment of concerned staff to update information regarding water level and velocity of flowing water in the rivers as well as about</li> </ul>	<p>and act accordingly.</p> <ul style="list-style-type: none"> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>
<p>DAO- Agriculture</p>	<ul style="list-style-type: none"> <li>• Review and update precautionary agricultural measures</li> <li>• Check available stock of equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Determine what damage, pests or disease may be expected</li> </ul>	<ul style="list-style-type: none"> <li>• Provide information to all concerned about diseases, likely damage to crop and</li> </ul>

	<p>and materials</p> <ul style="list-style-type: none"> <li>• Stock agricultural equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Determine what drugs and insecticide item will be required</li> </ul>	<p>plantation</p> <ul style="list-style-type: none"> <li>• Inform ways to protect crop and plantation</li> </ul>
EE- Rural Works	<ul style="list-style-type: none"> <li>• Identification of weak-points</li> <li>• Repair of weak roads/structures/canals before hazard season</li> <li>• Stockpiling of building material</li> <li>• Arrangement of equipment for road clearance</li> <li>• To inform all its staff members to report their respective headquarters</li> <li>• Close contact with DEO</li> <li>• Arrangement of water tankers</li> <li>• Procurement collection of water purifiers</li> <li>• Stockpiling of accessories</li> <li>• Repairing the defunct tube-wells</li> <li>• Raising platforms/height of the tube wells in low lying areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination of the information and keeping a strict vigil over the situation and act accordingly.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>
EE- Public Works	<ul style="list-style-type: none"> <li>• Identification of weak-points</li> <li>• Repair of weak roads/structures/canals before hazard season</li> <li>• Stockpiling of building material</li> <li>• Arrangement of equipment for road clearance</li> <li>• Suspension or cancellation of all leaves of instruction to the concerned persons to join head quarter immediately.</li> <li>• Arrangement of all- important</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination of the information and keeping a strict vigil over the situation and act accordingly.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>

	<p>telephone line and number in order.</p> <ul style="list-style-type: none"> <li>• Maintenance of record for information generation and dissemination</li> <li>• Co-ordinate with</li> <li>• District Administration</li> <li>• Clearance of Roadside dead trees posing threat to communication, life and electricity</li> </ul>		
DTO-Telecom	<ul style="list-style-type: none"> <li>• All buildings, towers and equipment sites should be well equipped with adequate protection measures like fire detection and extinguishing systems etc.</li> <li>• Wherever feasible, critical equipment should be repaired immediately</li> <li>• Ensure supply of fuel for back-up generators</li> </ul>	<ul style="list-style-type: none"> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Co-ordination of the requirement of temporary telecommunication services in the affected areas</li> <li>• Co-ordination for restoration of telecommunication services</li> <li>• Store backup spares and fuel in an accessible and secured area</li> <li>• Use alternate means of power like solar panel etc., wherever possible.</li> </ul>
CDVO	<ul style="list-style-type: none"> <li>• List out staff members with contact address</li> <li>• Vaccination of cattle population</li> <li>• Provision of supply of yearly medicines</li> <li>• Arrangement of mobile health units in inaccessible areas</li> <li>• Health awareness campaign</li> <li>• Arrangement of vehicle for uninterrupted mobility</li> <li>• Repair of LI Centers and other</li> </ul>	<ul style="list-style-type: none"> <li>• Record keeping</li> <li>• Information dissemination to concerned quarters (Sub-Divisional Vet. Officer)</li> <li>• Maintenance of regular flow of information</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>

	<p>necessary equipment</p> <ul style="list-style-type: none"> <li>• On receipt of warning ask all the staff to join duty immediately</li> <li>• Deployment of staff to the inaccessible areas</li> <li>• Regular maintenance of records</li> <li>• Coordination with higher authorities</li> </ul>		
RTO/MVI	<ul style="list-style-type: none"> <li>• Meeting with the owners of the vehicles</li> <li>• Arrange sufficient number of transport.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide necessary vehicles to district level functionaries</li> <li>• Alert truck Owners/ other vehicles to coordinate with district administration</li> <li>• Organize Transport for immediate assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Provide vehicle required for transportation of people to return to their homes</li> <li>• Transport people from evacuated area to their homes</li> </ul>
DFO-	<ul style="list-style-type: none"> <li>• To immediately contact the district control room and will assist in the work</li> <li>• To ensure that the staff at the headquarter is on duty</li> <li>• To arrange for wireless, telephones, manpower, forest guard in advance to disseminate information of the disaster in the damage prone areas and will play a key role with the district administration to warn the public</li> </ul>	<ul style="list-style-type: none"> <li>• Co-ordinate with District Administration</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Determine what damage occurred to Forest area.</li> </ul>	<ul style="list-style-type: none"> <li>• Allow the transportation of fodder from forest areas, when the fodder is not freely available</li> <li>• Open the forest land for free grazing when flood waters enter villages, and there is not enough fodder available</li> <li>• Provide wooden poles and bamboo for relief and reconstruction</li> <li>• To send task forces with vehicles, tree cutters, ropes, flood light, generator in case of closure of roads due to felling of trees</li> </ul>
Railway	<ul style="list-style-type: none"> <li>• Prepare a Safety Management Plan</li> <li>• Regular monitoring of the vulnerable</li> </ul>	<ul style="list-style-type: none"> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Restoration of railway lines</li> <li>• Repair the damaged railway lines,</li> </ul>



	<p>areas and railway lines</p> <ul style="list-style-type: none"> <li>• Conducting mock drills</li> <li>• Organizing Training for railway police and staff in regular interval</li> </ul>	<ul style="list-style-type: none"> <li>• Table top/class room simulation exercise</li> <li>• Assign Duties to Control Officials</li> </ul>	<p>bridge station etc.</p> <ul style="list-style-type: none"> <li>• Prioritization of restoration work.</li> </ul>
EE- Electricity	<ul style="list-style-type: none"> <li>• Regular identification of faults</li> <li>• Regular checking and repair of weak points/Transformers</li> <li>• Stockpiling of equipment/accessories</li> <li>• Skill development training/orientation</li> <li>• Precautions/protections near high voltage electric equipment installed</li> <li>• Stopping illegal consumption of electricity</li> <li>• Alert all staff to get back to their respective head quarters</li> <li>• Retrofitting of weak points if found</li> <li>• Disconnection of electricity in the event of an emergency</li> <li>• Arrangement of alternative energy sources such as generators and fuel for generators</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnection of electricity to the affected areas</li> </ul>	<ul style="list-style-type: none"> <li>• Restoration of electricity</li> </ul>
EE - PHED	<ul style="list-style-type: none"> <li>• Installation of tube-wells</li> <li>• Site visit and report Pre- Paragraphing</li> <li>• Awareness generation for using bleaching</li> <li>• Helping BDO during emergency</li> <li>• Supply of drinking water during emergency</li> <li>• Site selection and water test in</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination of the information and keeping a strict vigil over the situation and act accordingly.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> </ul>

	<p>Pallasuni (BBSR)</p> <ul style="list-style-type: none"> <li>• Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories</li> <li>• Area wise deployment of staff, fitter, Mason, APD</li> <li>• To inform all its staff members to report their respective headquarters</li> <li>• Close contact with DEO</li> <li>• Arrangement of water tankers</li> <li>• Procurement collection of water purifiers</li> <li>• Stockpiling of accessories</li> <li>• Repairing the defunct tube-wells</li> <li>• Raising platforms/height of the tube wells in low lying areas.</li> </ul>		
DEO- School & Mass Education	<ul style="list-style-type: none"> <li>• Sensitizing the students on different disasters</li> <li>• Rescheduling of School College timing</li> <li>• Organizing mock drills</li> <li>• Providing Training to face the situation during disaster</li> <li>• Repair and maintenance of buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Utilizing the School buildings for temporary rehabilitation purpose</li> </ul>
DEO - Higher Secondary Education	<ul style="list-style-type: none"> <li>• Sensitizing the students on different disasters Rescheduling of College timing</li> <li>• Organizing mock drills</li> <li>• Providing Training to face the situation during disaster</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Utilizing College buildings for temporary rehabilitation purpose</li> <li>•</li> </ul>

	<ul style="list-style-type: none"> <li>• Repair and maintenance of buildings</li> </ul>		
NGOs	<ul style="list-style-type: none"> <li>• Activities on disaster management</li> <li>• Community mobilization</li> <li>• Ensure regular meeting of NGO co-ordination cell</li> <li>• Disseminate all government aided programme to the community</li> <li>• Ensure regular mock drill</li> <li>• Ensure regular bleaching / use of disinfectants in the drinking water sources</li> <li>• Organize workshops seminar meeting/training on community based disaster management</li> <li>• Long term mitigation strategies</li> <li>• Alert all the concerned volunteers to close contact with NGO/GP/BDO immediately</li> <li>• Engage Volunteers to disseminate received warning/ information to the population of vulnerable / weak places</li> <li>• Attend emergency meeting of BDMC, NGO Co-ordination Cell, GPDMC and organize village Disaster Management Committee meetings.</li> <li>• Maintenance of record for information generation and dissemination</li> <li>• Co-ordinate with Block Administration,</li> </ul>	<ul style="list-style-type: none"> <li>• Collect and disseminate authentic information regarding weather forecast, movement and velocity of the cyclone, possible rain, amount floodwater released from Hirakud Dam, river Mahanadi and Kathojodi to the communities.</li> <li>• Try to check rumours.</li> <li>• Collection of local flood condition reports and pass on to Block Administration, INGOs and Media for possible support.</li> <li>• Make spot visit to see embankments, constant hourly contact with irrigation department to ensure the dispatch of sand bags to weak points, etc.</li> <li>• Collection of information on places where breaches occurred / likely to occur due to seepage / over topping / damage to embankments</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate with District administration to help in disseminating information regarding the disaster and help in coordinating relief &amp; rehab measures.</li> </ul>

	<p>GPDMC and PDC</p> <ul style="list-style-type: none"> <li>• In case of flood provide information to the Block Control Room regarding water level and velocity of flowing water in the rivers as well as about possible breaches, scouring, piping, seepages etc</li> <li>• Support Block Administration regarding deployment of country boats at vulnerable points</li> </ul>		
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## Standard Operating Procedure (SOP) for Line Departments

### Public Health Engineering Department

Actions to be Taken	Action Taken: Yes / No
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the DPO, DDMA	
2. To direct department staff at all levels across the district about the possible impending disaster and actions to be taken to prepare for response including arrangement of water supply tankers, as required.	
3. Construction of required number of toilets, bathrooms and implanting of hand pumps in shelter sites on the basis of demand received.	
4. Providing halogen tablets in areas facing water contamination, particularly during floods and bleaching of water sources such as Ring Wells or Hand Pumps in rural areas by leveraging field staff.	
5. Coordination with the health department especially to locate areas that report good number of cases of waterborne diseases so as to quality affected water sources, including surface water bodies such as Ponds for undertaking their disinfection.	
6. Coordination with the health department to provide safe drinking water sources in affected health centers.	
7. Arrangement of water tankers and other temporary means of distribution and storage water.	
8. Water quality testing of habitations that get affected by floods and addition of these habitations among the priority beneficiaries of projects like Rain Water Harvesting, Raised Hand Pumps and Raised Toilets, thereby creating a database.	
9. To deactivate the emergency response actions in consultation with EOC and agencies.	

**Water Resources Department**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the DPO, DDMA as with the responsibility of the appointed Nodal Officer and the accountability of the Executive Engineer, WRD or the Assistant Exec Engineer, if former is not placed in the district.	
2. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander, i.e., ADC (Disaster Management).	
3. To direct department staff at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
4. To prepare situation reports of river water levels periodically and share those with the DEOC and DDMA.	
5. In locations where Sluice Gates have been installed, undertake opening of gates to allow water to move across the side of embankments that shall help reduce pressure on embankments and improve irrigation for fields on the other side.	
6. In a post-earthquake scenario, undertake embankment audit and activate village embankment status checking teams to ensure any vulnerable points can be identified by the department.	
7. To deactivate the emergency response actions in consultation with EOC and agencies.	

**PUBLIC WORKS DEPARTMENT (BUILDING)**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the DPO, DDMA with the responsibility of the appointed Nodal Officer and the accountability of the Executive Engineer, PWD (Building) or Assistant Executive Engineer, if former is not placed in the district..	
2. To put all contractors and their equipments in ready to respond mode in case of an early warning.	
3. To push all contractors with their equipments into actions for emergency response and giving them the required directions.	
4. To undertake rapid visual screening and damage assessment to buildings.	
5. To direct department staff at all levels to take immediate retrofitting or seismic strengthening / repairing of buildings on high priority that are damaged by earthquake.	
6. Controlled demolition of buildings which are beyond repair and hazardous due to severe damage and dumping of debris in identified dumping sites.	
7. To undertake clearing of debris and trees from the roads that blocks the communication by using the equipments such as JCBs and sharp equipments such as saw.	
8. To deactivate the emergency response actions in consultation with EOC and agencies.	

**PUBLIC WORKS DEPARTMENT (BRIDGES & ROADS)**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the DPO, DDMA	
2. To put all contractors and their equipment in ready to respond mode in case of an early warning.	
3. To push all contractors with their equipment into actions for emergency response and giving them the required directions.	
4. Temporary roads shall be constructed to access transit relief camps and medical facilities for disaster victims.	
5. To undertake rapid visual screening and damage assessment of bridges and roads.	
6. To direct department staff at all levels to take immediate seismic strengthening / repairing of bridges & roads on high priority that are damaged by earthquake or floods.	
7. Arrangement of extra vehicles/ heavy equipment, such as front-end loaders/towing vehicles/earth moving equipment /cranes etc.	
8. Controlled demolition of bridges which are beyond repair and hazardous due to severe damage and dumping of debris in identified dumping sites.	
9. A priority listing of roads to be opened first shall be established. The most important roads are those leading to hospitals, main trunk routes and highways.	
10. To undertake clearing of debris and trees from the roads that blocks the communication by using the equipment such as JCBs and sharp equipment such as saw.	
11. Community organizations shall be contacted to mobilize community assistance for road clearing.	
12. To deactivate the emergency response actions in consultation with EOC.	



**FOREST DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE</b>	
1. Activation of communication with the DEOC or the DPO, DDMA as with the responsibility of the appointed Nodal Officer and the accountability of the District Forest Officer for Search & Rescue and Damage Assessment.	
2. To undertake assessment of damage to plantation done due to floods, storms, hailstorms or animal depredation.	
3. Identification of forest areas affected by erosion from flooding and placing plans of flood bank protection initiatives on priority.	
4. To support district administration in Search & Rescue operations if required to be done in forest areas with the involvement of the Forest Protection Force.	
5. Providing compensation in case of damage to ready to harvest crops, injury or loss of lives of domestic animals or humans, or otherwise any other damage to property.	
6. To deactivate the emergency response actions in consultation with EOC and agencies.	

**SOCIAL WELFARE DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Disaster Response</b>	
1. Activation of communication with the DEOC or the DPO, DDMA with the responsibility of the appointed Nodal Officer and the accountability of the District Social Welfare Officer.	
2. All personnel required for disaster management, shall work u n d e r the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander, i.e., ADC (Disaster Management).	
3. To direct department staff at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
4. To provide special care of children, women, old and disabled, especially those separated from families.	

5. To fetch records of households who lose life during disasters in coordination with the health department to provide these households life insurance support proactively.	
6. To ensure continued access to food supplies to Anganwadis.	
7. To deactivate the emergency response actions in consultation with EOC and agencies.	

### HEALTH DEPARTMENT

Actions to be Taken	Action Taken: Yes / No
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with the DEOC or the DPO, DDMA The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Joint Director of Health Services or the CMO.	
2. The Nodal Officer shall be responsible for coordination with DEOC and Support agencies	
3. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander, i.e., ADC (Disaster Management).	
4. To direct department personnel at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
5. To coordinate and transport necessary medical supplies to disaster affected areas.	
6. The following emergency drugs & medical equipments are stocked <ul style="list-style-type: none"> <li>• Drugs used in treatment of cuts and fractures, such as tetanus toxoid, analgesics and antibiotics</li> <li>• Drugs used for the treatment of diarrhoea, water-borne diseases and flu (including oral rehydrating supplies)</li> <li>• Drugs required to treat burns and fight infections</li> <li>• Drugs needed for detoxication including breathing equipments</li> </ul>	
7. To provide immediate first-aid and transport to the health centres for the treatment of the patients injured or rescued.	

8. To maintain records of the number of people injured and the number of lives lost during the disaster and share the information on the number of the dead with Social Welfare department so that they can provide the life insurance sum proactively.	
9. In-house emergency medical team to ensure that adequate staff available at all times to handle emergency 'casualties	
10. Designating an area of the hospital for receiving large number of casualties. <ul style="list-style-type: none"> <li>• Emergency admissions</li> <li>• Procedures developed</li> <li>• Records maintained</li> <li>• Work schedules to ensure availability of adequate staff</li> </ul>	
11. Accommodation arrangement for medical personnel from outside the area.	
12. Continuing procedural management of all forms of waste from the health centres.	
13. Establishing of Public Information Center at the hospital	
14. To deactivate the emergency response actions in consultation with EOC and agencies.	

**Home Department**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with the DEOC or the DPO, DDMA .The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Superintendent of Police.	
2. The Nodal Officer shall be responsible for coordination with DEOC	
3. Immediately after the disaster, it shall be ensured that all police stations are functional with all appointed force at all the required locations and law and order is maintained properly.	
4. All personnel required for disaster management, shall work u n d e r the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander, i.e., ADC (Disaster Management).	
5. To direct department personnel at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of	

a declared emergency by the DEOC, communicate to staff at all levels.	
6. Security shall be provided in transit and relief camps, affected villages, hospitals, medical centres, and the identified areas should be cordoned off.	
7. All department vehicles shall be refueled and parked unprotected /safe area.	
8. At the onset of the disaster, officers shall be dispatched to identify and assist people and communities in life-threatening situations.	
9. Seriously injured people shall be identified and the community assisted in organizing emergency transport to medical treatment centres.	
10. The community shall be assisted and encouraged in road-clearing operations.	
11. Transport carrying transit passengers (i.e. passengers travelling through trains, buses-passing through the district) shall be diverted away from the disaster areas.	
12. Public Information Centre shall be set-up to: <ul style="list-style-type: none"> <li>• Latest status of effect of disaster in the affected area.</li> <li>• Respond to personal inquiries about the safety of relatives in the affected areas</li> <li>• Compile statistics about affected communities, deaths, complaints and needs</li> <li>• Respond to the many specific needs that will be presented</li> <li>• Serve as a rumour control centre</li> </ul>	
13. Officers shall be available to inquire and record deaths normally there are neither time nor personnel available to carry out the standard post-mortem procedures.	
14. The police shall co-ordinate with the military service personnel in the area.	
15. District authorities shall be assisted in taking necessary action against hoarders, black marketer and that manipulating relief material in conjunction with other government offices.	
16. To deactivate the emergency response actions in consultation with EOC and agencies.	

**ELECTRICITY DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with the DEOC or the DPO, DDMA. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Exec Engineer.	
2. The Nodal Officer shall be responsible for coordination with DEOC.	
3. To cutoff power supply during storms, hailstorms, floods and in inundated areas to prevent loss of lives to electrocution.	
4. Standby arrangements for temporary electric supply or generators.	
5. Procurement and storage of fuel for generator sets that may be required to be installed.	
6. Inspection and repair of high-tension lines / substations / transformers / poles.	
7. Clearing of damaged poles / salvaging of conductors and insulators	
8. To deactivate the emergency response actions in consultation with EOC and agencies	

**AGRICULTURE DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with the DEOC or the DPO, DDMA. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the District Agriculture Officer.	
2. The Nodal Officer shall be responsible for coordination with DEOC.	
3. To conduct damage assessments of the damage to agricultural output and submit report to the DEOC.	
4. To deactivate the emergency response actions in consultation with EOC.	

**ANIMAL HUSBANDRY DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with the DEOC or the DPO, DDMA. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the D.A.H.O.	
2. The Nodal Officer shall be responsible for coordination with DEOC	
3. To conduct damage assessments of the injury or deaths of livestock in the district and submit the report to the DEOC.	
4. Arrangement of anesthetic drugs/vehicle for transport of injured animals.	
5. To start relief camps for livestock in higher places during floods and providing support with fodder supplies and drinking water.	
6. To facilitate mass casualty management by disposal of animal carcasses necessary to prevent spread of epidemics.	
7. To deactivate the emergency response actions in consultation with EOC and other agencies.	

**DISTRICT EMERGENCY OPERATIONS CENTRE, DISTRICT DISASTER MANAGEMENT AUTHORITY**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE ACTIONS</b>	
1. Activation of communication with Early Warning or Emergency Response.	
2. The Nodal Officer shall be responsible for sending communication and coordination with all agencies.	
3. Communities in disaster prone areas shall be made aware of the Early Warning System especially through field indications.	
4. All available Early Warning Systems shall be used & information so gathered to be disseminated as quickly as possible through laid down channels/methods.	
5. The early warnings shall to the extent possible, be clear about its spread with risk area, its severity, duration, and likely damages it may cause.	

6. Warning statements should be conveyed in simple, local language in order that it is understood. Along with today's messages, relevant continued background scenario along with likely development in few days ahead may also if possible to be incorporated. The warning statement should not evoke panic and prevent any spread of rumor.	
7. Wherever possible, assistance of community leaders and organized groups should be sought in managing the threat to the people.	
8. Once issue of early warning has been started, it shall be followed-up by subsequent warnings till it is over in order to keep people informed of the latest situation.	
9. In case of a disaster threat reduces, deactivation of warning or emergency response actions in consultation shall be sent to community.	

### **ORISSA RELIEF CODE**

#### **Functioning of Control Room (Para 10 & 47 of ORC)**

Control Room is functioning in District Office with telephone No. 0671-2507842 /1077 round the clock with the effect from 1<sup>st</sup> May to 30<sup>th</sup> November Control Rooms are also functioning in the Offices of the Sub-Collectors/Tahasildars/Block Development Officers and in other District Level Officers. The case of any natural calamities viz – flood or cyclone etc immediately after the occurrence it will be the responsibility of village level workers to inform the facts to the nearest RI who will pass on the information to the nearest Police Station for transmission of the message to the Sub-Collector and Collector's Control Room also keep the concerned zone officer and Tahasildars informed. Revenue Inspector's are trained at Tehsils level for the purpose.

#### **WIRELESS STATION (PARA 55 OF O.R.C)**

All the Police Station and Out-posts in the Dist. are equipped with VHF/HF for transmission of the flood /cyclone messages. Special Relief Commissioner has been moved for installation of temporary V.H.F. Centers at the following places to facilitate transmission of flood/cyclone messages.

#### **RAIN RECORDING AND SUBMISSION OF RAINFALL REPORTS (PARA 49 OF O.R.C.)**

Rain recording stations are available in all the blocks of this district. The Head Clerks of the Blocks are acting as Rain Recording Officers under the supervision of the respective Block Development Officers. The rainfall reports from each rain recording station shall be transmitted to the District Control Room daily through V.H.F./ Telephone/ Messenger.

#### **GAUGE READING (PARA 50 OF O.R.C.)**

The gauge reading stations of different rivers are available at different places in the district as shown. The gauge readings will be transmitted by the flood control cell to the District Control Room every hour when the gauge reading is near or above danger level. When the gauge reading is fairly below the danger level, the same will be transmitted once

a day by 5 P.M., Gauge readings at the above Gauge stations shall be communicated to the Revenue Control Room through phone/Fax from the District Control Room.

**DISSEMINATION OF WEATHER REPORTS, FLOOD BULLETIN ETC. (PARA 52 OF O.R.C.)**

Immediately on receipt of weather warnings and bulletin above high flood from the Metrological Center of the Government of India at Bhubaneshwar or from the Revenue Department/ Special Relief Commissioner, the same shall be communicated to the superintendent of Police. Executive Engineers of the Water Resources Department, the Sub-Collectors, Executive Officers of U.L.Bs., Tahasildars and Block Development Officer who shall without loss of time disseminate the messages among the people through their respective agencies and caution them so that they will be in readiness to shift to flood shelters or other safer places in the event of high floods. The people, will also be asked to refer to the special weather/flood bulletin of T.V./Radio during such periods.

**STORAGE OF FOODSTUFF IN INTERIOR AREAS (PARA 57 OF O.R.C.)**

To ensure that food grains/food-stuff are available in the interior areas which are likely to become inaccessible during flood, Civil Supplies Officer, Cuttack, has been reported to store adequate amount of rice and also to keep stock of Kerosene. Other dry foods like chuda, mudhi, guda, bread and other necessities like candle, match box etc, will be arranged immediately for distribution among the marooned people in the event of high flood.

**SELECTION OF FLOOD SHELTERS (PARA 60 OF O.R.C.)**

In or about the flood prone areas, suitable buildings belonging to Government, Panchayat Samities, Gram Panchayats, Educational Institutions, Mahila Samitis, Recreation Centres or other Institutions of public nature may be selected for providing emergent shelter to the people on evacuation from the flood affected areas. In case no such buildings could be found, temporary structures with bullahs, bamboos, talais and tarpaulins should be raised on high mounds or embankments for such shelters. The Collectors of flood prone districts shall arrange for quick availability of bamboos, bullahs, ropes, talais, tarpaulins, etc. for construction of such shelters.

**ORGANISATION OF RELIEF PARTIES FOR RESCUE AND RELIEF OPERATION (PARA 60 OF O.R.C.)**

In the event of high flood it will be necessary to rescue the marooned people and to distribute emergent relief to the people affected by the calamity. For smooth management of rescue and relief operation, the Sub-Collector have been instructed to constitute Relief Parties in advance indicating their area of jurisdiction. The employees of the local Government offices shall be included in such relief parties. NGOs will also be involved in the programmed.

**ARRANGEMENTS FOR ARMY ASSISTANCE (PARA 61 & 69 OF O.R.C.)**

In case of severe and wide spread calamity, the assistance of army personnel may be sought for relief and rescue operation. In such contingency, necessary arrangements shall be made



to requisition the army to assist the civil authorities through Special Relief Commissioner / Government following the procedure laid down under paragraph 61 and 69 of the Orissa Relief Code

**DAILY REPORTING OF FLOOD SITUATION (PARA 71 OF O.R.C)**

As per para 71 of Orissa Relief Code instructions have been separately issued for submission of daily situation report by the Block Development Officer /Tahasildars in the prescribed format through wireless message from the date of occurrence of the flood till after 3 days of the abatement of flood. The required flood information will be collected by the V.L.Ws and Extension Officers who will furnish the same to the Block Office by 2 P.M. every day. Besides, other line department officers will also pass on the information relating to their department officers who will also pass on the information relating to their department to the respective Block Development Officers. The Block Development Officers will compile and transmit the information as per the format of the daily situation report through the nearest police wireless by 3 P.M. to District Control Room.

**TRANSPORT**

In the event of any Natural Calamity, vehicles may be required for sending the relief parties and relief materials including foodstuff to the affected areas. The Regional Transport Officer will make requisition and provide such vehicles with the help of his enforcement staff as per the requirement.

**DISPOSAL OF DEAD BODIES (PARA 73 OF ORC)**

The dead bodies of human beings, if any, found in the flood-affected areas in case of high flood, shall ordinarily be made over to their relatives and friends, if available, for cremation or burial. When there are no claimants for dead bodies, those shall be cremated/buried at the Govt. cost i.e. Health Department. Chief District Medical Officer, Cuttack will issue necessary instructions to their officer and staff in the field in this regard. Similarly, carcasses of cattle and other animals shall be buried by the Animal Resources Development Department. Chief District Veterinary Officer will issue necessary instruction in this regard.

**ASSESSMENT OF DAMAGE (PARA 74 TO 77 OF O.R.C)**

Damages caused by the Natural Calamity to the private and public properties and loss of life are assessed by the Revenue Agency. The Tahasildars are to collect such information with the help of his staff through the local enquiry. The Block Development Officers and the Extension Officers in this work if necessary, will assist them and officers may be specially deputed by the Collector to assist the Tahasildars in this work where there is large-scale damage. This report of damages would be submitted without delay. The other departments will similarly assess their losses and submit reports within the stipulated time.

**RESTORATION OF COMMUNICATION AND POWER SUPPLY (PARA 86 OF ORC)**

In case of high flood, the communication and power supply to the affected areas are usually cut off. The respective departments will take immediate steps for restoration of the communication as well as power supply after abatement of flood.

## LAW AND ORDER

In case of occurrence of any Natural Calamity, there is change of law and order problems. Transportation and distribution of relief materials may require police protection. The Superintendent of Police will issue necessary instruction to all Inspector officer/officer officers in the District in the direction of maintenance of law and order in such eventuality and to render necessary assistance to the District/Sub-Divisional authorities for smooth management of relief and rescue operation.

### 13.7 Format for First Information Report (FIR)

#### On occurrence of natural calamity

(To be sent to Special Relief Commissioner, Orissa within maximum of 18 hours of occurrence of calamity)

From: District - \_\_\_\_\_ Date of Report:- \_\_\_\_\_

To

Special Relief Commissioner, Orissa

State Emergency Operation Centre (SEOC),

Rajiv Bhawan, Ground Floor, Unit-5, Bhubaneswar

Fax No: 0674-2534176, E-mail: [relief\\_sr@yahoo.com/src@ori.nic.in](mailto:relief_sr@yahoo.com/src@ori.nic.in)

- a. Nature of Calamity
- b. Date and time of occurrence
- c. Affected area (number and name of affected Blocks)
- d. Population affected(approx.)
- e. Number of Persons
  - Dead
  - Missing
  - Injured
- f. Animals
  - Affected
  - Lost

- g. Crops affected and area (approx. in hect.)
- h. Number of houses damaged
- i. Damage to public property
- j. Relief measures undertaken in brief
- k. Immediate response & relief assistance required and the best logistical means of delivering that relief from State/National
- l. Forecast of possible future developments including new risks
- m. Any other relevant information

Authorised Signatory

District Emergency Operation Centre (DEOC)

District:-\_\_\_\_\_

NB: The Districts will submit a detailed report on each of the above points as soon as possible after submission of the above First Information Report (FIR).

**13.8 Daily Status Report on Relief/ Restoration Measures Undertaken By  
Departments**

**1.Health Department.**

- Medical Relief Centres Opened-
- Mobile teams deployed-
- Wells disinfected-
- ORS distributed-
- Halogen Tablets distributed-
- Minor Ailment Treated-

**2.R.D. Department.**

- Mobile vans deployed-
- Water tanker deployed-
- ORS powder distributed-
- Halogen Tablets distributed-
- Water pouches distributed-
- Bleaching powder distributed-
- Sintex Tanks available-
- Tube wells disinfected-

**3.FS & CW Department**

- .....Qtls. Chuda, ..... Qtls gur supplied to ..... Blocks  
(Qty .in quintals)

District	Chuda	Gur

- ..... Qtls of rice has been allocated to the Districts mentioned below

**Blocks                      Quantity allocated (in quintal)**

**Total:**

**4.Fisheries & A,R.D. Department**

- Animals vaccinated-

- Animals treated-

**Damages to Roads/River Embankments**

**1.R.D. Department.**

- Roads damaged-
- CD/Breach occurred-
- Breach closed-
- Building damaged-
- Building collapsed-
- Pipe water supply affected-
- Tube Wells affected-

**2.Works Department.**

- Roads damaged-
- Breach occurred-
- CD works damaged-
- CDs washed away-
- Breach closed-

**3.W.R Department.**

- Breach occurred-
- Breaches closed-
- Breach closing works in progress

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## **CHAPTER – XIV**

# **RESTORATION AND REHABILITATION**

### **14.1 Rehabilitation & Restoration**

Rehabilitation and restoration comes under recovery phase immediately after relief and rescue operation of the disaster. This post disaster phase continues until the life of the affected people comes to normal. This phase mainly covers damage assessment, disposal of debris, disbursement of assistance for houses, formulation of assistance packages, monitoring and review, cases of non-starters, rejected cases, non-occupancy of houses, relocation, town planning and development plans, awareness and capacity building, housing insurance, grievance redress and social rehabilitation etc.

The district is the primary level with requisite resources to respond to any natural calamity, through the issue of essential commodities, group assistance to the affected people, damage assessment and administering appropriate rehabilitation and restoration measures.

The District Disaster management Authority reviews the relief measures submit financial requisition to the state Govt. under SDRF & NDRF. The requisition must reach the SDMA & SRC office in the prescribed format as detailed below for smooth & quick processing.

**14.1 Standard Operating Procedure: Restoration & Rehabilitation**

<b>Name of the Department</b>	<b>Normal Time / Aftermath of floods</b>
District Disaster Management Authority	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Conduct capacity building programmes for Govt. Official, PRIs, NGOs, Volunteers, SHGs, Paramedical Staffs, etc. To have a better knowledge on disasters and its management.</li> <li>• Documentation of best practices</li> <li>• Provision of funds for infrastructure development</li> <li>• Preparation of DDMP and its implementation at all levels</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• The DDMA will review the relief, restoration and rehabilitation measures.</li> <li>• Utilize the machinery in restoration and rehabilitation work without compromise</li> <li>• In close coordination with Blocks, Tahasil and PRIs</li> <li>• Act at the center point for State and below district level</li> </ul>
Collector/ADM / Emergency Officer	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Monitor the activities undertaken by DDMA</li> <li>• Review the preparedness activities</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• Restoration of Critical Infrastructures to bring situation to normalcy</li> <li>• Ensure Restoration of roads &amp; channels, Communication Network, Electricity &amp; Energy</li> <li>• Ensure address of health issues in the affected areas</li> <li>• Adopt sustainable mitigation measures in the restoration activities</li> <li>• Monitor &amp; review the restoration activities</li> <li>• Ensure proper functioning of rehab centers</li> <li>• Ensure proper functioning of free kitchen centers in rehab centers</li> </ul>
CDMO	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Awareness and training programs for staff and other stakeholders</li> <li>• Preparedness planning and sharing with the DDMA</li> <li>• Review and monitor the preparedness activities and report to DDMA</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• Carry out Disease surveillance measures to check epidemic prone diseases</li> <li>• Rehabilitation of deprived &amp; destitute</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> </ul>

	<ul style="list-style-type: none"> <li>• Carry out Trauma &amp; Psycho-social counseling</li> <li>• A mechanism for quick identification of factors affecting the health of the affected people shall be established for surveillance and reporting.</li> <li>• An assessment of the health and nutritional status of the affected population shall be done by experts with experience of emergencies and, if possible, local knowledge.</li> <li>• The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries, will be warranted.</li> <li>• Mobile medical hospitals and other resources available with District shall be provided to the relief camp.</li> <li>• Adequate supply of medicines, disinfectants etc. shall be made.</li> <li>• Where necessary inoculation shall be done.</li> <li>• Vaccination of the children &amp; pregnant women shall be undertaken.</li> <li>• Vector-borne diseases are a major cause of sickness and death in many disaster situations. Vector control measures shall be undertaken.</li> <li>• Water borne diseases may cause sickness and deaths and therefore adequate measures shall be taken to prevent such outbreaks.</li> </ul>
<p>Superintendent of Police (SP)</p>	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Conduct training programmes for staff on operation of updated equipments for Search and Rescue</li> <li>• Conduct training programme for staff on First Aid</li> <li>• Review and monitor of preparedness activities</li> <li>• Rapport building with the local community by the staff members</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with Dist. Administration</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Deployment of police personnel in shelters and relief camps to ensure smooth operation</li> <li>• Coordination with the district administration for law and order situation</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> </ul>
<p>EE- RWSS</p>	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Proper planning for supply of drinking water at the rural pockets for summer and flood season</li> <li>• Time to time restoration of tube wells and raising of platforms in the flood affected area</li> <li>• Aware the community to use safe drinking water</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with DEOC</li> <li>• All Circle Officers will carry out damage assessment in their</li> </ul>



	<p>respective areas</p> <ul style="list-style-type: none"> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> <li>• Immediate restoration of drinking water facility</li> <li>• Provision of drinking water tankers in water scarcity pockets.</li> <li>• Disinfection of drinking water sources</li> <li>• Awareness among the community to take safe drinking water</li> </ul>
<p>EE- Irrigation</p>	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Identification of weak embankments</li> <li>• Repairing of the embankments</li> <li>• Capacity building training programmes for staff and other stakeholders</li> <li>• Flood contingency planning and sharing with DDMA</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with DEOC</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> </ul>
<p>DAO- Agriculture</p>	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Training to farmers and other stake holders on different good agricultural practices</li> <li>• Training to Staff members on different good / updated agricultural practices</li> </ul> <p><b>Aftermath of Flood:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> </ul>
<p>EE- Rural Works</p>	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Routine developmental works but disaster proofing mechanism</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of critical infrastructures</li> </ul>

EE- Public Works	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of critical infrastructures</li> </ul>
DTO-Telecom	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>•</li> </ul>
CDVO	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> </ul>
RTO/MVI	<ul style="list-style-type: none"> <li>• All Circle Officers instructed to be in coordination with the local authority</li> <li>• Identification and Provision of vehicles for necessary emergency movement</li> </ul>
DFO-	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> </ul>
Railway	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Damage Assessment report of Railway may be sent to parent department apart from DDMA /DEOC.</li> </ul>
EE- Electricity	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Arrange DG sets for alternative electricity in important places.</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health,</li> </ul>

	<p>Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</p> <ul style="list-style-type: none"> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Restoration of Electricity in hospitals, administrative buildings</li> </ul>
EE – PHED	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Restoration of safe drinking water</li> <li>• Arrange required number of DG Sets for restoring the water supply.</li> <li>• Close watch on outbreak of jaundice and other water related diseases</li> </ul>
DEO- School & Mass Education	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event</li> </ul>
DEO - Higher Secondary Education	<ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event</li> </ul>

## 14.2 Damage Loss Assessment

Sector	Damage in Physical terms	Requirement of funds for repair of immediate nature	Out of (3) amount available from annual budget	Out of (3) amount available from related schemes/ programmes / other sources	Out of (3) amount proposed* to be met from SDRF/NDRF as per the list of works indicated in the revised items & norms
1	2	3	4	5	6
Roads & Bridges					
Drinking water Supply works (Rural)					
Drinking water Supply works (Urban)					
Irrigation					
**Power					
Primary Health Centres					
Community assets in social sectors covered by Panchayats					

## 14.2 Calculation of assistance for agricultural input subsidy-SMF

(Rs. In lakh)

Sl.	Name of the Block	Area held by SMF (in Hectares)	Total Agricultural area Affected [in Hect.]	Total agricultural area where crop loss is > 50%	Crop loss 33% & above			Expenditure incurred			Total
					Irrigated [in hect.]	Rainfed [in hect.]	Perennial	Irrigated @Rs.13,500/- per hectare	Rainfed @Rs.6800/- per hectare	Perennial @ Rs.18000/ per Hect.	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

11											
<b>Total</b>											

**14.3 Agricultural input subsidy- Farmers other than SMF**

**Farmers affected first year**

**(Rs. In lakh)**

Sl.	Name of the Block	Area held by farmers other than SMF (in hectares)	Crop loss > 33%							
			No of Farmers	Irrigated area in hect	Amount spent @ Rs.13,500/- per hect.	Rainfed Area in hect.	Amount spent @ Rs.6800/- per hect.	Perennial Area in hect	Amount Spent @ Rs.18000/ per Hect.	Total Amount Spent
1										
2										
3										
4										

5										
<b>Total</b>										

**14.4 Farmers affected by successive calamities**

Sl.	Name of the Block	Area held by farmers other than SMF (in hectares)	Crop loss > 33%							
			No of Farmers	Irrigated area in hect	Amount spent @ Rs.13,500/- per hect.	Rainfed Area in hect.	Amount spent @ Rs.6800/- per hect.	Perennial Area in hect	Amount Spent @ Rs.18000/ per Hect.	Total Amount Spent
1										
2										
3										
4										

5										
<b>Total</b>										

(Rs. In lakh)



**14.5 Animal Husbandry (Replacement of Animals)**

Name of the Block	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.30,000 for large animal , Rs.3000 for small animals & Draught animals @ Rs 25000 for large animal, Rs. 16,000 for small animals)				Poultry @ 50/- per bird subject to a ceiling of assistance of Rs.5000/- per beneficiary household.	Total expenditure (11+12+13+14+15)
	Milch Animal		Draught Animal		Poultry Birds	Milch Animal		Draught Animal		Milch Animal		Draught Animal			
	Buffalo / Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		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)


Contd..

**14.6 Assistance sought for repair /restoration of damaged houses**

(Rs. In Lakh )

SI	District	Fully Damaged/ Severely Damaged								Partially (15% & More)				Huts		Cattle shed attached with house		TOTAL
		Plain Areas				Hilly Areas												
		Pucca	Amount @ Rs.- 95100/-	kutcha	Amount @ Rs.- 95100/-	pucca	Amount Rs.- 101900/-	Kutcha	Amount @ Rs.- 101900/-	pucca	Amount @ Rs.- 5200/-	Kutcha	Amount @ Rs.- 3200/-	Nos.	Amount @ Rs.- 4100/-	Nos.	Amount @ Rs.- 4100/-	
1																		
2																		
3																		

4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
<b>TOTAL</b>																		

**14.8 Assistance for provision for temporary accommodation, food, clothing and medical care**

Sl. No.	Name of the district	Average No. (in a day) 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 lakh)				
					Temporary accommodation	Food	clothing	Medical care	Total expenditure
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
19									

<b>Total</b>								
--------------	--	--	--	--	--	--	--	--

### 9.8 Extent of damage due to natural calamities

Dist :

Nature and period of natural calamity :

Sl.	Item	Details
1.	Total number of Blocks in the district	
2.	Number and names of Blocks affected	
3.	Number of villages affected	
4.	Population affected (in lakh)	
5.	Total land area affected (in lakh ha.)	
6.	Cropped area affected (in lakh ha)	
	i) Total cropped area affected	
	ii) Estimated loss to crops (Rs. in lakh)	
	iii) Area where cropped damage was more than 33%	
7.	Percentage of area held by SMF	
	i) In the State as a whole	
	ii) In the affected districts	
8.	House damaged	
	a) No. of houses damaged	
	i) Fully damaged pucca houses	
	ii) Fully damaged kutch houses	
	iii) Severely damaged pucca houses	
	iv) Severely damaged kutcha houses	
	v) Partly damaged houses (pucca + kutcha)	
	vi) No. of huts damaged	
	b) Estimated value of damage to houses (Rs. in lakh)	
9.	No. of human lives lost	
	No. of persons with grievous injuries	
	No. of persons with minor injuries	
10.	Animal lost	
	a) No. of big animals lost	
	b) No. of small animals lost	
	c) No. of poultry (birds) lost	

11.	Damage to public properties	
	a) In physical terms (sector wise details should be given – e.g. length of State roads damaged, length of districts roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.)	
	b) Estimated value of the damage to public properties	
	Estimated total damage to houses, crops and public properties	

**14.9 Format for working out the requirements under the head of repair of damaged infrastructure of immediate nature***(Rs. In lakh)*

Sector		Damage in physical terms	Requirement of funds for repair of immediate nature	Out of (3), amount available from annual maintenance budget	Out of (3), amount available from related schemes/ programs/ other sources	Out of (3), amount proposed to be met from CRF/NCCF in accordance with list of works indicated in the Appendix to the revised items and norms
<b>Roads &amp; Bridges</b>	PWD Roads	No. of breaches – Length of Road damaged – No. of culverts damaged – No. of culverts washed away –				
	Rural Roads	No. of Roads damaged – Length of Road damaged – No. of breaches – No. of CD/Bridge damaged– No. of CD/Bridge washed away –				
	Urban Roads	Length of drain damaged – Length of Road damaged No. of culverts damaged –				
	Panchayat Roads	No. of Roads damaged – Length of breaches – Length of Road damaged –				

		No. of culverts damaged – No of culverts washed away				
	River/Canal Embankment Roads	No of Roads damaged in river embankments– Length of Road damaged in river embankments – No of Roads damaged in canal embankments – Length of Road damaged in canal embankments –				
<b>Drinking Water Supply</b>	Rural Water Supply	No of Tube wells damaged – No of platforms damaged – No. of Rural pipe water supply system damaged -				
	Urban Water Supply					
<b>Irrigation</b>	River Embankment	No of breaches – Length of breach in Km – No of partial damage -				
	Canal Embankments	No of breaches – Length of breach in Km – No of partial damage -				
	M I projects	No of Minor Irrigation projects damaged -				
	Clearance of	Length of drainage channels congested				



	Drainage channels	with vegetative materials –				
<b>Primary Education</b>	Primary School Buildings	No of Primary School buildings damaged -				
<b>PHCs</b>	PHCs	No of Primary Health Centres damaged -				
<b>Community assets owned by Panchayats</b>	Community Halls	No of Panchayat Ghar/Community Hall damaged -				
	AWW Centres	No of Anganwadi Centres damaged -				
<b>Power</b>	Electrical lines	No of Primary sub-stations damaged – 33 KV lines damaged – 11 KV lines damaged – Distribution Transformers damaged – LT lines damaged –				
<b>Total</b>						

## Chapter – XV

### Recovery:

A series of long-term activities framed to improve upon the repaired activities in the Reconstruction & rehabilitation phase are covered under Recovery phase. Recovery includes all aspects of mitigation and also incorporates the continuation of the enabling process, which assists the affected persons and their families not only to overcome their losses, but also to achieve a proper and effective way to continue various functions of their lives. The Recovery process is therefore a long-term process in which everyone has a role – the Government including the PRI members, NGOs and especially the affected people, their families and the community.

- Preparation of Recovery plan for displaced population, vulnerable groups, environment, livelihoods
- Organise initial and subsequent technical assessments of disaster affected areas and determine the extent of recovery works necessitated in addition to reconstruction & rehabilitation works.
- Evaluate the extent of works under SDRF/NDRF & other sources (damaged infrastructures)
- Explore opportunities for external aids like (International Agencies / Civil Society / Corporate Sector)
- Allocate funds for the stabilisation of the repaired & reconstructed infrastructure.
- Integrate Climate change & Disaster Risk Reduction features in the recovery programmes

The DM & Collector will be the co-ordinator of all Recovery activities in the District. The role of the DM & Collector will be to:

- Generally, monitor the management of the recovery process;
- Ensure implementation of the recovery plan by line departments, blocks
- Effective service delivery minimising overlap and duplication.

# Chapter – XVI

## Financial Arrangement

### 16.1 National Disaster Response Fund (NDRF)

The National Disaster Response Fund (NDRF) has been constituted by the Government of India as per the sub-sections (1) of section (46) of Disaster Management Act, 2005 and recommendation of the 13th Finance Commission. NDRF has been constituted by replacing the National Calamity Contingency Fund (NCCF). It is administered by the National Executive Committee (NEC).

In the event of a calamity of a severe nature when the State Disaster Response Fund (SDRF) is insufficient to meet the relief requirements, additional central assistance is provided from NDRF, after following the laid down procedure. The State Government is required to submit a memorandum indicating the sector-wise damage and requirement of funds. On receipt of memorandum from the State,

- An Inter-Ministerial Central Team is constituted and deputed for an on the spot assessment of damage and requirement of funds for relief operations, as per the extant items ad norms.
- The report of the Central Team is considered by the Inter-Ministerial Group (IMG) / A Sub-committee NEC constituted under section 8 of DM act, 2005, headed by the Home Secretary.
- Thereafter, the High Level Committee (HLC) comprising of the Finance Minister, the Agriculture Minister, the Home Minister and the Deputy Chairman, Niti Ayog considers the request of the State Government based on the report of the Central Team recommendation of the IMG thereon, extant norms of assistance and approves the quantum of assistance form NDRF.

- This is, however, subject to the adjustment of 75% of the balance available in the State's SDRF for the instant Calamity.

## **16.2 State Disaster Response Fund (SDRF)**

As per the provisions of Disaster Management Act, 2005 sub-section (1)(a) of Section (48) and based on the recommendation of the 13<sup>th</sup> Finance Commission, the Government of Odisha has constituted the State Disaster Response Fund (SDRF) replacing the Calamity Relief Fund (CRF). The amount of corpus of the SDRF determined by the 13th Finance Commission for each year the Finance Commission period 2010-15 has been approved by the Central Government. The Central Government contributes 75% of the said fund. The balance 25% matching share of contribution is given by the State Government. The share of the Central Government in SDRF is released to the State in 2 installments in June and December respectively in each financial year. Likewise, the State Government transfers its contribution of 25% to the SDRF in two installments in June and December of the same year.

Ministry of Home Affairs, upon being satisfied that exigencies of a particular calamity so warrant, may recommend an earlier release of the Central share up to 25% of the funds due to the State in the following year. This release will be adjusted against the installments of the subsequent year.

As per the Guidelines on Constitution and Administration of the State Disaster Response Fund (SDRF) laid down by the Ministry of Home Affairs, Government of India, the SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst and pest attack. The State Executive Committee (SEC) headed by the Chief Secretary SEC decides on all matters connected with the financing of the relief expenditure of immediate nature from SDRF.

## **16.3 Chief Minister Relief Fund (CMRF)**

Chief Minister's Relief Fund aims to provide assistance to calamities and in distress condition, to indigent persons suffering from critical ailments and to undertake charitable activities for public welfare.

### **16.3.1 Cases Eligible for Assistance under CMRF**

**16.3.1.1 Poor and persons in distress:** Relief to the poor, including grant and aid (financial or otherwise) to persons in distress.

**16.3.1.2 Aged, differently able, orphans, AIDS affected:** Assistance for the relief and rehabilitation of the aged, differently able' orphans, HIV/AIDS affected persons/families and those otherwise differently able or incapable of earning their livelihood, by grant and aid (financial and otherwise) and / or maintenance, establishment and support of institutions and homes for the benefit of such persons.

**16.3.1.3 Persons affected by calamities or violence:** Assistance for relief & rehabilitation of persons affected by natural or man-made calamities, communal violence', naxal violence or public disorder of a serious nature or any other calamity' affecting a family or a community, which deserves extreme compassion and not covered under any existing assistance scheme of State/central Government.

**16.3.1.4 Assistance for Rural Development:** Financial assistance out of CMRF may also be considered to undertake, promote, aid or otherwise support rural development including any programme for promoting the social and economic

welfare of the public in any rural area either directly or through an independent agency following due procedure.

To assist more number of deserving person and for better utilisation of the Chief Minister's Relief Fund, the State Government have delegated powers to the Collectors for sanction of assistance out of CMRF so as to extend such assistance to the deserving persons immediately at the time of their need.

#### **16.4 Release of Funds to Departments and Districts:**

Funds required towards pure relief to affected persons / families for natural calamities in shape of emergency assistance, organizing relief camp / free kitchen / cattle camp, agriculture input subsidy and other assistances to affected farmers, ex-gratia as assistance for death cases, grievous injury, house building assistance, assistance to fisherman / fish seed farmers / sericulture farmers, assistance for repair / restoration of dwelling houses damaged due to natural calamities are administered through the respective collectors.

Part funds towards repair / restoration of immediate nature of the damaged public infrastructure are released to the Departments concerned. On receipt of requisition from the Collectors / Departments concerned, funds are released after obtaining approval / sanction of S.E.C. However, funds towards pure relief are released under orders of Special Relief Commissioner / Chief Secretary and the same is placed before the State Executive Committee in its next meeting for approval. To save time, Collectors have been instructed to disburse the ex-gratia assistance from the available cash and record the same on receipt of fund from Special Relief Commissioner.

#### **16.5 Damage Assessments and Report after Flood/Cyclone**

Private properties and properties of Government under different Departments are damaged by high floods and cyclones. As per para-75 of Orissa Relief Code, the Collector shall undertake assessment of damages to private properties as well as properties of Government. This assessment shall be done quickly soon after the abatement of flood in the prescribed formats prescribed in Appendix- X of Orissa Relief Code.

**16.5.1 Submission of preliminary damage report (Para-76 of ORC)**

1. The Collector as well as the district level officers under each Department of Government shall immediately after assessment of flood damage forward a copy of their report to their immediate Head of Department. The district level officers may also supply reports to the Collector.
2. The Heads of Departments after necessary scrutiny shall forward their reports to their respective Departments of Government with copy to Special Relief Commissioner, not later than two weeks from the date of abatement of flood.
3. The Special Relief Commissioner shall compile the State report and shall furnish the consolidated preliminary report to the Revenue Department within a week of the receipt of the reports from the Heads of Department.
4. The preliminary flood damage report should be prepared as accurately as possible, as the relief measures, if any, are to be based on the merit and statistical data of that report.

### **16.5.2 Submission of final flood damage report (Para-77 of ORC)**

The concerned Heads of Departments as well as the Collector shall take immediate steps to compile the final report on flood/cyclone damage in the formats prescribed in Appendix- X soon after submission of the preliminary report.

Accidental errors, clerical mistakes, shortcomings, if any, noticed should be rectified in the final report. The final report shall be made available to Special Relief Commissioner as soon as possible and not later than one month from the date of abatement of flood.

On receipt of the reports from the different sources, Special Relief Commissioner shall forthwith compile the State report and furnish the same to the Revenue Department.

### **16.6 Central and State Government programmes and Schemes on Natural Calamities**

Mainstreaming Disaster Management in development planning is the most critical component to mitigate disaster risks. That's why it's important to make note of financial resources which are used in the implementation of such programmes and schemes which can lessen the risk from disasters by reducing vulnerability. It is also crucial to build communities resilience to deal with them. Moreover, as mandated by Ministry of Finance & Ministry of Home Affairs on 01st and 03rd June, 2014 respectively, 10 % flexi-fund within the centrally sponsored schemes (CSS) to be utilised, inter alia for mitigation / restoration activities in the event of natural calamities in the sector covered by CSS. Thus, relevant Central Government and State Government funded schemes are identified which are crucial to build over resilience of communities in the context of the district.



## Different State and Central Government Schemes and Programms

Sl No	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
1	National Agriculture Insurance Scheme (NAIS)/ Rastriya Krishi Bima Yojna (RKBY)	Crop Insurance	Agriculture Insurance Company of India (AICI)	To protect the farmers against the losses suffered by them due to crop failures on account of natural calamities, such as droughts, floods, hailstorm, storms, animal depredation, etc.
2	Janashree Vima Yojna	Life Insurance	Life Insurance Corporation Of India	The objective of the scheme is to provide life insurance protection to the rural and urban poor persons below poverty line and marginally above the poverty line.
3	RKVY ( <i>Rashtriya Krishi Vikas Yojana</i> )	Agriculture	Department of Agriculture	Popularization of Agriculture Implement including Manual & Bullock Drawn and Diesel Pump Sets
4	Input Subsidy	Agriculture	Department of Agriculture	To increase Seed Replacement Rates (SRR) to desired level of 25%, State Government has been providing subsidy on quality seeds.
5	Jala Nidhi (RIDF)	Irrigation	NABARD	The main obstacle to increase agricultural productivity is lack of irrigation. Keeping this in view, State Government has taken a loan from NABARD under RIDF for

				providing subsidy to farmers
6	Promotion of System Rice Intensification (SRI Scheme)	Agriculture	Department of Agriculture	The system of rice intensification (SRI) method of paddy cultivation requiring less seed and water has shown excellent results in increasing productivity of paddy
7	Support to State Extension Programme for Extension Reforms (ATMA)	Agriculture	Department of Agriculture	The scheme is being implemented in all districts through establishment of Agricultural Technology Management Agencies (ATMA). The main aim of the scheme is unification and intensification of extension activities in agriculture and allied sectors and also to minimize the productivity gap between actual and potential yields of various crops
8	National Food Security Mission	Agriculture	Department of Agriculture	The scheme is being implemented since 2007-08 with an objective to enhance production and productivity of rice and pulse crops.
9	Seeds Treatment Campaign	Agriculture	Department of Agriculture	Seed is one of the most important inputs that plays a key role in boosting agricultural productivity. Keeping the other inputs of production constant, the quality seeds alone can increase the production to the extent of above 20%.

10	Farm Mechanization	Agriculture	Department of Agriculture	Farm Mechanization brings a significant improvement in agricultural productivity in a number of ways. The timeliness of various agricultural operations is crucial in obtaining optimal yield, which is possible only through mechanization.
11	Technology Mission on Sugarcane Development	Agriculture	Department of Agriculture	The Scheme is implemented in the State to popularize new cultivars by multiplying breeder and foundation level planting materials of Sugarcane.
12	Intensive Extension Campaign on Agriculture	Agriculture	Department of Agriculture	The scheme is being implemented with the aim of creating awareness among farmers regarding various developmental programmes those are being under taken in agriculture sector and a large number of awareness campaigns are being made under the scheme.
13	National Mission on Oilseeds & Oil Palm: New scheme	Agriculture	Department of Agriculture	The scheme has been implemented with the objective of development of cultivation of vegetable oilseed crops. The scheme would assist for quality seeds, mini kits, crop demonstrations, inter-cropping, irrigation, farm equipment etc.
14	National Horticulture Mission (NHM)	Horticulture	Department Of Horticulture	Scheme is for integration Development of Horticulture (MIDH) during

15	DCCD( Cashew Plantation)	Horticulture	Department Of Horticulture	The objective of the programme is to develop new plantations with clones of high yielding varieties of cashew in the farmers field
16	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	SOIL CONSERVATION	Department Of SOIL & WATER CONSERVATION	The overall objective of PMKSY is extending the coverage of irrigation ' Har Khet ko Pani' and improving water use efficiency ' Per Drop More Crop' in a focused manner
17	Development of Fresh Water Aquaculture through FFDA	Fisheries	Department Of Fisheries	FFDA Pond Development, NMPS Pond Development, Fish Seed Distribution, Fish Production, Distribution of Scholarship to Meritorious Students of Fishermen Community, Fingerling Raising
18	Development of Water Logged Area	Fisheries	Department Of Fisheries	Programme, Feed Based Aquaculture , Demonstration of
19	Skill Upgradation Training & Awareness	Fisheries	Department Of Fisheries	Intensive Aquaculture , Organization of Skill up gradation Training & awareness Programme, Mastya
20	Assistance towards NFDB	Fisheries	Department Of Fisheries	Sampad Vika Ustav, Group accident Insurance Programme, MastyaJibi
21	Assistance towards Matsyajibi	Fisheries	Department Of Fisheries	Basagraha Yojana, Release of FFDA Subsidy, Release of Top Up Subsidy, Release of NMPS Subsidy, Moped with Ice Box, Short term Credit ( KCC), MGNREGS , FFDA Sponsored, NMPS Sponsored
22	Upgradation of Skills in Self-employment	Animal Husbandry	Animal Resources And	This is continuing scheme and is being implemented in all districts of

	under ARD Sector		Dairy Development	the State with organization of training camps.
23	Training and Demonstration in Fodder Cultivation and Pasture Development	Animal Husbandry	Animal Resources And Dairy Development	The fodder farms of the Department will be strengthened under RIDF assistance
24	Organisation of Exhibition for Buyer-Seller Meet and Transfer of Technical Know-how to the Farmers	Animal Husbandry	Animal Resources And Dairy Development	The objectives of establishing direct contact between producer, buying agents, processors and users to organize District meet.
25	Opening of New LAC	Animal Husbandry	Animal Resources And Dairy Development	The aim of this scheme is to provide veterinary services in the GPs having no Veterinary Institution by establishing one LAC
26	SMILE District Level Training	Animal Husbandry	Animal Resources And Dairy Development	The aim of this scheme is to provide training to the staff and farmers at the district level
27	Control of Animal Diseases	Animal Husbandry	Animal Resources And Dairy Development	Central Plan for control of animal diseases
28	Strengthening of Livestock services infrastructure & modernization of	Animal Husbandry	Animal Resources And Dairy Development	The scheme envisages supply of inputs to FSAI Centres for conducting FSAI and production of CB females towards augmentation

	offices			of milk production
29	Cattle Insurance	Animal Husbandry	Animal Resources And Dairy Development	provide assistance to the farmers under Central Plan
30	Co-operation	Animal Husbandry	Animal Resources And Dairy Development	Cooperatives play a crucial role in transforming socio-economic conditions in an economy and in facilitating increased participation of people.
31	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	DRDA	Department of Panchayat Raj	Providing at least one hundred days of guaranteed wage employment in a financial year
32	Swarnjayanti Gram Swarozgar Yojana/ Odisha Livelihood Mission (OLM)	DRDA	Department of Panchayat Raj	Odisha is to bring the assisted poor families (Swarozgaries) above the Poverty Line by ensuring appreciable sustained level of income over a period of time.
33	Gopabandhu Gramin Yojana (GGY)	DRDA	Department of Panchayat Raj	The principal objective of the scheme is to provide additional development funds to the targeted districts to provide infrastructure consisting primarily of Bijli, Sadak and Pani.
34	R.I.D.F	Irrigation	Department of Water Resources	Under RIDF-XVI, 1 No.of New MIP i.e Kankadajhar in Banki-II (Damapada) Block of Cuttack District have been

				sanctioned by NABARD for execution.
35	ORISSA COMMUNITY TANK MANAGEMENT PROJECT (OCTMP)	Irrigation	Department of Water Resources	Agricultural livelihood support services (ALSS) i.e to improve the production and productivity of agri-comodities of the tank command area
36	CHECK DAM (LOW HEIGHT STRUCTURES FOR INSTREAM STORAGE)	Irrigation	Department of Water Resources	To conserve water at the end of monsoon for irrigation.
37	CANAL LINING & SYSTEM REHABILITATION PROGRAMME (CLSRP)	Irrigation	Department of Water Resources	To enhance water availability at farm level and reduce seepage losses in distribution system
38	REPAIR RENOVATION & RESTORATION (R.R &R)	Irrigation	Department of Water Resources	REPAIR RENOVATION & RESTORATION (R.R &R)
39	State Plan (Revival of Defunct L.I. project)	Irrigation	Department of Water Resources	Particularly, to promote irrigation in the region for draught- proofing and for higher agriculture productivity
40	Biju Gram Jyoti Yojana (BGJY)	Energy	Department of Energy	Biju Gram Jyoti Yojana for electrification of villages / habitations having population less than 100 as well as BPL household electrification in rural areas
41	Biju Saharanchal Vidyutikaran Yojana (BSVY)	Energy	Department of Energy	Biju Saharanchal Vidyutikaran Yojana” to take up electrification of habitations / yards within the

				Municipalities / NACs and provide connection to the BPL Household within these urban areas. Under the scheme, the yards
42	Odisha Renewable Energy Development Agency (OREDA) Administration	Energy	Department of Energy	OREDA is promoting, executing, monitoring, planning, coordinating and evaluating various renewable energy sources in the State
43	National Biogas and Manure Management programme (NBMMP)	Energy	Department of Energy	National Bio-Gas and Manure Management programme by Government of India
44	Jawaharlal Nehru National Solar Mission (JNNSM)	Energy	Department of Energy	Jawaharlal Nehru National Solar Mission (JNNSM) includes under it two schemes they are Solar Roof Top Power Plant and Solar Water Heating System
45	Community Fixed Chullah for Mid- Day Meal Cooking	Energy	Department of Energy	Under Community Fixed Chullah for Mid- Day Meal Cooking scheme
46	PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME (PMEGP)	Industries	Department of Industries	The main objective of the scheme is to create employment opportunities by establishment of micro-enterprises
47	MSME Exhibition	Industries	Department of Industries	District levels Exhibition are organized for marketing support to the micro, small & medium enterprises



48	Road Shows	Industries	Department of Industries	Road shows are introduced at different places for awareness of the activities of the programmes and scheme of MSME Department.
49	Silpa Adalats	Industries	Department of Industries	District level silpa adalats are organized for redressal of the grievances/complaints of enterprises and make its recommendation to the appropriate authorities for consideration
50	Entrepreneurs Week	Industries	Department of Industries	Provide a platform for interaction with enterprises and new entrepreneur.
51	Rehabilitation of Handicraft Artisans	Industries	Department of Industries	Handicraft sector provides for self-employment to the traditional/trained artisans for availing bank finance
52	Modernisation & Technological Upgradation of Handicraft Enterprise	Industries	Department of Industries	The scheme envisages to attract entrepreneurs to set up handicraft industry & encourage use of modern machineries by infusion of capital from commercial banks & other financial institution
53	Organisation of Handicraft Exhibitions	Industries	Department of Industries	Handicraft Exhibition is organized in District level for Marketing support for the handicraft products manufactured by the artisans.
54	Construction of work shed to Handicraft artisans	Industries	Department of Industries	Construction of work shed for Handicraft artisans

55	Promotion of Handloom Industries	Industries	Department of Industries	The scheme includes activities like Modernization of Looms, Provision of Common Facility Centre, Training as well as communication publicity related activities like Participation! Organization of Exhibitions/ Fairs, Seminars, State Level Awards, Trade Promotion, Promotion of Documentary Films and other publicity purposes Exposure visits etc.
56	Work shed- cum Housing Scheme	Industries	Department of Industries	construction of Work shed-cum-housing is one of the component under the scheme "Promotion of Handloom Industries
57	Skill up-gradation Training under SEP	Industries	Department of Industries	Skill up-gradation training are imparting to the weavers for their up-gradation the present skill in order to enable them self-employment and earning the higher wages.
58	Onetime Rebate on sale of handloom cloth	Industries	Department of Industries	The scheme helps the handloom sector to market handloom products and reduce the accumulated stock.
59	Rural Roads and Bridges	Transport	Public Works Department (R&B)	Construction of bridges and roads under NABARD assistance under this scheme.
60	Cement Concrete Roads	Transport	Public Works Department	For rural connectivity, this scheme has been launched by the State to

			(R&B)	give special focus to Particularly Vulnerable pockets and Bastis.
61	Economic Plantation	Forest	Forest & Environment Development	Under this scheme, steps will be taken to raise plantations of economically important species like Teak, Bija, Red Sanders and Rosewood on suitable sites on a sustained basis.
62	Bald Hill Plantation	Forest	Forest & Environment Development	Bald hills are being covered with plantations making development of the land in all aspect.
63	Avenue Plantation	Forest	Forest & Environment Development	The scheme envisages creation of green belt along both sides of the important roads including panchayat and rural roads to provide environmental services as well as to act as shelters during summer and rainy days and minimise vehicular pollution.
64	Urban Plantation	Forest	Forest & Environment Development	The scheme envisages creation of green belt along both sides of the roads, parks and office premises, educational institutions in urban units for providing environmental services
65	National Rural Health Mission	Health	Department Of Health & Family welfare	NRHM is providing comprehensive integrated health care to the rural and vulnerable sections of the district
66	Rural Drinking Water	RWSS	Rural	Government of India under National

	Supply Programme		Development Department	Rural Drinking Water Programme (NRDWP)
67	Rural Sanitation	RWSS	Rural Development Department	The objective of this scheme is to eliminate the practice of open defecation in rural areas
68	Indira Awas Yojana	Housing	Panchayati Raj Department	The objective of the scheme is to provide housing to members of SC/ST/Freed bonded labourers, non-SC/ST rural poor living below the poverty line and to the people under FRA.
69	Mo Kudia	Housing	Panchayati Raj Department	The scheme will supplement resources available under IAY and increase availability of housing for the rural poor.
70	Post-Matric Scholarship, SC Pre-Scholarship, Minorities Post-Matric Scholarship, OBCs Post-Matric Scholarship, ST students Incentive for Inter Caste Marriage	Development of SC,ST,OBC & Minority	ST & Sc Department	Financial Benefit given to SC, ST & OBC category people.
71	Mission Sakti (ICDS Project)	Women Welfare	Women & Child Development Department	Women to achieve economic independence by enabling them to have independent employment and income has been accorded the

				highest priority.
72	Orphanages	Women Welfare	Women & Child Development Department	Under this scheme the orphan children will be benefited to stay with their relatives
73	Adoption of Orphans and Destitute Children	Women Welfare	Women & Child Development Department	The scheme of adoption is implemented in the State of Odisha for rehabilitation of destitute and abandoned children through adoption in families within and outside the country
74	Indira Gandhi National Old Age Pension Scheme (IGNOAP)	National Social Assistance Programme	Rural Development Department	The applicant must belong to a family having name in 1997 BPL list
75	Indira Gandhi National Widow Pension Scheme (IGNWP)	National Social Assistance Programme	Rural Development Department	The applicant must belong to a family having name in 1997 BPL list
76	MADHU BABU PENSION YOJANA	National Social Assistance Programme	Rural Development Department	Old Age Pension & Orissa Disability Pension Schemes
77	Supplementary Nutrition Programme (SNP)	Nutrition	Women & Child Development Department	Supplementary Nutrition Programme is one of the most important component of Six package of services under ICDS.
78	Mid-Day Meal (MDM) Programme	Nutrition	Women & Child Development Department	To increasing the enrolment, reducing the number of drop-outs in primary schools and improving the nutritional status of children, Mid-

				Day-Meal Programme has been introduced in the State
79	Credit Plan of Cuttack District for 2016-17 (NABARD)	Urban Development	Housing and Urban Development Department	creation of infrastructure &, other support services, potential available for lending under Non-Farm Sector and Other Priority Sector, long term physical potential of the district, National & State priorities as also the directions of the RBI on priority sector lending to increase productivity/ production in agriculture, horticulture, pisciculture, NFS and OPS, etc.

In addition to the economic dimension, there are also other aspects of social positioning such as class, ethnicity, community structure, community decision making processes and political issues that determine poor people's vulnerability. A poor community may be economically vulnerable but at the same time may have social, cultural and political capacities to cope with disasters. Risk reduction strategies for the poor should work towards reducing economic vulnerability and at the same time capitalize on the inherent social and cultural capacities of the poor communities. It is imperative that while improving the economic resilience of such communities, the physical, social and political risks are also recognized and managed. There is another aspect of vulnerability of the poor people, which is frequently ignored, that it is often local in nature. Disaster statistics collected and aggregated at provincial and national levels, do not capture the miseries of the poor and the most vulnerable. The impact assessments capture only the formal and well-defined sectors of the economy.

As Maskrey (1999) points out, "the creeping impact of small scale disasters on the lives and livelihoods of vulnerable communities, whose economy is largely in the informal or subsistence sectors is rarely documented given that often the most

vulnerable communities are those with the least assets to lose." It is becoming clear that the nature of vulnerability of the poor is complex and varied. Hence there are no straightforward solution for risk reduction for the poor. It will require multi-dimensional approaches and innovative institutional arrangements to achieve the goal of risk reduction for the poor, hence in case of any natural calamities these above mentioned schemes can be helpful in reducing the vulnerability of the poor families.

**16.7 Roles of District Planning committee on financial outlay on mainstreaming Disaster Risk Reduction (DRR) in development programs.**

The District Planning committee plays a coordinating role at the district level to ensure that the various Government functionaries in the district effectively carry out the Disaster Management activities in this phase working in close co-operation with Government Departments and local bodies. The role of the District Planning committee in this phase includes:

- a. Ensuring that preparedness, mitigation & prevention-activities are carried out in accordance with the appropriate guidelines.
- b. Ensuring that relevant officials in the district possess the knowledge to deal with disaster management issues.
- c. Developing an appropriate Disaster Management strategy for the district, taking into account the unique circumstances of the district and prevailing gaps in institutional capacity and resources of the district.
- d. Facilitating community training, awareness programmes and the installation of emergency facilities with the support of local administration, NGOs and the private sector.
- e. Establishing adequate inter-department co-ordination issues related to disaster management.
- f. Reviewing emergency plans & guidelines.
- g. Involving the community in the planning & development process.

- h. Ensuring that local authorities in the district are involved in developing their own mitigation strategies.
- i. Ensuring appropriate linkage between Disaster Management activities and planning activities.
- j. Revising/ Re-assessing contingency plans related to disaster management.
- k. Ensuring that proper communication systems are in place.
- l. Ensuring that equipment's connected with Search & Rescue, especially firefighting equipment's are well maintained & ready to use.
- m. Disaster Management plans maximizes the involvement of members of the community and NGOs.

Disaster risk reduction is a crosscutting issue that needs to be 'owned' by all government agencies rather than by a single department. However, an overarching District Disaster Management Authority is required to provide leadership, determine broad disaster risk management policies and strategies, advocate for the inclusion of disaster risk reduction concerns in broader development policies, strategies and individual initiatives, actively engage a wide range of government agencies in their implementation, define responsibilities at different levels of government, coordinate this multi-sector, multitier engagement and monitor and evaluate progress.

Individual line agencies and local government are responsible for implementing disaster risk management within their own areas of responsibility. Devolved responsibilities also include the Flood control measures, delivery of a number of services of direct relevance to disaster risk reduction (e.g., land-use planning, community-based forestry, environmental management, watershed management, agricultural extension and research) or which could potentially benefit from disaster risk reduction mainstreaming (e.g., local infrastructure facilities). Horizontal and vertical integration of government at different levels is also important for ensuring that principles of disaster risk reduction mainstreaming are reflected at all levels of government departments.



Disaster risk reduction and mainstreaming is also an essential component of development plans in hazard-prone areas of the district. Development plans should lay out clear overarching risk reduction objectives and strategies for enhancing resilience. This broad overview is essential in view of the crosscutting nature of disaster risk reduction and of the need for inter-sectoral coordination and alignment of plans to reduce risk. Access to adequate drinking water, food, waste management and a secure dwelling increases people's resiliency. Trade and technology can reduce poverty. Investing in financial mechanisms and social security can hassoock against vulnerability.

**The objectives of mainstreaming DRR into local government are to:**

- I. Empower the local governments to undertake effective measures to reduce disaster risks within the existing legal framework by formulating and implementing appropriate strategies, action plans and programs to reduce disaster risks.
- II. Enhance and strengthen the mandate/scope of local governments for reducing disaster risks by modifying existing laws and other legal provisions, building partnerships, strengthening institutional and human resource capacities, and better communication strategies with citizens, city groups, non-governmental organizations, civil society etc.

**16.8 Fund provision for disaster preparedness & capacity building**

**Capacity Building Activities under 13th Finance Commission Grant:**

Effective disaster response requires trained manpower to deal with complex situations where effective and speedy handling can reduce the impact of a disaster on human life and property. OSDMA has initiated a number of measures for building capacity within the administrative machinery for better handling disaster response out of the grant received under 13th Finance Commission grant.

A scheme on 'Strengthening State Disaster Management Authority and District Disaster Management Authority is being undertaken by OSDMA with the support of National Disaster Management authority (NDMA) and from State Disaster Response Fund. The project will be implemented in all the 30 district to strengthen State Disaster

Management Authority and District Disaster Management Authority. The SDMA and DDMA's will be supported with dedicated Human Resources to carry out Disaster Management activities including training and Capacity Building

**State Disaster Response Fund:**

As per the provisions of Disaster Management Act, 2005 and based on the recommendation of the 13th Finance Commission, the Government of Odisha has constituted the State Disaster Response Fund (SDRF) replacing the Calamity Relief (CRF). The amount of corpus of the SDRF determined by the 13th Finance Commission for each year the Finance Commission period 2010-15 has been approved by the Central Government. The Central Government contributes 75% of the said fund. The balance 25% matching share of contribution is given by the State Government. The share of the Central Government in SDRF is released to the State in 2 installments in June and December respectively in each financial year. Likewise, the State Government transfers its contribution of 25% to the SDRF in two installments in June and December of the same year. Ministry of Home Affairs, upon being satisfied that exigencies of a particular calamity so warrant, may recommend an earlier release of the Central share up to 25% of the funds due to the State in the following year. This release will be adjusted against the installments of the subsequent year. As per the Guidelines on Constitution and Administration of the State Disaster Response Fund (SDRF) laid down by the Ministry of Home Affairs, Government of India, the SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst and pest attack. The State Executive Committee headed by the Chief Secretary SEC decides on all matters connected with the financing of the relief expenditure of immediate nature from SDRF.

**National Disaster Response Fund:**

As per the provisions of Disaster Management Act, 2005 and recommendation of the 13th Finance Commission, the National Disaster Response Fund (NDRF) has been constituted at the Government of India. The NDRF is administered by the National Executive Committee.

In the event of a calamity of a severe nature when the State's DRF is insufficient to meet the relief requirements, additional central assistance is provided from National Disaster Response Fund (NDRF), after following the laid down procedure. The State Government is required to submit a memorandum indicating the sector-wise damage and requirement of funds. On receipt of memorandum from the State, an Inter-Ministerial Central Team is constituted and deputed for an on the spot assessment of damage and requirement of funds for relief operations, as per the extant items and norms. The report of the Central Team is considered by the Inter-Ministerial Group (IMG) / National Executive Committee (NEC) headed by the Home Secretary. Thereafter, the High Level Committee (HLC) comprising of the Finance Minister, the Agriculture Minister, the Home Minister and the Deputy Chairman, Planning Commission considers the request of the State Government based on the report of the Central Team, recommendation of the IMG thereon, extant norms of assistance and approves the quantum of assistance from NDRF. This is, however, subject to the adjustment of 75% of the balance available in the State's SDRF for the instant Calamity. Expenditure from SDRF/ NDRF is incurred by the State Government on eligible calamities as per the Items and Norms of expenditure from State Disaster Response Fund and the National Disaster Response Fund prescribed by the Ministry of Home Affairs, Government of India with the concurrence of Ministry of Finance.

#### **Chief Minister's Relief Fund:**

Whirlwind, Tornadoes and Disasters like lightening, Heat wave, Boat Tragedy in normal times are responsible for about 75% of total human causality due to all types of disasters. Yet these disasters have been included in list of eligible calamities for incurring expenditure from SDRF / NDRF. The State Government has made provisions for payment of ex-gratia to the bereaved families of persons who die due to such calamities. Release of Funds to Departments and Districts: Funds required towards pure relief to affected persons / families of natural calamities in shape of emergency assistance, organizing relief camp / free kitchen / cattle camp, agriculture input subsidy and other assistances to affected farmers, ex-gratia as assistance for death case grievous injury, house building assistance, assistance for replacement of milch / draught animals and poultry, assistance to fisherman / fish seed farmers / sericulture farmers, assistance for repair / restoration of

dwelling houses damaged due to natural calamities are administered through the respective collectors. Part funds towards repair / restoration of immediate nature of the damaged public infrastructure are released to the Departments concerned. On receipt of requisition from the Collectors / Departments concerned, funds are released after obtaining approval / sanction of S.E.C. However, funds towards pure relief are released under orders of Special Relief Commissioner / Chief Secretary and the same is placed before the State Executive Committee in its next meeting for approval. To save delay, Collectors have been instructed to disburse the ex-gratia assistance from the available cash and record the same on receipt of fund from Special Relief Commissioner.

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## **CHAPTER - XVII**

### **LESSONS LEARNT AND DOCUMENTATION**

Odisha is one of the eastern states in the Indian union. According to the 2011 census the population of Odisha was at about 41 million, which makes it the 11th most populated state in India. Odisha has 30 districts of which 13 are coastal. The coastal districts are highly prone to cyclones, floods, droughts, and heat waves due to geographic location. Its coastline adjoins the Bay of Bengal for 300 miles, which makes it four to five times more likely to experience storms than it would if it were located in the Arabian Sea.

Cuttack is the financial Capital of Odisha and the past capital of the State. It lies between two major rivers the Mahanadi, the largest river of the State and Kathojodi the city is protected by high embankments on either side. The bed of both these rivers are at a level higher than the city and hence Cuttack is like bowl prone to Severe water logging that stayed for weeks causing serious hazard During the heavy flow water in the rivers on either side of the city if any if the embankment crack a major portion of the city would have sashed.

Tropical cyclones from the Bay of Bengal bring severe and widespread destruction, especially when accompanied by storm surges, high winds, and extreme rainfall that results in riverine flooding. Hence Cuttack district is more vulnerable to natural disaster like Flood, Draught, Earthquake & Cyclone Cuttack which is also situated in Seismic Zone III like Bhubaneswar, however has 14% of the city under the extreme to high earthquake risk category. In terms of wage loss, the working class in Cuttack may suffer wage loss of Rs 50 crore for anything between a 4-day long cyclone and 10-day-long flood. In terms of loss to properties due to earthquake and cyclone, Cuttack fared worse due to old structures. It is estimated that probable maximum loss to buildings in Cuttack due to earthquake and Cyclone.

If natural disasters like cyclone, earthquake and flood strike the twin cities of Bhubaneswar and Cuttack anytime now, it would not just paralyze the two growing urban centers, the economic losses could be about one third of the State's Budget.

After the Super Cyclone 1999, the district has experienced a very severe tropical cyclone hit coastal Odisha on 12<sup>th</sup> October, 2013. The IMD forecasted the approach of severe cyclonic storm Phailin and anticipating the intensity of the severe cyclonic storm the district administration made elaborate arrangement to face the disaster starting from the District headquarters to the Panchayat and village levels. All the field level functionaries of Revenue, Panchayati Raj, Health and other line Departments were alerted to be in readiness

to mitigate the disaster. All the field level functionaries were geared into action from 10 October and sensitize the people about the possible outcome of the very severe tropical cyclonic storm "Phailin" and its intensity and severity and repeatedly advised the people to take shelter at Cyclone shelter centers and also at different buildings declared as temporary cyclone shelter centers. The message was given to the people at large through public address system and Print and Electronic Media. All Block Development Officers and Tahasildars were also instructed to remain present in the headquarters and monitor the arrangement from time to time and apprise the district administration at regular intervals. All Government officials working in the district were also instructed not to leave headquarters and avail leave during "Dasahara" festival was going on during that time. Taking into consideration of the magnitude of the disaster, the Government also cancelled the Puja Holidays of its employees. The BDOs and Executive Officers of the urban local bodies were instructed to keep the food stuffs and drinking water reserve in inaccessible pockets and also in the panchayat godowns.

A report of World Bank titled "A Local Resilience Action Plans for Bhubaneswar and Cuttack cities" has estimated that the total amount of loss to properties and wages due to cyclone, earthquake and flood would be over a little more than one third of the State's annual Budget. During cyclones, trees and electric poles get uprooted in large numbers affecting connectivity and rescue operations.

## **FANI**

The Extremely Severe Cyclonic Storm FANI over west central and adjoining southwest Bay of Bengal moved west wards with a speed of about 07kmph and crossed Odisha Coast in Puri on 3rd May 2019 Forenoon with a wind speed of 175-185 kmp gusting to 205 kmph. Cyclone with Severe winds and torrential downpours affected Cuttack City severely. Under the guidance of DDMA Cuttack and Commissioner Municipal Corporation already had thought of Response Planning, Preparedness and preventive actions to stop damages are listed below:

- Joint co-ordination meeting with line departments and field staff were periodically reviewed by DDMA and Collector Cuttack on 29<sup>th</sup> April to 1<sup>st</sup> May 2019.
- Commissioner CMC, Executive Officers of NACs, BDOs and Tahsildars are also Instructed to identify the suitable schools and evacuate the people to safe places.
- Evacuation plan has been chalked about aiming for identified slums and low-lying areas at 91 locations tagging to 65 safe shelters i.e basically the educational institutions with knowledge of Education and Emergency office in

CMC Area similarly BDOs and Tahsildars also prepared similar Evacuation plan for their respective areas.

- Stress has been fixed on Grass root level Early Warning Dissemination and connectivity.
- Co-ordination has been set up with Police, Volunteers (Local) in tagging the CMC tax collectors, community organizers and sanitary inspectors for better management of response to Cyclone FANI.
- District Emergency Office Control Room & CMC Control Room functioned round the clock under the supervision of Senior Officers and clerical staff.
- Monitoring of evacuation and relief operation were conducted by Zone Officers including supply of cooked food to all shelters.
- After Cyclone major focus was given to Drinking Water Supply, Restoration of electricity, removal of uprooted trees road clearance and Debris Management in the Cuttack City area and Blocks.
- District Administration instructed every line department for damage assessment, restoration of electricity, facilitating UN Team visit and taking all possible steps to bring back Cuttack District to normalcy.

**Minutes of Emergency meeting related to Severe Cyclone "FANI" held at 7.00 PM on 03.05.2019 at  
Collectorate, Cuttack with all Line Departments.**

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An emergency meeting was held with all the line departments on 03.05.2019 at 7.00 PM in the OSWAN V.C. Room of Collectorate, Cuttack under the Chairmanship of Collector, Cuttack in presence of Shri Sanjeeb Chopra (IAS), the Principal Secretary, Industries Department, Govt. of Odisha to review preliminary damage occurred due to severe cyclonic storm "FANI" & immediate restoration work in the district.

At the outset Collector welcomed all the Officers and explained the gravity of the emergency meeting called for. All Line Department Officers reported about their action taken and action plan for restoration.

**1. Clearance of Road & Blockage:**

The Executive Engineer, R & B was instructed to clear the broken trees from Ring Road, Cantonment Road and the major connecting roads by tonight for ensuring smooth communication. The Executive Engineer assured that, the work will be completed by tomorrow. NDRF and ODRAF have been deputed for this purpose. Askalight shall be used while working in the night.

Sub-Collector, Cuttack Sadar was directed to coordinate the work.

**2. Restoration of Electricity:**

As per the statement of Executive Engineer, CESU, in 25% area of the Cuttack City i.e. SCB Medical & College, College Square, Cantonment, CDA, Town Hall area, electricity will be resumed by 6.00 PM on 04.05.2019. Due to damages of distribution transformer & LT Network, 100% restoration of electricity supplies will be done in next 4 days. However, Principal Secretary, Industries Department & Collector, Cuttack instructed CESU to restore the electricity in areas like SCB Medical & College, College Square, Cantonment, CDA, Town Hall area immediately and within 72 hours in rest of areas.

PD, DRDA, Cuttack shall coordinate the work of restoration of electricity in the above mentioned areas.

**3. Availability of Drinking Water**

Executive Engineer, PH Division reported that, in the areas like SCB Medical & College, CB-9 area, Shisu Bhawan, Acharya Harihara Cancer Institute water supply has already been restored. Executive Engineer, PH Division also reported that, out of 189 pumping stations 38 will be made functional by 04.05.2019 morning. In the rest areas, water shall be supplied through 26 tankers (1000 Ltr. Capacity) & 148 Syn. Tax Tanks available with them.



Executive Engineer, RWSS stated that, 58 Nos. of water tankers & 39 Nos. of Generators are in operation. 23000 Nos. of tube wells shall be disinfected within 3 days.

Smt. Ranjita Sahoo, Dy. Collector, Election shall monitor the work progress of above functionaries.

**4. De-watering**

District Fire Officer intimated that, 5 Nos. of Pumps are in operation & 10 more pumps area ready for use whenever necessary for de-watering the affected areas. 13 Nos. of Askalights are functioning at different places & 25 Nos. are still available for use wherever required.

Collector, Cuttack expressed his concern for dewatering in the Cuttack City area in Mahatab Road, Justice Lane, College Square, Pattapol, BSNL Office, Kanika Chhak, Raja Bagicha etc. and instructed District Fire Officer to do the needful immediately.

Secretary, CDA was instructed to provide JCB for clearance of the fallen trees so that dewatering in those areas can be done smoothly. District Fire Officer was instructed to coordinate with local fire officer in rural areas and ensure that the dewatering work by fire officials in these areas throughout night.

**5. Health**

Collector, Cuttack instructed CDMO, Cuttack to move 28 Nos. of Mobile Health Team available with CDMO round the city tonight and all shelter centers.

ADM (Revenue) was instructed to coordinate with CDMO regarding health activities.

A meeting with UN & World Bank Officials and other line department Officers regarding the extent of damage, needs assessment and the strategy to bridge the gaps, if any, occurred due to extremely severe cyclonic storm "FANI" was held under the Chairmanship of Collector, Cuttack. PD, DRDA; Sub-Collectors, Cuttack & BDOs attended the meeting. Officers of District Administration actively participated in the meeting. The list of member present is at Annex-I. Collector welcomed all the members present.

Addl. District Magistrate apprised the purpose of the meeting with UN & World Bank Team. Five Officials from UNICEF dealing with Water, Sanitation & Hygiene and Disaster Risk Reduction and an official of UNDP were present in the meeting. Officials of UNICEF and UNDP explained their purpose of visit to Cuttack District and showed their interest by enquiring into the various aspects dealt by them. Collector apprised the pre-cyclonic preparedness and the post-cyclonic arrangements made in Cuttack District and about the meetings conducted for the same with the district level officers and the field visits undertaken to the affected areas of Cuttack like Salipur, Mahanga, Niali & Kantapada.

Nodal Officers and coordinating officers of various departments nominated vide letter No.1354/Emgy. Dt.25.05.2019 to accompany the UN & World Bank Team in the field visited to different areas of Cuttack too interacted with the team and shared their pre-cyclonic plan and post-cyclonic arrangements with them.

Collector explained the pre-cyclonic preparation at the district level which include the number of people evacuated and the process of evacuation; number of shelter homes; supply of dry foodstuff to various blocks; arrangement of free kitchen at block level; supply of adequate number of polythene; supply of drinking water. Moreover, informed the existence of two satellite phones at the district office to ensure uninterrupted communication in case of any disruption.

Collector also informed about post-cyclonic arrangements of different line departments for repair and restoration. PHD-I explained the process of purification of drinking water and its supply to various areas of Cuttack through tankers which was completed within 4 days. He also shared the gaps which led to delay in water supply especially in Salipur, Mahanga, Niali, Kantapada and Cuttack City. DFO, Cuttack shared the report of trees which got uprooted due to this cyclone and even discussed the future course of action to be taken to compensate the said loss.

Dy. Commissioner, CMC, Cuttack explained about the cooked food & dry food arrangements made for people who stayed at the shelter homes.

Collector informed about the ODRAF and NDRF teams who were engaged in cutting of trees at various places in Cuttack district which was completed within 15 days.

CESU discussed about the strategy of restoration of electricity after the cyclone, though in areas like Niali, Adaspur and Kantapada electricity is yet to be restored.

Collector discussed about the importance of Disaster Management Plan which shall be followed in future for building up various strategies to combat the consequences of the cyclone.

Lastly, Collector instructed the Nodal Officers of the concerned departments to provide necessary information to the UN & World Bank Officials and accompany them in the field visit to the affected areas of the district.

The preliminary meeting for purchase of Electric Pump Sets was held under the Chairmanship of Addl. District Magistrate (Rev), Cuttack with all other members present. At the outset the Chairman welcomed all members and discussed the purpose of purchasing 50 nos of Electric Pump Sets which can be used for draining out of rain water from the water logged areas of Cuttack city. He further suggested that robust action shall be taken in the matter of water logging situation of Cuttack city which is a cause of concern since long. The proposal for purchase of 50 nos of pump sets from out of DMF Fund as per the decision taken in the DMF Committee meeting held on 22.1.2019 is placed before the committee. Accordingly, expenditure shall be incurred from out of above fund and the pump sets will be installed depending upon the requirement with advisable capacity. The Addl. District Magistrate (Rev) also stressed upon the Collector's concern about how to combat flooding situation which may occur due to heavy rain and that should be ensured with active co-operation of CMC/JICA/PHD/R&B etc. Besides, suggestion is also invited by the chair in the said context from the members. At first, the UNDP coordinator appraises that there are 171 vulnerable points in the Cuttack city which may be taken up as precautionary measure to curb flood situation. He also suggested for selection of 50 most vulnerable points for installation of 50 pump sets going to be procured. In the said context, the Municipal Engineer informed that there are three major risk zones in the city, i.e. High/Medium/Low risk zones. Moreover, he also appraised the committee that 275 nos of pump sets are available under the management of CMC from out of which 8 pump sets are stationed permanently and in 18 places pump sets are installed temporarily. In response to the query of Addl. District Magistrate (Rev) as to whether there is any further requirement of pump sets, the Municipal Engineer suggested for replacement of 25 defunctive pump sets which are installed in 9 ID Pump Stations. He also informed that around 8 places are available with permanent infrastructure facility where newly procured pump sets can be installed

instantly. Responding to the above information of CMC Engineer, the Addl. District Magistrate asked for identification of other 10 vulnerable location of the city where newly purchased pump sets can be installed permanently with necessary infrastructure facility to be made immediately. Further, provision for vehicle mounted pump- sets, if required, shall also be made as per the suggestion of CMC. The meeting concluded with the setting of next meeting after receipt of purposeful information/guidance from CMC.

A District Level Meeting was held on Dt.01.05.2019 at 12.00 Noon at Conference Hall, Collectorate, Cuttack under the chairmanship of Collector, Cuttack, in presence of Sri Sanjeeb Chopra, IAS, the Principal Secretary, Industries Deptt, Govt. of Odisha, MP & all MLAs of Cuttack District participated in the meeting.

At the outset, Collector welcomed all the Officers, MP, MLAs and discussed on the action taken and action plan to be provided by the District Administration to combat any disaster.

1. **Control Room**:- The District Emergency Officer intimated the house regarding functioning of Control Room with Telephone No. 0671-2507842 round the clock. Control Rooms shall also function at sub-division, block level and at all line Department.
2. **Flood Zone**:- 14 Flood Circle Zones have been formed in 14 Blocks under the supervision of concerned BDOs. All BDOs were instructed to review the activities of sub-zone offices periodically.
3. **Availability of Power Boats**:- Power boats & Country Boats status was reviewed and all BDOs were instructed to keep the Boat Drivers ready for the purpose.
4. **Emergency food stuff**:- As per SRC, it is proposed to keep food grain (Rice) and kerosene Oil at different strategic points/location of Cuttack District. All BDOs were also instructed to purchase dry food stuff like Chuda, Gur in adequate quantity locally in anticipation of the severe cyclonic storm "FANI".
5. **Multipurpose Flood & Cyclone Shelters/School Shelters**:- There are 21 Flood & Cyclonic Shelters & 254 School Shelters. All BDOs were instructed to ensure for proper maintenance of the shelter houses soon in view of the impending severe cyclonic storm "FANI"
6. **Formation of Rescue & Relief Teams**:- All Sub-Collectors/BDOs were instructed to constitute rescue and relief teams by involving local NGOs. All BDOs were requested to submit Evacuation Plan which shall include the people staying at low lying areas and Kutcha houses.

7. **Transportation**:- RTO was directed to provide Contingency Plan in advance for providing required vehicles for transportation of relief materials as and when required.
8. **Drinking Water**:- PH-I & II & RWSS-I & II were instructed to provide details of the arrangements like Tube wells, Tankers and Gen set at different areas of the District to provide safe drinking water at the time of disaster.
9. **Agriculture**:- Deputy Director, Agriculture was instructed to prepare SOP regarding availability of seeds fertilizer, pesticide, enumeration of families with their cultivable area, agricultural loan facility etc., keeping in view the distress condition of farmers during disaster.
10. **Health Measures**:- CDMO was directed to provide preparedness plan regarding availability of essential medicines and anti-venom to be supplied during disaster.
11. **Veterinary Measures**:- Reviewing the preparedness of CDVO following decision are taken
  - a) Functioning of Control Room round the clock at CDVO & SDVO Level.
  - b) Preparation of Contingency Plan and its SOP to handle any disaster situation.
  - c) Pre-assessment of vulnerable places and live stocks likely to be affected due to Cyclone or flood.
12. **Advance preparedness in CMC Area**:-
  - a) In order to avoid water logging in Cuttack City proper & timely functioning of the switch gates at Khannagar, Matrubhawan, Matagajpur & CDA-Bidanasi need to be done promptly.
  - b) JICA authorities must take care of their works in different parts of the city in a planned way so that water logging problem in the city is not aggravated further.
13. **Repair, restoration of road communication**:- The E.E. RD-I & II & R & B-I & II Division to ensure that when flood water flows on the top of the submerged roads they must ensure that no vehicle is allowed to cross such a dangerous road by putting up barricades to prevent access to such roads. They will also prepare contingent plan for road clearance and restoration of damage caused during cyclone.

**Any Other**:- All concerned are instructed to submit damage assessment report within 24 hours of occurrence of cyclone.

To restore the water Supply The DG sets were arranged and time to time shifted to different locations

## **PLAN FOR SHIFTING OF DG SETS OF**

### **PH DIVISION-I CUTTACK**

District Disaster Management Plan 2022

Date	Morning		Afternoon		Remarks
	Area	No.	Area	No.	
05.05.19	CDA, Sector-6	1 No.	CDA, Sector-8	1 No.	All the areas are supplied with tankers
	CDA, Sector-7	1 No.	CDA, Sector-9	1 No.	- DO -
	Water Supply Sub-division	1 No.	Water Supply Sub-division	1 No.	- DO -
	Killa Head Works	1 No.	Killa Head Works	1 No.	- DO -
	The Universe	1 No.	The Universe	1 No.	- DO -
	Kanika Chhak	1 No.	Kanika Chhak	1 No.	- DO -
	Gorakabar	1 No.	Gorakabar	1 No.	- DO -
	SCBMCH	11 Nos.	SCBMCH	9 Nos.	- DO -
			Rajabagicha / Labour Colony / Ranihat	2 Nos.	- DO -
	AHRCC	1 No.	AHRCC	1 No.	- DO -
	BOSE	2 Nos.	BOSE	2 Nos.	- DO -
	Ambatota Colony	1 No.	Ambatota Colony	1 No.	- DO -
	LIC Colony, Jobra	1 No.	LIC Colony, Jobra	1 No.	- DO -
	CB-9, Cantonment	1 No.	CB-9, Cantonment	1 No.	- DO -
	Mahanadivihar	1 No.	Mahanadi Vihar	1 No.	- DO -
	Sump Site	2 Nos.	Beleswar / Tinigharia / Nuasahi	2 Nos.	- DO -
	Badambadi	1 No.	Badambadi	1 No.	- DO -
	Sishubhawan	1 No.	Sishubhawan	1 No.	- DO -
	Town Hall	1 No.	Town Hall	1 No.	- DO -
	Circuit House	1 No.	Circuit Hosue	1 No.	- DO -
	Annapurna	1 No.	Annapurna	1 No.	- DO -
	Rajabagicha	1 No.	Rajabagicha	1 No.	- DO -
Jail Road	1 No.	Jail Road	1 No.	- DO -	
Chahata	1 No.	Chahata	1 No.	- DO -	
Mattagajpur	1 No.	Khapuria	1 No.	- DO -	
06.05.19	CDA, Sector-9	1 No.	CDA, Sector-11	1 No.	- DO -
	CDA, Sector-10	1 No.	CDA, Sector-12	1 No.	- DO -
	Mattagajpur to Khapuria	1 No.	from Sump Site to Mukameswar / Subhadrapur / Paiksahi / Uttampur	1 No.	- DO -
	Others Same		Others Same		- DO -
07.05.19	CDA, Sector-11		CDA, Sector-6		- DO -

	CDA, Sector-12		CDA, Sector-7		- DO -
	Others Same		-		- DO -

**Proceeding on District Level Committee of Natural Calamity (Preparatory)  
Meeting,2019 held on 04.06.2019 at 3.30 PM**

A meeting with all Tahasildars, BDOs and Line Department Officers of Cuttack District was held on 04.06.2019 at 3.30 PM in the Conference Hall, Collectorate Cuttack regarding their preparedness to handle the flood situation in the district during monsoon season.

The meeting was held under the Chairmanship of Addl. District Magistrate, Cuttack; Senior Officers PD-DRDA, Sub-Collectors Sadar/Athagarh/Banki) too attend the meeting. The list of members present is Annexeure-I. Addl. District Magistrate welcomed all the officers present.

The discussion included various points to tackle the flood situation in the district.

CMC, Sub-divisional, Block, Municipality./NAC, Tahasildars and line Deptt. Were instructed to continue functioning of control rooms till 30<sup>th</sup> November-2019.

BDOs were instructed to scrutinize Head Clerk in-charge to provide rainfall data to district control room between 9 AM to 10 AM for onwards transmission to SRC Odisha & R&DM Department.

Executive Engineers of Irrigation Division of the District like Mahanadi North/Mahanadi South/Prachi/Khurda/Jagatsinghpur & Kendrapada were directed to provide the location of Vulnerable Points and weak river embankments and take immediate steps to strengthen those before the outset of monsoon.

There are 14 Flood Circle Zones and Sub-Zones in the District. Sub-Collector were instructed to review the flood preparedness taken by BDOs (Zone Officer of Blocks), Tahasildars (Addl. Zone Officers of Tahasil) G.P. Extension/Executive Officer (Sub-Zone Officers of respective G.Ps).

BDOs were instructed to provide Nos. of Power Boat required to tackle the flood situation.

Sub-Collectors and BDOs were instructed to make inventory of Country Boat and inform ferry ghat lessees to keep their country boat in readiness for any emergent situation.



CSO was directed to ensure the storage of food grains and kerosene oil at various strategic points in the district. He was also instructed to assess the availability of Chuda, Gur and make advance tender for procurement of the same prior to the outset of monsoon.

There are six multipurpose flood shelters (NFS) and 21 more (NFS) are under construction.

Executive Engineer RD-I & II were instructed to provide status of those NFS under construction so that flood shelter level management committee can be form and NFS shall be handed over to them PD-DRDA, All BDOs, DPCSSA & DEO were directed to inspect the school & flood shelters regarding the availability of basic minimum facilities like electricity, water, toilet etc. and collect contact details of Head Masters of concerned schools and furnish a report regarding such arrangements to District Office soon.

Sub-Collectors/BDOs were instructed constitute rescue and relief teams and may include local NGOs and accordingly furnish the detailed report to district Office. R.T.O was instructed to provide Govt./Private/Heavy & Light Vehicles as and when required for transportation of relief materials.

Executive Engineer PHD-I & II & RWSS-Cuttack /Athagarh were directed to provide list of functional tube well of various places in Cuttack District and even to repair the defunct tube wells if any. They need to furnish a report regarding the same.

Deputy Director Agriculture was directed to provide a Contingent Plan to District Office tackle to the situation and also to prepare a list of farmers and their cultivated areas for providing input subsidy at the time of need.

Six Officers have been allotted to six zones to subsequence the health related issues in case flood situation arises. List of officers is in Annexure-II.

CDMO was informed to form mobile team with doctors and medical personnel to task to any place at the time of emergency. He was also informed to ensure disinfection of drinking water. He also need to ensure filling up of all vacancies of doctors in all peripheral health institutions in the district.

CDMO was instructed to ensure flood, shelter, medicines, drinking waters, vaccines form relief team in block, Sub-division and district headquarters, form mobile team to handle the emergency cases. He needs to furnish the detailed arrangement report to Dist. Office.

CMC was directed to provide a contingent plan regarding functioning of sluice gates, arrangement of pump sets to prevent water logging at various places in the check on the water logging areas.

Superintendent Engineer, CESU was instructed to submit a contingent plan to the Dist. Office regarding repair and restoration of power transmission lines in case those get disrupted due to field.

Executive Engineer, RD-I & RD-II Division was instructed to submit action plan for immediate restoration of damaged roads, if any.

Lastly, Addl. District Magistrate instructed all the concerned officers to submit their respective contingent plans to the District Office, Collectorate Cuttack by 6<sup>th</sup> June 2019.

**Status report on post Cyclone “FANI” restoration work in Cuttack District**

Power Supply		Water Supply		Road Connectivity
Cuttack City	Rural	Urban	Rural	
<ul style="list-style-type: none"> <li>➤ Presently 30% area of Cuttack City has been electrified .</li> <li>➤ The power supply in 90% of areas of Cuttack City will be restored by 09.05.2019.</li> <li>➤ 100% power supply will be restored by 11.05.2019.</li> </ul>	<ul style="list-style-type: none"> <li>➤ 90% restoration work has been completed in 03 Block i.e Badamba, Narsinghpur &amp; Tigiria</li> <li>➤ 50 % restored in Athgarh, Banki &amp; Dompada blocks.</li> <li>➤ Electricity restored at Tangi Choudwar, Salipur, Nischintakoli <b>Block Headquarters</b> only.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Water supply has been normalized in Urban Area using the following strategy Total Cluster -90                             <ul style="list-style-type: none"> <li>❖ Production Wells-189</li> <li>❖ Operational through Electricity-121</li> <li>❖ Operational through DG Sets-68</li> <li>❖ Tanker Services-100</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ In Cuttack RWSS Division, Total PWS- 367 PWS restored-38</li> <li>➤ Water Supply is going on through                             <ul style="list-style-type: none"> <li>❖ DG Sets-174</li> <li>❖ Tankers-157</li> <li>❖ Working Tubewells-18366</li> </ul> </li> <li>➤ In Athagarh RWSS Division, Total PWS-188 PWS restored-128</li> <li>➤ Water Supply is going on through                             <ul style="list-style-type: none"> <li>❖ DG Sets-22</li> <li>❖ Tankers-38</li> <li>❖ Working Tubewells-5128</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ In City Area,100 % Connectivity restored</li> <li>➤ In Rural Area, 100% road Connectivity is restored up to GPs</li> </ul>

**Status report on post Cyclone “FANI” restoration work in Cuttack District**

Power Supply	Water Supply	Road
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	Urban	Rural	Connectivity
<ul style="list-style-type: none"> <li>➤ CDD-I 98% restored</li> <li>➤ CDD-II <ul style="list-style-type: none"> <li>❖ Urban 90% restored, Jagatpur not covered.</li> <li>❖ Rural 42 Mouza 5% Kishan Nagar &amp; Kandarpur not covered.</li> </ul> </li> <li>➤ Cuttack Electrical Division Niali &amp; Kantapada not covered. Tangi Choudwar Block 80%, Sadar 30%, Choudwar Mpty. 100%.</li> <li>➤ Athagarh Division All Blocks &amp; Mpty. more than 90%.</li> <li>➤ Salipur Division Mahanga 20%, Salipur 25% &amp; Nischintakoili 20%</li> <li>➤ Khordha Division Banki 80%, Dompada 60% &amp; Banki nac 100%</li> </ul>	<ul style="list-style-type: none"> <li>➤ Water supply has been normalized in Urban Area using the following strategy Total Cluster -90 <ul style="list-style-type: none"> <li>❖ Production Wells-189</li> <li>❖ Operational through Electricity-121</li> <li>❖ Operational through DG Sets-68</li> <li>❖ Tanker Services-100</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ In Cuttack RWSS Division, Total PWS- 367 PWS restored-38</li> <li>➤ Water Supply is going on through <ul style="list-style-type: none"> <li>❖ DG Sets-174</li> <li>❖ Tankers-157</li> <li>❖ Working Tubewells-18366</li> </ul> </li> <li>➤ In Athagarh RWSS Division, Total PWS-188 PWS restored-128</li> <li>➤ Water Supply is going on through <ul style="list-style-type: none"> <li>❖ DG Sets-22</li> <li>❖ Tankers-38</li> <li>❖ Working Tubewells-5128</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ In City Area,100% Connectivity restored</li> <li>➤ In Rural Area, 100% road Connectivity is restored up to GPs</li> </ul>

## A. COVID -19 Background

Social Distancing is a proven public health tool to slow down the spread of highly contagious disease like COVID-19. In simple language, people should not touch each other and stay far enough from each other so that virus cannot spread from person to person.

World Health Organization has declared COVID-19 as a Pandemic, which is caused by Novel Corona Virus. This is a highly contagious organism and can infect a healthy person coming in direct contact or within one-meter distance of an infected person through droplet infection.

Usually a person develops symptoms of COVID-19 like fever and cough/ respiratory difficulties between 2-14 days of infection/ virus entry in human body. An infected person can pass the infection to the healthy person even before the appearance of symptoms of COVID-19 disease.

So, when we practice social distancing, we are preventing the spread of virus from one to other and hence transmission chain is broken. This would help in slowing down the spread of the disease and finally containing it.

**In pursuance of the said order of the NDMA, Government of India, the State Government do hereby order lockdown in the entire State of Odisha until midnight of 14th April, 2020 with a view to ensure strict social distancing and isolation to contain the spread of COVID-19.**

## **B. Working Case Definition of COVID-19 case**

- a. **Suspect case:** A patient with fever and cough or with breathing difficulties with travel history to/ from the country/area or territory reporting local transmission of COVID-19 disease.
- b. **Probable case:** A suspect case for whom testing for COVID-19 is inconclusive.
- c. **Confirmed case:** A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

## **c. General Measures for containment to be practiced by everyone**

- a. **HANDS:** don't shake, don't touch surfaces/ wash frequently with soap and water
- b. **LEGS:** Keep at least 3 feet away from others
- c. **FACE:** Don't touch it
- d. **COUGH/ SNEEZE:** Cover it with your elbow/ handkerchief
- e. **FEVER with COUGH** with travel history: Report it to local authority/ 104 health help line
- f. **FLOOR and SURFACES:** Clean it/ Mop it regularly
- g. **FOR ANY FURTHER INFORMATION:** Contact 24x7 health helpline 104
- h. **Preferably advised to stay at home/ avoid unnecessary outside visits**

## **D.DO's and DONT's at various level**

	<b>Level of Intervention</b>	<b>DO's</b>	<b>DON'T's</b>
<b>1</b>	<b>Individual</b>	<ul style="list-style-type: none"> <li>- Stay home</li> <li>- Greet from distance more than 1m</li> <li>- Self-reporting if you have returned from abroad</li> <li>- Use your elbow fold while coughing/ sneezing</li> <li>- Practice frequent hand washing</li> </ul>	<ul style="list-style-type: none"> <li>- Do not handshake or hug or touch body of another person</li> <li>- Avoid congregations as you never know that there may be infected person</li> <li>- Do not spread rumours and misinformation</li> <li>- Do not visit hospital without prior information if you are having fever and cough (if you have contact of COVID-19 case/ returned from abroad)</li> </ul>
<b>2</b>	<b>Family</b>	<ul style="list-style-type: none"> <li>- Counsel all the family members to avoid congregations and unnecessary outings</li> <li>- If any family member returned from abroad keep him at home, report immediately if he/she develops any symptoms and keep him/her is home quarantine</li> <li>- Keep the list of all the contact of the person returned from abroad and inform</li> <li>- Take care of your elderly members and members with chronic infections (Diabetes/ Heart disease/ Asthma)</li> </ul>	<ul style="list-style-type: none"> <li>- Don't organize family get together/ parties, etc.</li> <li>- Do not hide the information from the authorities/ health personnel</li> <li>- Maintain distance of more than 1 meter from family members suffering from fever and cough/ cold</li> <li>- Do not directly touch the clothes/ articles used by person suffering</li> <li>- Do not mis-inform/ spread rumour, etc.</li> <li>-</li> <li>-</li> </ul>
<b>3</b>	<b>Community</b>	<ul style="list-style-type: none"> <li>- Encourage practice of Social Distancing</li> <li>- Report any person returning from other countries</li> <li>- Display IEC materials related to social distancing, hand washing and cough etiquettes at common places</li> </ul>	-
<b>4</b>	<b>Workplace (For Essential Services only)</b>	<ul style="list-style-type: none"> <li>- Use online conferencing and phones for communication even within same building</li> </ul>	<ul style="list-style-type: none"> <li>- Avoid in-person/ face-to-face meetings, staff gatherings</li> <li>- Do not congregate in</li> </ul>

		<ul style="list-style-type: none"> <li>- Encourage work from home wherever possible</li> <li>- Bring your lunch and eat at your desk</li> <li>- Display and follow the workplace advisory with true spirit</li> </ul>	<p>work rooms, pantries and other areas where people socialize.</p> <ul style="list-style-type: none"> <li>- Prevent any staff having fever/ cough visiting office</li> </ul>
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## E. Social Distancing Measures in General

1. Hospital to follow the necessary protocols related to COVID-19 management as prescribed and restrict the visit of children/ friends/ family members visiting the patient in hospitals
2. Special protective measures for delivery persons from courier company during online delivery should be maintained
3. In commercial transactions the distance should be maintained more than one meter
4. Local authorities should engage dialogue with the Bazar Committee/ Byapari Associations to follow DO's and DON'T's. They should conduct communication activities like display of poster and miking, etc. for local vendors/ small scale business persons. They should limit the hour or working.
5. Lifts and railings in buildings should be regularly mopped. This needs to be ensured through the society of the apartments/ similar committees.
6. Closure of educational establishments (schools, colleges, universities), gym, museum, cultural and social centres, swimming pools and theatres, etc
7. Suspension of hearing of Public grievances in the Chief Minister's Grievance Cell as well as the Joint Hearing of Public Grievance Cells in the Districts

## F. Social Distancing Measures by Individual Establishments/ Institutions (For Essential Services only)

1. **Workplace Advisory:** Employers should start doing these things now, even if COVID-19 has not arrived in the communities
  - § Display posters promoting hand-washing – ask your local public health authority for these or look on [www.nrhmorissa.gov.in](http://www.nrhmorissa.gov.in)
  - § Display posters promoting respiratory hygiene/ cough etiquettes. Combine this with other communication measures such as offering guidance from occupational health and safety officers, briefing at meetings and information on the intranet etc.
  - § Ensure that staff, contractors and customers have access to places where they can wash their hands with soap and water
  - § Advise employees to stay at home if they developed any flu like symptoms
  - § Relocation of staff sitting arrangements to ensure more than one-meter inter-personal distance
  - § Brief your employees, contractors and customers that if COVID-19 starts spreading in your community anyone with even a mild cough or low-grade fever (37.3 C or more) needs to stay at home.
  
2. **Social Distancing by Government and Private Health Facility:** All health facilities, private clinics and individual practitioners of all systems of medicines must follow below advisories –
  - § Display of advisories for public in the premises of health facility
  - § Conduct training and orientation of health staffs and other on COVID-19

§ Should establish a COVID-19 Corner which should be near the registration counter/ triage station and away from the main OPD/IPD complex. This would help for containment of spread of the cases and accessible to the common public for resolution of their queries.

§ Have a triage station at the healthcare facility entrance, prior to waiting area to screen patients and register, if travelled from abroad in last 14 days OR any of the signs and symptoms

§ Ensure having hand wash facility with soap and running water/ alcohol based (>70% alcohol) hand rub for the use of healthcare workers, patients and visitors

§ Isolate a suspected case promptly and inform the Control Room (104), rather than just sending to a government facility

§ Staff should use appropriate Personal Protective Equipment (PPE) while screening patients at the triage center

§ Provide medical mask to all patients presenting flu-like symptoms

§ Perform regular environment cleaning and disinfection with 1% hypo-chlorite solution for mopping the floors and 0.5% for cleaning the furniture surfaces

§ Maintain good ventilation within OPDs/ IPDs and Emergency care wards

§ Hospital to follow the necessary protocols related to COVID-19 management as prescribed and restrict the visit of children/ friends/ family members visiting the patient in hospitals

§ Communicate the local health authorities/ state health helpline number 104

**§ Seeking Hospital Care:** Patients requiring emergency care may visit the hospitals. Other non-essential, non-urgent patients with mild illness which require only outpatient care or follow up care, elective cases including dental procedures should not visit the Hospitals for the time being, to prevent crowding in the hospitals. This applies to both Government and Private health facilities

### **3. Social distancing for Banks, Post office and Commercial Establishments (Essential Services only)**

§ Put up COVID-19 awareness posters and banners in bank branches and ATMs

§ Keep enough hand sanitizer/hand wash soaps in the toilets.

§ Advise the staff members to clean hands using hand sanitizer/ hand wash soaps at regular intervals.

§ Keep hand sanitizer in the ATMs and advise customers to use it after operating ATM.

§ Avoid crowding in the branches. Open more counters. Allow customers inside the branch in batches.

§ Allow customers inside ATMs one by one only. Mopping and cleaning of ATM machines and premises should be done on regularly

§ Send SMS to customers advising not to visit branches/ ATMs except in urgency and to use mobile banking and online services.

§ Notify to the customers dedicated phone numbers for any transaction queries instead of visiting the branches.

### **4. Social Distancing at Supermarket and Grocery stores**

§ No closure of Supermarket or Groceries shops. These will be operational for food, groceries and essential items.

§ Limit only 20-30 persons in store. Ensure that they are spread apart in different section. Window shoppers to be discouraged.

§ Ensure every person hand are washed with alcohol-based sanitizer or hand washing facility before entering and leaving the shop by keeping enough hand sanitizers.

§ Ensure that the staffs are not suffering from fever/ cough and cold.



§ Frequently mop the floor and shelves with bleach.

§ The messages on personal hygiene and social distancing to be displayed prominently

§ All these establishments will be allowed to remain open with the above-mentioned conditions

#### **5. Village Hat and Local urban Hats ( for providing Essential Commodities only)**

§ The congregation should be reduced to minimum. However, the essential supplies through the hats should be in an orderly manner.

§ Wide IEC activity should be ensured in local language to bring awareness amongst people going to village hats.

#### **6. Government Offices and Staffs**

§ All employees should look out for symptoms of Novel Corona Virus and if feeling unwell should leave the workplace immediately after informing the superior officer. They should thereafter avail leave for home quarantine for a period of 14 days. Any leave, necessary for quarantine purpose in excess of this period shall be treated as ordinary leave, wherever admissible and may be considered as per provisions under Rule-5, Appendix-6 of Odisha Service Code.

Furthermore, Government employees who are residing with a family member who has returned from a foreign visit, on or after 4<sup>th</sup> March 2020 should also avail leave for self-quarantine for a period of 14 days.

§ All Government offices including district collectorate must have restricted entries and all non-essential/ non urgent entries must be limited.

§ Entrance gate of all government offices must be manned for restriction of entries. Contact details of every individual entering the premises must be recorded.

§ Hand wash practices should be practiced before entry

§ The same should be practiced in all private offices/ other organizations as well.

§ No meetings shall be held in the Government offices other than those related to COVID-19 or regarding maintenance of basic services. However, in such meetings 2-meter distance will be strictly followed. Wherever possible video conferencing shall be held for interaction.

§ Cabinet and the Empowered Group of Ministers' Meetings shall be held through video conferencing.

§ All official functions including commemorations and garlanding of statues are suspended until further orders.

#### **8. Jail Inmates and Staffs**

##### **§ Orientation and awareness among the Jail inmates and staffs**

i. IEC materials displaying personal hygiene and hand washing steps at prominent places and advocacy for the implementation is essential.

ii. Availability of hand washing facilities like running water and soap/ liquid hand wash and to be ensured for all inmates especially at the gates.

iii. All Jail premises, all doors, gates, railings, door handles and frequently touchable places should be disinfected with 1% sodium hypochlorite solution regularly.

iv. Vehicles for transporting staff and inmates to be cleaned by wet mopping of 1% sodium hypochlorite regularly.

v. All inmates/ staff should be oriented on hand hygiene/ social distancing and cough etiquette on COVID -19.

vi. Any Jail staff having fever and cough or any flu like symptoms should not be allowed at workplace. They should restrict themselves at their home and may work from home if possible

**§ Handing Under Trial Prisoners (UTP) / New Prisoners**

- i. Ensure all new / under trail prisoners must be screened before the individual enters the premises of the Jail. In case any person having cough and breathing difficulty should not be allowed into the premises until isolation facility provisioned for him and permitted by the concern Jail authority.
- ii. Honourable high court will be requested to allow video conferencing facility for producing the UTPs before the designated court wherever and whenever it is possible.

**§ Quarantine/ Isolation of suspected case (Fever and Cough) among the Jail inmates**

- i. Jail superintendent should identify a designated, well ventilated place (preferably single room with toilet facility) as isolation room for isolation of suspected COVID -19 cases
- ii. Any inmate having fever and cough should be quarantined (confined) preferably in single room with toilet facility.
- iii. Daily health status needs to be tracked. If required referral system to be activated.

**§ Ensuring Social distancing in the premises of the Jail**

- i. Any activity which would lead to congregation (>25 persons) should be restricted. Social distance of more than one meter to be maintained in such activities.
- ii. The Jail authority should ensure provision of e - Mulakat / video call facilities for the visitors who want to meet any of the Jail inmates.
- iii. All visitors and staffs to ensure social distancing measures like maintaining distance of more than one-meter, respiratory etiquettes, hand hygiene and hand washing. Physical contacts with inmates to be avoided.
- iv. All non-essential activities by visitors/ groups/ NGO s should be restricted within the Jail premises.

**9. Use of Water sources like Ponds and Drains**

§ Bathing, cleaning and various other purposes in common water reservoirs like Ponds are to be avoided as far as possible in view of general hygiene and COVID-19. They should be advised through functionaries of Panchayati Raj and Drinking water department and Gram Panchayats for not using this polluted water.

§ Instead of using such common water from ponds, they should use hand pumps, tube wells and pipe water supply. Individuals having symptoms of Fever and cough or flu like illness should not come in contact with hand pumps and should take help from others.

**10. Delivery of articles/ groceries/ food packets etc.**

§ Delivery personnel of groceries and other essential commodities should ensure all personal hygiene, cough etiquette and social distancing measures to avoid contamination of food material, packets or any such articles.

§ The delivery person should not enter the premises/ building/ apartment/ hostel/ offices, etc. Before deliver the delivery personnel must properly hand wash and after receiving the package the receiver also must do hand wash as per protocol

§ Restricted entries of food deliveries in the residential premises or in hostel. Food delivery services may be availed with caution

§ Special protective measures for delivery person working in food delivery services

**11. Health facilities/ health provision centres/ traditional healers/ pathology labs, etc.**

§ These are high risk areas of congregation and as the congregation involves patients/ health seekers where the Corona transmission is high.

§ The concerned authorities must take all measures of social distancing and well as personal hygiene protocol in and around their premises

§ Shops near hospital except medicine store should stay closed

12. **E-Commerce and Online delivery of groceries/ any products:** Delivery of groceries / other commodities/ food delivery services may be availed with caution. Ensure that the delivery personnel should not enter the premises/ building/ apartment/ hostel/offices, etc.

13. **Funeral Rites:** Large congregations should be avoided. Ideally it should be limited to 7 persons.

## **G. Enforcement of Social Distancing by the Authorities concerned**

§ Provisions of Section 144, CrPC shall not be invoked either by the District Magistrates and Police in Commissionerate area to enforce Social distancing rather it should be implemented through IEC and awareness build up and media campaign.

§ Strict hand washing in AHAR Kendra, OMFED booths, etc.

§ The Public Delivery System (PDS), should ensure the supply of ration to the beneficiary like elderly, high risk and vulnerable people at the doorsteps and dispensation of ration through POS (Point of Sale) machines should be done with availability of sanitizer and hand hygiene practice. The POS machine should be regularly cleaned with disinfectant

§ Ensure availability hand sanitizers at banks, ATMs and post office. Regular mopping and sanitization should be done on regular basis

§ Each District to appoint a vertical with Nodal officer for enforcing social distancing within the district. He/she should coordinate with State Social Distancing committee at the State, chaired by APC-cum- Additional Chief Secretary

§ All Secretaries of the Departments and DG Police are being advised that if there are any issues pertaining to “Social Distancing” related to their Department, they should send their recommendation to APC-cum-ACS, Head, Social Distancing Committee

## **COVID-19 Management Guideline & Principles**

Directives for COVID-19 Management

The flowing Directives for COVID-19 Management shall be strictly followed throughout the District:

- a. Face covering = Wearing of face cover is compulsory in public places; in workplaces; and during transport.
- b. Social distancing: Individuals must maintain a minimum distance of 6 feet in public places.
- c. Shops will ensure physical distancing among customers. The owner of the shop shall be liable for any violation.
- d. Salons, Spas, Beauty Parlors and Barber shops shall ensure all safety precautions, disinfection and sanitization before and after service of each customer.
- e. Gatherings: Public gatherings/ congregations of more than 7 persons are prohibited.
- f. Marriage belated gatherings: Number of guests not to exceed 50.
9. Funeral/ last rites related gatherings: Number of persons not to exceed 20.
- h. Spitting in public places will be punishable with fine, as prescribed in accordance with laws, rules or regulations.
- i. Consumption of liquor', paap, gulthay tobacco etc. in public places is prohibited.

#### Additional directives for Work Places

- j. Work from Home (WFH): As far as possible the practice of work from home should be followed.
- k. Staggering of work/ business hours will be followed in offices, work places, shops, markets and industrial & commercial establishments.
- l. Screening & hygiene: Provision for thermal scanning, hand wash and sanitizer will be made at all entry and exit points and common areas in Frequent sanitization of entire workplace, common facilities and all points which come into human contact e.g. door handles, etc., will be ensured, including between shifts.
- n. Social distancing: All persons in charge of work places will ensure adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.

#### 5. Unrestricted movement of persons and goods

(i) There shall be no restriction on inter-State and intra-State movement of persons and goods. No permission/ aDDrio`ral/ e-Dermjt `^/ill be required for such ino\relnents.

(ii) Intra-State Buses, City Buses, Taxis (including cabs by aggregators like Ola, Uber, etc.), Auto Rickshaws and other Passenger Vehicles, are allowed to operate with up to sitting capacity of the vehicle, as mentioned in the Registration Certificate.

(iii) Movement by passenger trains and shramik special trains; domestic passenger air travel; movement of Indian Nationals stranded outside the country and of specified persons to travel abroad; evacuation of foreign nationals; and sign-on and sign-off of Indian seafarers will continue to be regulated as per sops issued by Govt. of India.

(iv) Movement of any type of goods/ cargo for cross land-border trade under Treaties with neighboring countries shall not be stopped.

#### 6. Night curfew

Movement of individuals shall remain strictly prohibited between 7.00 pm to 5.00 am throughout the State, except for essential activities. The District Collectors/ Police Commissioner, Bhubaneswar-Cuttack shall issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of Crpc, and ensure strict compliance.

This restriction shall not apply to:

- District and Municipal Administration/ Police/ Government officials on duty.
- Doctors, Medical/ Paramedical Staff (Govt. & Private)
- Staff of IT & ITs Companies on production their ID cards
- Any person, in case of medical or other emergency

- Owner/ staff of chemist shops
- All industrial units
- All construction activities
- Movement of Public Transport, private vehicles and taxis (including cabs by aggregators like Ola, Uber, etc.) to and from airports, railway station and bus terminals/ stands/ stops, for facilitating movement of passengers by air, rail and road.

#### 7. Weekend Shutdown

In the interest of public health and the containment of spread of COVID-19 in the State, shutdown shall be imposed in the districts of Ganjam, Puri, Nayagarh, Khurda, Cuttack, Jagatsinghpur, Kejripara, Jajpur, Bhadrak, Balasore and Bolangir, on all Saturdays and Sundays till 30th June, 2020. During this shutdown, only the following activities shall be allowed:

- All medical establishments including hospitals, clinics, nursing homes, including medicine stores. Movement of Ambulance and all medical personnel.
- District and Municipal Administration/ Police/ Fire Services
- Central & State Government officials on emergency duty
- Telecom services
- Petrol pumps
- Electronic Media identified by Commissionerate/ District Police
- Water supply, sanitation and sewerage workers
- Electricity supply and distribution
- Movement of goods and good carriers, whether loaded or unloaded
- Industrial establishments, factories and construction activities
- Service sector industries, including IT/ ITs, Hotel & Hospitality units
- Movement of Rail and Air transport
- Road transport on highways, road movement of transiting vehicles
- Movement of Public Transport, private vehicles and taxis (including cabs by aggregators like Ola, Uber, etc.) to and from airports, railway station and bus terminals/ stands/ stops, for facilitating movement of passengers by air, rail and road.
- Marriages and Funerals, with permission of local authority

8. Based on their assessment of the situation, District Collectors / Municipal Commissioners may impose area specific additional restrictions on activities outside the Containment zones, or impose such restrictions as deemed necessary for containing the spread of COVID-19.

9. Quarantine Policy The quarantine period for returnee(s) to the State will be limited to 14 days. This shall be implemented by local authorities i.e., District Collectors/ Municipal Commissioners.

Returnee(s) in rural areas will undergo 7 days of mandatory institutional quarantine, post which asymptomatic returnee(s) shall be discharged to undergo home quarantine for a further period of 7 days. If the local authorities find it necessary for reasons related to containment of COVID-19 and to prevent spread of infection, they may extend the period of

institutional quarantine of the returnee(s). In case the quarantine develops symptoms requiring medical attention, he/ she may be shifted to COVID Care Centre/ COVID Hospital. In urban areas, the returnee(s) shall have to compulsorily stay in home quarantine for a period of 14 days, observing guidelines issued by H&FW Dept., Govt. of Odisha. If the returnee does not have proper quarantine facility at home, he/ she shall undergo institutional/ paid quarantine for a duration as directed by the local authorities. Individuals travelling to the State by regular train and air services will have to undergo mandatory quarantine, as prescribed above. The following categories of travelers shall be exempt from mandatory quarantine in the State, upon arrival in Odisha: a. Govt. officials, Professionals, businessmen or any other person travelling to Odisha on work and intending to exit the State by rail, road or air within 72 hrs.

b. Govt. officials, Professionals, businessmen or any other person who have travelled from Odisha on work and are returning to the State within 72 hrs of departure from Odisha

10. Safety and Protection of vulnerable person's Outdoor movement of the following category of people is prohibited, except for essential and health purposes till 31st August, 2020.

- a. Persons above 65 years of age
- b. persons with co-morbidities
- c. pregnant women
- d. children below the age of 10 years

11. Use of Aarogya Setu

- Aarogya setu enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community,
- With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that Aarogya Setu is installed by all employees having compatible mobile phones.
- District authorities may advise individuals to install the Aarogya Setu application on compatible mobile phones and regularly update their health status on the app, this will facilitate timely provision of medical attention to those individuals who are at risk.

12. Strict enforcement of the guidelines

(i) These guidelines issued under the Disaster Management Act, 2005, shall not be diluted in any manner.

(ii) All the District Magistrates/ Municipal commissioners/ Commissioner of Police, Bhubaneswar-Cuttack shall strictly enforce the above measures.

13. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the various section 51 to 60 of the Disaster Management Act 2005. Besides legal action under section 188 of the IPC, and other legal provisions as applicable.

Now, therefore, State Govt. has decided that such stranded labourers, who wish to travel within the State for work, are allowed do so in an organized manner so as to reach their place of work, as per the following guidelines:

1. The industries/ agencies labor contractors will be allowed to transport their labourers in dedicated and designated buses from camps to the workplace within the state of Odisha, maintaining social distancing and other relevant safety protocols prescribed by Government. Such industrial agencies contractors will report the details of such labourers, destinations and buses to the concerned District Collector, through the District Labour Officer. The concerned District Collectors will issue movement pass to such contractors across the districts within the state of Odisha for the said purpose. The concerned Collectors may requisition buses to facilitate such movement, if required. However, the expenditure on this account will be borne by the concerned industry/ agency/ contractor. In such cases where the stranded labourers do not belong to any particular industry/ agency/ contractor the concerned BDOs & DLOs shall bring it to the notice of the District Collector/ PD DRDA, who will make arrangements for such labourers to travel to the destination of their workplace in groups. The District Collector will requisition buses for the purpose through Regional Transport Officers. The district Collectors are authorized to make expenditure on this account from the CMRF. Since the buses in the state are off-road due to lockdown, and only for the afore mentioned purpose the buses will be made operational, the monthly payment of road tax for such requisitioned buses will be waived. The Commerce and Transport Department will issue necessary order in this regard. Since these stranded labourers have already completed the recommended quarantine period of 14 days in their respective camps, the recipient local authorities (Sarpanchs, EO ULBs Collector) shall not insist upon further quarantine of such arriving labourers, to facilitate their immediate joining of work force. The PR & DW Department and H&UD Department will issue instructions in this regard to the concerned authorities under their jurisdiction.

5. The District Collectors of the host and recipient districts shall work in close co-ordination. PD DRDAs will act as district nodal officer. The District Labour Officer will report to the PD DRDA for this work. At State level, Labour Commissioner and Transport Commissioner will coordinate the matter.

6. The data regarding the Daily movement will be compiled by the DLOs, in regular co-ordination with the BDOs, both at the destination and the recipient district, and will be furnished to Labour Commissioner, on daily basis

District administration made all out efforts for recovery of the damage caused by Phailin, Hudhud, Titli , FANI & COVID such as payment of Ex-gratia to the Next of Kin of the deceased. House damage assistance, agriculture input subsidy. The massive evacuation to the nearest safe shelters was the key point to the Phailin Management. All the staffs assigned to the Emergency Section are lived up to this Bench mark.