

2018

District Disaster Management Plan

Cuttack, ODISHA

Volume- I

District Disaster Management Authority (DDMA)

Cuttack, Odisha

6/10/2018



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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 AawasYojana

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

ISET - Institute for Social and Environmental Transitions

SLD - Shared Learning Dialogue

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Chapter- I

District Disaster Management Authority (DDMA)
Cuttack, Odisha
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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 Dist. 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/RasataRok
• 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 & environment	All blocks of Cuttack district. Most vulnerable: Niali, Kantapada&Banki

Flood	July-September	Loss of Life, Livestock, Infrastructure, livelihood & environment	All blocks of Cuttack district. Most vulnerable: Niali, Kantapada&Banki
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	TangiChoudwar& Cuttack Municipal Corporation
Boat capsizes	Anytime	Loss of life	Niali, Kantapada, Banki, Barang
Lightening	April-July	Loss of life	Niali, Banki, TangiChoudwar, 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
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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.

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- II

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



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 NrupaKeshari of Keshari dynasty in 989 A.D.

Historical evidence suggests that Cuttack became the capital of a Kingdom founded by AnangaBhima Deva of Ganga dynasty in 1211 A.D. The famous Barabati Fort was constructed in 1229 A.D. by the famous Ganga ruler AnangaBhima 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 DarpanTahasil of cuttack district. Thirty five villages DashapallaTahasil (puri district) were transferred to NarasinghpurTahasil in Cuttack district during 1967. In 1969, 31 villages covering an area of 78.06 sq. km. of NimaparaTahasil of Puri district were transferred to JagatsinghpurTahasil 28 villages of Cuttack SadarTahasil 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.

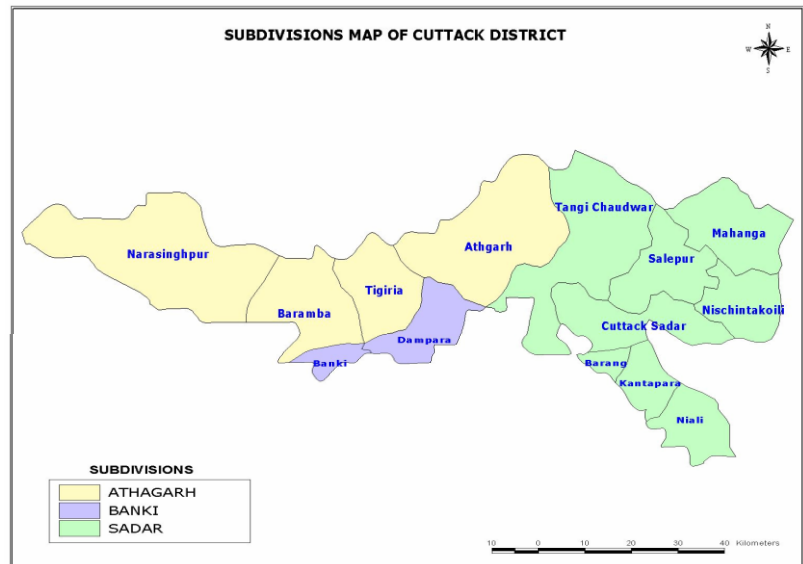
The sub divisional system was not introduced till 1859 when Jajpur and Kendrapada were for the first constituted separate subdivisions just after independence and merger of the princely states, the district comprised four subdivisions viz, sadar, Kendrapara, Jajpur and Athagrh. Before Athagrh became 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. BankiKhashmahal 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 cuttacksadar 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 Govindpur	Cuttack Sadar Tangi- Choudwar Baranga Salipur Nischintakoili Kantapada Mahanga Niali
2	Athagarh	1.Athagarh (1.6.1964)	Athagarh Gurudijhatia	Athagarh

		2.Tigiria (1.7.1965)	Tigiria	Tigiria
		3.Badamba (25.6.1965)	Badamba	Badamba
		4.Narasinghpur (1.12.1965)	Narasinghpur Kanpur	Narasinghpur
3	Banki	Banki (1.12.1963)	Banki Baidyeswar	BankiBanki-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	1
Number of N.A.C.	2[Banki, Athgarh]
Number of C.D. Blocks	14
Number of Towns	11
Number of Post Office	384
Number of Police Stations including Mahila P.S.	50
Number of Gram Panchayats	342
No. of Inhabited Villages	1856
No. of Uninhabited Villages	96
Total Number of villages	1952
Rivers	4 nos
Length of Road Network	6565.76 kms
Source: District Statistical Handbook, Cuttack, District at a Glance, Odisha 2014	

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 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 2010 to 2016 is given in below.

Sl. No	Actual Rainfall (in mm)								
	Month	2010	2011	2012	2013	2014	2015	2016	2017
1	January	3.15	23.08	76.15	00	00	21.38	0.00	0.0 mm
2	February	0.00	48.23	00.00	02.76	27.46	0.00	3.62	0.0 mm
3	March	4.30	3.69	00.00	0.03	42.62	0.00	10.08	47.82 mm
4	April	0.07	21.92	24.46	31.46	00	54.62	5.92	3.62 mm
5	May	152.53	132.00	23.77	77.15	157.96	15.85	122.92	16.74 mm
6	June	221.92	274.54	149.68	187.06	60.62	195.77	161.77	134.25 mm
7	July	278.53	227.00	446.07	308.83	525.38	329.31	340.33	382.49 mm
8	August	300.76	416.23	442.07	100.09	425.85	290.31	327.12	301.18 mm
9	September	170.00	338.00	207.46	196.61	311.77	207.85	293.02	250.06 mm
10	October	207.08	13.38	110.92	587.08	192.81	41.54	96.02	222.39 mm
11	November	33.53	0.00	156.92	00	00	5.15	18.75	63.78 mm
12	December	24.69	0.00	00.00	00	00	14.08	0.00	19.78 mm
	TOTAL	1396.56	1498.07	1637.5	1491.07	1744.47	1175.86	1379.55	1475.75

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 of 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 TypicUstropepts, TypicUstorthents and UlticUstorthents. 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 TypicHaplustalfs and TypicUstropepts. 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 Malgodown controlling the trade throughout the state.

The soils being variable characteristics, the colour ranges from highgrey and pale yellow to deep grey and the textures from coarse sand to silty clay 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 coast, 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 Amarkantakplateau, 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 interfluvies 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 Amarkantakplateau 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 Birupaimouth, 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 Marshaghaj, 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 pfg 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 enlarge 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 ChotaGenguti and further down another branch called the BadaGenguti fall out of the Birupa. The head of the ChotaGenguti has been closed. The BadaGenguti flows 30km. to join the Kimiria, a branch of the Brahmanai 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 accomodatevessels 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 Brahmani 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 Brahmani. 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 typicUstochrepts and AericOchraqualfs. 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 typicustochrepts and typicustorthents. 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 TypicTropaquepts. 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 TypicTro[aquepts and VerticUstropets. 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 AericTropaquepts. 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 AericTropaquets. 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 verticUstrprpts 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 mean 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 TypicUstochepts 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. VerticUstropepts and AericTropaquepts. 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 are classified as VerticUstropepts 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 VerticUstropepts 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 TypicChromasterts and brown soils as TypicUstrochrepts. 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 TypicUstochrepts. 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	579170	1936672	687798	498633	93745	2032092	NA	NA	NA

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.

Workforce Participation Details of Cuttack Dist. as per Census 2011				
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, TangiChoudwar 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, RashtriyaKrishiVikasYojana (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 36 no of M.I.Ps covering 6341.00 Ha. of ayacut area under 7 no. 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 AwasYojana (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 JyotiYojana (BGJY) is the source of funding for rural electrification and Biju SaharanchalVidyutikaranYojana (BSVY) is the source of funding for electrification in ULBs. Besides, funds from GopabandhuGraminYojana 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 jatropa 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 into 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 alongwith 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

Anganwadicenters

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 AnganwadiCenters 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 KrishiVigyan 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
	Cuttack Dist Total	138	47	17	10	579	355

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.

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- III

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



Chapter- III

Hazard, Vulnerability and Risk Assessment

[A brief description of disasters that the district has faced during last 10 years and hazard vulnerability of the district to be mentioned in the first paragraph followed by tables mentioned below.]

A. Major Disasters/ Incidents during 2006-2015

A brief profile of major disasters/ incidents occurred in the district (2006 to 2018):

Table No. : 1

Sl. No.	Disaster/ Incident	No. of incidents during (2006-2015)	No. of Deaths	Affected Population	Lives stock Loss	House s Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares)
							Scho ol/ AWC Buildings	Ho spi tals	Road in Km.	Other Critica l Infrast ructur e	
Disasters as approved under SDRF/ NDRF Guidelines.											
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	-	-	-	-	32212.124
6	Flood	2014	1	522796	-	361	-	-	-	-	3014.317
7	Drought	2013	-	-	-	-	-	-	-	-	-
8	Drought	2015	-	-	-	-	-	-	-	-	72554
9	Hail Storm	-	-	-	-	-	-	-	-	-	-
10	PHAILIN	2013	-	231675	148	29511	-	-	-	-	83439.631
11	HudHud (Cyclone)	2014	-	-	-	-	-	-	-	-	-
12	Earth Quake	-	-	-	-	-	-	-	-	-	-
13	Tsunami	-	-	-	-	-	-	-	-	-	-
14	Landslide	-	-	-	-	-	-	-	-	-	-
15	Avalanche	-	-	-	-	-	-	-	-	-	-
16	Cloud Burst In Cuttack City	2007	-	-	-	-	-	-	-	-	-
17	Pest Attack	2017	0	-	-	-	-	-	-	-	-
18	Cold Wave/ Frost	-	-	-	-	-	-	-	-	-	-
State Specific Disasters as per Notification No.1936 Dt. 01.06.2015											

19	Lightning	2006	32	-	-	-	-	-	-	-	-
20	Lightning	2007	30	-	-	-	-	-	-	-	-
21	Lightning	2008	18	-	-	-	-	-	-	-	-
22	Lightning	2012	15	-	-	-	-	-	-	-	-
23	Lightning	2013	-	-	53	-	-	-	-	-	-
24	Lightning	2015	-	-	3	-	-	-	-	-	-
25	Lightning	2016	-	-	46	-	-	-	-	-	-
26	Lightning	2017	22	-	-	-	-	-	-	-	-
27	Lightning	2018	3	-	-	-	-	-	-	-	-
28	Heat wave	2007	6	-	-	-	-	-	-	-	-
29	Whirlwind	2015	1	-	-	-	-	-	-	-	-
30	Tornado	-	-	-	-	-	-	-	-	-	-
31	Heavy Rain	2007	-	-	-	-	-	-	-	-	-
32	Boat Accidents (Other than during Flood)	-	-	-	-	-	-	-	-	-	-
33	Drowning (Other than during Flood)	2006-2015	22	-	-	-	-	-	-	-	-
		2017	16	-	-	-	-	-	-	-	-
		2018	5	-	-	-	-	-	-	-	-
34	Snake Bite(Other than during Flood)	2006-2015	36	-	-	-	-	-	-	-	-
		2017	23	-	-	-	-	-	-	-	-
		2018	5	-	-	-	-	-	-	-	-
Other Disasters											
35	Animal Menace	-	-	-	-	-	-	-	-	-	-
36	Building Collapse	-	-	-	-	-	-	-	-	-	-
37	Stampede	-	-	-	-	-	-	-	-	-	-
38	Epidemics	-	-	-	-	-	-	-	-	-	-
39	Industrial/ Chemical Accidents	-	-	-	-	-	-	-	-	-	-
40	Road Accidents	-	-	-	-	-	-	-	-	-	-
41	Railway Accidents	1	1	-	-	-	-	-	-	-	-

42	Hooch Incidents	-	-	-	-	-	-	-	-	-	-
43	Communa l Riot	-	-	-	-	-	-	-	-	-	-
42	Dam Break/ Spill Way related flood.	-	-	-	-	-	-	-	-	-	-
43	Soil/ Coastal erosion	-	-	-	-	-	-	-	-	-	-

[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							
			Flood		Chemical industry		Fire	
	Cyclone							
	Popula tion (appro x)	Area name	Popul ation (appr ox)	Area name	Popul ation (appr ox)	Area name	Popula tion (appro x)	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 2017:

Table: 02

Sl. No.	Disaster/ Incident	No. of incidents during 2016	No. of Deaths	Affected Population	Livestock Loss	Houses Damaged	AWC/ School Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	Damage and loss of Crop Area (in Hectares)
1	Lightening	22	22	22	Nil	Nil	Nil	Nil	Nil	Nil	Nil

[Only the Disasters held in the district during 2017 to be mentioned in the table. The NDMA approved disasters to be mentioned first followed by State Specific Disasters and Others]

C. Vulnerability and Risk Assessment related to disasters:

[Note: The Hazards towards which the district is more vulnerable to be discussed in detail]

1. Cyclone:

[Brief description about the tropical cyclones, type and the vulnerability of the district to be discussed followed by the table]

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

Sl No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/Wards	Vulnerable Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
1	Badamba	38	138	14973	37184	35641	2	2	300mtr	
2	Niali	23	130	147135	79941	33191		5		
3	Nischintakoili	41	219	188599	67229	44377	3	5	23 km	
4	Salipur	35	164	193938	33417	44942		3		
5	Baranga	16	78	90101	34820	20291	13	0		
6	Tangi-Choudwar	24	162	153785	52734	32785	1	0		

[Note: Based on historical data the table to be filled up. Only concerned Blocks/ ULBs to be mentioned.]

(Detailed list of vulnerable Villages/Wards is at table No. 3.2of 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 33/1 1KV 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	TangiChoudwar	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 Wells	PWS Schemes				Other Drinking Water Sources If any
				Total No.	Length in Mtrs.	No. of Over Head tanks	No. of Stand Points	
1	Badamba	1350	0	36	NA	NA	NA	NA
2	Niali	1551	0	40	NA	NA	NA	NA
3	Nischintakoili	3757	0	36	NA	NA	NA	NA
4	Salipur	2691	0	36	NA	NA	NA	NA
5	Baranga	878	2	27	NA	NA	NA	NA
6	Tangi-Choudwar	1355	0	39	NA	NA	NA	NA

2. Tsunami:Not Applicable

[Brief description on the Tsunami vulnerability of the district and past incidents if any.]

Table No. 06 : Tsunami vulnerable areas of the district:

Sl. No.	Name of the Block/ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/Wards	Vulnerable Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School Building s/ Anganwadi	Hospitals	Roads (in Km)	Other critical Infra structure
1										
2										

[Note: all villages within 1.5 Km of the coastline to be include and based on information available tables to be filled up. Only concerned blocks to be mentioned.]

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

3. Flood:

[Brief description on the flood vulnerability of the district and past incidents to be discussed.]

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 Infra structure
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	Narasinghpur	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	TangiChoudwar	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. 3.2of 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	Milk and Draught animals	Houses	Vulnerable Infrastructure			
								School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infra.
1	Mahanadi, Birupa, Chitrotapala	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

[Note: Based on historical the tables to be filled up. Only relevant blocks to be mentioned. The causing agents outside district boundary, having vulnerability should also be mentioned]

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	Tangichoudwar	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
District Total:-		136000	52150	188150	25490	400	25890

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

Sl No	Name of the Block / ULB	No. of Grid Station	No. of 33/1 1KV 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	Total No.	PWS Schemes Length in Mtrs.	No. of Over Head tanks	No. of Stand Points	Other Drinking Water Sources If any
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	ChoudwarMunicipalty	359	140	0	00
20	Grand Total	26741	1241	22	509

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 st April	5000	
2	Car Festival	Cuttack Sadar	Nine Days	June/July	10000	Stampede
3	Independence Day	Cuttack Sadar	One Day	15 th 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, Samsanga, Kumarpur	Mahanadi	GP-15 V-71	NA	5	29
3	Narasinghpur	SilotiBaliput Sanagaon Chakraprasad Kathakhunta Ekadal PadamalDesa	Mahanadi	GP-2 V-6	NA	0	14
4	Banki	Nua Ostia Ratagarh Manipur Bilitenttulia Pathapur Kurumchani	Mahanadi	GP-8 V-19	NA	2	07

Sampur							
5	Baramba	Bangarisingha, Gopinathpur,B httarika	Mahanadi	GP-11 V-11	NA	0	21
Gobardhanpur							
6	Niali	Kalakha Parimal	Devi,Devikandal a	GP-23 V-127	NA	5	10
7	Nishintkoili	Asureswar Palada	Chhitrotpala, River Nuna	GP-14 V-14	NA	3	06
Sadhaknagar							
Nagaspur							
8	Kantapada	Kula Brahmansailo Ghat	River Devi	GP-19 V-81	NA	3	18
Adaspur							
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 JasarajpurGhat a Tribeniswar Jasarajpur Dharmadaspur Basudevpur	Gobari, Badagenguti	GP-14 V-18	NA	3	00

6. Land Slide Vulnerability: Not Available

Table No. 14

Sl. No.	Land Slide Zone/ Area/ Location	Area in Sq. Km	No. of susceptible Villages/ Wards	Vulnerability Population in Nos.	Houses	Vulnerable Infrastructure			
						School / AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure

1

[Note: Detailed list of villages, School, Hospitals and Roads are given in the Volume II of the DDMP]

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	TangiChoudwar	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	Houses	Vulnerable Infrastructure School Buildings & AWC	Hospitals	The Critical Infra.
1	M/s. SMV Beverage s, At/ P.O- Jagatpur, Dist- Cuttack.	Director Factory	Ammunia.	1000 Ltrs.	NA	NA	NA	NA	Yes	Yes	
2	M/s. Rams Assorted Cold Storage Limited. T elengapi ntha, Dist- Cuttack.	Director Factory	Ammunia	1670 Ltrs.	NA	NA	NA	NA	Yes	Yes	
3	M/s. Health Food Products At/ P.O- Jagatpur, Dist- Cuttack.	Director Factory	Ammunia	300 Ltrs.	NA	NA	NA	NA	Yes	Yes	
4	M/s. Pragati Milk Product At/P.O-	Director Factory	Ammunia	600 Ltrs.	NA	NA	NA	NA	Yes	Yes	

	New I.E, Jagatpur, Cuttack.	rs & Indust ries									
5	M/s. PragatiM ilk 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. Jagannna 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-	Direct or Factor y Broile rs & Indust	Ammo nia	400 Ltrs.	NA	NA	NA	NA	Yes	Yes	

	Cuttack.	ries								
10	M/s. Suvoche m Industries I.E, Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Chlorin e	Max. Storag e - ltrs each 8 tonne rs of capaci ty 900	NA	NA	NA	NA	Yes	Yes
11	M/s. CosBoard Industries I.E, Cuttack.	Direct or Factor y Broile rs & Indust ries	Chlorin e	Max. Storag e 6 tonne rs or capaci ty 900 ltrs each	NA	NA	NA	NA	Yes	Yes
12	M/s. Rajashre eChloroc hem I.E, Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Chlorin e	Max. Storag e - 6 tonne rs of capaci ty 900 ltrs each.	NA	NA	NA	NA	Yes	Yes
13	M/s. Paradeep Oxygen, New, I.E, Jagatpur, Cuttack.	Direct or Factor y Broile rs & Indust ries	Acetylene	150No 's of cylind er of capaci ty 5.5 cubic meter.	NA	NA	NA	NA	Yes	Yes
14	M/s. Manishre eRefract oresMad hupatana	Direct or Factor y Broile	Produc er Gas.		NA	NA	NA	NA	Yes	Yes

	Ind. State	rs & Indust ries							
15	M/s. IMFA Ltd., (Unit-I) At/P.O- Choudwar, Cuttack	Direct or Factor y Broile rs & Indust ries	LDO, TRANS FORME R OIL, LIQUID OXYGE N	NA	NA	NA	NA	Yes	Yes
16	M/s. IMFA Ltd.,(Unit -II) At/P.o- Choudwar, cuttack.	Direct or Factor y Broile rs & Indust ries	LDO,LI QUID OXYGE N, TRANF ORMER OIL, CO	NA	NA	NA	NA	Yes	Yes
17	M/s. IMFA Ltd., (Unit-III) At/P.O- Choudwar, Cuttack	Direct or Factor y Broile rs & Indust ries	LDO, HSD, TRANS FORME R OIL, CO,HCL	NA	NA	NA	NA	Yes	Yes
18	M/s. Aarti Steelsltd. , At- Ghnatikh al, P.O- Mahakal basta,	Direct or Factor y Broile rs & Indust ries	LDO,LI QUID OXYGE N, TRANF ORMER OIL,	NA	NA	NA	NA	Yes	Yes
19	M/s. T.S Alloys Ltd., At- Anantapur,	Direct or Factor y Broile rs &	LDO. TRANF ORMER OIL, HCL, LIQUID	NA	NA	NA	NA	Yes	Yes

	Cuttack.	Indust ries	OXYGE N						
20	M/s. Bhubane swar Power (P) Ltd., Anantap ur, Cuttack.	Direct or Factor y	LDO, Broile TRANS FORME R OIL, HCL	NA	NA	NA	NA	Yes	Yes

[Detailed vulnerable habitations list and other critical infrastructure is at Table No. 3.2 of Volume II of the DDMP

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. onMM	Ground water level	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	Tangichoudwar	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		1424.3		45257	90743	136000	21273	30877	52150

Table No. 18: Drought Vulnerability.

Sl. No.	Name of the Block	Year- 2017				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									NA	NA	NA	NA				
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			Not Affected				Not Affected		NA	NA	NA	NA			Not Affected	
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:

[For national and state highways only. The total network of state and national highways in the district to be discussed in detail followed by the table]

Table No- 21:

Sl. No.	Stretch of Road (From - to)	Length in Kms.	No. of Traffic Congestion Areas	No. of Accident Prone Areas	No. of villages/ habitations adjacent to accident prone areas
---------	-----------------------------	----------------	---------------------------------	-----------------------------	---

1

2

3

4

5

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	5536	363	1219	757	5872	1381	1827	30	38	11202	10373	2454
2	Banki	2907	619	1130	555	4286	8705	1353	12	13	6913	6125	
3	Badamba	5400	768	1328	884	5031	1204	1669	40	44	8943	8162	2206

4	Baranga	3510	214	596	382	3912	6881	1118 5	7	16	5167	4997	1202
5	Cuttack	14754	2982	1627	127 4	11323	2815 1	3050 2	67	65	16020	14781	6463
6	Dampada	2772	445	914	534	4059	8893	1335 0	112	184	7094	6577	1627
7	Kantapada	2661	292	706	461	3681	6571	8761	13	16	6504	5871	1155
8	Mahanga	4733	525	1503	953	7281	1592 8	2037 8	7	5	12552	11479	2532
9	Narasinghpur	5501	729	1575	867	6461	1231 4	1704 5	3	1	11168	10032	2354
10	Niali	4794	419	1183	687	5573	1147 1	1759 6	31	44	11047	10313	1019
11	Nischintakoili	5120	768	1487	992	6595	1377 6	2029 7	28	14	11997	11005	2468
12	Salepur	6010	603	1284	853	7214	1655 8	2056 0	64	136	12066	10969	2928
13	TangiChoudwar	5467	377	1283	897	7568	1540 5	2216 7	34	39	10320	9778	2761
14	Tigiria	1631	262	714	367	2685	5907	9221	40	85	5102	4574	1150

[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						↔										

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- IV

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



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 28th 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 27th 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*

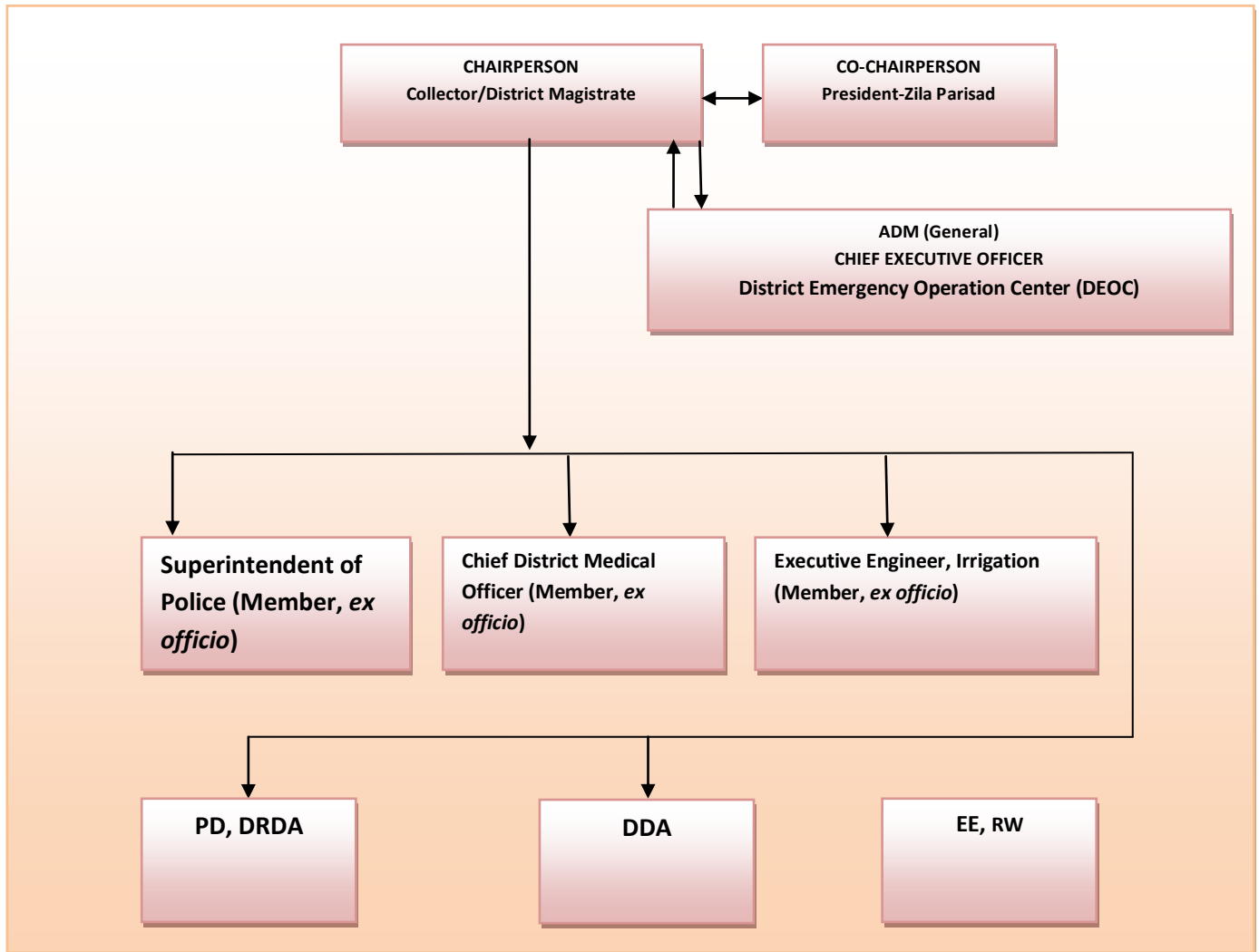
- c) The Chief Executive of the District Authority ,ex officio;
- d) The Superintendent of Police, ex officio;
- e) The Chief Medical Officer of the district, ex officio;
- f) Not exceeding two other district level officers, to be appointed by the State Government

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.	Mr. Sushanta Mohapatra IAS	Collector & District Magistrate	Chairperson, EX-Officio	9437199911
2.	Smt Jyotirekha Naik	Chairman, Zilla Parishad	Co-Chairperson, Ex-Officio	9437228283
3.	Mr.Madhaba Chandra Sahu	Superintendent of Police I/C	Member, EX-Officio	9437178872 /9438916200
4.	Saroj Kanta Mohanty	Project Director, DRDA	Member	9437225575
5.	Bijaya Kumar Khandayatray, OAS (S)	Additional District Magistrate (General)	Chief Executive Officer, EX-Officio	9437325464
6.	Dr. Biswakalyan Pattanaik	Chief District Medical Officer	Member, EX-Officio	9439990009
7.	Mr. Dipti Ranjan Panda	Executive Engineer, Irrigation, Khordha	Member, EX-Officio	9437081333
8.	Mr. Suresh Chandra Dalai	Executive Engineer, Irrigation, Prachi Division	Member, EX-Officio	9437317778
9.	Mr. Bighnaraj Purohit	Executive Engineer, Irrigation, Kendrapara Division	Member, EX-Officio	8895296277
10.	Mr. Shakti Prasad Das	Executive Engineer, Irrigation, Cuttack Division	Member, EX-Officio	9437164611
11.	Er.Subodh Routray	Executive Engineer, Rural Development	Member	9437255338
12.	Paresh Chandra Sahoo	Deputy Director, Agriculture	Member	8018738844

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

Deputy Director, DDA:

- 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

Sl No.	Name of the Member	Designation	Contact No.
1.	Mr. Sushanta Mohapatra IAS	Collector & District Magistrate	9437199911
2.	Sj. Pratap Jena	MLA Mahanga	9437048569
3.	Sj. Chandra Sarathi Behera	MLA Sadar Cuttack	9438111777
4.	Smt Jyotirekha Naik	President Zila Parisad	9437228283
5.	Sj. Bhatruhari Mahatab	M.P. Cuttack	0671-2608002
6.	Sj. Debasis Samanta Ray	MLA Barabati-Cuttack	9937011009
7.	Sj. Ranendrapratap Swain	MLA Athagarh	9437051340
8.	Sj. Pravat Kumar Tripathy	MLA Banki	9437277611
9.	Sj.Pravat Biswal	MLA Choudwar-Cuttack	9437225423
10.	Sj. Pramod Kumar Malick	MLA Niali	9437013123
11.	Sj.Prakash Chandra Behera	MLA Salipur	9337088881
12.	Sj. Deviprasad Mishra	MLA Badamba	9437053030
13.	Bijaya Kumar Khandayatray	ADM, Gen.	9437325464
14.	Mr. Raghuram Iyear	ADM, Revenue	9437273547
15.	Mr. Akhileswar Singh IPS	Deputy Commissioner of Police,Cuttack	9438035100
16.	Bikash Chandra Mohapatra OAS	Commissioner, CMC, Cuttack	9437164240

	(SAG)		/ 9437169042
17.	Mr. Madhaba Chandra Sahu OPS	Superintendent of Police,(Rural),Cuttack	9437178872 /9438916200
18.	Manoj Mohapatra OAS(SB)	Secretary to CDA, Cuttack	
19.	Saroj Kanta Mahanty OAS(SB)	Project Director, DRDA, Cuttack	9437225575
20.	Sama Charan Das	General Manager, D.I.C, Cuttack	9437024332
21.	Prabodh Kumar Rout OAS(JB)	Dist. Emergency Officer	8280079982
22.	Dr. Biswa Kalyan Pattanaik	Chief District Medical Officer, Cuttack	9439990009
23.	Dr. Kamala Kanta Barik	Chief District Veterinary Officer, Cuttack	9437508951
24.	Paresh Chandra Sahoo	Deputy Director, Agriculture,Cuttack	8018738844
25.	Baisnaba Charan Barik	Deputy Director, Horticulture,Cuttack	9437705225
26.	R. N Pattanaik	Dist., Fisheries Officer, Cuttack	9439103336
27.	Sri Gadadhara Das	Deputy. Director, Textile, Cuttack	9937915474
28.	P.K Rout (AFO)	District Fire Officer, Cuttack	9861218310
29.	Sudarsana Patra	District Forest Officer, Cuttack	9437007611
30.	Arun Kumar Swain	District Forest Officer, Athagarh	9437102982
31.	Minaketan Behera	D.I.P.R.O, Cuttack	9437272047
32.	Amara Mohapatra	Civil Supplies Officer, Cuttack	9437125862
33.	Dipti Ranjan Patra	R.T.O, Cuttack	9437585856
34.	Subhas Mohanty	Station Director AIR	9437276410
35.	Mr. Lingaraj Parida	Commandant ODRAF 6 th BN	9861039267 0671-2442148
36.	Sh. M.K.Yadav	Commandant NDRF	9439103170 9437964571
37.	Sri Niranjana Behera	Dist. Education Officer	9438179280
38.	Mr. Anang Prasad Sethi	Dist. Culture Officer	9437295628
39.	Mr. Banamali Mohapatra	Dist. Labour Officer	9937110770
40.	Mr. Atulya Kumar Pattanaik	LDM, Cuttack	8280474701
41.	Mr. Gadadhara Behera	D.P.C, SSA, Cuttack	9437468665
42.	Prasanta Ku. Nayak	BDO, Cuttack Sadar	9437377480
43.	Jeeban Chandra Mallick	BDO, Tangi-Chaoudwar	8917247775
44.	Sibabrata Ghose	BDO, Salipur	9861158404
45.	Subodh Kumar Acharya	BDO, Mahanga	8018467083
46.	Suresh Ch Pradhan	BDO, Nischintakoili	8895450900
47.	Akula Mallick	BDO, Baranga	9437373896
48.	SA. Hossin	BDO, Niali	9437231459
49.	K. Ashok Kumar	BDO, Kantapada	9439234666
50.	Hemant Kumar Swain	BDO, Athagarh	9437169732
51.	Tapan Kumar Khuntia	BDO, Tigiria	9437290889
52.	Sadananda Sethi	BDO, Badamba	8763319277
53.	Prashant Kumar Tarai	BDO, Narasinghpur	9439916953 /9776025164
54.	Pravat Kumar Sahoo	BDO, Banki	9439566445
55.	Artabandhu Lenka	BDO, Banki-Dompada	9437271001
56.	Sanjeebita Ray	Tdr, Sadar	9437187888
57.	Abinash Raut	Tdr, T-Choudwar	9437190406
58.	Mahendra Prasad Mohanty	Tdr, Salepur	9437181336
59.	Dillip Kumar Maharana	Tdr, Mahanga	8895489342/ 8658753619

60.	Jeetendra Kumar Patra	Tdr. N.Koili	7978465819
61.	Bijyananda Nayak	Tdr, Baranga	9437822960
62.	Ranjan Kumar Jena	Tdr, Niali	9437208573
63.	Siddharth Sankar Sahu	Tdr, Kantapada	9090625022
64.	Binod Jena	Tdr, Athagarh	9437627060
65.	Tapan Kumar Khuntia	Tdr, Tigiria	9437290889
66.	Rabinarayan Tripathy	Tdr, Badamba	9437627756
67.	Satyasundar Rout	Tdr, N.S Pur	9437672601
68.	Padma Charan Sahoo	Tdr, Banki	9438629455
69.	Sunita Jena	Tdr, Dompada	7077868048
70.	Smt. Sucheta Mohapatra	Tdr, Kissanagar	9437354155

[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"> • Control Room operation • Stock piling of Medicines at different PHCs & CHCs • Positioning of Staff at the below level • Medical Health centers at different places with the officer in-charge • Provision of Halogen tabs, ORS etc. with the health workers

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

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 and Designation	Contact No	Remarks
1.	Dr. Dipika Dutta Ray (PH)	9439989996	
2.	Dr. Batakrushna Mahala ADMO (FW & Imm.)	9439995151	
3.	Dr. Abhaya Kumar Pattanaik	9439990016	CDMO office Control Room: 0671-2301007
4.	Dr. Prasant Ku. Hota	9439994802	
5.	Dr. Sarat Kumar Dash	9439994807	

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:

Sl. No.	Name of the Block CHC Name of the Institution	Contact No.
1	Adaspur UGPHC	9439995222

2	Bentakar PHC	9439995055
3	Barahmpur CHC	9439994800
4	Bindhanima PHC	9439990419
5	Dompada PHC	9439990458
6	Kanpur CHC	9439995076
7	Mahanga UGPHC	9439995304
8	Maniyabandha UPGHC	9439998764
9	Maidharpada PHC	9439995376
10	Niali CHC	9439995078
11	Nischintakoili CHC	9439990300
12	Salipur CHC	9439995167
13	Subarnapur PHC	9439990245
14	Tangi UGPHC	9439995475
15	DHH City Hospita	9439990016
16	SDH Athagarh	9439994802
17	SDH Banki	9439994807

The above mentioned control rooms will be functional till 15th June 2017 from 8AM to 8PM and provide emergency service.

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	Sh. M.K.Yadav	09439103170 09437964571
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.

10 new units of ODRAF have been proposed to set up at different locations like Sambalur, Boudh, Kalahandi, Nawarangpur, Gajapati, Berhampur, Puri, Khordha, Kendrapada and Jajpur

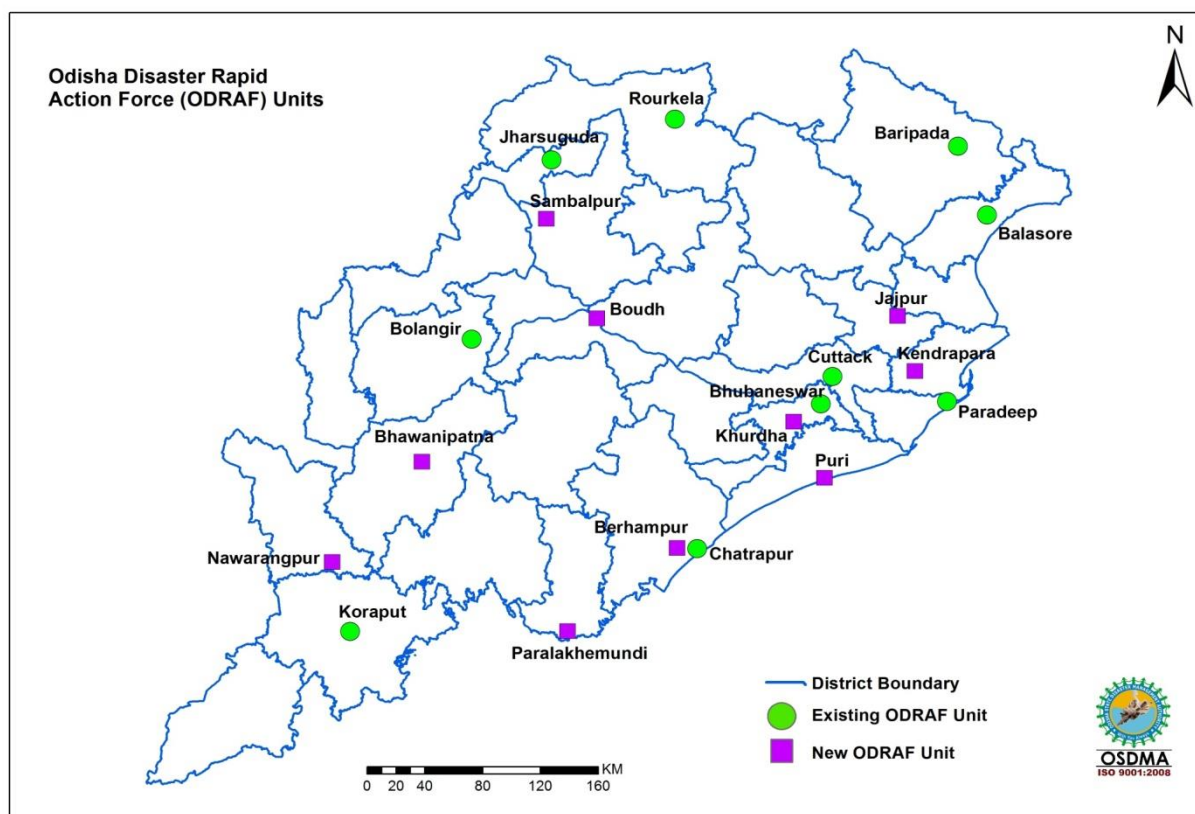
Table__ : Location of Odisha Disaster Rapid Action Force with contact details

Sl No.	Place	Personnel drawn from	Name of the Commandant	Contact No.	Name of Subedar	Contact No.
1	Cuttack	OSAP 6 th Bn, Cuttack	Mr. Lingaraj Parida	9861039267 0671-2442148	Mahatang Hansda	9439457443
	Cuttack	OSAP 6 th Bn, Cuttack	Sk. RahimTulla, Dy. commandant	0671-2442259 9438503808	Sunil Kumar Naik	9437070279
2	Jharsuguda	OSAP 2 nd Bn, Jharsuguda	Mr Mohammed Zahid	9437176264	Sri. Kul Bahadur Thapa	9658630354
3	Koraput	OSAP 3 rd Bn, Koraput	Sri. Subash Chandra Nayak, OAPS-(I)	9437250194	Sri. Ramesha Chandra Hati	9938406905
4	Chatrapur	OSAP 8 th Bn, Chatrapur	Shri B.N.Mishra, OPS Commandant	94370-87055 (M) 06811-260375 (O) Fax: 06811 254011		
5	Balasore	Armed Police Reserve (APR), Balasore district	Shri Nithi Sekhar,IPS	94381-53309 (M) 06782 -262004 (O) 06782 -262005 (R) Fax: 06782 262584		
6	Bhubaneswar	OSAP 7 th Bn, Bhubaneswar	Shri Binayananda Jha, IPS Addl. DG (Law & Order) ,	CUG: 9438915974 Office- 0671-2303263, Fax – 0671-2303263		
7	Baripada	OSAP 5 th Bn,Baripada	Shri Awinash Kumar, IPS Commandant	94381-53308 (M) 06792-278232		

				(O) 06792 -254402 (R) Fax: 06792 278232		
8	Rourkela	OSAP 4 th Bn, Rourkela	Khageswar Goud	9437358292	Ashok Behera	9437419436
	Rourkela	OSAP 4 th Bn, Rourkela	Sriprasad Tamang	OSAP Control Room – 0661-2600025	Bijaya Sahu (Havildar)	9438425112
9	Balangir	Armed Police Reserve (APR), Balangir district	Ashish Kumar Singh, IPS	8895046814	M Laxmiranjan,	94392-68154
10	Jagatsinghp ur at Paradeep	Armed Police Reserve (APR),Jagatsinghpur district	Shri J.N.Pankaj,IPS	94371-02020 (M) 06724-220115 (O) -220015 (R) Fax: 06724 220370		

[A detailed List of ODRAF units is annexed]

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		Deputy Controller, Civil Defense			143
2.	Home Guards	Madhaba Chandra Sahoo	Superintendent of Police cum Commandant Home Guards, Cuttack	9437178872	0671-2368301	490
3.	National Service Scheme (NSS)		Regional Director, NSS			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 NCC Group head Quarter Barabati Stadium	7008563484	0671-2339033	
6.	Nehru Yuva Kendra (NYK)	Ashok Kumar Dash	District Youth Coordinator	9437137422	0671-2312747	15
7.	State Red Cross	Rashmi Rekha Dash	Secretary State Red Cross Branch	8895127297	0674-2390228	
8.	District Red Cross	Mr. Prabodh Kumar Rout	Secretary District Red Cross Branch	8280079982	0671-2504842	9

4.12 Emergency Communication System

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

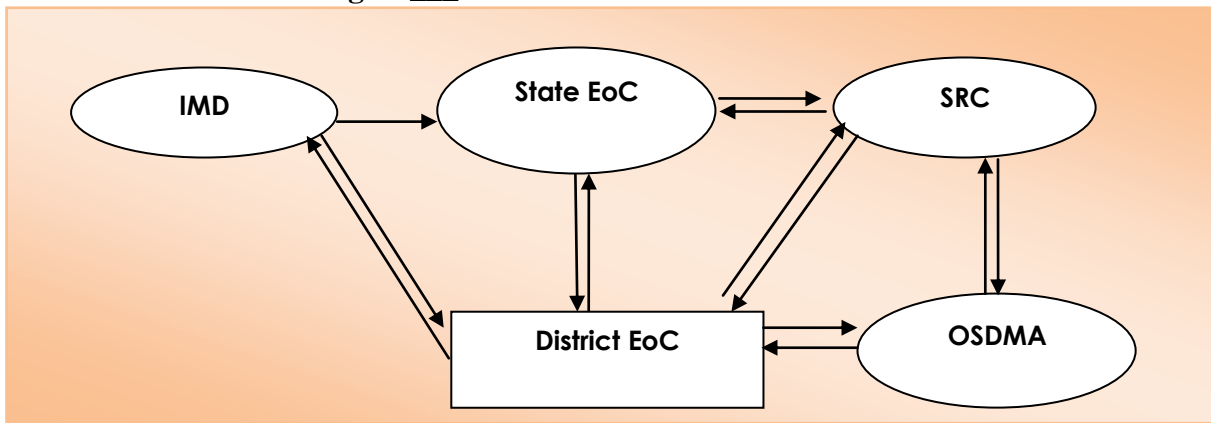
- SRC / IMD provide the warning message to the District Administration / DEOC from the SEOC.
- DEOC immediately pass it to the all line departments / BDOs / Tahasildars via cell phone, email or incase required through police VHF message.
- BDOs / Tahasildars used to disseminate the message through their 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

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. Mrs. Prabodh Kumar Rout, District Emergency Officer, Cell no:8280079982
2. Sri Bapi Bishwajit Sahoo, District Project Officer, OSDMA, Cell no: 9861126954
3. Sri Subas Chandra Mishra , Senior Clerk, Cell no: 9439900953
4. Mrs. Madhumita Panda, Data Entry Operator, Cell no: 7381515025

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 :

www.imd.gov.in ,	Indian Meteorological Deptt.
www.imdbbsr.gov.in	Indian Meteorological Deptt.
http://www.npmoc.navy.mil/jtwc.html ,	US navy
www.cnn.com/weather ,	CNN
www.bbc.co.uk/weather ,	BBC
www.weather.co.uk ,	Weather related news service
www.sat.dundee.ac.uk ,	Dundee satellite receiving station
www.hurricanealley.net ,	Information about tropical Cyclones
www.usgs.gov ,	U.S Geological Survey
www.ndmindia.nic.in ,	National Disaster Management, GOI
www.earthquakenews.com ,	EQ related news service from World News service
www.orissawater.com ,	Water Resource Department
www.disasternews.net ,	Disaster Related News service
www.fema.go ,	Federal Emergency Management Agency
www.redcross.org ,	Red Cross
www.alertnet.org ,	Alerting humanitarians to emergencies
www.undp.org ,	United Nations Development Programme
www.osdma.org ,	Orissa State Disaster Mitigation Authority
www.ifrc.org	International Federation of Red cross
www.emergency-management.net	Information about emergency planning and Response
www.odisha.gov.in	Govt. of Odisha
http://usgs-georef.cos.com	USGS data base
www.iaem.com	International association of disaster managers
www.eqnet.org	EQ related information
www.esri.com/hazards	Disaster and GIS related information
17. Refer the website 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.

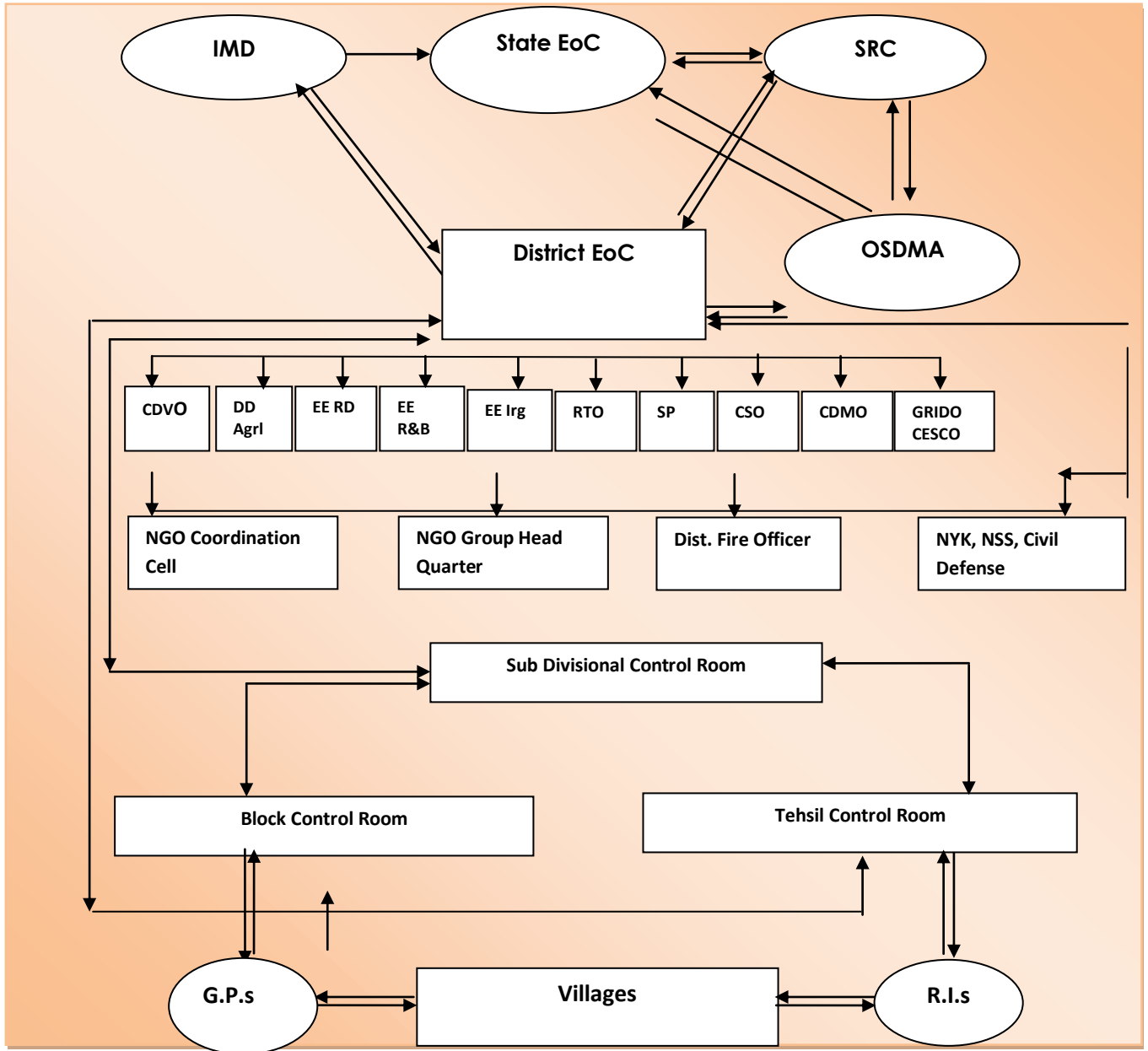
Assignment of Senior Officials to supervise the emergency situation:

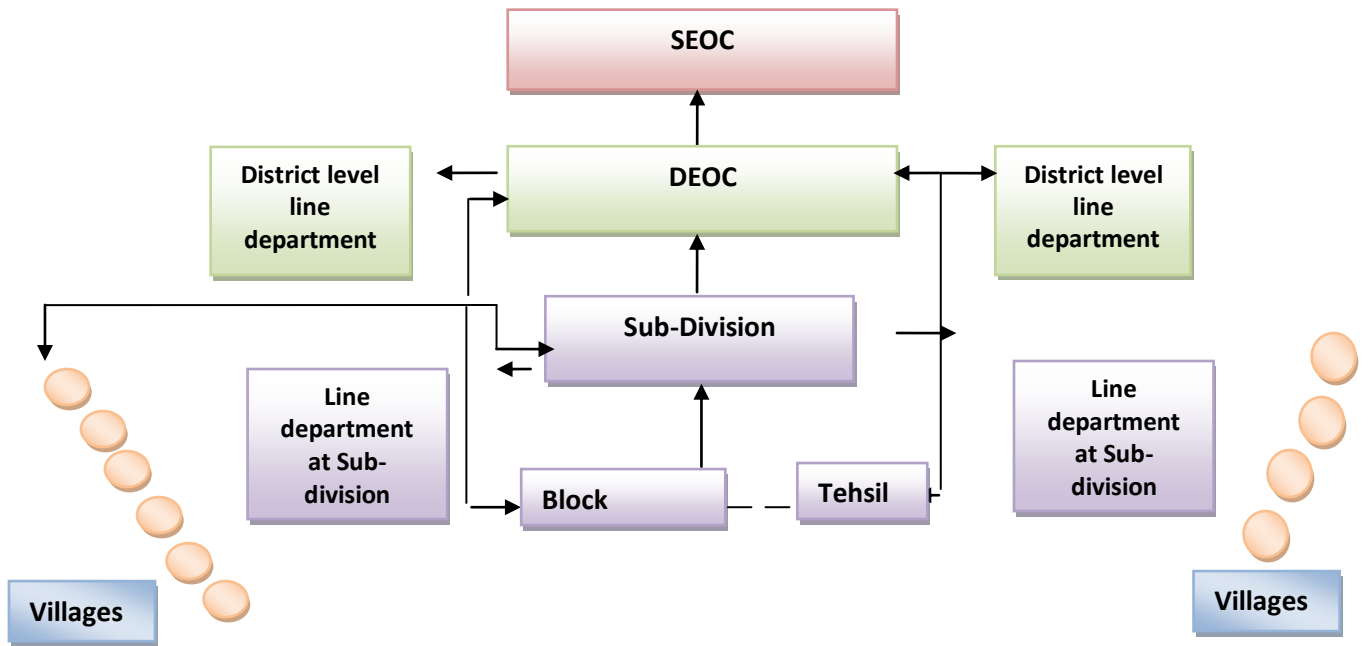
Sl No:	Name of the Officers	Blocks Assigned
1.	Saroj Kanta Mohanty, PD, DRDA	Overall In-charge of all blocks
2.	Bijaya Kumar Khandayatray OAS (S) ADM, General	Athagarh, Badamba, Banki, Banki Dampada, Baranga, Cuttack Sadar, Kantapada
3.	Raghuram Iyear ADM- Revenue	Mahanga, Narasinghpur, Niali, Nischintakoili, Salepur, Tangi Choudwar, Tigiria

Table: 3 Equipments provided to DEoC and their operational status

Sl No.	Equipments	Unit	Status		Remarks
			Operational	Non-Operational	
1	Desktop Computer	1	Yes		
2	Laser Printer	1	Yes		
3	UPS	1	Yes		
4	Scanner	1	Yes		
5	Fax	1		Not Available	
6	Ink Jet Printer	1		No	Defunct
7	Multi Utility Machine (Printer, Scanner, Fax, copy)	1	Yes		
8	Laptop	No			
10	LCD Projector	1		Yes	
11	Photocopier	0			
12	GPS Unit	1	Yes		Returned
13	Satellite Phone	1	Yes		
14	VHF Sets	1			Defunct
15	VHF Mobile Station	1			Defunct
16	Walkie-Talkie (VHF hand Set)	1			Defunct
17	Portable Diesel Generator	1		Yes	
18	Inverter with Battery	1			Damaged
19	Inflatable Tower Light	2	Yes		
20	Power Saw	2	Yes		
21	Life Jacket	5	Yes		
22	Life Buoy	5	Yes		
23	Aluminum Ladder	No			
24	Fire Extinguisher	Yes	Yes		
25	Siren	No			Defunct
26	Megaphone	1	Yes		Defunct
27	Colour TV/Stand	1	Yes		
28	Mobile Phone	2		Yes	Damaged
29	Display Board	1	Yes		
30	White Broad	1	Yes		
31	Computer Table/Chair	1	Yes		
32	Rack	1	Yes		
33	Book Case	1	Yes		
34	GI Trunk	1	Yes		
35	Commando Search Light	1	Yes		
36	Steel Almirah	3	Yes		

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 where as 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.

4.12.4 Any other Alternative Emergency Operation Center in the district

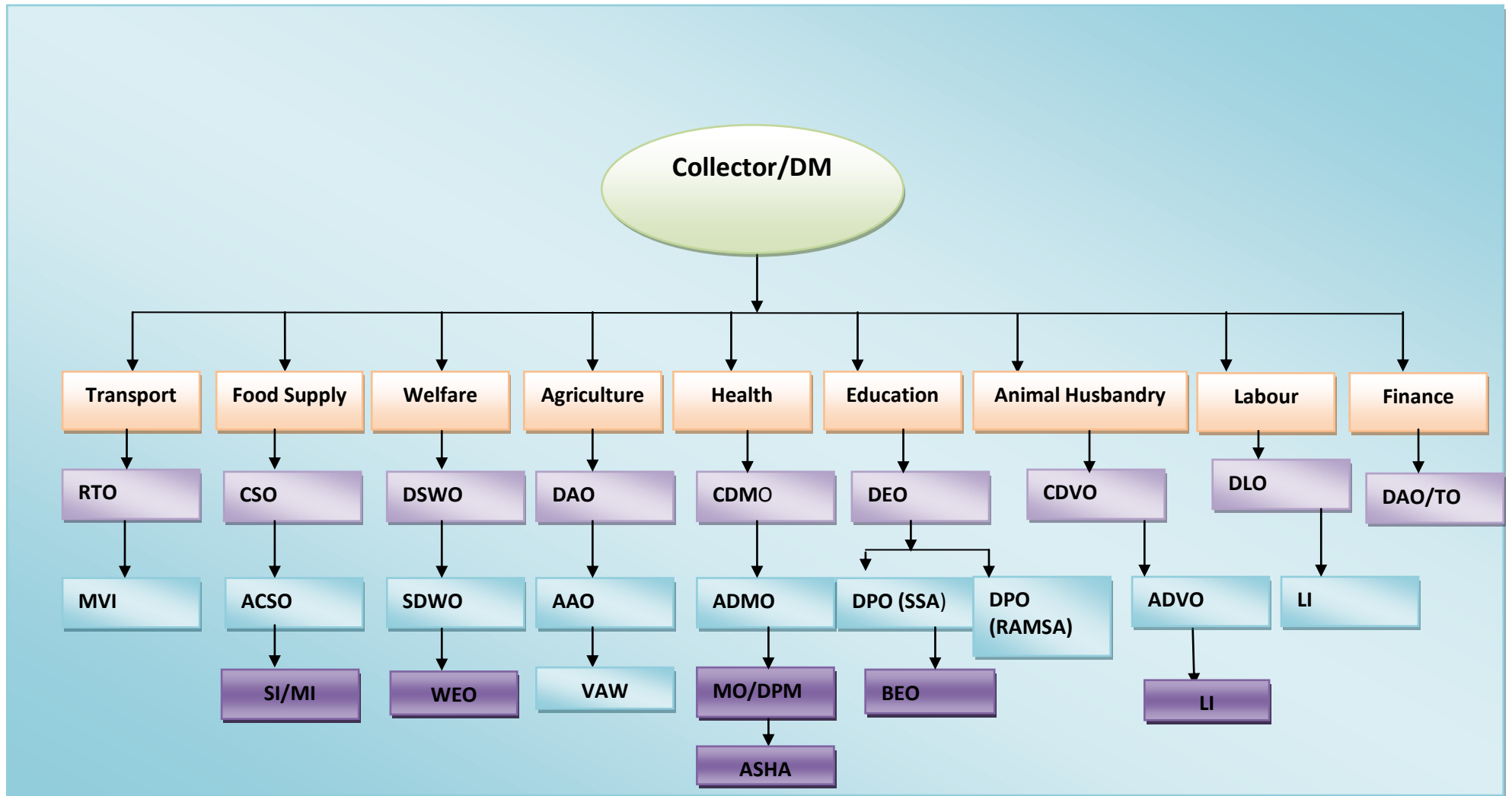
(Note: Structure and function to be elaborated)

Health Control Room: [Heat Wave]

The district level control room functions in the office of DEO, Cuttack from 1.3.17 to 15.6.17 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.

The details of control rooms are given below:

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.

List of Multi Purpose Flood Shelters Constructed by OSDMA out of Chief Minister Relief Funds of Cuttack District
1st phase

Sl. No	Name of the Block	Name of the Village	Name of the Location	Name of the Division relates to	Whether approved by OSDA	Status
1	2	3	4	5	6	7
1	Banki	Bandala	Community Land at Bandala	E.E RD-II	Approved	Works Completed

2	Cuttack Sadar	Jharkata	Jharkata U.P. School	E.E RD-I	Approved	Works Completed
3	Tigiria	Baulanga	Near U.G.M.E.School, Baulanga	E.E RD-II	Approved	Works Completed
4	Badamba	Bangirisingha	Bangirisinga M.E. School	E.E RD-II	Approved	Works Completed
5	Kantapada	Babaja	Netaji Samparka Pathagara	E.E RD-I	Approved	Works Completed
6	Nischintakoili	Daudpur	Naigaon Daudpur High School	E.E RD-I	Approved	Works Completed

2nd phase

7	Banki	Pakharakhala	Pakharakhala	E.E RD-II	Approved	Report Not submitted By B.D.O & Tdr.
8	Niali	Ekaberuan	Ekaberuan	E.E RD-I	Approved	-do-
9	Tigiria	Gadadharpur	Gadadharpur	E.E RD-II	Approved	-do-
10	Badamba	Sankhamari	Sankhamari	E.E RD-II	Approved	-do-

3rd phase

11	Niali	Erancha	Erancha Kendra Prathamika Bidyalaya	E.E RD-I	Approved	Report Not submitted By B.D.O & Tdr.
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12	Niali	Karanga	Sidhamangala Bidyapitha, Karanga	E.E RD-I	Approved	-do-
13	Nischintakoili	Nageshpur	Infront of Jayanti Bidyapitha	E.E RD-I	Approved	-do-
14	Nischintakoili	Brahamankhanda	Sirilo M.E. School, Sirilo	E.E RD-I	Approved	-do-
26	Banki	Bishnupur	Bishnupur Nua-Ostia Pry. School	E.E RD-II	Approved	-do-
16	Banki	Baigini	Majhari Upgraded High School	E.E RD-II	Approved	-do-
17	Dompada	Gadajit	Gadajit Dompada College	E.E RD-II	Approved	-do-
18	Athagarh	Katakisahi	Patenigaon S.S Bidyapitha	E.E RD-II	Approved	-do-
19	Athagarh	Dahisara	Dahisara School	E.E RD-II	Approved	-do-
20	Tigiria	Hatamal	Adjacent to Hatamangala	E.E RD-II	Approved	-do-

			Pry. School			
21	Badamba	Sasanga	Sasanga	E.E RD-II	Approved	-do-
22	Badamba	Gopinathapur	Krupasindhu Boys High School	E.E RD-II	Approved	-do-
23	Narasinghpur	Ekadal	Ekadala High School	E.E RD-II	Approved	-do-
24	Tangi-Choudr	Kayalapada	Kayalapada near G.P. Office	E.E RD-I	Approved	-do-
25	Niali	Kasarda	Laxminaraya Bidyapitha	E.E RD-I	Approved	-do-
26	Salipur	Ratilo	Mahanadi Mahabidyalaya	E.E RD-I	Approval awaited from OSDMA	-
27	Mahanga	Mulabasanta	Baghmi Biswanatha Bidyaniketan	E.E RD-I	Approval awaited from OSDMA	-

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- V

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



Chapter – V

Prevention & Mitigation Measures

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
- 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

Department/Sector	List out impacts against each disaster	Existing coping practices
Cuttack Municipality	<ul style="list-style-type: none"> • Damage to houses • Damage to street lights 	<ul style="list-style-type: none"> • Sensitizing people • Evacuating people in a safe place • Arranging free kitchen for people
<ul style="list-style-type: none"> • Rural Works Department 	<ul style="list-style-type: none"> • Damage to houses and buildings 	<ul style="list-style-type: none"> • Construction of cyclone shelter and shifting of communities
<ul style="list-style-type: none"> • Civil Supply 	<ul style="list-style-type: none"> • Availability of food stuff increases during emergencies 	<ul style="list-style-type: none"> • Availing sufficient amount of rice in advance
Animal Resource Department	<ul style="list-style-type: none"> • Loss of pasture lands • Livestock faces problem for grazing • Chances of epidemic increases 	<ul style="list-style-type: none"> • Pre-vaccination before the monsoon and throughout the year • Farmers are advised not to lose their livestock outside

<ul style="list-style-type: none"> Education 	<ul style="list-style-type: none"> Damage to infrastructure Increased debris of tree and shrubs Increased necessity of manpower and equipment for immediate restoration Increased cost of maintenance Closing of schools 	<ul style="list-style-type: none"> Shifting the students Providing dry foods Awareness generation through PRI members Providing Medicine and first aid
<ul style="list-style-type: none"> Damages to crop Pest attack 	<ul style="list-style-type: none"> A forestation 	<ul style="list-style-type: none"> Damages to crop Pest attack
Fisheries	<ul style="list-style-type: none"> Damage to houses Damage to nets and boats Damage to embankments of tank 	<ul style="list-style-type: none"> Providing relief Providing nets and boats at subsidized rate
<ul style="list-style-type: none"> Public Health Engineering 	<ul style="list-style-type: none"> Power failure 	<ul style="list-style-type: none"> Operating DG system to ensure water supply

Flood and heavy rains:

Department/Sector	List out impacts against each disaster	Existing coping practices
Agriculture	<ul style="list-style-type: none"> Damage of seeds sown/seedling Post flood pest attack 	<ul style="list-style-type: none"> Compensation to farmers Afforestation Activities
Rural water supply & sanitation/R.D.Department	Submerged tube well in flood water	<ul style="list-style-type: none"> Disinfection of tube wells in flood affected areas Providing portable drinking water through tankers
Cuttack Municipality	<ul style="list-style-type: none"> Water logging in low line areas 	<ul style="list-style-type: none"> Evacuating people in a safe place Arranging free kitchen for people Using heavy duty motors for dewatering the low line areas.
<ul style="list-style-type: none"> Civil Supply 	<ul style="list-style-type: none"> Availability of food stuff increases during emergencies 	<ul style="list-style-type: none"> Availing sufficient amount of rice in the district prior to rainy season

Animal Resource Department	<ul style="list-style-type: none"> • Non availability of cattle feed and fodders • Spreading of infectious diseases • Death of animals 	<ul style="list-style-type: none"> • Organizing vaccination and health camps in the affected areas • Disposal of carcass preventing spreading infections
Education	<ul style="list-style-type: none"> • Inundation of infrastructure • Damage to school building • Damage to reading materials • Closing of schools • Illness among the children 	<ul style="list-style-type: none"> • Repairing of buildings • Repairing of roads and approaches to government buildings • Creating awareness among the parents • Shifting students to the cyclone shelter • Providing dry foods
Health and family welfare Dept	<ul style="list-style-type: none"> • Acute diarrhoea spread in population • Increase in cases of snake bite • Increase in cases of skin diseases 	<ul style="list-style-type: none"> • Supply of anti-diarrheal medicines like ORS in flood prone areas • Opening of medical relief centre in flood affected area • Mobilization of health teams, doctors and paramedics •
Public Health Engineering	<ul style="list-style-type: none"> • Submergence of drinking water points • Submergence of pump machine and other equipment 	<ul style="list-style-type: none"> • Super chlorination of water sources • Sinking pump machines • Installation of water storage tanks • Installation of DG sets
Fisheries	<ul style="list-style-type: none"> • Overflowed the tanks and ponds • Damage the tanks embankment of pisciculture projects • Washed away the operating nets of the fisherman • Displaced the position of fishing boat • Sand covered the bottom of the tank • Damaged the fisherman village situated on the river banks 	<ul style="list-style-type: none"> • Provide relief and cash • Providing net and boat at subsidized rate • Providing loans

	<ul style="list-style-type: none"> • Fish seed gets hampered 	
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Heat Wave:

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

Drought:

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

PRE, DURING, AND POST ACTIVITIES

WARNING DISSEMINATION PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> ▪ Verify inventory of Resources ▪ Setting up of Control Rooms ▪ Communication link with all concerned with disaster preparedness ▪ Coordinate with blocks and neighbouring districts ▪ Coordinate with NGOs and NGO Coordination Committee ▪ Ensure functioning of all communication and warning system ▪ Update databank 	<ul style="list-style-type: none"> ▪ Provide information to all areas about weather ▪ Collection of information and providing it to the state ▪ Expending funds for emergency needs 	<ul style="list-style-type: none"> ▪ Provide information about the relief and rehabilitation programme ▪ Order CESCO to disconnect electricity supply for the affected area
BDOs and Tahasildars	<ul style="list-style-type: none"> ▪ Alert all departments to be present at their headquarters ▪ Convene meeting of DDMC 	<ul style="list-style-type: none"> ▪ Collection of information and providing it to the DCR ▪ Procuring locally needed emergency 	<ul style="list-style-type: none"> ▪ Report to the district administration on information from field level
Revenue	<ul style="list-style-type: none"> ▪ Close contact with district administration ▪ Alert officials to remain in HQ 	<ul style="list-style-type: none"> ▪ Disseminate day to day information of the position of the blocks 	<ul style="list-style-type: none"> ▪ Ensure cooperation of the public / task force during damage assessment
Police/ Civil Defence/ Fire Brigade	<ul style="list-style-type: none"> ▪ Make all available Police persons in the district available to the district administration 	<ul style="list-style-type: none"> ▪ Inform BDOs on receipt of any information ▪ Recruit casual labourers 	<ul style="list-style-type: none"> ▪ Report of the District Collector
	<ul style="list-style-type: none"> ▪ Ensure functioning of Police Stations ▪ Alert police officers to remain in HQ ▪ Activate a public information centre 		
Irrigation	<ul style="list-style-type: none"> ▪ Organize round the clock inspection and 	<ul style="list-style-type: none"> ▪ Organize round the clock inspection and 	<ul style="list-style-type: none"> ▪ Inspect the inlet and outlet to tanks to check

	<p>repair of breaches, culverts, irrigation channels, bridges and embankments</p> <ul style="list-style-type: none"> ▪ Arrange additional sand bags, cement bags, bamboo mats and bamboos 	<p>repair of pumps, generators, motor equipments and station building</p> <ul style="list-style-type: none"> ▪ Provide all technical assistance in disaster affected area 	<p>obstruction by trees and vegetation</p>
Agriculture	<ul style="list-style-type: none"> ▪ Review and update precautionary agricultural measures ▪ Check available stock of equipment and materials ▪ Stock agricultural equipments 	<ul style="list-style-type: none"> ▪ Determine what damage, pests or disease may be expected ▪ Determine what drugs and insecticide item will be required 	<ul style="list-style-type: none"> ▪ Provide information to all concerned about diseases, likely damage to crop and plantation ▪ Inform ways to protect crop and plantation
Animal Husbandry	<ul style="list-style-type: none"> ▪ Check and stock emergency medical equipments ▪ Check and stock surgical packs ▪ Prepare an area of the hospital to receive large number of livestock 	<ul style="list-style-type: none"> ▪ Determine expected injuries/ illness to cattle ▪ Assemble and sterilize surgical packs ▪ Develop emergency admission procedure 	<ul style="list-style-type: none"> ▪ Provide information to all staff of veterinary hospitals and centers about the disaster, likely damages and effects ▪ Activate public information centre
CESCO	<ul style="list-style-type: none"> ▪ Arrange and procure additional generator from local market ▪ Check emergency tool kits ▪ Assemble additional equipments needed 	<ul style="list-style-type: none"> ▪ Assist the district authorities to make arrangements for standby generators in hospitals, RWSS, Collectorate, Meteorological Stations 	<ul style="list-style-type: none"> ▪ Review the total extent of damages to the power supply installations
RWSS	<ul style="list-style-type: none"> ▪ Inform people to store emergency supply of drinking water ▪ Arrange standby water supply ▪ Establish procedures for emergency distribution of water, if necessary 	<ul style="list-style-type: none"> ▪ Organize monitoring of wells, intake structures, pumping stations, treatment plant ▪ Make provision for distributing water on emergency basis 	<ul style="list-style-type: none"> ▪ Cover pumps and restore with adequate protection to prevent damage ▪ Establish emergency work gangs for immediate post disaster repairs
PWD	<ul style="list-style-type: none"> ▪ Review and update precautionary measures and procedures ▪ Extra transport vehicles, filled with fuel to be stationed at strategic 	<ul style="list-style-type: none"> ▪ Inspect all roads and bridges by a bridge engineer, foundation and piers ▪ Inspect all govt. buildings and 	<ul style="list-style-type: none"> ▪ Establish priority listing of roads (to hospitals and main trunk routes) to be opened first

	<p>spots along routes likely to be affected</p> <ul style="list-style-type: none"> ▪ Secure work under construction ▪ Secure heavy equipment's ▪ Issue two way communication to all teams 	<p>structures</p> <ul style="list-style-type: none"> ▪ Assemble emergency tool kits like axes, power saws, pulley block, etc ▪ Identify and mark strategic routes to evacuation and relief 	
NGOs/ Volunteers	<ul style="list-style-type: none"> ▪ Ensure that the correct news reaches the public 	<ul style="list-style-type: none"> ▪ Assess the situation from time to time 	<ul style="list-style-type: none"> ▪ Inform people to return to their home after the danger is receded

EVACUATION PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> ▪ Order evacuation on priority basis of seriously injured, sick, children, women, handicapped, old people and able bodies ▪ Requisite for additional rescue equipment's such as boats, transport vehicles, etc. 	<ul style="list-style-type: none"> ▪ Provision of food to rescue population through CSO ▪ Ensure precautionary measures through student mass 	<ul style="list-style-type: none"> ▪ Ensure evacuation done safely ▪ Road clearance. ▪ Eviction of encroachments
PWD	<ul style="list-style-type: none"> ▪ Check evacuation routes and assist people in evacuating an areas 	<ul style="list-style-type: none"> ▪ Community assistance mobilized for road clearing 	<ul style="list-style-type: none"> ▪ Despatch extra transport vehicles from headquarters
Health	<ul style="list-style-type: none"> ▪ Deploy senior medical officer ▪ Make arrangement of medical facilities ▪ Develop emergency admission procedure 	<ul style="list-style-type: none"> ▪ Ensure potable water supply or packed water ▪ Provide medical help ▪ Help the injured to move to hospital 	<ul style="list-style-type: none"> ▪ Ensure priority for shifting of those seriously injured to hospital ▪ Provide first aid
Police	<ul style="list-style-type: none"> ▪ Deployment of police staff and armed force for evacuation ▪ Arrangement for the safety of the property of the people 	<ul style="list-style-type: none"> ▪ Organize emergency transport for seriously injured people to hospital ▪ Maintain law and order 	<ul style="list-style-type: none"> ▪ Take assistance from community leaders for appropriate security during evacuation

BDOs and Tahasildars	<ul style="list-style-type: none"> ▪ Ensure adequate warning mechanism ▪ Prepositioning of task force 	<ul style="list-style-type: none"> ▪ Send search Groups to rescue people from risk areas ▪ Help the injured people to move to the hospital 	<ul style="list-style-type: none"> ▪ Assistance to community in evacuation process ▪ Keep record of missing persons ▪ Inform the family members
RTO / MVI	<ul style="list-style-type: none"> ▪ Arrange sufficient number of transport 	<ul style="list-style-type: none"> ▪ Alert truck Owners/ other vehicles to coordinate with district administration ▪ Organize Transport for immediate assistance 	<ul style="list-style-type: none"> ▪ Transport people from evacuated area to their homes
Revenue / RI	<ul style="list-style-type: none"> ▪ Propagation for evacuation ▪ Arrangement for the safety of property of the people ▪ Arrange rescue kits 	<ul style="list-style-type: none"> ▪ Send search Group to rescue people from risk areas 	<ul style="list-style-type: none"> ▪ Locate missing persons ▪ Keep a record of the missing persons ▪ Inform their family members
NGO/ Volunteers	<ul style="list-style-type: none"> ▪ Mobilize response group ▪ Help the evacuees 	<ul style="list-style-type: none"> ▪ Keep close contact with community and district administration 	<ul style="list-style-type: none"> ▪ Assist community to find the missing persons

SEARCH AND RESCUE PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector, ADM, Emergency Officer	<ul style="list-style-type: none"> ▪ Intimate police to make arrangement for army assistance ▪ Inform BDOs to coordinate with local NGOs ▪ Requisition for extra boats ▪ Provision of food to rescued populace 	<ul style="list-style-type: none"> ▪ Ensure volunteers carry out the search and rescue operation with the assistance of police ▪ Identification of Casualties 	<ul style="list-style-type: none"> ▪ Keep record of the search and rescue operation and make assessment of active NGOs ▪ Preparing reports on UD cases
Police	<ul style="list-style-type: none"> ▪ Deployment of police personnel at risk points ▪ Arrangement for the safety of the property of the people 	<ul style="list-style-type: none"> ▪ Organize Emergency transport for seriously injured people to hospital ▪ Guard and rescue at the breach points 	<ul style="list-style-type: none"> ▪ Find out the missing persons and keep a record of them ▪ Inform their family members
Block/ PanchayatSamiti/ Revenue/ RI	<ul style="list-style-type: none"> ▪ Work division to the officers and NGOs for rescue operation ▪ Prepositioning of food stuff, lifesaving 	<ul style="list-style-type: none"> ▪ Send search group to rescue the left behind persons in the risk areas ▪ Arrange boats and 	<ul style="list-style-type: none"> ▪ Find out the missing persons and keep a record of them ▪ Inform their family members

	<ul style="list-style-type: none"> drugs, cattle feed, polythene ▪ Deployment of RIs and other supporting staff to assist in rescue operation ▪ Propagation for evacuation ▪ Arrange rescue kits 	<ul style="list-style-type: none"> transport for the people who are stranded ▪ Reaching out to people with food stuff and other essential items 	<ul style="list-style-type: none"> ▪ Provide tarpaulins as and when necessary and help the people to return to their homes ▪ Arrange exgratia for the family of missing persons
PWD/ RD/ Irrigation	<ul style="list-style-type: none"> ▪ Arrangement of materials for repairing of roads and breaches for post disaster preparation 	<ul style="list-style-type: none"> ▪ Arrange casual labour on emergency basis 	<ul style="list-style-type: none"> ▪ Immediate repair of the road and breaches for communication and transportation
RTO/ MVI	<ul style="list-style-type: none"> ▪ Meeting with the owners of the vehicles 	<ul style="list-style-type: none"> ▪ Provide necessary vehicles to district level functionaries 	<ul style="list-style-type: none"> ▪ Provide vehicle required for transportation of people to return to their homes
NGO/ Volunteers	<ul style="list-style-type: none"> ▪ Mobilize volunteers ▪ Work distribution among volunteers 	<ul style="list-style-type: none"> ▪ Help the injured to move to the hospital ▪ Deployment of Volunteers and resources at shelter points 	<ul style="list-style-type: none"> ▪ Help people to return to their homes
Health	<ul style="list-style-type: none"> ▪ Arrangement of medical help at shelter points 	<ul style="list-style-type: none"> ▪ Provide medical help 	<ul style="list-style-type: none"> ▪ Provide first aid
RWSS	<ul style="list-style-type: none"> ▪ Pre arrangement of drinking water at shelter places 	<ul style="list-style-type: none"> ▪ Arrange standby drinking water if required 	<ul style="list-style-type: none"> ▪ Carry out immediate post disaster repair

MEDICAL AID PHASE

Responsible Department	Activities		
	Pre	During	Post
Collector	<ul style="list-style-type: none"> ▪ Ascertain the medical stock position 	<ul style="list-style-type: none"> ▪ Monitor the operation of medical help 	<ul style="list-style-type: none"> ▪ Assess the medical aid for further improvement
Health	<ul style="list-style-type: none"> ▪ Arrange drugs and medical equipment for all possible diseases during disaster ▪ Ensure extra supplies of medical items are obtained quickly 	<ul style="list-style-type: none"> ▪ Determine type of injury/ illness ▪ Assemble and sterilize surgical packs, if required ▪ Prepare an area of the hospital to receive large 	<ul style="list-style-type: none"> ▪ Report to the Collector ▪ Check stock of equipment and drugs likely to be most needed after disaster ▪ Assess the level of medical supply in stock

	<ul style="list-style-type: none"> ▪ Discharge all ambulatory and non-ambulatory patients whose release does not pose a health risk to them ▪ Enlist private doctors ▪ Establish Medical Relief Camps ▪ Clarify procedures between peripheral hospitals, private hospitals, blood banks and general hospitals 	<p>number of patients</p> <ul style="list-style-type: none"> ▪ Take help of private doctors in case of shortage of staff 	
<p>Veterinary and Animal Husbandry</p>	<ul style="list-style-type: none"> ▪ Establish cattle camps and veterinary aid centers at disaster sites ▪ Designate Officer in Charge for the camps ▪ Estimate requirement of water, fodder and animal feed for cattle camps. ▪ Preventive vaccination against common contagious diseases of Cattle and Buffalos to be taken up. ▪ Special Medicines and lifesaving drugs may be made available out of SRC grant to meet the emergency situations during disaster, as the normal quota of the medicine may not be adequate. ▪ Cattle feed like rice bran/ pre mixed cattle feed/ straw to be kept ready at different storing points preferably in 	<ul style="list-style-type: none"> ▪ Organize transfer of seriously injured livestock from village to veterinary aid centers ▪ Ensure adequate sanitary conditions to avoid outbreak of epidemics. ▪ 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 Representatives, Villagers & NGOs working for animal welfare and take care and rescue their livestock. ▪ Veterinary Mobile teams to be stationed in each block and VD headquarters who will visit the marooned villages 	<ul style="list-style-type: none"> ▪ Report to Emergency Operation center and District Control Room ▪ 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

	PanchayatSamitigodowns since there is no storage facility in Veterinary dispensaries.	for treatment of affected animals. ▪ Control Room will function from 1 st June to till the end of Rainy season.	
NGO/ Volunteers	▪ Preparation volunteers of medical aid response group	▪ Help the medical personnel ▪ Inform the medical officer regarding epidemic, if any	▪ Help the medical team in vaccination procedure ▪ Disease surveillance

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"> - Construction of flood control embankments - Construction of common shelters for cyclones, Floods and handicapped - Purchase of motor boats for flood and cyclone prone areas - Fire tenders for Government organization - Retrofitting of essential lifeline buildings, viz Govt. hospitals, Govt. Schools and public buildings to be used as shelters in an emergency. - Early Warning Systems for effective disaster mitigation. - Construction of roads, approach roads, link roads, Pathways. - Drinking water facility
2	Indira AwasYojana (IAY)	<ul style="list-style-type: none"> - Construction of disaster-resilient houses
3	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	<ul style="list-style-type: none"> - Construction of river embankments - Construction of roads in remote areas - Construction of multi-hazard shelters
4	National Rural Livelihood Mission	<ul style="list-style-type: none"> - Creation of SHGs

5	PradhanMantri Gram SadakYojana (PMGSY)	- Construction of roads in remote areas
6	National Health Mission (NHM) (NRHM and NUHM)	- Rapid Action Force for Emergency Medical Response - Emergency ambulances - Preparedness for mobile Field Hospitals
7	Scheme for Animal Health Care in the State	- Vaccination drives
8	RashtriyaSwasthyaBimaYojana	- Insurance (Disaster Insurance)
9	PradhanMantriAwasYojana (PMAY)	- Construction of disaster resistant houses
10	PradhanMantriSurakshaBimaYojana (PMSBY)	- Insurance
11	The PradhanMantriJeevanJyotiBimaYojana (PMJJBY)	- Insurance
12	SarvaShikshaAbhiyan	- Disaster resilient construction of new school buildings - Retrofitting in existing school buildings - Essential response preparedness and planning at school level
13	Mission Shakti: Empowering Women through SHGs	- Capacity building of women on adaptation and risk reduction behaviors and preparedness at household level to face climatic extremes - Linking livelihood promotion with sustainable natural resource management
14	GopabandhuGraminYojana	- 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 and evaluation that the infrastructure is created maintained keeping in mind future possibilities and rising frequency and magnitude of extremes. - 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
15	BijuPuccaGharYojana	<ul style="list-style-type: none"> - Disaster Resilient housing for the beneficiaries by the trained Engineers and Masons - Awareness among the beneficiaries to take up disaster resilient housing
16	Jalanidhi: Harnessing Ground and Surface Water for Agriculture	<ul style="list-style-type: none"> - Prior assessment of feasibility of ground water level in future climate scenario as well as sustainability - Installation of resilient infrastructure based hazard and vulnerability assessment of the field location - Installation of structural mitigation measures for protecting the existing infrastructure - Agreement and sensitization of beneficiaries for efficient and smart use of water for sustainability - Measures for ground water recharge
17	Odisha Tribal Livelihood Programme Plus: Empowerment & Sustainable Livelihood Opportunity for Tribals	<ul style="list-style-type: none"> - Base Line Survey can include in climate and disaster risk assessment as part of PRA. - The design of project intervention must consider present and future climate scenario and projections - Infrastructure to be created must be DRR inclusive analysing the risks associated with disasters and climate change - Livelihood risk transfer through appropriate risk transfer mechanism should be a core component based on risk analysis. - The program has the potential to produce DRR-CCA integrated model

		practices for development through integration of DRR and CCA
18	Jeebika - Orissa Rural Livelihood Programme: Watershed Development – A Means to a Better Livelihood	<ul style="list-style-type: none"> - Livelihood promotion activities should be selected based on local level climate and disaster risk assessment - 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 - Improvement of WASH through awareness, resilient infrastructure like raised toilets, hand pumps can be focussed during design and implementation of project activities - 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
19	Biju Gram JyotiYojana: Illuminating Villages – A State Initiative	<ul style="list-style-type: none"> - The infrastructure installed under the program must be designed considering high speed cyclones and floods for adaptation and sustenance. - Building Energy Conservation Standards must be done and beneficiaries must be sensitized for energy conservation
20	BijuSaharanchalVidyutikaranaYojana: Electricity for Slums and Habitation in Urban Areas	<ul style="list-style-type: none"> - Same as above
21	Capital Expenditure System Improvement for Reduction of AT&C Programme: loss in Electricity Distribution Sector	<ul style="list-style-type: none"> - 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.

[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*

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- VI

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



CHAPTER – VI

CAPACITY BUILDING MEASURES

6.1 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.

6.2 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 – 6.1:

Tentative Capacity Building Activities of Cuttack District for the Year 2018

Sl. No	Activity-cum-Training	Participants	Strength (Tentative)	No. of Batches	Duration	Schedule (Tentative)	Organized by
1	Heat Wave Awareness/ Preparatory Workshop & Implementation of Heat Wave Action Plan(HAP)-2018	District Level Line Departments Officers, all BDOs/all Tahasildars	90	1	1 Day	March	DDMA/DEOC
2	DDMA Meeting	DDMA members	10	1	1/2 Day	March	DDMA/DEOC
3	NGO Coordination	NGOs / Volunteers	25	1	1/2 Day	March	DDMA/DEOC

	Meeting						
4	District level workshop for Preparation/ Updation of District/Block Disaster Management Plan(DDMP/B DMP)-2018	District /Block Level Line Dept. Officer & Others.	90	1	1 Day	March	DDMA/DEOC
5	District Level Workshop on Plastic waste (Disposal) Management	District /Block Level Line Dept. Officer & Others.	60	1	1 Day	March	CES/DDMA/DEOC
6	District Level Workshop on preparation of VDMP (Village Disaster Management Plan)-2018.	District/ Block Level Officers, Nodal Officers / NGOs	50	1	1 Day	April	DDMA/DEOC
7	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	April	OSDMA/DDMA/DEOC
8	District level hands on training programme for officials on IDRN	District level Officials of different departments and stakeholders.	60	1	1 Day	April	OSDMA/DDMA/DEOC
9	Role of NGOs/VOs/CBOs in disaster management.	NGOs / Volunteers	30	1	1 Day	April	OSDMA/DDMA/DEOC
10	Preparatory meeting for Flood of DLNCC & DDMA Meet	Blocks/ Tahasils/ Line Departments / PRIs	80	1	1 Day	April	DDMA/DEOC

11	Role of PRIs & ULBs in Disaster Management.	Chairman/Councilors ULBs, Officials	80	1	1 Day	April	DDMA/DEOC
12	Role of PRI members (ZP) in Disaster Management.	President/Vice President,ZP/All Members of ZP.	46	1	1 Day	May	DDMA/DEOC
13	District level workshop on Departmental Disaster Management Plan.	District level Officials of different departments.	60	1	1 Day	May	DDMA/DEOC
14	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch&PS Member.	50	2	1 Day	May	DDMA/BDO
15	Preparation of City Disaster Management Plan	CMC , Line Departments & District Officials	40	1	1 Day	May	CMC/UNDP/DEOC
16	Workshop on Approval of DM Plan-2018 by DDMA	DDMA members	10	1	1/2 Day	May	DDMA/DEOC
17	Workshop/ Training on Preparation of School Disaster Management Plan.	DEO,DPC(SSA),all BEOs,CRCC and Others	40	1	1 Day	May	OSDMA/DDMA/DEOC
18	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	June	DEO/BEO
19	District level Preparatory	District/Block Officials CSMCC	60	1	1 Day	June	DDMA

	meeting Mock Exercise on Cyclone/Flood	/ MFSMMC members					
20	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpan ch&PS Member.	50	3	1 Day	June	DDMA/BDO
21	DDMA Meeting	DDMA members	10	1	1/2 Day	July	DDMA/DEOC
22	Mock Exercise on Flood/Cyclon e on 19th June.	District Level/Block/MFS Level	30	1	1 Day	July	DDMA
23	District Level awareness/ca pacity building /action plan workshop on Lightning	District/Block Officials and Medical staff	100	1	1 Day	July	DDMA
24	District Level Workshop on Role of NGOs/VOs/CB Os in Disaster Management.	NGOs / Volunteers	100	1	1 Day	July	DDMA/DEOC
25	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpan ch&PS Member.	50	3	1 Day	July	DDMA/BDO
26	District Level ToT on Drought Management for Farmers Clubs Members	Staff of Agriculture/Reve nue/Co- operation.	60	1	1 Day	July	DDMA/DDA
27	Training of Community Volunteers	Community Volunteers	27	1	12 days	August	OSDMA/ DEOC

28	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch&PS Member.	50	3	1 Day	August	DDMA/BDO
29	DDMA Meeting	DDMA members	10	1	1/2 Day	August	DDMA/DEOC
30	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	August	DEO/BEO
31	Review of City Disaster Management Plan and Modification	CMC , Line Departments & District Officials	40	1	1 Day	August	CMC/UNDP/DEOC
32	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman,Sarpanch&PS Member.	50	3	1 Day	September	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	September	DEO/BEO
34	Orientation Workshop on DM Protocol for Child Care Institutions	Representatives of the CCIs, Key Line Agency Officials & Stakeholders	30	1	1 Day	September	DDMA/DEOC
35	Preparatory Meeting for observation of DP Day	Dist. Level Line Departments	30		1/2 Day	October	DDMA/DEOC
36	DDMA	DDMA members	10	1	1/2	Novem	DDMA/DEOC

	Meeting				Day	ber	
37	Observation of DP day	Dist. Level Line Departments/ School students/ Fire Service, etc.	300	15	1 Day	Novem ber	DDMA/DEOC
38	Block Level Training on Role of PRI members in Disaster Management.	Chairman/Vice Chairman, Sarpanch & PS Member.	50	2	1 Day	Novem ber	DDMA/BDO
39	Training of HMs on Preparation of School Disaster Management Plan/School Safety Programme.	Head Masters of High Schools	40	2	1 Day	Decemb er	DEO/BEO
40	Workshop on Activities of District Crisis Group (DCG)	DCG Members & Stakeholders	30	1	1/2 Day	Decemb er	DDMA/DEOC/ Asst. Director, Factories & Broilers, Cuttack

6.3 Tabletop Exercise:

[Each year in the 1st week of April, Collector to organize a tabletop exercise involving all district and block level key officials to assess the emergency response plans for various disasters.]

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.

On 25th May 2017, the 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 2017 with respect to Cuttack district. The gaps identified in the discussion were addressed.
- The DDMP for the year 2016 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 2017 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.

6.4 District/ Block level Mock Drills:

[Periodic mock drills to be organized involving district and block level officials/ institutions to assess the capacity and preparedness to face certain disasters. All recommendations and findings will be incorporated in updating of DDMP.]

Table – 6.2:

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

6.5 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 into consideration.]

Table – 6.3:

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 th 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	

6.6 Community Capacity Building and Community Based Disaster Management:

[District to chalk out detailed plan for community capacity building for disaster management which includes formation of village disaster management committees and task forces, their orientation and preparation of village disaster management plans. The villages having multi hazard vulnerability or having more vulnerability towards flood, cyclone and tsunami may be selected in the first phase i.e. for financial year 2017-18]

As per the discussion held at ROTI on 3rd and 4th 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. So 310 villages will be covered in the first phase i.e. year 17-18. The plan is given below:

Table- 6.4:

Sl. No.	Block Name	Total No of Villages	No. of vulnerable villages to be covered during 2018-19	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	25	25*10	2	June - Dec	
2.	Tangi-Chaoudwar	167	25	25*10	2	June - Dec	
3.	Salipur	167	25	25*10	2	June - Dec	
4.	Mahanga	198	25	25*10	2	June - Dec	
5.	Nischintakoili	83	25	25*10	2	June - Dec	
6.	Baranga	80	25	25*10	2	June - Dec	
7.	Niali	258	25	25*10	2	June - Dec	
8.	Kantapada	89	25	25*10	2	June - Dec	
9.	Athagarh	201	25	25*10	2	June - Dec	
10.	Tigiria	51	25	25*10	2	June - Dec	
11.	Badamba	138	25	25*10	2	June - Dec	
12.	Narasinghpur	249	25	25*10	2	June - Dec	
13.	Banki	110	25	25*10	2	June - Dec	
14.	Banki-Dompada	49	25	25*10	2	June - Dec	

[Block wise village list for 2017-18 to be given in Volume II of the DDMP]

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

[Note: the districts having Cyclone and Flood Shelter constructed by OSDMA, to draw detailed action plan for formation of CSMMC & FSMMC and training of task forces.]

Table – 6.5:

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
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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	1	May
		40 - FA	1	June

6.8 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	27	27	July - Aug
2	Tsunami Mock drill	Not Required	Not Required	Sept -Oct
3	Flood Mock drill	27	27	June -July

- Note: All shelter villages will be covered.

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- VII

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



Chapter – VII

Preparedness

7.1 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	

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

7.2 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	NarasinghpurHindol road	0/0	23/0	SH-64	-	Narasinghpur
3	TangiHaripur road	0/0	20/0	MDR - 17	-	TangiChoudwar
4	GopamathuraBangurisingha Road	0/0	13/0	MDR-90	5/300 km to 6/0 km (Submerge during high flood)	Baramba
5	NH-42 at KalingaChhak to ARC Main gate	0/0	2/0	ODR	-	TangiChoudwar
6	Charbatia Railway station	0/0	1/0	ODR	-	TangiChoudwar

	road					
7	CharbatiaMangarajpur road	0/0	9/070	ODR	-	TangiChoudwar
8	Choudwar Town road	0/0	2/0	ODR	-	TangiChoudwar
9	NuntikiriBarpada road	0/0	9/250	ODR	-	TangiChoudwar
10	ChoudwarCanelEmabnkment road	0/0	2/260	ODR	-	TangiChoudwar
11	NH-5 at Nurgundi Junction to Link road joining to NH-42 at Choudwar	0/0	4/0	ODR	-	TangiChoudwar
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)	TangiChoudwar/ Athagarh
13	ChhatiaKalakala road	0/0	16/500	ODR	-	Barachana
14	TangiByepass road	0/0	2/0	ODR	-	TangiChoudwar
15	Chhatia Town road	0/0	2/0	ODR	-	Barachana
16	ChhatiaSalepur road	0/0	2/0	ODR	-	Barachana
17	TangiBhatimunda road	0/0	5/500	ODR	-	TangiChoudwar
18	BaruanBalichandrapur 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	BarachanaDarpani road	0/0	12/500	ODR	-	Barachana
20	Approach road to MahavinayakTempler	0/0	1/500	ODR	-	Barachana
21	Approach road to ChandiTempler	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	BadachanaBalichandrapur road	0/0	12/500	ODR	-	Barachana

24	Bramani Bridge with approach on Ramchandrapurratnagiri 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	AthagarhMeghaKatakiasahi 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	OrandaGurudijhatia road	0/0	2/230	ODR	-	Athagarh
30	RadhakishorepurGurudijhatiaChhagonBalipur 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	RajnagarKantol road	0/0	4/600	ODR	0/350 km to 0/900 km (Submerge during high flood)	Athagarh
34	AthagarhKandarpur 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	BarambaSankhamari road	0/0	6/0	ODR	3/200 km to 4/200 km (Submerge during high flood)	Baramba
38	Gopapursasanga road	0/0	6/0	ODR	5/300 km to 6/200 km (Submerge during high flood)	Baramba
39	BindhanimaKhandahata 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	NarasinghpurBaliput road	0/0	25/0	ODR	23/800 km to 25/0 km (Submerge during high flood)	Narasinghpur
44	NarasinghpurKakudia road	0/0	4/800	ODR	-	Narasinghpur
45	Chempeswarkanpur road	0/0	5/0	ODR	4/0 km to 5/0 km (Submerge during high flood)	Narasinghpur
46	EkdalBagadharia 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	KhuntakataSubranapur 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	TotapadaMadhurapur road via Radharamanpur	0/0	2/0	ODR	-	Athagarh
52	Ramashyamapur 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	-	TangiChoudwar
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	-	TangiChoudwar
58	Mangarajpur to Rajbati road	0/0	1/200	ODR	-	TangiChoudwar

59	Rajbati to Kochilanuagaon road	0/0	4/0	ODR	-	TangiChoudwar
60	Rajbati to Ambilijhari road	0/0	3/800	ODR	-	TangiChoudwar
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 CharighariaChhak via Mandapada Church	0/0	3/500	ODR	-	TangiChoudwar
63	Birupa left to Balarpur boundary wall via Harinathpur	0/0	2/500	ODR	-	TangiChoudwar
64	FulnakharaNialiMadhab road	Fulnakhara	Madhab	35.500		Kantapadq,Niali and Baranga
65	Bagalpur-SailoJharapada 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 Ichhapurroaad	Jharapada	Ichhapur	7.700		Kantapadda
69	Kantapada to Kendubilwa road	Kantapada	Kendubilwa(JayadevPitha)	6.000		Kantapada,Balianta
70	Bachhasailo --Sithalo Bridge embankment to AlipingalBachhasailo 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	TaandikanaArisol road	Tandika na	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	BadambadiMadhupatna (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	MalgodownThakuraghar 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	MangalaMandir to Dr. D. Sahoo residence via SanjibaniChhak 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			ODR & 1 Km.		Under CMC, Cuttack

	Cuttack					
83	SaniMandir to Mahima Nagar via - Cuttack College, Cuttack From 0/0km to 0/500 km.			ODR & 0/500 Km.		Under CMC, Cuttack
84	KathjodiEmbkt to DandaMahavir 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 RamakantaLenka 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	AnantaGopal Ashram to SikharpurChhak 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-Bentakara-Chanduli road (17.20 Km). From 0/0km to 17/200 km.			ODR & 17/200 Km.		Under Sadar Block, Ctc.
95	Old JagannathSadak PWD road to Reliance Fresh via Sabarmati Hospital, MahandiVihar. From 0/0km to 1 km.			ODR & 1 Km.		Under CMC, Cuttack
96	GosalaJagannathSadak to DarkhapatnaJagabandhuSahu Lane From 0/0km to 1 km.			ODR (ULB) & 1 Km.		Under CMC, Cuttack
97	Mahanadi Vihar R&B Road to JagannathSadak 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	NischitkoiliLalitgiri			ODR - 22.40 km		Nischitkoili - 0/0 to 7/0 km. Mahanga - 7/0 to 22/40 Km.
108	Mahangakatikata			ODR - 20.61 km		Mahanga - 0/0 to 14/0 Km. Nischitkoili - 14/0 to 20/610 Km.
109	Nischitkoili block chhakNarendrapur			ODR - 18.112 km		Nischitkoili - 18/112 Km.

110	BarkoliaNageshpur			ODR - 8.28 km		Nischitkoili - 8/28 Km.
111	khairapolaAsureswar			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 18/0 Km. Nischitkoili - 18/0 to 34/0 Km.
112	PagaGopinathpurkuan 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	BalichandrapurLalitgiri			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	SalipurChhatia			ODR - 28.06 km		Salipur - 0/0 to 9/500 Km. Mahanga - 9/500 to 28/060 Km.
116	Kuliakendupatna			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		TangiChoudwar - 0/0 to 2/900 Km.
119	Ultra hospital Pattamundai canal			ODR - 0.675 km		TangiChoudwar - 0/0 to 0/675 Km.

120	Birupa Barrage Sunakhala			ODR - 5.00 km		TangiChoudwar - 0/0 to 5/00 Km.
121	PagaGopinathpur			ODR - 6.37 km		Salipur 0/0 to 6/370 Km.
122	Cuttack Chandbali road(Jagatpur) Sukarpada			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 22/0 Km. Nischitkoili - 22/0 to 34/0 Km.
123	NischitkoiliLalitgiri			ODR - 22.40 km		Nischitkoili - 0/0 to 7/0 km. Mahanga - 7/0 to 22/40 Km.
124	Mahangakatikata			ODR - 20.61 km		Mahanga - 0/0 to 14/0 Km. Nischitkoili - 14/0 to 20/610 Km.
125	Nischitkoili block chhakNarendrapur			ODR - 18.112 km		Nischitkoili - 18/112 Km.
126	BarkoliaNageshpur			ODR - 8.28 km		Nischitkoili - 8/28 Km.
127	khairapolaAsureswar			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 18/0 Km. Nischitkoili - 18/0 to 34/0 Km.
128	PagaGopinathpurkuan 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	Kuliakendupatna			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		TangiChoudwar - 0/0 to 2/900 Km.
135	Ultra hospital Pattamundai canal			ODR - 0.675 km		TangiChoudwar - 0/0 to 0/675 Km.
136	Birupa Barrage Sunakhala			ODR - 5.00 km		TangiChoudwar - 0/0 to 5/00 Km.
137	Paga Gopinathpur			ODR - 6.37 km		Salipur 0/0 to 6/370 Km.
138	Cuttack Chandbali road(Jagatpur) Sukarpada			ODR - 34.00 km		CTC, Municipality - 0/0 to 3/0 Km. Salipur - 3/0 to 22/0 Km. Nischitkoili - 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	Taratsasan	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	PurunaTigiria	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	AdheiGundi	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

7.3 Resources available : Response force & 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			Mr. M.K. Yadav	9437964571
2	ODRAF	43	43			Mr. LingarajParida	9861039267
3	Police	464	NA			Madhaba Chandra Sahoo	9437178872
4	Home Guards	492	NA				
5	Civil Defense	143					

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

7.4 Preparedness at District level:

Task	Activity
District Emergency operation Centre (DEOC)	<ul style="list-style-type: none"> • Test Checkup of all communication Interfaces in regular interval • Proper manning of the Control Room as per Para-10 of the Odisha Relief Code • A dedicated vehicle must be earmarked for Control Room
Upward & Downward Communication	<ul style="list-style-type: none"> • Have a list of Nodal person with contact details • Establish regular linkages with all important stakeholders • Contact SEOC regularly
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> • DDMA must meet twice every year & before any disaster • Fix time & venue for regular Preparedness meeting to Assess preparedness of District /Department /Civil Society /Block Community /Family /Individual level regularly • Circulate the minutes of the meeting with clear-cut role & responsibility
Capacity Building	<ul style="list-style-type: none"> • Identifying & designating Nodal Officer for different Dept. • Capacity building & skill upgradation of ODRAF/Fire services/ Police/Home Guard • Identify Volunteer like Civil Defense/Cyclone shelter Task Force/NCC/NSS/Scout & Guide & train them on Search & Rescue, First aid, evacuation etc. • Take stake of required materials for search & rescue, first aid, casualty management, evacuation, relief etc. & update IDRN portal regularly • Assess preparedness through Mock drill at District, Block & Community level
Shelter Management	<ul style="list-style-type: none"> • Take necessary steps for operation & maintenance of shelters

	<ul style="list-style-type: none"> • Test Check of various Equipment at shelter level & repair of the defective ones • Ensure regular meeting of Shelter committee • Assess Shelter level preparedness through Mock drill I
Planning & Reporting	<ul style="list-style-type: none"> • Collect & transmit Rain fall data regularly • Collect & transmit weather report regularly • Ensure preparation of Disaster Management Plans & Safety plans at all levels • Capacity building of all Stake holders • Integrate the District plan with block & Village disaster management Plans • Develop healthy media partnership

7.5 Preparedness at Community Level

Task	Activity
Early Warning Dissemination	<ul style="list-style-type: none"> • Build regular linkages with BEOC & DEOC • Test Check of various Equipment at shelter level & repair of the defective ones • Keep updates from BEOC/DEOC • Monitor & Transmit updates to BEOC • Supply required information to BEOC & DEOC
Ensuring Preparedness	<ul style="list-style-type: none"> • Have a list of Nodal person deployed in the village with contact details • Identification of safer routes & shelters • Identify possible ways to reach persons like Farmers/Fisherman/NTFP collectors etc. who ventures into fields, sea & forest respectively • Build teams from among the task force on Search & Rescue, First aid, Damage & loss assessment • Assess preparedness at Family/Individual level • Test Check-up of equipment's

	<ul style="list-style-type: none"> • Understand Local dynamics exposed & vulnerable to different disaster • local Social Economic & weather conditions • Develop Village DM plan • List of emergency contact Nos. & display it in Centre places. • Participate in the activities of Preparing village Disaster Management, developing Safety plans, Capacity building Programmes & Mock Drills
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7.6 Preparedness at Family Level

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

Preparedness	<ul style="list-style-type: none"> • 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 & charger / radio • Family must have a “Ready to go First Aid Kit” containing Iodine/ Band aids/ Cotton/ Medicines/ ORS/ ointments/ scissor/ halogens etc. • Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels & Kerosene (as per need) • Replace the damaged outdated or expired materials with new ones.
Capacity Building	<ul style="list-style-type: none"> • Participate & involve in the activities of village disaster Management plan, preparation of Safety plans, participate in Capacity building Programmes& involve in Mock Drills

7.7 Preparedness at Individual Level

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

7.8 Preparedness of Departments

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

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

	<ul style="list-style-type: none"> • Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories • Area wise deployment of staff, fitter, Mason, APD
EE- Irrigation	<ul style="list-style-type: none"> • Holding of natural calamity meeting in the month of May and October • Awareness Generation • Formation of Zones/ Sub- Zones • Review Progress • Provision/ arrangement of sand bags in risk prone area • Equipments to be ready • Formation of team • Arrangement of vehicle • Delegation of areas
Animal Resource Development Department	<ul style="list-style-type: none"> • List out staff members with contact address • Vaccination of cattle population • Provision of supply of yearly medicines • Arrangement of mobile health units in inaccessible areas • Health awareness campaign • Arrangement of vehicle for uninterrupted mobility • Repair of LI centers and other necessary equipments
DAO- Agriculture	<ul style="list-style-type: none"> • Information provided about the disaster and likely damages to crop and plantation • Organized transport, storage and distribution of seeds/fertilizers/pesticides • Cleaning operation carried out to avoid water-logging and salinity • Surveillance for pests and diseases being carried out. • Establishment of public information centers requirements for salvage or re-plantation assessed damage. • Identification of different areas to be affected by different hazard • Listing of irrigation sources with status.
EE- Rural Works	<ul style="list-style-type: none"> • Route strategy for evacuation and relief marked will be prepared • Clearance of blocked village roads

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

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

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- VIII

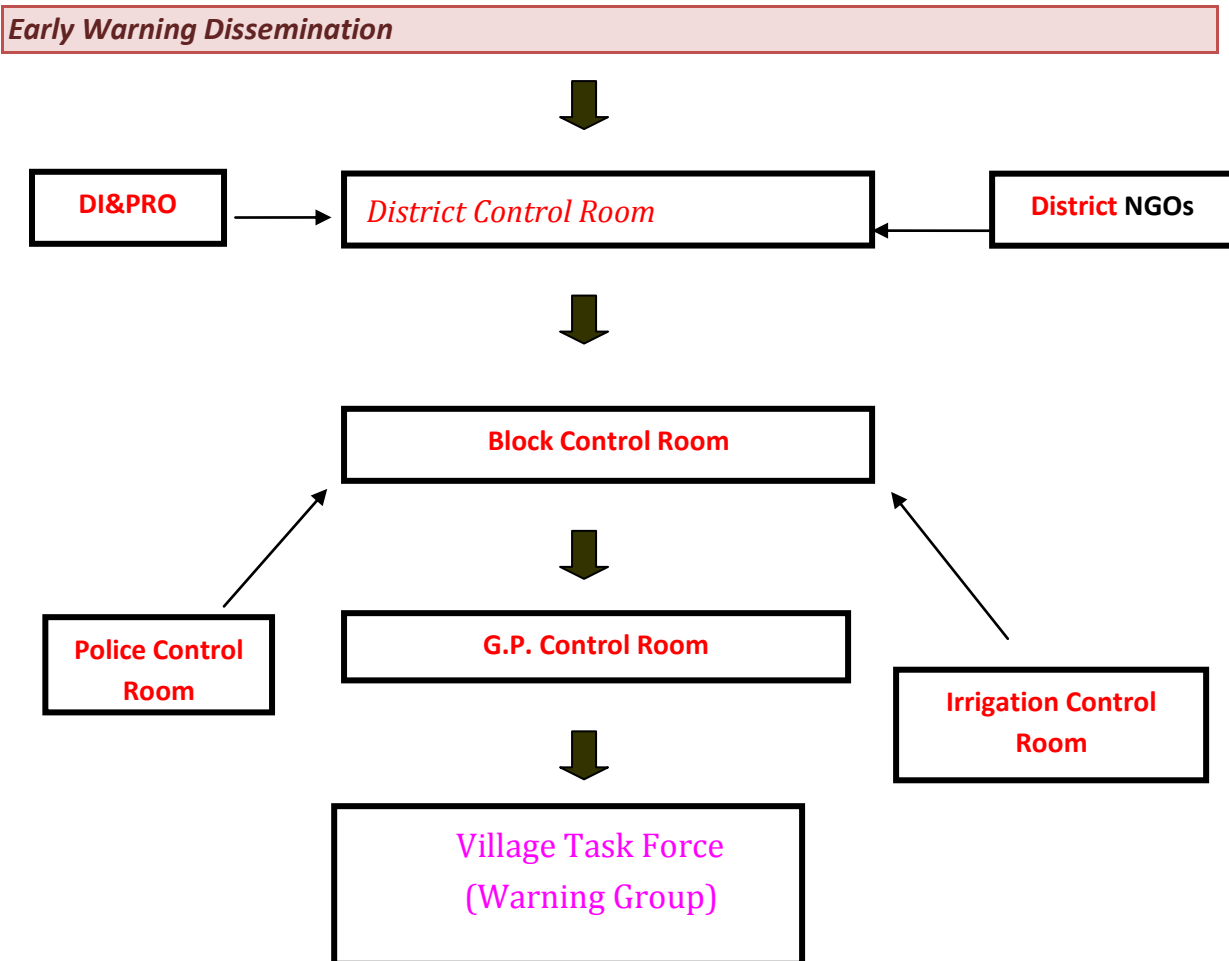
District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



Chapter – VIII

8. Response

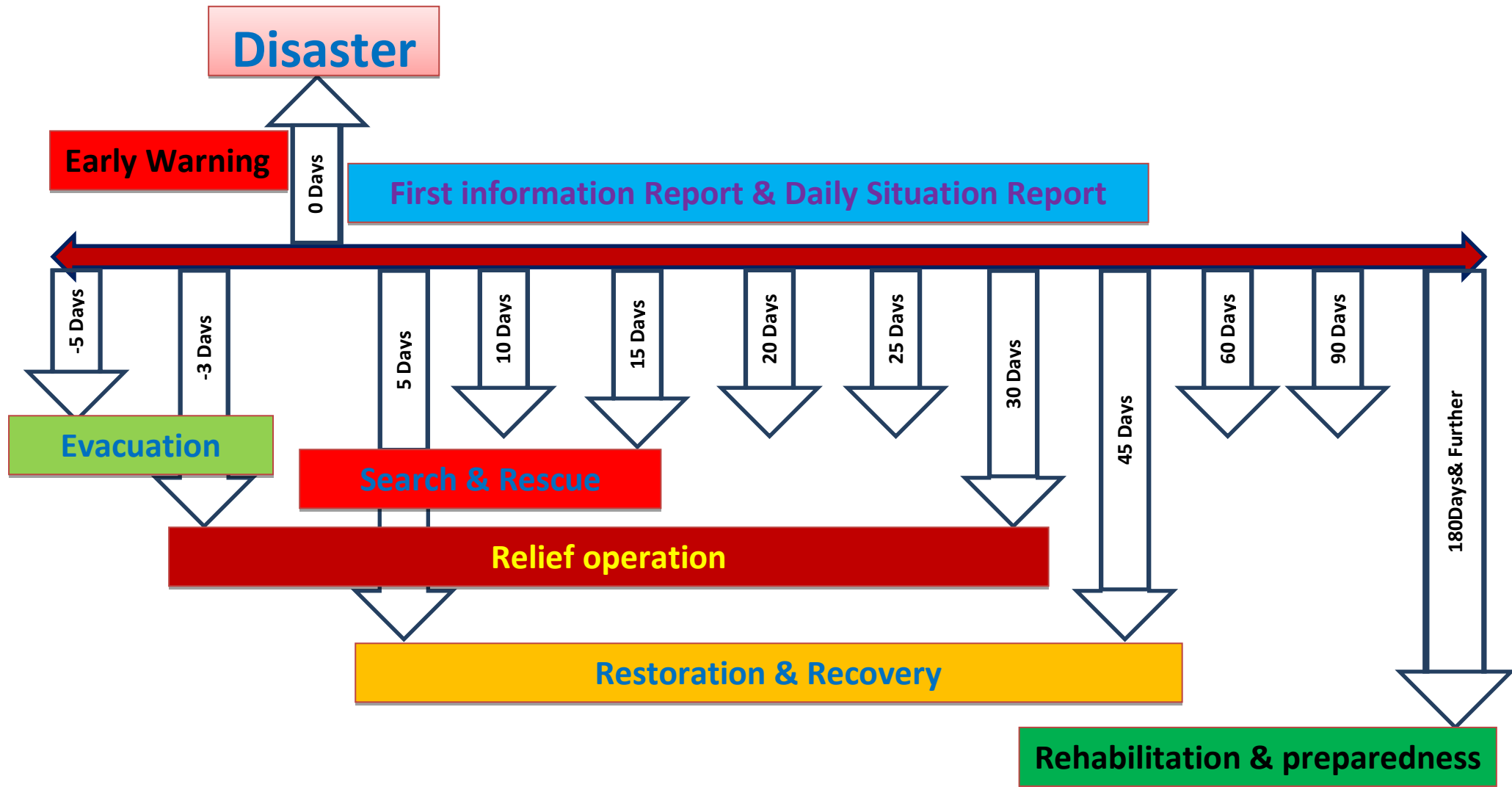
Response refers to activities done for handling disaster to bring the situation to normalcy not exceeding fifteen days from the abatement of disaster. The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential 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.



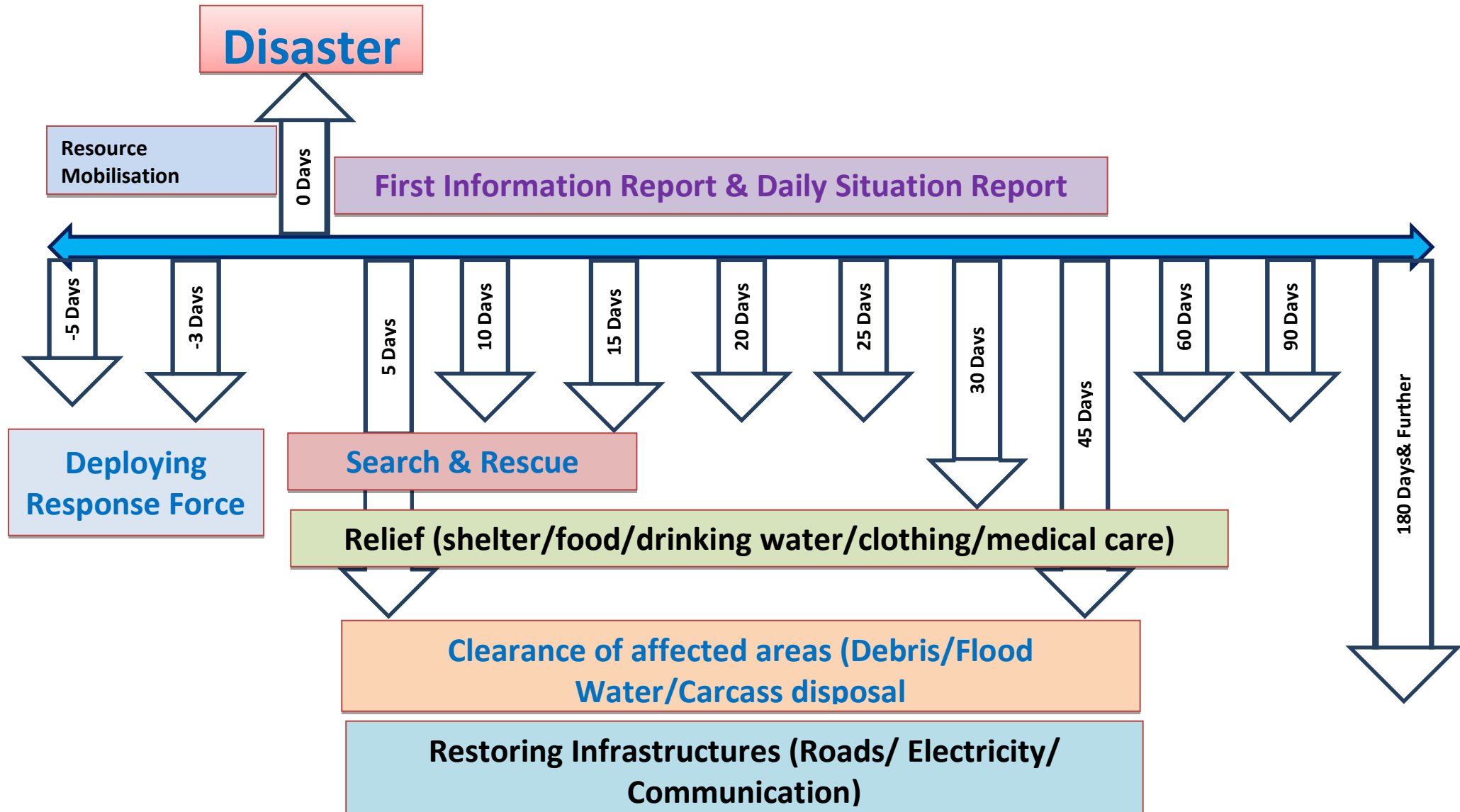
Response plan of Cuttack district describes standard response mechanism as directed in 'Odisha Relief Code'. It also describes standard operating procedures for line department in response and relief operations. The resources to be used in response like

boats, Shelters, storage locations, medical institutions etc. are given for ready reference. Rapid loss and damage assessment format is also attached with plan.

8.1 Phases of Response : Timeline



8.2 Relief Management: Timeline



8.3 Response

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

- CDVO to store, transport & distribute required fodders for animals to the affected areas
- Cyclone shelter committee & Village Disaster management committee to organize free kitchen in the shelters with help of revenue dept.
- EE- RWSS & CDMO to ensure supply of drinking water, disinfection of water & maintain Health & hygiene in the shelters
- CDMO to carry out First aid & casualty management
 - Collector to collect & transmit First Information Report (FIR) & Daily Situation Report as per requirement

8.4 Response : Community Level

Activity

- DEOC to disseminate warning communication to BEOC & Community
- Response force to ensure Power/Fuel/internet/ Communication at Shelters back up
- Supply Inspectors & Marketing Inspectors to distribute relief materials with response force, Task force & volunteers
- Response force to carry out Search & Rescue measures, Emergent relief operation, Relief line clearance, distribution of relief
- Doctors to carry out First aid & casualty management, Carcass disposal & sufficient mortuary facility in the affected areas

8.5 Response: Family & Individual Level

Task

Activity

Response

- Listen to the instruction of the response force & warnings
- Economic use of “Ready to go Emergency Kit” Ready to go First Aid Kit
- Cooperate the response force/officers & Render volunteer service if asked for
- Maintain cleanliness & hygiene at shelter

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

- through revenue field
- Functionaries
 - Alert revenue officials to remain at the Head Quarter
- Emergency Officer
- Setting up Control Room and ensuring round the clock functioning
 - Assignment of duties to the District Level officials and Sub collectors/Tahasildars/BDO
 - Arrangement of vehicles and public announcement system with RTO & DIPRO for warning dissemination
 - NGO coordination and assignment of duty
 - Proper record keeping and transmission of information to all the levels
 - Early warning to fishermen
 - Holding of Natural Calamity meeting
 - Ensure proper maintenance and functioning of warning s & communication systems
 - Awareness generation among public on natural hazards
 - Ensure Mock drill
- Dissemination of information regarding status of the disaster & submission of report to state, INGOs and media.
 - Try to check rumors.
- Providing information about the precedence of disaster and information about the relief and rehabilitation programme undertaken by the district administration.

- Monitor functioning of DCR round the clock
- Coordination with District Level officials and Sub collectors/ Tahasildars/BDOs
- Coordination with RTO/DIPRO for vehicles and public announcement system for warning dissemination
- NGO coordination and assignment of duty
- Proper record keeping and transmission of information to all the levels
- Holding of DDMC meeting
- Ensure proper maintenance and functioning of warning s & communication systems

CDMO

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Disseminate the alert to all concerned (Staff list) • Arrangement of medicine, First aid kits & teams • Mobile Health units for inaccessible pockets • Identifying & shifting patients requiring intensive care to safer places • Supply of medicines & pre-positioning of medical teams to vulnerable areas | <ul style="list-style-type: none"> • Mass Casualty Management units & Triage • First Aid Centers • Medical surgical teams • Adequate mortuary facility • Measures to shift patients requiring intensive care • Pool of Blood donors (Preferably each group) | <ul style="list-style-type: none"> • Psycho-Social Counseling • Post Disaster Disease surveillance system • Special attention to vulnerable section • Networking with & promote treatment in Private Hospitals • Carcass Management & Issuance of |
|--|---|--|

Superintendent of Police (SP)	<ul style="list-style-type: none"> • Vaccination for prevention of communicable diseases • Measures to dis –infect drinking water • Availability of Blood Banks/Ambulance <ul style="list-style-type: none"> • Ensure functioning of the warning system. • Formation of team • Delegation of areas • Formation of zones/Sub-Zones • Keeping close contact with DEO • Deploy personnel to guard vulnerable embankment points • Alert Police officials to remain at the Head Quarter 	<ul style="list-style-type: none"> • Additional laboratories • Carcass disposal team & units • Collection of vital information • Inform DEO after getting authentic message 	<p>Death Certificate</p> <ul style="list-style-type: none"> • Support District officials and volunteers during search and rescue operation • Assist fire brigade personnel in their efforts • Maintain law and order situation
EE- RWSS	<ul style="list-style-type: none"> • Installation of tube-wells • Site visit and report Pre- Paragraphing • Awareness generation for using bleaching • Helping BDO during emergency • Supply of drinking water during emergency • Site selection and water test in Pallasuni (BBSR) • Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories 	<ul style="list-style-type: none"> • Coordination of the information and keeping a strict vigil over the situation and act accordingly. • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration 	<ul style="list-style-type: none"> • Damage assessment • Identification of areas for clearance • Delegation of team • Monitoring of work • Proposal to the government for repair and restoration

EE- Irrigation

- Area wise deployment of staff, fitter, Mason, APD
- To inform all its staff members to report their respective headquarters
- Close contact with DEO
- Arrangement of water tankers
- Procurement collection of water purifiers
- Stockpiling of accessories
- Repairing the defunct tube-wells
- Raising platforms/height of the tube wells in low lying areas.
- Holding of natural calamity meeting in the month of May and October
- Awareness generation
- Formation of Zones/Sub-zones
- Review progress
- Provision/ arrangement of sand bags in risk prone area
- Equipment to be ready
- Formation of team
- Arrangement of vehicle
- Delegation of areas
- Suspension or cancellation of all leaves of instruction to the concerned person to join head quarter immediately.
- Coordination of the information and keeping a strict vigil over the situation and act accordingly.
- Maintenance of record for information generation and dissemination.
- Co-ordinate with District Administration
- Damage assessment
- Identification of areas for clearance
- Delegation of team
- Monitoring of work
- Proposal to the government for repair and restoration

- Arrangement of all-important telephone line and number in order
- Arrangement or requisition of Jeeps/ Trekkers/ Auto Rickshaw to disseminate received warning information to the population of vulnerable/ weak places.
- Maintenance of record for information generation and dissemination.
- Co-ordinate with District Administration
- Deployment of concerned staff to update information regarding water level and velocity of flowing water in the rivers as well as about

DAO- Agriculture

- Review and update precautionary agricultural measures
- Check available stock of equipment and materials
- Stock agricultural equipment

- Determine what damage, pests or disease may be expected
- Determine what drugs and insecticide item will be required

- Provide information to all concerned about diseases, likely damage to crop and plantation
- Inform ways to protect crop and plantation

EE- Rural Works

- Identification of weak-points
- Repair of weak roads/structures/canals

- Coordination of the information and keeping a

- Damage assessment
- Identification of areas for

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

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

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|---------|--|--|--|
| RTO/MVI | <ul style="list-style-type: none"> • Arrangement of vehicle for uninterrupted mobility • Repair of LI Centers and other necessary equipment • On receipt of warning ask all the staff to join duty immediately • Deployment of staff to the inaccessible areas • Regular maintenance of records • Coordination with higher authorities • Meeting with the owners of the vehicles • Arrange sufficient number of transport. | <ul style="list-style-type: none"> • Provide necessary vehicles to district level functionaries • Alert truck Owners/ other vehicles to coordinate with district administration • Organize Transport for immediate assistance | <ul style="list-style-type: none"> • Provide vehicle required for transportation of people to return to their homes • Transport people from evacuated area to their homes |
| DFO- | <ul style="list-style-type: none"> • To immediately contact the district control room and will assist in the work • To ensure that the staff at the headquarter is on duty • To arrange for wireless, telephones, manpower, forest guard in advance to disseminate information of the disaster in the damage prone areas and will | <ul style="list-style-type: none"> • Co-ordinate with District Administration • Maintenance of record for information generation and dissemination. • Determine what damage occurred to Forest area. | <ul style="list-style-type: none"> • Allow the transportation of fodder from forest areas, when the fodder is not freely available • Open the forest land for free grazing when flood waters enter villages, and there is not enough fodder available • Provide wooden poles and bamboo |

play a key role with the district administration to warn the public

for relief and reconstruction

- To send task forces with vehicles, tree cutters, ropes, flood light, generator in case of closure of roads due to felling of trees

Railway

- Prepare a Safety Management Plan
- Regular monitoring of the vulnerable areas and railway lines
- Conducting mock drills
- Organizing Training for railway police and staff in regular interval

- Co-ordinate with District Administration
- Table top/class room simulation exercise
- Assign Duties to Control Officials

- Restoration of railway lines
- Repair the damaged railway lines, bridge station etc.
- Prioritization of restoration work.

EE- Electricity

- Regular identification of faults
- Regular checking and repair of weak points/Transformers
- Stockpiling of equipment/accessories
- Skill development training/orientation
- Precautions/protections near high voltage electric equipment installed
- Stopping illegal consumption of electricity
- Alert all staff to get back to their respective head quarters
- Retrofitting of weak points if found
- Disconnection of electricity in the

- Disconnection of electricity to the affected areas

- Restoration of electricity

EE - PHED

- event of an emergency
- Arrangement of alternative energy sources such as generators and fuel for generators
- Installation of tube-wells
- Site visit and report Pre- Paragraphing
- Awareness generation for using bleaching
- Helping BDO during emergency
- Supply of drinking water during emergency
- Site selection and water test in Pallasuni (BBSR)
- Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories
- Area wise deployment of staff, fitter, Mason, APD
- To inform all its staff members to report their respective headquarters
- Close contact with DEO
- Arrangement of water tankers
- Procurement collection of water purifiers
- Stockpiling of accessories
- Repairing the defunct tube-wells
- Coordination of the information and keeping a strict vigil over the situation and act accordingly.
- Maintenance of record for information generation and dissemination.
- Co-ordinate with District Administration
- Damage assessment
- Identification of areas for clearance
- Delegation of team
- Monitoring of work
- Proposal to the government for repair and restoration

DEO- School & Mass Education	<ul style="list-style-type: none"> • Raising platforms/height of the tube wells in low lying areas. • Sensitizing the students on different disasters • Rescheduling of School College timing • Organizing mock drills • Providing Training to face the situation during disaster 	<ul style="list-style-type: none"> • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration 	<ul style="list-style-type: none"> • Utilizing the School buildings for temporary rehabilitation purpose
DEO - Higher Secondary Education	<ul style="list-style-type: none"> • Repair and maintenance of buildings • Sensitizing the students on different disasters Rescheduling of College timing • Organizing mock drills • Providing Training to face the situation during disaster 	<ul style="list-style-type: none"> • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration 	<ul style="list-style-type: none"> • Utilizing College buildings for temporary rehabilitation purpose •
NGOs	<ul style="list-style-type: none"> • Repair and maintenance of buildings • 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 	<ul style="list-style-type: none"> • 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. • Try to check rumours. 	<ul style="list-style-type: none"> • Coordinate with District administration to help in disseminating information regarding the disaster and help in coordinating relief & rehab measures.

- meeting/training on community based disaster management
- Long term mitigation strategies
 - Alert all the concerned volunteers to close contact with NGO/GP/BDO immediately
 - Engage Volunteers to disseminate received warning/ information to the population of vulnerable / weak places
 - Attend emergency meeting of BDMC, NGO Co-ordination Cell, GPDMC and organize village Disaster Management Committee meetings.
 - Maintenance of record for information generation and dissemination
 - Co-ordinate with Block Administration, GPDMC and PDC
 - 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
 - Support Block Administration regarding deployment of country boats at vulnerable points
- Collection of local flood condition reports and pass on to Block Administration, INGOs and Media for possible support.
 - Make spot visit to see embankments, constant hourly contact with irrigation department to ensure the dispatch of sand bags to weak points, etc.
 - Collection of information on places where breaches occurred / likely to occur due to seepage / over topping / damage to embankments

Sop for the Departments to be done accordingly

Standard Operating Procedure (SOP) for Line Departments

Public Health Engineering Department

Actions to be Taken	Action Taken: Yes / No
Early Warning & Disaster Response	
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

Actions to be Taken	Action Taken: Yes / No
Early Warning & Disaster Response	
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)

Actions to be Taken	Action Taken: Yes / No
Early Warning & Disaster Response	
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)

Actions to be Taken	Action Taken: Yes / No
Early Warning & Disaster Response	
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

Actions to be Taken	Action Taken: Yes / No
DISASTER RESPONSE	
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

Actions to be Taken	Action Taken: Yes / No
Disaster Response	
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 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 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
DISASTER RESPONSE ACTIONS	
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"> • Drugs used in treatment of cuts and fractures, such as tetanus toxoid, analgesics and antibiotics • Drugs used for the treatment of diarrhoea, water-borne diseases and flu (including oral rehydrating supplies) • Drugs required to treat burns and fight infections • Drugs needed for detoxication including breathing equipments 	
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"> • Emergency admissions • Procedures developed • Records maintained • Work schedules to ensure availability of adequate staff 	
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

Actions to be Taken	Action Taken: Yes / No
DISASTER RESPONSE ACTIONS	
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 under 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"> • Latest status of effect of disaster in the affected area. • Respond to personal inquiries about the safety of relatives in the affected areas • Compile statistics about affected communities, deaths, complaints and needs • Respond to the many specific needs that will be presented • Serve as a rumour control centre 	
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

Actions to be Taken	Action Taken: Yes / No

DISASTER RESPONSE ACTIONS	
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

Actions to be Taken	Action Taken: Yes / No
DISASTER RESPONSE ACTIONS	
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

Actions to be Taken	Action Taken: Yes / No
DISASTER RESPONSE ACTIONS	

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

Actions to be Taken	Action Taken: Yes / No
DISASTER RESPONSE ACTIONS	
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 1st May to 30th 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 Bhubaneswar 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, PanchayatSamities, Gram Panchayats, Educational Institutions, MahilaSamitis, 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.

8.7 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

- 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).

8.8 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,Qtlsgur 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

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- IX

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



CHAPTER – IX

REHABILITATION AND RESTORATION

9.1 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.

9.1 Standard Operating Procedure: Restoration & Rehabilitation

Name of the Department	Normal Time / Aftermath of floods
District Disaster Management Authority	<p>Normal:</p> <ul style="list-style-type: none"> • Conduct capacity building programmes for Govt. Official, PRIs, NGOs, Volunteers, SHGs, Paramedical Staffs, etc. To have a better knowledge on disasters and its management. • Documentation of best practices • Provision of funds for infrastructure development • Preparation of DDMP and its implementation at all levels <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • The DDMA will review the relief, restoration and rehabilitation measures. • Utilize the machinery in restoration and rehabilitation work without compromise • In close coordination with Blocks, Tahasil and PRIs • Act at the center point for State and below district level
Collector/ADM / Emergency Officer	<p>Normal:</p> <ul style="list-style-type: none"> • Monitor the activities undertaken by DDMA • Review the preparedness activities <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • Restoration of Critical Infrastructures to bring situation to normalcy • Ensure Restoration of roads & channels, Communication Network, Electricity & Energy • Ensure address of health issues in the affected areas • Adopt sustainable mitigation measures in the restoration activities • Monitor & review the restoration activities • Ensure proper functioning of rehab centers • Ensure proper functioning of free kitchen centers in rehab centers
CDMO	<p>Normal:</p> <ul style="list-style-type: none"> • Awareness and training programs for staff and other stakeholders • Preparedness planning and sharing with the DDMA • Review and monitor the preparedness activities and report to DDMA <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment

	<ul style="list-style-type: none"> • Carry out Disease surveillance measures to check epidemic prone diseases • Rehabilitation of deprived & destitute • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis • Carry out Trauma & Psycho-social counseling • A mechanism for quick identification of factors affecting the health of the affected people shall be established for surveillance and reporting. • 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. • The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries, will be warranted. • Mobile medical hospitals and other resources available with District shall be provided to the relief camp. • Adequate supply of medicines, disinfectants etc. shall be made. • Where necessary inoculation shall be done. • Vaccination of the children & pregnant women shall be undertaken. • Vector-borne diseases are a major cause of sickness and death in many disaster situations. Vector control measures shall be undertaken. • Water borne diseases may cause sickness and deaths and therefore adequate measures shall be taken to prevent such outbreaks.
Superintendent of Police (SP)	<p>Normal:</p> <ul style="list-style-type: none"> • Conduct training programmes for staff on operation of updated equipments for Search and Rescue • Conduct training programme for staff on First Aid • Review and monitor of preparedness activities • Rapport building with the local community by the staff members <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • Close coordination with Dist. Administration • All Circle Officers will carry out damage assessment in their respective areas • Deployment of police personnel in shelters and relief camps to ensure smooth operation • Coordination with the district administration for law and order situation • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis

EE- RWSS	<p>Normal:</p> <ul style="list-style-type: none"> • Proper planning for supply of drinking water at the rural pockets for summer and flood season • Time to time restoration of tube wells and raising of platforms in the flood affected area • Aware the community to use safe drinking water <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • Close coordination with DEOC • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis • Immediate restoration of drinking water facility • Provision of drinking water tankers in water scarcity pockets. • Disinfection of drinking water sources • Awareness among the community to take safe drinking water
EE- Irrigation	<p>Normal:</p> <ul style="list-style-type: none"> • Identification of weak embankments • Repairing of the embankments • Capacity building training programmes for staff and other stakeholders • Flood contingency planning and sharing with DDMA <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • Close coordination with DEOC • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis
DAO- Agriculture	<p>Normal:</p> <ul style="list-style-type: none"> • Training to farmers and other stake holders on different good agricultural practices • Training to Staff members on different good / updated agricultural practices <p>Aftermath of Flood:</p> <ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment

EE- Rural Works	<p>Normal:</p> <ul style="list-style-type: none"> • Routine developmental works but disaster proofing mechanism • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of critical infrastructures
EE- Public Works	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of critical infrastructures
DTO-Telecom	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis •
CDVO	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis
RTO/MVI	<ul style="list-style-type: none"> • All Circle Officers instructed to be in coordination with the local authority • Identification and Provision of vehicles for necessary emergency movement
DFO-	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis

Railway	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Damage Assessment report of Railway may be sent to parent department apart from DDMA /DEOC.
EE- Electricity	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Restoration of Electricity in hospitals, administrative buildings
EE – PHED	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Restoration of safe drinking water • Close watch on outbreak of jaundice and other water related diseases
DEO- School & Mass Education	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD,

	<p>PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment</p> <ul style="list-style-type: none"> • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event
<p>DEO - Higher Secondary Education</p>	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event

9.2 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					

9.1 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											
Total											

9.2 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										
Total										

9.3 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										
Total										

(Rs. In lakh)

9.4 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..

9.5 Assistance sought for repair /restoration of damaged houses

(Rs. In Lakh)

Sl	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																		
TOTAL																		

9.8 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									
Total									

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 kutcha 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	

9.9 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
Roads & Bridges	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 -				
Drinking Water Supply	Rural Water Supply	No of Tube wells damaged - No of platforms damaged - No. of Rural pipe water supply system damaged -				
	Urban Water Supply					
Irrigation	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 -				
	MI projects	No of Minor Irrigation projects damaged -				
	Clearance of Drainage channels	Length of drainage channels congested with vegetative materials -				
Primary Education	Primary School Buildings	No of Primary School buildings damaged -				

PHCs	PHCs	No of Primary Health Centres damaged -				
Community assets owned by Panchayats	Community Halls	No of PanchayatGhar/Community Hall damaged -				
	AWWCentres	No of AnganwadiCentres damaged -				
Power	Electrical lines	No of Primary sub-stations damaged – 33 KV lines damaged – 11 KV lines damaged – Distribution Transformers damaged – LT lines damaged –				
Total						

2018

District Disaster Management Plan

Cuttack, ODISHA

Chapter- XIII

District Disaster Management Authority (DDMA)
Cuttack, Odisha
6/10/2018



CHAPTER - XIII

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 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 if 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 12th 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 sensitised 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.

District administration made all out efforts for recovery of the damage caused by Phailin 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.

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.