



OSDMA



At Besatpur in Debagpur block of Puri District, a massive 150 feet breach formed due to flood in Daya river.

DISTRICT DISASTER MANAGEMENT PLAN-2017 VOL-I

PREPARED BY

DISTRICT ADMINISTRATION, NAYAGARH

WITH TECHNICAL SUPPORT FROM

ODISHA STATE DISASTER MANAGEMENT AUTHORITY



**DISTRICT DISASTER MANAGEMENT PLAN, 2017-18
NAYAGARH, ODISHA**

Volume- I

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FOREWORD

We live in a fast changing global environment where peril & risk to human society is abound. Disaster has the ability to maim & kill people. It destroys property & the environment & continue with lasting deteminal consequences. The enormity of the disaster problem today & in the forseable future calls for a more proactive approach that ensure effective disaster risk reduction at all levels towards sustainable development.

Nayagrh district is prone to a number of disasters, which includes flood, cyclone, drought & fire etc. Climate change is further aggraviating the situation, as future disasters are likely to be more intensed. In order to manage the disaster risk, there is a need for systematic, long term & coordinated Disaster Management Plan.

It gives me immense pleasure to introduce the revised Disaster Management Plan of Nayagarh for the year 2017. I learned that the DM plan has been prepared after a thorough analysis of the district's vulnerability towards various hazards, risk of getting exposure, strength to deal with and weaknesses to be bridged. The plan will indeed strengthen the District Disaster Management Authority & help the administration to lay intense stress on Preparedness, Capacity building & Mitigating the impact to prevent loss of life and property as & when required.

The above plan incorporates different requirements for preparedness, response, capacity building, rescue and relief operation in the District. The Disaster Management Plan has been complied after a series of meetings & consultations with different stakeholders acquainted with the ground realities of the district.

I would like to extend my wishes to all those rendered their sincere efforts & a special thanks to OSDMA for the technical support in preparing the DM plan.

Let's work together to make Nayagarh Disaster Resilient!

Collector & District Magistrate,
 Nayagarh

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Abbreviation

| | |
|------------|---|
| AAO | : Assistant Agriculture Officer |
| ACSO | : Assistance Supply Officer |
| ADMO | : Additional District Medical Officer |
| ASHA | : Accredited Social Health Activist |
| ADM | : Additional District Magistrate |
| ADVO | : Additional District Veterinary Officer |
| BDMA | : Block Disaster Management Authority |
| BDMP | : Block Disaster Management Plan |
| BEO | : Block Education Officer |
| CDMO | : Chief District Medical Officer |
| CDVO | : Chief District Veterinary Officer |
| CSMMC | : Cyclone Shelter Management & Maintenance Committee |
| CSO | : Civil Supply Officer |
| DAO | : District Agriculture Officer |
| DAO / TO | : District Accounts Officer / Treasury Officer |
| DDA | : Deputy Director Agriculture |
| DDMA | : District Disaster Management Authority |
| DDMP | : District Disaster Management Plan |
| DEO | : District Education Officer/ District Emergency Officer |
| DEOC | : District Emergency Operation Centre |
| DLCNC | : District Level Committee on Natural Calamities |
| DLO | : District Labour Officer |
| DM | : Disaster Management |
| DPM | : District Programme Manager |
| DPO (SSA) | : District Programme Officer, Sarva Shiksha Abhiyan |
| DPO (RMSA) | : District Programme Officer, Rashtriya Madhyamik Shiksha Abhiyan |
| DRDA | : District Rural Development Agency |
| DSWO | : District Social Welfare Officer |
| EE | : Executive Engineer |
| FSMMC | : Flood Shelter Management & Maintenance Committee |
| GO | : Government Organisation |

| | |
|--------|--|
| HRVA | : Hazard Risk and Vulnerability Analysis |
| IDNDR | : International Decade for Natural Disaster Reduction |
| IDRN | : India Disaster Resource Network |
| IFRCRC | : International Federation of Red Cross & Red Crescent |
| LI | : Life stock Inspector |
| LI | : Labour Inspector |
| LI | : Lift Irrigation |
| MCS | : Multipurpose Cyclone Shelter |
| MFS | : Multipurpose Flood Shelter |
| MI | : Marketing Inspector/ Minor Irrigation |
| MO | : Medical Officer |
| MVI | : Motor Vehicle Inspector |
| NGO | : Non Government Organisation |
| NDMA | : National Disaster Management Authority |
| NDRF | : National Disaster Response Force |
| NIDM | : National Institute of Disaster Management |
| ODRAF | : Odisha Disaster Rapid Action Force |
| OLIC | : Odisha Lift Irrigation Corporation |
| OSDMA | : Odisha State Disaster Management Authority |
| PHED | : Public Health Engineering Department |
| PHD | : Public Health Department |
| RD | : Rural Development |
| RTO | : Regional Transport Officer |
| SDWO | : Sub-divisional Welfare Officer |
| SEC | : State Executive Committee |
| SEOC | : State Emergency Operation Centre |
| SLCNC | : State Level Committee on Natural Committees |
| SI | : Supply Inspector |
| SP | : Superintendent of Police |
| SRC | : Special Relief Commissioner |
| VAW | : Village Agriculture Worker |

Chapter – 1: Introduction

Disaster Management can be defined as the organization and **management** of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of **disasters**. India has the largest number of people exposed to natural hazards including severe storms and flooding. The country's vulnerability to severe weather during monsoon season, its large agricultural sector and its enormous population put it at the top of the list. 1.02 billion People in India, or 82% of the population, are exposed to natural hazards, compared with 677 million, or 50% of the population, in China. Strong economic growth hasn't managed to raise India to the level of other large economies such as the U.S and China in disaster preparedness, putting future growth at risk. In order that the strong economic-growth projections are realized, financial and technical resources are required to build resilience to natural hazards. India as a "high-risk" country, at 49th in vulnerability, a measure of the capacity of its private and public sectors to prepare for, respond to and recover from a natural hazard. India has made some advances in the past 10 years, the report added. It singled out the government's approach to Cyclone Phailin in October 2013. It said improved communication between forecasters, government agencies and the public held the death toll to 100 people, compared with at least 10,000 from a similar-size storm in a similar location in 1999.

Odisha has a history of recurring natural disasters. While the coastal districts of Odisha are exposed to floods and cyclones, western Odisha is prone to acute droughts; a large section of the State is also prone to earthquakes. In addition, the State is also affected by disasters like heat waves, epidemics, forest fire, road accidents etc. The history of disasters substantiates the fact that about 80% of the State is prone to one or more forms of natural disasters.

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:

- i. To identify the areas vulnerable to major types of the hazards in the district.
- ii. To adopt proactive measures & engage in activities at district level by all the govt. departments to prevent disaster and mitigate its effects.
- iii. To define and assign the different tasks and responsibilities to stakeholders during the pre-disaster and post-disaster phases of the disaster.
- iv. To make endeavours towards creating awareness among the people about disasters and its consequences and to capacitate & prepare them in advance to face such situations and to ensure their participation in the disaster mitigation plans.

- v. Reduce the loss of public and private property, especially critical facilities and infrastructure, through proper planning.
- vi. Manage future development to mitigate the effect of natural hazards in the district.
- viii. To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- x. To evolve information reporting and monitoring tools for preparedness, immediate response and damage assessment, keeping in view the socioeconomic conditions of urban and rural areas.
- xi. 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.
- xii. 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.
- xiii. To make the use of media in disaster management.
- xiv. 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:

As defined in Section 30 of DM Act 2005, DDMA shall act as the 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 being the Chairperson of DDMA will have to discuss in detail about the modalities & take necessary suggestions from members & line departments for preparation of a holistic plan in the meeting of DDMA held in the month of January. The DDMP has to be prepared 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

Evolution

Disasters and their management generally get discussed in their aftermath but practically it should result in planning and preparing the strategy to tackle and mitigate disasters in a responsible and effective manner. Disasters, both natural and unnatural, are macro level events or processes, which induce disturbances and turmoil for a prolonged life-threatening environment for a community. In the past decade (1991-2000), natural disasters have killed 66, 59, 598 people, accounting for 88 percent of all deaths due to disasters. Similarly, unnatural disasters have killed 86,923 people during the decade. Nearly two-thirds of the people killed in these disasters hail from developing countries like India, with

only four percent of the casualties being reported from highly developed countries (IFRCRC, 2001). The late 1990s and the early part of this century marked a watershed in Disaster Management in India. The Orissa Super Cyclone and the Gujarat Earthquake taught the nation a hard lesson. The experiences of the stakeholders like the state, voluntary sector and the communities at large helped in initiating the planning process pertaining to preparedness and mitigation of disasters.

Considering the factors, the international community decided to release the so called International Decade for Natural Disaster Reduction (IDNDR), released by the UN/GA in 1989 and its main goal was to create awareness of the importance that disaster reduction represents. This initiative has triggered a conceptual change in the approach towards disaster management, going from an approach focused on response to catastrophes, to one with emphasis on disaster reduction by enhancing the roll of human activities. The following list of events illustrates the progression towards the implementation of the International Decade for Natural Disaster Reduction:

The implementation of integral disaster reduction strategies, instead of focusing only in response, represents an effective way to use resources and it is compatible with the sustainable development of nations. One of the alternatives to achieve the better use of resources is to implement an international strategy for disaster reduction, which allows communities to increase coping capacities towards the consequences of natural, technological and environmental hazards. The implementation of integral disaster reduction strategies, instead of focusing only in response, represents an effective way to use resources and it is compatible with the sustainable development of nations. One of the alternatives to achieve the better use of resources is to implement an international strategy for disaster reduction, which allows communities to increase coping capacities towards the consequences of natural, technological and environmental hazards.

A welcome step in this direction was setting up of a High Powered Committee on Disaster Management in 1999, which submitted its report in 2001. An important recommendation of the committee was that at least 10 percent of plan funds at the national, state and district levels be earmarked and apportioned for schemes that specifically address areas such as prevention, reduction, preparedness and mitigation of disasters. Also for the first time in the planning history of India, planners devoted a separate chapter titled '*Disaster Management: The development perspective*' in the tenth five-year plan document (Planning Commission, 2002).

Based on the premise of an integral disaster reduction plan, considering the resolution 1999/63 of the Economic and Social Council in which the Council discussed on the successor measures for the IDNDR and recognizes the accomplishment of its goals, the UN/GA supports the proposal for the creation of an inter agency task force to maintain the attention on the International Day for Disaster Reduction and to effectively implement the International Strategy for Disaster Reduction (ISDR).

Consequently, The World Summit on Sustainable Development took place in Johannesburg, South Africa in the year 2002 and issued a set of objectives for the ISDR, within the sustainable development agenda, with the intention of integrating disaster risk reduction and put efforts together along with partners of the Inter Agency Task force on Disaster Reduction to generate development policies and processes.

The International Strategy for Disaster Reduction was released on the foundations of the International Decade for Natural Disaster Reduction and it merged important documents that were endorsed during the decade, among those are the Yokohama Strategy for a Safer World: Guidelines for Natural

Disaster Prevention, Preparedness and Mitigation and its Plan of Action and "A Safer World in the 21st Century: Disaster and Risk Reduction". The International Strategy for Disaster Reduction had the purpose of creating public awareness of the risks on natural, technological and environmental hazards represent on communities, increase commitment by the governmental authorities to reduce the risks of society and enhance public participation to make peoples resilient towards potential disasters, all of these in congruence with sustainable development. As part of the International Strategy for Disaster Reduction, the UN/GA decides to summon the World Conference on Disaster Reduction in 2005 as conclusion to the review of the Yokohama Strategy and its Plan of Action, with the objective of guaranteeing the conditions for the Plan of Implementation of the World Summit on sustainable development on vulnerability, risk assessment and disaster management, to analyze the lessons learned to enhance disaster reduction, spread information and increase awareness of the importance of disaster related policies. Accordingly, on resolution 60/195 the UN/GA ratifies the Hyogo Declaration and the Hyogo Framework for Action 2005 2015: building the resilience of nations and communities to disasters embraced by the World Conference on Disaster Reduction in Kobe, Japan.

Subsequently, in the third United Nations Conference on Disaster Risk Reduction, the Sendai Framework for Disaster Risk Reduction 2015-2030 was embraced by the member states on March 2015 in Sendai City, Japan. The Sendai Framework is the first main treaty of the development agenda post 2015 and it is a voluntary and non-binding agreement which acknowledges the main role of the State in reducing disaster risk, but at the same time that duty should be shared between different stakeholders, including the regional and local governments, the private sector and the community.

The DDMP was first evolved in 2004 during the implementation of Government of India-United Nations Development Programme on Disaster Risk Reduction Programme. With the enactment of the National DM Act, 2005 it provides for the preparation of the District Plan as per section 31.

Procedure

This report has benefitted immensely from the presentations made and the deliberations held during the inception workshop organized for preparation of District Disaster Management Plans (DDMPs) by OSDMA on 30th July 2015 at Bhubaneswar. This followed by consultation at the district level with DDMA & all the line departments.

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. These cities along with the district are at risk of natural disasters, for example, risk of floods in Gania, Khandapada, Nayagarh and Cyclone in the case of both Ranpur & Odagaon appears to be quite high at the outset. During the year 2015 all the blocks of the district were drastically hit by drought. The general methodology to prepare the holistic plan and the steps involved therein are outlined below:

- Identification of natural and man-made hazards
- Appointment of a multi-disciplinary team of experts to analyze each hazard in detail, make quantitative and qualitative assessments of the risks involved, and suggest measures to reduce risk. The experts also suggested measures for preparedness and timely action in the event of a disaster

and also actions to prevent disaster wherever possible. It is expected that suggested measures would address all stakeholders, such as the public sector, the private sector, the NGOs and CBOs, the community leaders and their political representatives.

- Initiation workshops to discuss expected inputs from each expert and evolve a common framework and methodology for preparation of an integrated comprehensive disaster management plan for the district and decide the broad structure of disaster management plans.
- A validation workshop to give final shape to the disaster management plans.
- Compilation of a Project Report incorporating the feedback from the validation workshop.

Hazard, Risk & Vulnerability Analysis (HRVA)

Considering hazards alone may lead to a skewed set of priorities for action. It is equally important to consider the severity of possible impacts from the hazard as well as the frequency or likelihood of a hazard event occurring. The combination of severity and likelihood is termed the level of risk. In determining the severity of a hazard event, a community's vulnerability must be examined. Vulnerability is defined as people, property, infrastructure, industry and resources, or environments that are particularly exposed to adverse impact from a hazard event.

A Hazard Risk and Vulnerability Assessment examine the hazards that may impact a community and the risk that each hazard event poses to the community as a whole and to vulnerable elements of the community.

Hazard Analysis

A hazard is a physical event that can trigger to a disaster. Generally a hazard converts into a disaster due to lack of preparedness & mitigation planning implementation in the modern society where enormous people are living in an unplanned manner. A hazard compromises a dangerous condition or event which is natural or manmade that result injury, loss of life & properties. A hazard can be natural, manmade & socio-economic.

- **Natural Hazard:** - A **natural hazard** is an extreme event that occurs **naturally** by forces of nature and causes harm to humans – or to other things that we care about, though usually the focus is on humans (which, we might note, are anthropocentric). An extreme event is simply an unusual event; it does not necessarily cause harm. For example Flood, Drought, Cyclone, Tsunami, Earthquake, Volcanic Eruption etc.
- **Man made Hazard:** - A **man-made** disaster differs from natural **disasters**. The incident results from **hazards** involving an element of human intent, negligence or error, or threats involving a failure of a **man-made** system. For example Water Pollution, Air Pollution, Soil Pollution, Explosive, War, Terrorism etc.
- **Socio-Economic Hazard:** - These are cause by the combination effects of natural forces and misdeeds of man, for examples the frequency and density of the floods and droughts may increase due to indiscriminate felling of trees, particularly catchment area of the rivers.

An assessment was conducted on various types of hazards such as cyclone, earthquake, flood, high winds, drought, hail storm, road accidents, drinking water crisis etc by the concerned block authorities taking the past occurrences of disasters, prevention & mitigation measures, rehabilitation & resettlement activities into concern.

Risk Analysis

Disaster risk is defined as the potential disaster losses, in lives, health status, livelihoods, assets, & services, which could occur to a particular community or a society over some specified future time period. Risk is usually associated with the human inability to cope with a particular situation. The definition of risk, must be associated with the idea of probability, which can be applied at two levels

- Either to the hazard itself (the probability that harmful event, such as earthquake, flood, or conflict, will occur) or
- Hazard's impact on the population & its environment (inability to withstand the effects; degree of vulnerability)

A risk analysis of the disaster prone blocks in terms of its physical, socio-economic and environmental features was carried out. The risk assessment is based on the hazard, exposure and vulnerability analysis. Risk assessment has considered multiple hazards (cyclone winds, floods, epidemics, drought, heat waves, fire etc). The capacity assessment analyzed needs of the district administration and community in terms of response and preparedness. The risk analysis and capacity assessment helped in deriving the key recommendations for the district for risk mitigation and preparedness to devise short, medium, and long-term strategies for the city as well as communities at large. Below given table gives a glimpse of the type of risk the district has witnessed & likely to witness;-

Table no.1

| Type of Hazard | Time of Occurrence | Potential Impact | Vulnerable Areas |
|---|----------------------|------------------|---|
| Cyclone (Thunder squall/ thunder storm) | Pre & during monsoon | Moderate to high | Entire district |
| Flood | Monsoon | Moderate to high | Gania, Khandapada, Bhapur, Nayagarh, Odagaon, Nuagaon |
| Drought | June to December | Moderate to high | Entire district |
| Fire | Through out the year | Low to moderate | Entire district |
| Heat Wave | April to June | Low to moderate | Entire district |
| Epidemic | Unpredictable | Moderate to high | Entire district |
| Lightening | Pre & during monsoon | Low to moderate | Entire district |
| Hailstorm | Pre & during monsoon | Low | Entire district |
| Communal disturbances | Unpredictable | Low | Entire district |

Vulnerability Analysis

Vulnerability is the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards “(UNISDR).

Vulnerably assessment is the conditions to determine by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. For positive factors, which increase the ability of people to cope with hazards, (UN/ISDR.2004).

Vulnerability = (Exposure) + (Resistance) + Resilience

With:

Exposure: at risk property and population.

Resistance: Measures taken to prevent, avoid or reduce loss.

Resilience: Ability to recover prior state or achieve desired post-disaster state.

The geo-climatic conditions of Nayagarh District make the district vulnerable to various natural disasters. This District has a history of recurring natural disasters. The district is in close proximity to the coastline of Chilika Lake. Owing to this it has to face the rigours of Cyclonic storm. Similarly, Mahanadi, one of the major rivers flowing through the district and its tributaries has the potential to cause very severe. Nayagarh has 9 numbers other rivers which cause flood at regular intervals. Out of 08 Blocks in the District, three Blocks are flood prone including flash floods .The frequency, intensity and extent of droughts in the district is gradually on the rise. This is leading to crop failures, decline in surface and groundwater levels, increasing unemployment and under-employment, migration and indebtedness. In addition, the district is also affected by disasters like severe heat waves, fire, road accidents, etcA vulnerability analysis of the blocks & the district in terms of physical, socio-economic and environmental aspects was undertaken.

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.

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.

The District Collector has the following duties:

- i. To facilitate and coordinate with local Government bodies to ensure that pre and post disaster management activities in the district are carried out.
- ii. To assist community training, awareness programmes and the installation of emergency facilities with the support of local administration, non-governmental organizations and the private sector.
- iii. To function as a leader of the team and take appropriate actions to smoothen the response and relief activities to minimize the adverse impact of disaster.
- iv. To recommend the Special Relief Commissioner and State Government for declaration of disaster.

Local Authorities have the following duties:

- i. To provide assistance to the District Collector in disaster management activities.
- ii. 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.
- iii. To undertake capacity building measures and awareness and sensitization of the community
- iv. To ensure that all construction projects under it conform to the standards and specifications laid down.

v. 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.

vi. Trust / Organisations managing Places of Worships & Congregation

a. Each establishment / organisation 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 Sector:

i. The 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.

ii. They should adhere to the relevant rules regarding prevention of disasters, as may be stipulated by relevant local authorities.

iii. As a part of CSR, undertake DRR projects in consultation with district collector for enhancing district's resilience.

Community Groups and Volunteer Agencies:

i. 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.

ii. 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:

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

- Dissemination of the plan

i. Once the plan is finalised & approved by the SDMA, it has to be circulated to all the line departments, key players involved in DM plan & NIC for uploading in the website.

- 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.

Chapter-2: District Profile

History & Location:

Nayagarh district, an administrative District of Odisha owes its name to its Hqrs. town Nayagarh. It was created in two phases. Firstly the ex-states of Nayagarh, Khandapara, Ranapur and Dasapalla were merged with the State of Orissa on 1.1.1948 enhancing the jurisdiction of Puri district by forming a separate sub-division with Hqrs. at Nayagarh. Secondly on 02.10.1992 the Government of Orissa divided the erstwhile Puri district into three districts, namely, Puri, Khordha and Nayagarh. The present Nayagarh district which came into existence on 02.10.1992 is a part of un-divided Puri district consisting of one sub-division i.e. Nayagarh sub-division. Considering the geographical location, the district of Nayagarh lies between 19° 50' and 20° 35' north latitude and 84° 29' and 85° 30' east longitude. It is bounded on the north and northwest by Cuttack, Anugul and Kandhamal districts, on the west by Ganjam district and on the east and south by the Khordha district. The area of the district is 3,890 sq. kms, which is 2.5percent of the total area of the state occupying 18th rank based on area among the 30 districts of the state.

Birth history of Nayagarh District in around the thirteenth century and is considered as an important part in the political history of Odisha. King Suryamani of Baghela dynasty came to Puri on a pilgrimage from Madhya Pradesh and established his kingdom at Nayagarh. Nayagarh District consists of the four Garjat states of ex-states Ranpur, Nayagarh, Khandapara and Daspalla. The aboriginal Savaras and Kandhas are the indigenous people of Nayagarh District.

From the history of Nayagarh District it reveals that the District was founded by Suryamani of Baghela dynasty who had came to Puri on a pilgrimage from “Rewa” of Madhya Pradesh. He had built his fort here and adopted Tiger Head as a state symbol. Ninth king of this dynasty “Bagel Singh” (1480–1510) shifted his capital to the District. As per his name this place was known as “Baghua Nayagarh”. He was a vaishnavite and is known to have made small icons of Shree Vighraha Chaturdha Murty and installed the deities in a mudaltar on the foot hill of Balarama for the first time in the history of Nayagarh District. During the rule of 12th King of Nayagarh District, Raghunath Singh (1565–1595) had already captured Odisha and the king Mukunda Dev (1565) was defeated in Gohritikira and died. Taking advantage of the flaccid political situation, Raghunath Singh attacked Ranapur and captured Odgaon, Sarankul and Baunsiapara area from Ranapur estate and took control of the Nayagarh–Daspalla border area from the King of Boudh and Sunamuhin area of Odgaon from the King of Ghumusar. He also captured a portion from Banpur.

Just before his death, the King Rangunath Singh divided his estate between his three sons. Harihar Singh got Nayagarh and Jadunath Singh got four Khandagrams (large area of land) which was known as Khandapara later. It was his heirs from here on that ruled Nayagarh District until it was captured by the Britishers. Nayagrh District covers many historical temples. Dakhinkali Temple, Gopinath Temple, Nilamadhab Temple, Ladubaba Temple, Raghunath Temple, Dutikeswar Temple are the famous temples of the District. The culture of Nayagarh is a composite culture of heterogeneous faiths, with the presence of a good number of Semitic and Islamic followers. The aboriginal 'Savaras' and Kandhas are the indigenous people of Nayagarh District. The Aryans came later. The Brahmins are mostly the outsiders, invited by the Khatriya rulers to be engaged as priests in the temples and for other holy rites. The archeological remains with their inscriptions, temples, churches, mosques, forts, folk dances, art, sculptures, handicrafts and festivals of this district displays its rich cultural heritage. In 2003, seven copper plates dating back to early 9th and 10th Century A.D were discovered while excavating an old well in the village Dhanchengada in Bhapur Block of Khandapara Assembly Constituency and they have inscriptions on them. The Somanth Temple complex at Govindpur near Nayagarh has also stone inscriptions.

The District of Nayagarh celebrates many fairs and festivals round the year. Ravanapodi at Dasapalla, Pana Sanakranti of Dakhinakali at Nayagarh, Shivaratri of Sri Ladubaba at Sarankul, Magha Saptami at Kantilo, Ram Navami at Odagaon, Car Festival at Nayagarh are the main festivals of the District.

The district is educationally better of relatively. However, on other development indicators it needs substantial improvement in case of the villages. Demographically it has low growth rate and very low sex ratio. The sex ratio in 0-6 years is very disturbing as it indicates increasing disparity among the different gender groups. Due to possible low fertility and selective out migration, population of the district seem to be aging. While planning welfare services the demographic back drop needs to be taken seriously. Special efforts are needed for the district to remove gender gaps on different aspects and prevent the decline in number of women.

Human Development Index

As per 2011 census, the Human Development Index (HDI) of Nayagarh district is 0.571 which is almost equal to the state average of 0.579 & Nayagarh ranks 15th in the state in this respect. The income index is significantly lower (0.485) for the district as against the state average of 0.545. In case of Reproductive Health, Nayagarh had 53.5 percent of women married below 18 years as against the state average of 35.8 percent.

Administrative Setup:

The Collector and District Magistrate is the administrative head of the district. He is assisted by Addl. District Magistrates, Sub-Collectors, Block Development Officers, Tahasildars and Deputy Collectors for effective administration of the district. In addition to this, there are District level officers of other departments who are under the administrative control of their respective departmental heads. The district consists of only one Sub-division viz., Nayagarh which is under the administrative control of a Sub-Collector. For smooth running of revenue administration the district is divided into 8 tahasils viz. Dasapalla, Khandapada, Nayagarh, Ranapur, Gania, Bhapur, Odagaon and Nuagaon and each tahasil is in charge of a Tahasildar. The developmental activities in rural areas of the district are being carried out through 8 Community Development Blocks and each Community Development Block is under the administrative control of a Block Development Officer.

In order to maintain law and order there are 13 Police Stations spreading over the district. Those are Dasapalla, Gania, Khandapada, Fategarh, Nayagarh, Nuagaon, Odagaon, Sarankul, Ranapur, Banigochha, Itamati and Nayagarh Sadar. There are four Urban Local Bodies (statutory towns) viz., Nayagarh NAC, Khandapada NAC, Ranpur NAC & Gania NAC. To carry out developmental activities in Urban Local Bodies Executive Officers have been kept in charge of the NACs. In addition to this, there are 5 Census towns viz.- Kantilo, Itamati, Odagaon, Rajasunakhala and Chandapur.

Jurisdictional Changes

During 2001 Census there were 4 tahasils, 8 CD Blocks, 1699 villages, 2 NACs and 7 Census Towns in the district. Government of Odisha with an intention to extend the facility of revenue administration to the people close to their locality has increased the number of tahasils to at par with the number of CD Blocks. Accordingly, in addition to the existing 4 tahasils of 2001, 4 new tahasils viz., Gania, Bhapur, Odagaon and Nuagaon were formed. Odagaon tahasil was formed consisting of Odagaon Panchayat Samiti area, Nuagaon tahasil was formed consisting of Nuagaon Panchayat Samiti area, Gania tahasil was formed consisting of Gania Panchayat Samiti area and Bhapur tahasil was formed consisting of Bhapur Panchayat Samiti area vide Notification No. DRC- 11/08-14913/R & DM Dt. 29.03.2008 of Government of Odisha. As regards villages, 2 new villages were created in Ranapur Police Station and 5 villages having prominent urban characteristics were declared as Census towns. The total number of villages during 2011 is 1692, out of which, 151 villages are uninhabited.

DISTRICT HIGHLIGHTS– 2011 CENSUS

- Nayagarh is the 18th district in terms of size and 22nd in terms of population.
- Nayagarh is the 20th urbanised district in state having only 8.28 percent of its population live in urban areas as against 16.69 percent of state's population living in urban areas.
- In terms of population per Sq. Km Nayagarh is 15th densely populated district in the state.
- Nayagarh has 30th rank in terms of sex ratio in the state.
- There are 151 uninhabited villages in the district whereas 5 villages are having a population of more than 5000 each.
- Lathipada is the most populated village having 5945 populations in the district.
- Ranapur police station is having highest number of villages (223) in the district and Nayagarh police station is having the lowest number of villages (40) in the district.

Climate & Rain fall:

This district is in the higher altitude than the sea level and above flood level. River Mahanadi flows in the Eastern boundary of the district. The District experiences tropical climate, with the summers being hot and the winter's cold. The maximum temperature that this district experiences is well above 40 deg C (during summers) and the minimum can be as low as 10 degree Celsius (during winters). Summers generally last from March to June and winters, from October to February. Rainfall is generally heavy during the monsoons, which occur during the months of July and August. South West monsoon is primarily responsible for the rainfall in this District. The district has witnessed an average of 1744.87 mm rainfall in the past five years. This district is situated in the hilly ranges in the West and its North Eastern parts have formed a small well cultivated fertile valleys intersected by small streams. On the basis of its topography, climate & sea types, the district comes under East and South Eastern coastal plain Agro-climatic Zone and all the eight Blocks are included in Raifed laterite Agro-

Ecological Situation. The soil types are laterite, alluvial, red and mixed red and black. The climate of the district is sub-tropical hot and humid. The maximum and minimum relative humidity is 89.86% and 62.8%, respectively

Geography:

The Nayagarh District is located towards the west of Puri district surrounded by Cuttack district in the North, Phulbani district in the West, Ganjam district in the South and Khurda district in the East. The District of Nayagarh lies between 19⁰ 54' to 20⁰ 32' North latitude and 84⁰ 29' to 85⁰ 27' East longitude. Nayagarh District Covering a geographical area of 3890 sq km. The district accounts for 2.5% of state's territory and shares 2.35% of the State population. This district is situated in the hilly ranges in the West and its North Eastern parts has formed a small well cultivated fertile valleys intersected by small streams. This district is in the higher altitude than the sea level and above flood level. The river Mahanadi flows in the Eastern boundary. The climate of the District carries a high temperature in hot months and cooler in winter.

Topography:

The district has a rectangular shape stretching from northwest to south east direction. This district is situated in the hilly ranges in the West and its North Eastern parts has formed a small well cultivated fertile valleys intersected by small streams. River Mahanadi flows through the district and other small rivers like Kusumi, Brutanga, Malaguni, Kuanria, Dahuka and Buddhabuddhiani also flows through the district. These rivers make the district a fertile area. The land area under forest is 2, 08, 000 hectre in the district. The various minor forest produce of the district are Babool seed, Sikakai, Talamakhan, Polas, Chakunda, gill, Nageswear seed, Mahua, sesum, Siali, Mango Kernel, Karanja, Bena Chera, Neem seed and many others. Also teak, sal and other major trees are found in the forest of Nayagarh district.

River System:

There are 10 numbers of rivers with their tributaries flowing in this district. Floods, in this district normally occur from June to September due to heavy rainfall in the catchment areas of the rivers and release of water from Hirakud Dam through Mahanadi. Some of the major rivers are briefed below;

Mahanadi:

The Mahanadi enters this district at Kuturi of Badasilinga G.P. under Gania Block and takes an easterly course along Gania, Khandapara and Bhapur Blocks for about 55 Kms. The portion of its course from Boudh border to Baramul is known as Satakosia Gorge. The river here discharges a large volume of water in narrow channel flanked by high precipitous hills. During the flood, Mahanadi overflows its banks and floods the adjoining G.Ps. of Gania, Khandapara and Bhapur Blocks.

Brutanga:

River Brutanga a tributary of river Mahanadi rises from the hilly areas of Phulbani and Bhanjanagar and carries large volumes of water to the river Mahanadi. During high flood in river Mahadnadi the flood water of Brutanga River inundates the low lying areas of Gania Block being not discharged to river Mahanadi.

Kusumi:

It rises from Panchabati in Bhanjanagar Sub-Division of Ganjam District and takes its winding course. It meets with Duanta and Dahuka near Khandapara border and flows through Khandapara Tahasil areda and merges into Mahanadi near Kantilo. The excess water discharges from Budhabudhiani project combined with water of Duant and Lunijhara also cause flood in Nayagarh Block area.

Malaguni:

This river emanates from the hills of Ranpur Tahasil and takes its winding course and merges in Chilika Lake passing through the areas of Khurda District.

Other Rivers:

Budhabudhiani, Kuanria and Dahuka rivers where medium Irrigation projects have been constructed

Demography:

Out of the total Nayagarh population for 2011 census, 8.28 percent lives in urban regions of district. In total 79,738 people lives in urban areas of which males are 41,617 and females are 38,121. And 91.72 % population of Nayagarh districts lives in rural areas of villages. The total Nayagarh district population living in rural areas is 883,051 of which males and females are 461,019 and 422,032 respectively. The district of Nayagarh is constituted by **4** towns and **1699** villages spread over **8** C.D blocks. It has **963124** lakhs population of which male constitutes **52.17** percent and females **47.83** percent. The population growth rate during the last decade of the twentieth century is **1.03** annually. The district wise Census data is given below:-

Households and its distribution:

The total number of HHs is about **229170** spread over the rural and urban areas of the district. Thus the average household size is **5** persons per household. Of these around 14% HHs belong to ST, 18% HHs belong to Of the households **30.5** % are occupying permanent houses, **17.2** % semi permanent houses and **52.2** % temporary houses. The rural households are spread over **1,531** inhabited villages. Electric power supply is available in **64.53** percent of HHs.

Table no-2

| Sl. No | Total Number of Families/HH | Category | | Category | | | | Category | |
|--------|-----------------------------|----------|-------|----------|-------|-----|--------|----------|-------|
| | | Rural | Urban | SC | ST | OBC | GEN | BPL | APL |
| 1 | 229170 | 209053 | 20117 | 32956 | 14132 | 0 | 182082 | 111021 | 93141 |

Data Source:- Census 2011 & as per latest settlement of new NACs

[Details are at Table No. 02 of Volume II of the DDMP]

Population and its composition:

The Scheduled Caste population of the district constitutes **14.04** percent and among them the major caste groups are **Pan Pano (39.32**percent), Dhoba etc. (**12.27** percent) and Dewar (**15.84** percent). The Scheduled Tribes account for **5.88** percent population of the district and **Khond** etc. (**76.92** percent), **Saora** etc. (**8.06**percent) and Shabar (7.77 percent) are the largest tribal groups in the

district. Rural population constitutes 95.71 percent of total population. The population is highest in the Odagaon Block followed by Ranpur - and Nayagarh Blocks. Gania has the lowest population.

Table no-3

| Sl. No | Population | | | SC | | ST | | OBC | |
|--------|------------|--------|--------|-------|-------|-------|-------|-----|----|
| | T | M | F | M | F | M | F | M | F |
| 1 | 963124 | 502819 | 460305 | 69855 | 66538 | 29191 | 29500 | NA | NA |

Data Source:- Census 2011 & settlement of new NACs

[Details are at Table No. 03 of Volume II of the DDMP]

- Population density of the district and decadal growth of population- The density of population of the district is **248** people per sq. km against the State figure of **270**. The decadal growth of population (2001-2011) is **11.4%** against the State figure of **14%**.

Religion wise distribution of Population:

The major religions in the district are Hindu (**99.27** percent), Muslim (**0.55** percent), Christian (**0.04%**) and others (**0.13%**) indicating Hindu preponderance.

Table no-4

| Sl. No. | Total Population | Category | | | | |
|---------|------------------|-----------------|--------------|-------------|-------------|-------------|
| | | Hindu | Muslim | Christian | Sikh | Others |
| 1 | 963124 | 956093 (99.27%) | 5297 (0.55%) | 385 (0.04%) | 107 (0.01%) | 1241(0.13%) |

Data Source:- Census 2011

[Details are at Table No. 04 of Volume II of the DDMP]

Age Group:

The percentage of population in age **group 0-4** years is **8.72** percent and that of age group **5-14** years is **21.63** percent. The population in the working age group of **15-59** is **59.28** percent and old age group and age not stated group together constitute **10.36** percent. The age group wise distribution provides an idea of dependency burden and helps in planning of welfare services and business products. The district has **6.15** percent population enumerated in areas classified as urban. The major towns are **Nayagarh (NAC), Khandapada (NAC), Dasapalla (NAC) & Ranpur (NAC)** having **14314, 8757, and 8735** in respective order.

Table no-5

| Sl. No. | Total Population | 0-4years | 5-14 years | 15-59 years | 60 years and above |
|---------|------------------|----------|------------|-------------|--------------------|
| 1 | 963124 | 83984 | 208324 | 570940 | 99780 |

Data Source:- Census 2011

[Details are at Table No. 06 of Volume II of the DDMP]

Sex Ratio:

Sex Ratio in urban region of Nayagarh district is **916** as per 2011 census data. Similarly child sex ratio in Nayagarh district was **855** in 2011 census. Child population (0-6) in urban region was 7,935 of which males and females were 4,324 and 3,611. This child population figure of Nayagarh district is 10.39 % of total urban population. Similarly in rural areas of Nayagarh district, sex ratio is **915** females per 1000 males. If child sex ratio data of Nayagarh district is considered, figure is **855** girls per 1000 boys. Child population in the age 0-6 is 98,936 in rural areas of which males were 53,275 and females were 45,661. The child population comprises **11.56 %** of total rural population of Nayagarh district.

Table no-6

| | | |
|---|-------------------------------------|-----|
| 1 | Sex Ratio (Females per 1000 males): | 915 |
| 2 | Sex Ratio (0-6 Years): | 855 |

Data Source:- Census 2011

[Details are at Table No. 07 of Volume II of the DDMP]

Literacy Rate:

The total literacy rate of the district is **80.42** percent, the male literacy rate being **88.16** percent and female rate **72.05** percent indicating substantial gender gap in literacy even in a high literacy situation. The table reveals that overall as well literacy rate of male and female population of District Nayagarh is more than Odisha and India whereas, on analyzing the literacy rates of different Blocks of District, it is found that overall literacy rate in Dasapalla Blocks is much lower (62.19 percent) than the District average. On the other hand, literacy rate in urban local bodies is quite higher than the District average. Statistics on population reporting attainment of different educational levels reveal some interesting facets. Of the literates, those with Graduate Degree and above constitute **4.16** percent and those indicating **no** educational level are only **1.98** percent. The groups reporting Matric/ Higher Secondary/Diploma as their level of education are **15.21** percent. Below Primary group are **33.57** percent and those having primary and middle education are **31.51** and **13.57** percent respectively.

Table no-7

| | Total | Male | Female |
|---------------|---------------------|---------------------|---------------------|
| Literacy Rate | 6, 88, 362 (80.42%) | 3, 92, 333 (88.16%) | 2, 96, 029 (72.05%) |

Data Source:- Census 2011

[Details are at Table No. 08 of Volume II of the DDMP]

Socio-Economic profile:

1) Workforce participation:

In Nayagarh district out of total population, 343,633 were engaged in work activities. 66.7% of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 33.3% were involved in Marginal activity providing livelihood for less than 6 months. Of 343,633 workers engaged in Main Work, 68,996 were cultivators (owner or co-owner) while 59,247 were

Agricultural labourers. The total Work force of the district is 3, 43, 633 according to 2011 Census & the Work force participation rate (WPR) for the district works out to be 35.7%. This is higher than the corresponding WPR of 33.32% of the Census 2001. The WPR of males has increased to 2, 84, 591 (82.8%) percent & the female WPR has increased to 59,042 (17.2%) percent.

Dasapalla (44%) rank first in the WPR for total workers as well as female worker & the lowest WPR has been reported from Khandapada NAC (30%). The participation rate of women in the total workforce of the District is significantly lower (15.99 percent) than the state average of 31.54 percent. However, role of the women in agricultural activities and NTFP collection/processing is very significant. The overall position thus suggests for more efforts towards bringing gender equity. Building public awareness, social motivation, special schemes and provisions for women and girl child would help women to be in a more favorable position by 2020.

[Details are at Table No. 09 of Volume II of the DDMP]

2) Land Holding Pattern:

Agricultural Census indicates that out of 159675 operational holdings, nearly 87% belongs to the marginal farmers, 7% belongs to the share croppers, 2% belongs to small farmers, 4% belongs to the semi medium farmers & the rest are medium & large farmers. On the other hand marginal & small farmers are in possession of 62% land as operational holdings while medium & large farmers have 38% land. The average land holding of the district is 0.96hect.

[Details are at Table No. 10 of Volume II of the DDMP]

3) Agriculture and Irrigation:

Agriculture being the main source of economy and subsistence for the rural people of Nayagarh district plays a critical role in the economy of the district and the livelihood of majority of its population. Agriculture is the mainstay of the district economy. Forestry, particularly bamboo harvesting and other NTFP collection like Siali leaf provides seasonal income to the people in some areas. On the basis of its topography, climate & sea types, the district comes under East and South Eastern coastal plain Agro-climatic Zone and all the eight Blocks are included in Raifed laterite Agro-Ecological Situation. The soil types are laterite, alluvial, red and mixed red and black. The gross cropped area of the district is 2, 27, 000 ha with cropping intensity of 173%. The topography of the district is both flat and undulating. The important soil groups of the district are laterite, alluvial, red and mixed red and black soils. The soils are mostly acidic in reaction ranging from 74% to 88% across the blocks while neutral soils range from 11% to 24 %. Alkaline soils are limited to 1 to 2%. The available nitrogen in the soils is low while availability of phosphorus and potassium is in medium range.

Rice, pulses, vegetables and sugarcane are important crops of the district. Horticultural crops like vegetables, tropical fruits and spices including flowers are important for the district as there is demand for such crops in high income group of urban area.

The total cultivable area of the district is 133540 Hect. & the total Net Sown area happens to be 132432 Hect. Out of that only 54485 Hect are irrigated, which implies still 77947 Hect of cultivable area are non irrigated (Rain fed). This enhances the vulnerability of Drought situation in the district. Minor Irrigation projects have the major contribution towards irrigation (27668 Hect.) followed by Large & Medium Irrigation projects (10348 Hect.), Lift Irrigation Points (18840 Hect.) in the district.

Nayagarh, Khandapada and Odagan Blocks have more than 35% of cultivated area under irrigation while other 5 Blocks have less than 35% under irrigation.

As per the history the agriculture sector has been worst affected in natural disasters like Cyclone, Flood, Drought & unseasonal rain in the district. Ranging from 1999 super cyclone, 2013 Phailin, to Floods in 2008, 2008, 2009, 2011, & 2014, Drought in 2011 & 2015 etc have posted serious threat & challenge for the sector in the district.

[Details are at Table No. 12 & 13 of Volume II of the DDMP]

4) Livestock:

Livestock production is an important activity of landholders and landless families of the district. Cattle, buffalo, goat, sheep and poultry birds are important sources of livestock in the district. Breed upgradation, disease control, dairy development are important activities of Animal Resources Development Department in the district. There are 16 veterinary hospitals/dispensaries, 54 LI centres and 69 AI centres in the district. There are a total of 349252 numbers of cattle in the district, out of which 112144 are cows & buffaloes, 108849 are sheeps & goats, and 128229 bullocks, camels & horses. The ongoing programmes that are being implemented in the district are NPCBB, ASCARD, diary development, poultry development, goat and sheep breeding and fodder development along with training programmes. Annual production of milk, meat and eggs in the district are 14.61 '000 t. 1146 t and 41.12 lakh numbers respectively. The productivity of livestock in the district is much lower in the district when compared to state and national average as a result of which availability per capita is comparatively less.

In the past years during cyclone, drought & flood, close to 2 lakhs of cattle population have been affected so as the projects & production.

[Details are at Table No. 17 of Volume II of the DDMP]

5) Fishery:

Fishery occupies an important place under the Agriculture & allied Sector in Nayagarh. In Nayagarh lot of potentialities are available to develop pisciculture. The public water bodies occupy 80% of total resource. The lease of public water bodies is given for one year to villagers and the culture is undertaken by a single person. The growth rate lessens due to heavy stocking density. Due to vivid persuasions and creation of awareness by the FFDA the farmers are adopting scientific pisciculture in some public water bodies and the private water bodies are managed through scientific culture practices. In Nayagarh about 80% of its population prefer fresh water fish and its per capita consumption has gone high (9 kg/head/annum). The quality of fish produced from village tanks and rivers in the district is excellent for which it has commercial demand in urban markets.

The water sources for fishery include 2395 ha of pond/tank, 1821 ha of MIP/Reservoir, 1564 WHSs and 506 water logged areas. Capture fishery is confined to 68 km of river and canals in the district. There are 20216 fisher folks in 258 villages in the district.

During 1980 to 1981 under different Developmental schemes viz. FFDA, SGSY/ IRDP, ERRP etc different water bodies have been developed. But during 80s most of the G.P. tanks were given to the individuals for 10 years lease for developed under FFDA, IRDP and ERRP. Now their lease periods have already been matured and the same water bodies are now under the control of G.Ps and leased

out annually without adopting scientific culture for which the fish production from them are not up to mark. Due to gap of 20-25 years the public tanks as well as the private tanks have become derelict which need renovation. If renovation is under NREGS and leased out to SHGs/Individuals for 5 years in respect of G.P tanks and bank finance under FFDA is extended in respect of private tanks, the fish production will be definitely enhanced significantly.

The pisciculture has been significantly affected during 2013 Phailin & is likely to be hit badly due to the ground water depletion & reduction of water level in ponds, reserves etc in the district.

[Details are at Table No. 18 & 19 of Volume II of the DDMP]

6) Employment and livelihood:

The State Employment Mission, (SEMO) came into force since April 2005. The Collector and District Magistrate is the District Chairman of the Mission in the District and the District Employment Officer is the convener of the District Level Meeting on Employment Mission. Under the Employment Mission many activities for Employment as well as for self Employment for the unemployment youths have been under taken in the district of Nayagarh.

The objective of the District Employment Exchange, Nayagarh is to provide Employment assistance to the un-employed youths of the District. Simultaneously the Employment Exchange also provides different Vocational Guidance as well as self employment counselling to the different Job seekers of the District.

Activities

• Department wise placement

The District Employment Exchange, Nayagarh involves with different selection and Placement activities in the District. Candidates have been placed as constables & commandment in different OSAP battalions of Odisha.

• Vocational Guidance (VG)

The Vocational Guidance Unit of the District Employment Exchange, Nayagarh has started to function since September 1995. The following are some VG activities.

a) Individual Guidance Programme

Individual Guidance is given to the candidates at the time of registration and renewal of registration of candidates and also whenever the Job Seeker asks in the office for Job information.

b) Group Guidance Programme

Group guidance is given to the candidates at the time of Registration according to their qualification. But it is not done regularly due to shortage of officer.

c) Old Cases Review

When Old Registrations are coming to this office for renewal purpose, the cases are reviewed and necessary information on job opportunity/ Self Employment and Suggestions thereon are given to the candidates.

d) Delivery of Career Talks

This is one of the important activities of V.G. unit of the Employment Exchange. 36 career talks will

be delivered to the students of different Schools, Colleges and Technical institutions during the year 2014.

e) Organization of Entrepreneurship Awareness Camp

The District Employment Exchange, Nayagarh has organizing Entrepreneurship Awareness Camp in different ITCs of Nayagarh District in order to create Awareness among the un-employed Job seekers on different Self Employment scopes. The information for last 3 years are given below.

f) Job Fair

More than 1500 candidates attended the Job fair on 21.01.2015 out of which 1236 registered and 158 candidates were selected by 13 recruiters for Direct Recruitment and 1078 candidates were selected by 18 PIAs under Placement Linked Training Programme sponsored by State Employment Mission, Odisha Bhubaneswar.

g) Industries and mining

The District Industries Centre (D.I.C.) came into being during the year 2000 after bifurcation of the erstwhile Puri Districts, to provide various support services for potential entrepreneurs under single roof. Accordingly different wings like Small Scale, Credit, Handicrafts and Cottage Industries etc. are created in the DIC and it is manned by experienced Officers. The DIC acts as a promotional agency and provides services as per the guidelines of State Industries Directorate and Industries Department of Government.

Activities of District Industries Centre

Micro, Small and Medium Enterprises (MSMEs)

The Micro, Small and Medium Enterprises (MSMEs) contribute significantly to value addition, employment generation, exports and over all growth and development of the country's economy. Govt. of India has enacted the Micro, Small and Medium Enterprises Development Act 2006 with a view to providing a comprehensive legal frame work to address the needs of both the manufacturing and the service sector MSMEs, particularly to enable the MSMEs of the country to face the emerging challenges in globalized and competitive market. The Government of India has announced an all India campaign under the National Manufacturing Competitiveness Programme (NMCP) for the Micro, Small and Medium Enterprises so as to withstand global and organized competition and to thrive through better technologies and skills.

The Micro, Small and Medium Enterprises play a major role in broad basing the industrial growth and augmenting employment opportunities, revenue, exports and economic growth. However, the MSMEs of the country as well as the state suffer from typical weakness and problems and have specific needs and requirements. In order to address such problems, needs and requirements of the MSMEs of the State in a focused manner and for their revival and development, Government of Odisha is declaring a policy as “**ODISHA MSME DEVELOPMENT POLICY, 2009**”.

Under the scheme a total number of 3464 units have been established & functioning in the district with 12845 persons engaged. Similarly in handloom sector a total of 1247 units have been established & functioning with 2806 persons engaged in.

[Details are at Table No. 23 of Volume II of the DDMP]

7) Education

Over the years there has been significant spatial and numerical expansion of elementary schools in the district. The number of out-of-school children has reduced significantly. The gender gap in elementary education has narrowed and the percentage of children belonging to scheduled castes and tribes enrolled is proportionate to their population. Yet the number of children, particularly children from disadvantaged groups and weaker sections, who drop out of school before completing upper primary education, remains high. The quality of learning achievement is not always entirely satisfactory even in the case of children who complete elementary education. The district has always stressed on Value education by which people give moral values to others, as Value education is rooted in Indian philosophy and culture and ingrained in every tradition of Indian culture. The district believes in Education as the most powerful weapon which you can use to change the world & is the key to eliminating gender inequality, to reducing poverty, to creating a sustainable planet, to preventing needless deaths and illness, and to fostering peace.

The literacy rate of the district is 80% according to the 2011 census placing the district above than the State figure. The male literacy rate is 88.2% & the female literacy rate is 72% which indicates that the district has portrayed substantial progress in rendering quality education to people as well as strengthening up of infrastructures. The district HQ, Nayagarh has become the education hub not only for the students of the district but also from outside students due to the presence of Kendriya Vidyalay, Autonomous College, enormous number of reputed coaching centres, residential colleges etc.

The district has 761 primary schools, 494 ME schools, 246 High schools, 8285 teachers for strengthening elementary & secondary education. The teacher pupil ration is 19.8 which has been improved significantly unlike the past years. A total number of 127766 number students have been enrolled in the schools, out of which only 113 students reported to be dropped out. It indicates the commitment of the district in universalising the RTE & Secondary education in the district. Almost all the schools are pucca buildings barring few places where still the number of rooms are inadequate & the children have to sit in old buildings making them vulnerable. However the district is in the process to identify the schools for necessary measures. For higher education purpose the district has 66 numbers of junior & degree colleges located at almost all the strategic locations. Additionally to promote skill education the district has 26 numbers of Government & Private ITIs, Polytechnics & other vocational training institutes.

[Details are at Table No. 25 & 26 of Volume II of the DDMP]

8) Health

The major diseases prevalent are diarrhea, malaria, worm infestations, typhoid, angular stomatitis, anemia, eye infections, cough, scabies, arthritis, TB, irregular menstruation, white discharges and piles. The most prevalent diseases were diarrhea, malaria, typhoid and worm infestations. The traditional healing practices though exists the preference is now given to the mainstream health care services.

Objective

- Reduce Maternal Death and Infant/ Child Death.
- Save Girl Child to maintain equity among sexes.

- To bring back faith in common citizen by providing quality healthcare (Preventive and Curative).
- Community Participation and Convergence among Health, Education, Women and Child Welfare, PR Institutions.
- Healthcare for all to make a “Healthy Nayagarh”
- Fitting reply to Emergencies like Epidemic and Disaster.

The major issues identified are:

- a) Non availability of drugs at sub centre
- b) Low level of awareness on the health related entitlements
- c) GKS members not aware of their roles and responsibilities
- d) Lack of awareness on prevention and control of malaria
- e) Lack of proper communication facilities
- f) Lack of awareness on prevention and control of various communicable diseases.

Analysis of Major Health Indicators

The Child mortality rate of the district happens to be 37 which is lower than the States figure of 51. Ranpur block reported the lowest number of IMR (31) where as Nayagarh block has the highest IMR (48) despite the highest literacy reported in Nayagrh block. The institutional delivery of the district is close to 97% against the State figure of 72%. Ranpur block reported highest institutional delivery (99%) where as Dasapllla reported the lowest (91%). In terms of immunization the district has achieved more than 96%, which indicates the reduction in IMR.

Activities

- Reproductive Child Health Programmes
- Erecting health Infrastructure, deployment of equipments, skilled human
- Resource, regular Capacity building programmes of health worker.
- Support of Planning and budgeting for each year.
- Capacity building of the grass root key players

[Details are at Table No. 33 & 34 of Volume II of the DDMP]

9) Housing

The total number HHs of the district is about **229170** spread over the rural and urban areas of the district. Thus the average household size is **5** persons per household. Of the households **30.5** percent are occupying permanent houses, **17.2** percent semi permanent houses and **52.2 percent** temporary houses. The district becomes more vulnerable to cyclone & flood due to the high percentage (69.4%) living in semi pucca & kutcha houses.

In the 2013 Phailin the district has faced substantial number of houses (46613) damaged partially and/or fully. During the flood of 2006, 2008, 2009 & 2011, the district has also faced more than 10000 houses damaged fully or partially. This indicates that the housing pattern in the district needs to be improved in terms of disaster resilient.

[Details are at Table No. 11of Volume II of the DDMP]

10) Electrification

CESU is the nodal agency in the district entrusted to manage electrification in the district. As on today 681 villages have been fully electrified, 947 villages have been partially electrified & 67 villages yet

to see the light. Also a total of 170320 number of HHs have been electrified & 52259 HHs are yet to be electrified.

Schemes

The Rajiv Gandhi Rural Electrification Scheme (**RGVY**) scheme is a flagship programme of Govt. of India for providing electricity facilities to the rural people & people under Below Poverty Line. The scheme is implemented by a Central Government organization i.e. by Rural Electrification Corporation (REC) in whose favour the total fund required for the scheme is released and 90% of the same is provided to Central Public Sector Undertakings viz namely, NTPC, NHPC and PGCIL for execution of the scheme. More than 1500 villages & 88071 BPL HHs of the district have been benefitted of the scheme till date.

However under Deendayal Upadhyaya Gram Jyoti Yojana (**DUGJY**) has targeted 1410 villages for electrification/ intensive electrification in the district. Hence in the coming days it is expected to reduce the number of houses unelectrified.

[Details are at Table No. 28 of Volume II of the DDMP]

11) Drinking water and sanitation

Activities of The Department:- This RWS&S Division, Nayagarh is having two RWS&S Sub-Divisions one at Nayagarh & another at Daspalla. The activities of this Division are as follows

Drinking Water Supply

- Sinking of Tube-Wells
- Construction of Sanitary Wells
- Execution of Rural Piped Water Supply Schemes.
- Construction of Recharge pits
- Construction of Platforms
- Improvement of Traditional Sources.

Sanitation

- Construction of Individual House Hold Lartine.
- Construction of School Toilets
- Construction of AWC Toilets
- Construction of Community Toilets

The issue of safe drinking water has always been a challenge for the district since long time. Depletion of ground water level, scattered settlements in hilly & jungle areas, fluoride contamination, management & maintenance of electrified water supply systems are the major drawbacks of the district. Although the department has constructed 11379 tube wells, 885 sanitary wells, 381 PWS in 748 villages, yet in the summer drinking water crisis has become significant in some patches. Close to 400 villages with 222457 populations is affected by fluoride contamination in the district.

[Details are at Table No. 29, 30 & 31 of Volume II of the DDMP]

12) Migration

A survey on the migration status in Ranpur block was conducted by Madhyam Foundation, wich more or less applicable to all the blocks of the district. A short comperative analysis is given below. Agriculture is the primary source of income for most of the households in the district. Out of the total

population close to 6, 00, 000 populations in the district are non-workers which is appx 60% of the total population, which advertently contributes to the migration profile of the district.

Causes of migration

From the survey in Ranpur block by Madhyam Foundation, it was found that most of the time the causes of migration are due to “Push factor” leading to forced migration. Wide spread unemployment, unproductive agriculture, prevailing low wage structure, lack of opportunity in the non farm sector, lack of enough work under MGNREGS and financial insecurity were considered as the main reasons for migration. Majority of migrants are locked in debt- migration cycle, where earning from migration is used to repay debts incurred at home. The other reason is purely voluntary in nature because of limited choices available for subsistence. As per the report 40.81% households of the entire Ranpur block report seasonal migration of at least one or more than one member from each household. All the migrant households of the block belong to lower strata of the society. The largest percentages (79%) are from other backward castes (OBC), followed by scheduled castes (9%), Scheduled tribes (6%), General castes (5%) and Minority (1%) respectively.

The age-wise classification of migrants reveal that maximum migration takes place in the age group of 21-35 years (58%), followed by migrants in the age group of 36-50 years (27%). It is a matter of concern that children and youth in the age group of 14-20 years (11%) also migrate in search of work when they should be in schools and colleges. Out of the total 13,892 migrants, 65% migrants are married and rest 35% are unmarried.

Duration of migration from the Block varies between 3 months and 12 months in a year. However, maximum people (53%) migrate for 10 months in a year followed by people migrating for 8 months (21.8%) in a year. Even, 7.6% of migrants migrate for the whole year. Such a trend clearly establishes as to how migration has become an important livelihood strategy for the people in the Block.

The top four destinations are Kerala (16%), Gujarat (13%), Jammu and Kashmir (9%) and Maharashtra (8%). The preference for this location –specific migration can be partly attributed to the fact that unlike in western Orissa and parts of coastal Orissa, the practice of recruiting migrants by contractors/Agents has been declining in Ranpur block.

[Details are at Table No.27 of Volume II of the DDMP]

13) Food security

The District Civil Supplies Office of Nayagarh is functioning under the direct control of Collector having proper supervision by the Food supplies and Consumer Welfare Department, Govt. of Odisha. The sole aim and object of this Office is to carry out all the plan, programme & policies of the Government in FS & CW Deptt, basically procurement of Paddy, receipt of CM rice as well as lifting & distribution of PDS food grains & S.K oil to the consumer card holders of the district. Besides that, distribution of rice is being regularly made to the ST/ SC Girl Hostels, ST/ SC Hostels managed by NGOs, Welfare Institutions, Jails & Differential abled Persons. To ensure timely lifting & distribution of Food Grains under PDS & TPDS is the sole aim and objective of the Civil Supplies Wing. During natural calamity i.e. flood, rainy season & any natural disasters, the civil supplies wing plays a vital role by making advance storage of Food Grains in the in-accessible pockets in the flood prone areas of the district. The Govt. in F& CW Dept has introduced Departmentally Storage System Operation with effect from 1st April 2012 abolishing the private storage agency system. The supply Chain

management system has been operated with registration of FP shops, ration cards, name of different consumers, allotment orders of Rice and wheat through Food Odisha portal. The RRC cum DSC have been equipped with computerization system for making SMS on their day to day transaction through online to make the system more efficient, effective and transparent to the general public and consumers at a large. To make fair allocation of different essential commodities as fixed under different schemes like: Annapurna, AAY, BPL, APL & RDP to make it available to the consumers as per their monthly entitlements at Govt. fixed price. The allocation of Rs. 1.00/- per Kg rice under BPL, AAY, RDP & SC/ST hostels of Govt. Free cost rice to AP card holders. Rs. 6.30/- per Kg rice to Welfare Institutions, Rs. 9.30/- per K.g rice to SC/ST hostels managed by NGOs & Jails under Bulk Consumer Scheme. Rs. 7.00/- per K.g Wheat to all the APL card holders of the district and S.K Oil to all BPL, AAY & APL card holders @ 14.50 to Rs. 15.00 per liter.

The district is dedicated towards ensuring food security to beneficiaries, as it has already registered 198587 families with around 726920 populations under National Food Security Act (NFSA). A total of 297 PDS outlets are operating in the district to distribute the food grains. Additionally there are 4 storage points with the storage capacity of 169890 qtls. Unfortunately the district lacks cold storage points, which is a matter of concern.

The district is capable of managing free kitchens, storage & supply of foods, grains during emergency. Previously the district has managed more than 200 free kitchens for affected population during 2013 Phailin.

[Details are at Table No. 37 of Volume II of the DDMP]

14) Social Security

The district has successfully implemented & undertaken all the mainstreamed social security measures in order to ensure the population requiring special care are benefitted out of it. A brief of the schemes implemented is given below:-

- Madhu Babu Pension Yojana (MBPY)
- Odisha Disability Pension Scheme (ODPS)

National Social Assistance Programme:

This programme is being implemented in Nayagarh District since 15th August, 1995. This Scheme provides benefit to the poor household in the case of old age, death of bread winner. National Social Assistance Programme includes the following components viz.

- 1 - Indira Gandhi National Old Age Pension Scheme (IGNOAP).
- 2 - Indira Gandhi National Widow Pension Scheme (IGNWP)
- 3 - Indira Gandhi National Disability Pension Scheme (IGNDPS)
- 4 - National Family Benefit Scheme (NFBS)

Under the Old age pension schemes a total number of 46406 males & 30937 females, under widow pension a total number of 19408 widows & under Disability pension schemes a total number of 4602 males & 3765 females are benefitted in the district.

[Details are at Table No.38 of Volume II of the DDMP]

Critical infrastructure

Anganwadi centers

The district has a total of 1575 Anganwadi centers in place including mini centres. Out of that 439 AWCs are having its own Pucca building with 83533 children enrolled as on today. The AWCs are currently taking care of 14444 numbers of pregnant & lactating mothers of the district.

Schools and other Educational Institutions

The district has 761 primary schools, 494 ME schools, 246 High schools, 63 colleges & 26 vocational/ ITI training institutes to ensure holistic development of the next generation. The teacher pupil ratio has been improved to 19.8 which show the promising character of the district towards rendering quality education.

[Details are at Table No. 32 of Volume II of the DDMP]

Hospitals and Health Centers

| Sl No. | Type of Institutions | Number | Rented/Own |
|--------|-----------------------------------|---|------------|
| 1 | District Hospital | 01 (DHH, Nayagarh) | Own |
| 2 | District Post Partum Centre | 01 (PPC, Nayagarh) | Own |
| 3 | Block Post Partum Centre | 02 (Ranpur CHC and Khandapara CHC-under construction) | Own |
| 4 | Community Health Centers (CHC) | 12 (Nuagadiasahi, Saranakul, Bhapur, Mahipur, Rajsunakhala, Gania, Badapandusar, Madhyakhanda, Dasapalla, Ranpur, Odagaon and Khandapada) | Own |
| 6 | Single Doctor PHC/PHC(N) | 37 | |
| 7 | Sub Centres | 166 | |
| 8 | Mobile Health Unit | 16 (RBSK) | NRHM |
| 9 | Anganwadi Centers | 1575 | 439 |
| | Ayurvedic | | |
| 10 | Hospitals | 0 | - |
| | Dispensaries | 15 | - |
| | Homeopathy | | |
| 11 | Hospitals | 0 | - |
| | Dispensaries | 20 | - |
| 12 | Other Hospital | BMSN, Chandapur (TB Hospital) | - |
| 13 | AIDS Counseling & Testing Centers | 5 ICTCs | - |
| 15 | ASHA Gruha established | 3 (DHH Nayagarh, Dasapalla CHC and Sarankul CHC) | - |
| 16 | ANM Training Center, Dasapalla | 1 | - |
| 17 | No of ASHA sanctioned | 885 | - |
| 18 | No of ASHA in- | 869 | - |

| | | | |
|----|------------------------|-----|---|
| | position | | |
| 19 | RKS at DHH is formed | Yes | - |
| 20 | Block RKS | 8 | - |
| 21 | PHC-N | 32 | - |
| 22 | No of MNGO functioning | 1 | - |
| 23 | No of FNGO functioning | 3 | - |

[Details are at Table No. 45 & 46 of Volume II of the DDMP]

Veterinary Hospitals

In order to ensure veterinary measures, the district has 16 veterinary hospitals & 68 Livestock Aid centres in different strategic locations of the district. A total number of 22 doctors & 64 livestock inspectors are appointed to undertake all possible veterinary measures. Additionally 8 mobile veterinary units have been deployed to ensure service delivery at the door step & also to ensure uninterrupted service during emergency situations.

[Details are at Table No. 47 of Volume II of the DDMP]

Police and Fire Stations

Police Service

Nayagarh district has a rich culture of brotherhood & peace, hence there is hardly any evidence of law & order situation, communal riots reported in the past years. Yet to maintain the same the district has 13 police stations, 3 police sub-divisions, 13 police outposts in all block HQs & some other strategic locations. A total number of 596 Police personnel, 491 Gramarakhis & 325 Home guards are working in the district. Out of 26 police stations & outposts, a total of 25 VHF systems are installed in the district barring the Energy PS. The personnel rendering service are yet to be trained on search/ rescue, First Aid & Relief line clearance, which is major setback & may affect the quality of action during disaster situations.

Fire Service

The fire service department played a tangible role in disaster management. Wide range of actions & response, trained personnel, upgraded equipments etc makes them one of the strongest forces in disaster management. The district has a total of 8 fire stations situated in 8 blocks with 56 personnel trained on first-aid, relief line clearance, search & rescue etc. Through out the year the department is undertaking mock drills exercises, orientation exercise with students on wide range of DM response etc.

[Details are at Table No. 47 of Volume II of the DDMP]

Cooperative Societies

The Co-operation Department was created with the objective to:-

- Endeavoring to provide timely and adequate bank credit to farmers for financing their agriculture and allied activities.
- Supply on inputs such as fertilizers, pesticides and seeds to the farmers.

- Administering the Crop Insurance Scheme to provide relief to farmers in the event of crop failure.
- Providing marketing support to farmers by way of bringing about the integrated development of marketing of agricultural produce to safeguard the economic interests of the farming community.
- Providing infrastructure for storage of agricultural produce through organizations like the Orissa State Warehousing Corporation (OSWC) and the Orissa State Marketing Federation (MARKFED).

In order to ensure the same, a total of 10 cooperative banks are functioning in the district. During the current financial a sum close to 700 lakhs of rupees was distributed to farmers for agriculture purpose. A total of 157 Primary Agricultural Credit Societies (PACS) are formed with 180592 farmers as members in the district. The cooperative society procured 736631 qtls. of Paddy (K+R) from the farmers through registered Mandis.

[Details are at Table No. 16 of Volume II of the DDMP]

Banks and Post offices

Banks

In order to meet the financial services of the people, 24 banks have opened 111 branches in the district. In addition, there are 157 NDCCB affiliated PACS & 19 mini banks mostly engaged in financing crop loans to its members. Under their effort to outreach the banking services in remote areas, banks have opened 33 ultra small branches/BCs/BFs. In the effort to universalise financial inclusion, 2.44 lakhs BSBD accounts have been opened under Pradhan Mantri Dhan Jan Yojana. In order to facilitate hassle free services, various banks have installed 115 ATMs in the district. A sum of 134 crores of Rural credit was distributed to the people of the district for various purposes during the previous financial year.

Post Offices

The postal network of the district is governed under the Nayagarh HO. The district has 198 post offices & several sub post offices using 23 unique pin codes. Almost all the areas are covered under the postal network.

Project Arrow was launched in April 2008. The project plans to upgrade post offices in urban and rural areas, improving service and appearance into a vibrant and responsive organization and to make a visible and positive difference. The project aims to create an effective, friendly environment for staff and customers, providing secure IT services and improving mail delivery, remittances (electronic and manual) and postal-savings plans. Core areas for improvement are branding, information technology, human resources and infrastructure. The project to improve service has been implemented in more than 23,500 post offices, and 'Look & Feel ' improvements have been made in 2,940 post offices. The Department of Posts received the Prime Minister's Award for Excellence in Public Administration during 2008–09 for "Project Arrow – Transforming India Post" on 21 April 2010.

[Details are at Table No. 50 of Volume II of the DDMP]

Road and Railway network

The district has a strong Road network connected to almost all the GPs with all weather roads. The NH- 224 with a total length of 89 kms of passes through Ranpur, Nayagarh, Nuagaon & Daspalla blocks & act as one of the measure relief lines. Beside that a total length of 147.94 kms of State

highways, 542 kms of district roads, 774.58 kms of rural roads, 3590.5 kms of GP/PS roads, 264.5 kms of forest roads etc boost to the life line of the people.

Beside these the district has just witnessed its long awaited dream to have connected to Railway Network since 20 years. The district HQ is now connected to the Khordha Road railway station & targeted to connect to Dasapalla by 2019. As of now the district has a total of 23 kms railway line connecting Khordha road & district HQ.

[Details are at Table No. 41 of Volume II of the DDMP]

Cyclone and Flood 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. Only 23 cyclone shelters were constructed by Indian Red Cross before the super cyclone, wherein about 42000 people took shelter and saved their life. In the aftermath of the Super cyclone 1999, Government of Orissa decided to construct multipurpose cyclone shelters & multipurpose flood centres along the Orissa coast & other strategic locations 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 4 MSCs & 13 MFCs have been constructed in the district to mitigate the impact of cyclone & flood at Ranpur, Gania, Odagaon, Khandapada & Bhapur blocks.

Rain gauge and Automatic Weather Stations

The rain-gauge station is located at every Block HQ & the Head Clerk of the concerned office is in-charge to correctly recording of rainfall data & transmission to the DEOC. A Rainfall Monitoring Portal <http://ori.nic.in/rainfall> has been developed with the help of National Informatics Centre (NIC) with provision of uploading the rainfall data at the Block level. Necessary user ID and password has been provided to all BDOs through the Collectors. The Officer-in-charge of each rain-gauge station ensures that rainfall data is uploaded in the said portal everyday irrespective of holidays latest by 11.00 A.M. User ID and password has also been provided to each Collector to access the data in the portal and make necessary correction, if any. Timely uploading of rainfall data in the portal in respect of all rain-gauge stations in the district is monitored at the district level by the District Emergency Officer. In case it is not possible to upload the rainfall data of a particular station or stations for some justified reason on a particular day, it is communicated to the office of Special Relief Commissioner forthwith through fax/ phone/ any other means and the portal is updated with such data as soon as possible.

[Details are at Table No. 51 of Volume II of the DDMP]

Chapter- 3

Hazard, Vulnerability and Risk Assessment

Hazard, Risk, Vulnerability & Capacity Assessment (HRVCA) is concerned with collecting, analysing, & systematising information on a given community's vulnerability to hazards in a structured & meaningful way. This information then is then used to diagnose the key risks & exciting capacities of the community, ultimately leading to activities aimed at reducing people's vulnerability to potential disasters & increasing their capacity to survive them & resume their lives.

HRVCA uses various participatory tools to gauge people's exposure to & capacity to resist natural hazards. It is an integral part of disaster preparedness & contributes to the creation of community-based disaster preparedness programmes at rural & urban grass-roots level. HRVCA enables local priorities to be identified & appropriate action taken to reduce disaster risk & assists in the design & development of programmes that are mutually supportive & responsive to the needs of the people most closely concerned.

The aims of HRVCA are to:

- Assess the risks & hazards facing communities & the communities' capacities for dealing with these
- Involve communities, local authorities & humanitarian & development organisations in the assessment from the outset
- Draw up action plans to prepare for & respond to the identified risk
- Identify risk reduction activities to prevent or lessen the effects of expected hazards, risks & vulnerabilities.

HRVCA is complementary to national & sub-national risk, hazard, vulnerability & capacity mapping exercises that identify communities most at risk. A HRVCA is then undertaken in these communities to diagnose the specific areas of risk & vulnerability & determine the course of action can be taken to address them. To complete the circle, what a HRVCA unearths at the local level can provide a valuable indication of national & sub-national vulnerabilities & capacities.

Categorisation of Disasters

Water & climate related disasters:- Flood & drainage management, cyclones, tornadoes & hurricanes, Hailstorm, cloud burst, heat wave & cold wave, snow avalanches, droughts, sea erosion, thunder & lightening, tsunami

Geological related disasters:- Landslides & mudflows, earthquakes, dam failures/ dam bursts, minor fires

Chemical, industrial & nuclear related disasters:- Chemical & industrial disasters, nuclear disasters

Accident related disasters:- Forest fires, urban fires, mine flooding, Oil spills, major building collapse, serial bomb blasts, festival related disasters, electrical disasters & fires, air, road & rail accidents, boat capsizing, village fire

Biological related disasters:- Biological disasters, pest attacks, cattle epidemics, food poisoning

The district is vulnerable to multiple hazards. Below given a table to understand the series of disasters occurred in the district since 1999.

Table no-8

| Sl. No | Type of Natural Calamity | Year | Blocks Affected |
|--------|---|------|--|
| 1. | Super Cyclone & subsequent flood | 1999 | Ranpur and Bhapur worst affected. Daspalla, Gania, Khandapada, Nayagarh, Nuagaon and Odagaon(partly) |
| 2 | Flood | 2000 | Gania, Khandapara & Bhapur |
| 3 | Flood & Drought | 2001 | All Block & NACs of Nayagarh District |
| 4 | Flood | 2002 | Bhapur/Gania & Khandapara |
| 5 | Flood | 2003 | -do- |
| 6 | Flood | 2005 | -do- |
| 7 | Flood | 2006 | -do- |
| 8 | High Flood | 2008 | -do- |
| 9 | Flash Flood | 2009 | All Blocks of Nayagarh District |
| 10 | Unseasonal Cyclonic Rain during month of December | 2010 | -do- |
| 11 | Flood & Drought | 2011 | All Blocks & NACs |
| 12 | Flash Flood | 2012 | Nuagaon/ Khandapara/ Nayagarh |
| 13 | Phailin & Subsequent Flood-2013 | 2013 | All Blocks/NACs |
| 14 | Flood-2014 | 2014 | Gania, Khandapara & Bhapur |
| 15 | Drought-2015 | 2015 | All Blocks/ULBs |

Hazard profile of the District

Nayagarh is vulnerable to multiple disasters. Due to its sub-tropical littoral location, the district is prone to flood, tropical cyclone & drought. In major parts of Odisha, seismicity is moderately high. As per the recent categorization, the country has been divided into four zones (II, III, IV and V) and Nayagarh falls in Zone II i.e. low damage risk zone & at times the district has been shaken quite often though the damage has been negligible. Besides these natural hazards, human induced disasters such as accidents, stampede, fire, etc, vector borne disasters such as epidemics, animal diseases and pest attacks and industrial / chemical disasters add to human suffering. Its population density & housing pattern making it vulnerable to fire accidents also.

There is considerable evidence that economic damage caused by extreme weather events has increased substantially over the last few decades. For a district like Nayagr, with over 80% percent of its population relying directly & indirectly on agriculture for their livelihoods, the impact of extreme events is critical. People often live in areas of high ecological vulnerability & relatively low levels of resource productivity & have limited & insecure rights over productive natural resources. These combined factors are significant forces contributing to vulnerability to natural disaster.

Changes in the precipitation patterns & any intensification of the monsoons will contribute to flood disasters & land degradation & thus will have far reaching consequences of the entire economy. In the past two decades the district has been repeatedly battered by successive monsoons, flooding &

drought. Currently as much as 60% of Nayagarh is drought-prone & 40% is flood prone. For example the district has been hit with a loss of close to 1000 crores of assets, crop, infrastructure etc in the past two decades.

Some of the disasters that frequently occur/ likely to occur in the district are given below:-

Tropical Cyclones (TCs) are one of the natural hazards that affect India almost every year causing huge losses of lives and property. Among all the coastal states of India Odisha is more prone to cyclone where nearly one third of cyclones of east coast visits the state Odisha. Nayagarh is among the 12 districts of Odisha vulnerable to cyclone that resulted in loss of life, property etc in the past years.

Flood:- Amongst all the natural disasters afflicting the district, flood is the most frequent and devastating. Almost 80% of the annual rainfall is concentrated over a short monsoon period of 3 months. In Nayagarh, damages due to flood are caused mainly by the Mahanadi. The problem is further accentuated when flood synchronizes with high tide. The silt deposited constantly by the river in the delta area raises the bed levels and the rivers often overflow their banks or break through new channels causing heavy damages. Poor socioeconomic condition of the majority living in the flood plains, and the local economy being primarily dependent on the monsoon paddy add to the vulnerability of the community.

Drought:- The impact of the drought is mainly felt in agriculture, resulting in loss of production. Besides crop loss, droughts also create problems of irrigation and drinking water, loss of employment, scarcity of essential commodities, migration of farm labourers, increasing rural indebtedness, land and asset alienation, etc. People who get worst affected are small and marginal farmers, agricultural labourers.

Drinking water crisis:- Climatic changes, decrease in tree cover, depletion of ground water resources and increase in day temperature especially during the months of May and June, have made the district vulnerable to heat wave. In 1998, the district witnessed a severe heat wave, which claimed over 125 lives. The heat wave condition in Odisha is becoming increasingly prominent and regular. The main risk due to heat wave is heat stroke. After the large number of deaths in 1998, the main causal factor was identified as lack of awareness and not following certain do's and don'ts during heat wave conditions. Though extensive awareness campaigns has reduced large number of fatalities post 1998, poor socio-economic conditions, lack of enforcement and adoption of good working conditions during the summer months remain the main risks of heat wave.

Fire accidents are quite common, especially in rural areas because of the following factors. Individual housing with roof of straw and storage of straw/ hay in close proximity of the house, close proximity of houses in many areas leading to spread of fire and wider destruction, lack of availability of adequate water and nil or poor equipment for fire fighting especially in rural areas and small towns, lack of awareness of basic do's and don'ts when people live in houses that uses inflammable materials & human error or carelessness.

Forest fire:- The number of forest fires varies from year to year, and quite a long time may elapse between forest fires that are considered to be large. Climatic conditions are the factor that has greatest impact on the extent of forest fires. The forest is most vulnerable in spring and summer seasons when

there are long dry spells. Weather conditions such as precipitation and wind, as well as the layout of the terrain, are important factors in determining the size of the forest fire.

Religious gathering:- The district witnesses a series of social, religious gathering though out the year in different places. The number of people in each gathering ranges from 5000-10000 making it vulnerable to stampede & loss of life.

Heat Wave:- Heat Waves in Nayagarh in the year 1998 killed 125 people. In the year 1999, the state implemented first HAP in the state. Despite having a HAP in place the district experienced another massive Heat Wave casualty in the year 2005 by losing 22 lives. There could have been many possible reasons, which are going to be exacerbated in coming years with growing urbanization, population and industrialization. The problem is further going to be magnified with ongoing climate change. According to estimates, the scenario is likely to become aggravated in coming years³, and the World Meteorological Organization (WMO) predicts heat related fatalities will double in less than 20 years. This demands the policy makers and researchers to revisit and strengthen the current HAP.

Road accident:- Road accidents are major challenges to be handled with care. The district is highly vulnerable to road accidents. The figures are however not complete since each and every accident case is not reported at the police stations. Thus, the actual number of road accident cases may be higher. Road transport acts as the principal mode of transportation due to the absence of railway network. The increase in the number of vehicles has also increased the unsafe practices and risks of road users.

Earthquake:- In major parts of Odisha, seismicity is moderately high. As per the recent categorization, the country has been divided into four zones (II, III, IV and V) and Nayagarh falls in Zone II i.e. low damage risk zone.

An epidemic (from Greek *ἐπί epi* "upon or above" and *δῆμος demos* "people") is the rapid spread of infectious disease to a large number of people in a given population within a short period of time, usually two weeks or less. For example, in meningococcal infections, an attack rate in excess of 15 cases per 100,000 people for two consecutive weeks is considered an epidemic.

Epidemics of infectious disease are generally caused by several factors including a change in the ecology of the host population (e.g. increased stress or increase in the density of a vector species), a genetic change in the pathogen reservoir or the introduction of an emerging pathogen to a host population (by movement of pathogen or host). Generally, an epidemic occurs when host immunity to either an established pathogen or newly emerging novel pathogen is suddenly reduced below that found in the endemic equilibrium and the transmission threshold is exceeded. Cholera, Dengue, Chickengunya, Malaria, Plagueetc are some of the major epidemic outbreaks occurred in India in the last deaceded.

Major Disasters/ Incidents during 2006-2015

A brief profile of major disasters/ incidents occurred in the district during last10 years (2006 to 2015) is given below. It contains the disasters approved under SDRF/ NDRF guidelines as well as State specific disasters under notification of the Government.

Table No. : 9

| Sl. No. | Disaster / Incident | No. of incidents during (2006-2015) | No. of Deaths | Affected Population | Livestock Loss | Houses Damaged | Damage to Infrastructure | | | | Damage and loss of Crop Area (in Hectares) |
|---|---------------------|-------------------------------------|---------------|---------------------|----------------------|----------------|--|-----------|------------|-------------------------------|--|
| | | | | | | | School / AWC Buildings | Hospitals | Road in Km | Other Critical Infrastructure | |
| Disasters as approved under SDRF/ NDRF Guidelines. | | | | | | | | | | | |
| 1 | Flood | 05 | 03 | 317454 | 71 (Affected 149048) | 8759 | 2409 (Public utilities including infrastructure, road etc) | | | | 27365 |
| 2 | Drought | 02 | 00 | 451910 | 00 | 00 | 00 | 00 | 00 | 00 | 225508 |
| 3 | Fire | 2 | 67 | 7215 | 1658 | 00 | 00 | 00 | 00 | 00 | 00 |
| 4 | Hail Storm | 01 | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 5 | Cyclone | 02 | 02 | 984000 | 85 | 46613 | 415 | 00 | 2201 | 53 nos | 94290 |
| 6 | Earthquake | - | - | - | - | - | - | - | - | - | - |
| 7 | Tsunami | - | - | - | - | - | - | - | - | - | - |
| 8 | Landslide | - | - | - | - | - | - | - | - | - | - |

| | | | | | | | | | | | |
|--|--|----|----|--------|--------|------|--|-----|-----|-----|--------|
| 9 | Avalanche | - | - | - | - | - | - | - | - | - | - |
| 10 | Cloud Burst | - | - | - | - | - | - | - | - | - | - |
| 11 | Paste Attack | - | - | - | - | - | - | - | - | - | - |
| 12 | Cold Wave | - | - | - | - | - | - | - | - | - | - |
| State Specific Disasters as per Notification No.1936 Dt. 01.06.2015 | | | | | | | | | | | |
| 13 | Lightning | 60 | 79 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 14 | Heat wave | 06 | 18 | 962789 | 128259 | Nil | Nil | Nil | Nil | Nil | Nil |
| 15 | Whirl wind | 01 | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 17 | Tornado | - | - | - | - | - | - | - | - | - | - |
| 18 | Heavy Rain | 02 | 00 | 256845 | 00 | 3432 | 09 (Public utilities including infrastructure, road etc) | | | | 136586 |
| 19 | Boat Accidents (Other than during Flood) | 02 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 20 | Drowning (Other than | 08 | 08 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |

| | | | | | | | | | | | |
|------------------------|--------------------------------------|----|----|----|----|----|----|----|----|----|----|
| | during Flood) | | | | | | | | | | |
| 21 | Snake Bite(Ot her than during Flood) | 12 | 12 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Other Disasters | | | | | | | | | | | |
| 22 | Animal Menace | - | - | - | - | - | - | - | - | - | - |
| 23 | Buildin g Collaps e | - | - | - | - | - | - | - | - | - | - |
| 24 | Stampe de | - | - | - | - | - | - | - | - | - | - |
| 25 | Industri al/ Chemic al Acciden t | - | - | - | - | - | - | - | - | - | - |
| 26 | Road Acciden t | - | - | - | - | - | - | - | - | - | - |
| 27 | Railway Acciden t | - | - | - | - | - | - | - | - | - | - |
| 28 | Hooch Incident s | - | - | - | - | - | - | - | - | - | - |
| 28 9 | Commu nal Riot | - | - | - | - | - | - | - | - | - | - |
| 30 | Dam Break/ Spill Way | - | - | - | - | - | - | - | - | - | - |

| | | | | | | | | | | | |
|----|-----------------------|---|---|---|---|---|---|---|---|---|---|
| | related flood. | | | | | | | | | | |
| 31 | Soil/ Coastal erosion | - | - | - | - | - | - | - | - | - | - |

[Year wise details of each disaster occurred during the last 10 years is at Table No. 52 of Volume II of DDMP]

A. Major Disasters/ Incidents in the District during 2016 :

The Table given below only comprises of the disasters affected the district in 2016 only.

Table: 10

| Sl. No. | Disaster/ Incident | No. of incidents during 2016 | No. of Deaths | Affected Population | Livestock Loss | Houses Damaged | Damage to Infrastructure | | | | Damage and loss of Crop Area (in Hectares) |
|---------|--------------------|------------------------------|---------------|---------------------|----------------|----------------|--------------------------|-----------|-------------|-------------------------------|--|
| | | | | | | | AWC/ School Buildings | Hospitals | Road in Km. | Other Critical Infrastructure | |
| 2 | Fire | 75 | 09 | 1040 | 00 | 233 | 00 | 00 | 00 | 00 | 00 |
| 1 | Lightening | 15 | 13 | 00 | 03 | 00 | 00 | 00 | 00 | 00 | 00 |
| 3 | Drowning | 08 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 4 | Snake bite | 05 | 05 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |

[Only the Disasters held in the district during 2016 to be mentioned in the table. The NDMA approved disasters to be mentioned first followed by State Specific Disasters and Others]

B. Vulnerability and Risk Assessment related to disasters:

1. Cyclone

Cyclones come in four types: tropical disturbances, tropical depressions, tropical storms and hurricanes. Cyclones are classified according to their size and strength; wind speed is the primary differentiating factor. These **storms** form in the tropics, and they may arise in the Northern and Southern hemisphere alike. People call these storms by other names, such as typhoons or cyclones, depending on where they occur. The scientific term for all these storms is tropical cyclone.

Tropical cyclones are like giant engines that use warm, moist air as fuel. That is why they form only over warm ocean waters near the equator. Cyclones, also known as **hurricanes or typhoons**, are primarily caused by high ocean temperatures, broad-scale wind systems and clustered thunderstorms, which liberate the heat energy from the ocean surface and transfer it to the cyclone. Without warm surface water, the storm cannot survive. A tropical cyclone can dissipate when it moves over waters significantly below 26.5 °C (79.7 °F). This will cause the storm to lose its tropical characteristics, such as a warm core with thunderstorms near the center, and become a remnant low-pressure area.

Effects

The main effects of tropical cyclones include heavy rain, strong wind, large storm surges at landfall, and tornadoes. The destruction from a tropical cyclone depends mainly on its intensity, its size, and its location. Tropical Cyclones are dangerous because they produce destructive winds, heavy rainfall with flooding and damaging storm surges that can cause inundation of low-lying coastal areas.

With the current trend of the climatic variability accompanied with global warming and increased green house effects, the coastal areas of Odisha are likely to be affected by many more extreme cyclonic disturbances and low pressure systems of greater magnitude. Although the total number of cyclonic disturbances is more along the Odisha coast, as a natural hazard the severe storms are of greater public concern in view of their large scale damage potentiality, loss of life and property. By taking together the storms and severe storms which mostly create havoc and incur greater amount of damage, the Odisha Coastal Zone is twice more vulnerable in comparison to the other eastern states.

Cyclones generally occur in the district before and after the rainy season. October is the most crucial month for the Odisha coast as well as for the district. The other months in which storms affect the district with lesser frequencies are May, September and November. Cyclones ordinarily bring in their trail heavy rains causing severe floods, tidal disasters and saline inundation. Disasters of this kind cause heavy mortality, untold suffering and damage to private and public properties. In view of potential the cyclones carry for damage to life and property, it calls for undertaking preventive and preparedness measures to encounter such possible calamity.

Cyclone & Nayagarh

The district is adjacent to the coastal districts like Ganjam & Khordha; hence all the blocks & ULBs of the district are vulnerable to cyclone. Although as per the cyclone vulnerability map of Odisha Ranpur, Odagaon, Nuagaon & Dasapalla blocks are more vulnerable. The district becomes more vulnerable to cyclone due to poor socio economic conditions, weak housing (more number of thatched, Kutcha & Semi pucca houses), large settlements, depletion of tree shelterbelts, and poor road communication to many villages. The district has witnessed severe loss due to cyclones occurred in 1999 & 2013. Although there was rain & wind during Hudhud in 2014 but no loss of property, crop & infrastructures were reported.

The 1999 super cyclone hit the district hard with heavy rainfall & wind wrought heavy damage to agriculture, infrastructure, crops, properties etc. An estimated 776784 population of 8 blocks & 2 ULBs, 83315 hectes of agriculture land, 27030617 qtls of crops yield, 79 crores of public properties,

30 crores of private properties & 12284 numbers of houses were damaged. This proved to be a major setback for the district as the major contribution of economy is agriculture oriented.

The same was repeated in the Phailin subsequent flood occurred in 2013. Though the effect was less yet it affected all the 8 blocks & population of the district. Due to preparatory measures the district could able to evacuate 104863 numbers of people from villages situated at vulnerable locations & relocated them to temporary shelters. A total number of 70 free kitchens were operated to feed the affected during the course of cyclone. An estimated 94290 hecets of agriculture land, 46613 houses were damaged with 3 deceased & 180000 farmers severely affected. A total of 244.9 cores of public & private proprieties were damaged, which again happened to be a major setback for the district.

Below given a block wise detail of GPs, Villages, Populations & Infrastructures vulnerable to cyclone in the district.

Table No. 11: **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 | Bhampur | 20 | 119 | 105532 | 42618 | 24731 | 22 | - | 20 | Culverts |
| 2 | Dasapalla | 20 | 342 | 85437 | 35195 | 22542 | 44 | - | 102 | - |
| 3 | Gania | 8 | 114 | 38506 | 40021 | 9247 | 34 | - | 92 | - |
| 4 | Khandapada | 22 | 196 | 107260 | 25111 | 25316 | 44 | - | 89 | - |
| 5 | Nayagarh | 29 | 152 | 154122 | 42618 | 35511 | 33 | - | 45 | - |
| 6 | Nuagaon | 22 | 236 | 93253 | 40638 | 23647 | 85 | - | 110 | - |
| 7 | Odagaon | 07 | 58 | 24917 | 18106 | 6151 | 72 | - | 135 | |
| 8 | Ranpur | 37 | 242 | 154509 | 67961 | 37613 | 98 | - | 49 | - |
| 9 | Khandapada NAC | NA | 1 | 1043 | - | 80 | - | - | 1.5 | - |
| 10 | Dasaplla NAC | NA | 9 | 8700 | - | 2350 | 2 | - | 65 | - |

| | | | | | | | | | | |
|----|--------------|-----|------|--------|--------|--------|-----|---|--------|---|
| 11 | Nayagarh NAC | NA | 13 | 18471 | - | 80 | - | - | 1.5 | - |
| 12 | Ranpur NAC | NA | 15 | 14715 | - | 1710 | 14 | - | 26.91 | - |
| 13 | Total | 196 | 1497 | 806465 | 312268 | 188978 | 448 | | 736.91 | |

Data source:- Latest settled data as per District Panchayat Office, CDVO, NAC & BDO

(Detailed list of vulnerable Villages/Wards is at table No. 68 of Volume II of the DDMP.)

Electrical Infrastructure and cyclone Vulnerability:

The below given table indicates the electrical infrastructure vulnerable towards cyclone in the district. During the 2013 Phailin, the State was hit with a loss of Rs 1000 crore of power infrastructure & quite a significant number of distributing transformers, electrical lines, poles & high tension towers were damaged & as a result the district was in dark for 7 days. As per CESU, 40% of the villages are fully electrified, 56% villages are partially electrified & close 4% are un-electrified. This indicates that the power supply has been significantly improved in the past days. But if we calculate the number of households, it is evident that still 26% HHs are yet to be electrified. Below given the table indicates the electrical infrastructures vulnerable to cyclone. Since the entire district is cyclone prone, almost all the infrastructures are vulnerable to cyclone.

Table No. 12

| Sl No | Name of the Block/ ULB | No. of Grid Stations | No. of 33/11 KV Substations | No. of Distributing Transformers | | | Conductor/ Electrical lines-11 KV or less (length in Kms.) | No. of Poles | No. of High Tension Towers | High Tension lines above 11 KV (length in Kms.) |
|-------|------------------------|----------------------|-----------------------------|----------------------------------|-------------------|-----------------|--|--------------|----------------------------|---|
| | | | | 11 KV or Less | 11 KV < and <60KV | 60 KV and above | | | | |
| 1 | Bhapur | 1 | 2 | 503 | 6 | nil | 464.3 | 6980 | 0 | 19 |
| 2 | Dasapalla | | 1 | 525 | 4 | nil | 396 | 5940 | 0 | 18.1 |
| 3 | Gania | | 1 | 366 | 2 | nil | 412.2 | 6193 | 0 | 16 |
| 4 | Khandapada | | 2 | 602 | 6 | nil | 556.7 | 8310 | 0 | 42 |
| 5 | Nayagarh | | 3 | 795 | 8 | nil | 658.89 | 9921 | 62 | 21.74 |
| 6 | Nuagaon | | 2 | 1250 | 5 | nil | 978.9 | 14620 | 0 | 33 |
| 7 | Odagaon | | 3 | 1194 | 7 | nil | 1376.74 | 20699 | 0 | 53 |
| 8 | Ranpur | | 2 | 756 | 5 | nil | 410 | 6241 | 0 | 25 |
| 9 | Total | | 16 | 5991 | 43 | nil | 5253.73 | 78904 | 62 | 227.84 |

Data source:- CESU, Nayagarh

Table No.13: **Drinking water facility in the Cyclone prone areas:**

The table indicates the drinking water facilities available in the district. Due to river systems mainly Mahanadi, quite a significant number of blocks have been benefitted in getting drinking water facilities & water for irrigation. During the cyclone & cyclonic wind/ storm, it is getting difficult to access the drinking water facilities available, so just to mitigate the impact, the district has started to promote individual pipe connections to HHs of villages likely to be worst affected by cyclone & scarcity of drinking water during summer. Since the entire district is cyclone prone, hence almost all the drinking water facilities are likely to be vulnerable during the occurrence of cyclone.

| Sl. No. | Name of the Block/ ULB | Total No. of Tube Wells | No. of Wells | PWS Schemes | | | | Other Drinking Water Sources If any (Sanitary Well) |
|---------|------------------------|-------------------------|--------------|-------------|-------------------------------|------------------------|---------------------|---|
| | | | | Total No. | Length in Mtrs. (Appx. in Km) | No. of Over Head tanks | No. of Stand Points | |
| 1 | Bhapur | 1156 | 115 | 34 | 74.8 | 07 | 612 | 78 |
| 2 | Dasapalla | 1546 | 117 | 54 | 83.45 | 16 | 484 | 138 |
| 3 | Gania | 606 | 87 | 31 | 77.5 | 06 | 341 | 33 |
| 4 | Khandapada | 1314 | 98 | 36 | 131.6 | 09 | 680 | 56 |
| 5 | Nayagarh | 1720 | 102 | 49 | 127.4 | 19 | 931 | 106 |
| 6 | Nuagaon | 1506 | 105 | 63 | 233 | 16 | 600 | 111 |
| 7 | Odagaon | 1677 | 76 | 66 | 125.4 | 19 | 1122 | 275 |
| 8 | Ranpur | 1866 | 392 | 49 | 161.7 | 16 | 580 | 88 |
| 9 | Total | 11379 | 1092 | 382 | 954.9 | 108 | 5502 | 885 |

Data source:- RWSS & BDO

2. Flood

Flood is one of the natural disasters that create enormous havoc and myriad miseries in the affected area. It causes loss of life, disruption of human activities, damage to properties, agricultural crops and health hazard. During the last few monsoon seasons almost all the districts of Odisha have witnessed flood disaster and suffered a lot from it. It has become a routine that severe floods in the Mahanadi river system devastates the downstream areas particularly the Mahanadi Delta area in the coastal tract of Odisha. This affects the districts like Jagatsingpur, Kendrapada, Puri, Boudh, Subarnapur, Cuttack, Nayagarh and Sambalpur. On analysis of the past and the present flood scenarios of Odisha, it is found that the Mahanadi river causes the maximum numbers of floods with high magnitude and massive loss factors. The Mahanadi river transects Odisha along the central graben area (Mahanadi Graben) running in EW direction. The coastal plain that constitutes the Mahanadi delta in the old stage, the segment of eastern sector of the Basin receives the maximum threshold of flood devastation.

Heavy rainfall during monsoon causes floods in the rivers. In Orissa, rivers such as the Mahanadi, Subarnarekha, Brahmani, Baitarani, Rushikulya, Vansadhara and their many tributaries and branches flowing through the State expose vast areas to floods. Flood is the major concern for Odisha as well as for Nayagarh, as Mahanadi, the largest perennial river of Odisha passes through the district touching 3 blocks namely Gania, Khandapada & Bhapur. Additionally the district has 9 more river systems namely Kusumi, Dahuka, Brutanga, Kuanria, Khalala, Duanta, Lunijhara & Kaligiri, which significantly contribute towards the flood situation in Nayagarh. All these rivers are rain dependent. The rainy season covers the period from the 15th of June till 15th of October and maximum precipitation is during the months of June to September. The average annual normal rainfall of the district is 1,3541.1 mm. Heavy precipitation within short period causes flooding as these natural channels can hardly hold the large volume of water which passes through these during the aforesaid period resulting in widespread inundation that calls for effective pre-flood measures, flood relief operations and post flood arrangements. Floods are caused by three factors – Cloud burst, Monsoon depression and Tropical cyclones. Of late, deforestation and soil erosion are also causing floods.

Cloud Burst

Cloud-bursts means highly concentrated rainfall in a particular area, which is far above normal. This usually happens in many places of India.

Monsoon Depression

India depends for its rain on both the monsoons, south-western and north-eastern. The south-west monsoons start in May and continue up to the end of September. The north-east monsoon starts in November and continues right up to the middle of January. Moreover, depressions occur both in the Bay of Bengal and in the Arabian Sea. They are more frequent in the Bay of Bengal. At least twenty depressions occur every year between May and September in different parts of the Bay of Bengal. These depressions results in heavy rains in coastal areas of Andhra Pradesh, Orissa, Bengal, Bihar and Uttar Pradesh. The depressions caused in the Arabian sea help rains in Gujarat, Rajasthan and the South Himalayan parts.

Tropical Cyclones

The main effects of tropical cyclones include heavy rain, strong wind, large storm surges at landfall, and tornadoes. The destruction from a tropical cyclone depends mainly on its intensity, its size, and its location. The thunderstorm activity in a tropical cyclone produces intense rainfall, potentially resulting in flooding, mudslides, and landslides. Inland areas are particularly vulnerable to freshwater flooding, due to residents not preparing adequately.

Flood & Nayagarh

Gania, Khandapada, Nayagarh, Bhapur, Odagaon & Nuagaon are the flood affected blocks of the district. Gania still stands as the worst flood affected block due to the fact that 6 GPs out of 8 are vulnerable to flood. Mahanadi happens to be the flood causing agent for Gania, Khandapad & Bhapur blocks. People die; livestock perish; houses are washed away; paddy and other crops are lost and roads and bridges are damaged. The floods of 2003, 2006, 2008, 2009 & 2013 post Phailin flood in the district were particularly severe as properties worth crores of rupees were destroyed/damaged in the floods.

The district was ravaged by floods in June and September during the year 2008. The floods that occurred in June 2008 and in September 2008 are unprecedented. The floods of June and September 2008 were calamities of rare severity. The flood in September'08 brought havoc in district due to heavy rainfall in the upper as well as in lower catchments of the Mahanadi River System resulting out of the effect of a deep depression in the Bay of Bengal from 16th to 21st September 2008.

The district has witnessed 9 deceased, more than 3 lakhs populations affected, 71 cattle deceased, more than 2 lakhs of livestock affected, close to 10000 households damaged/ destroyed, close to 3000 public utilities (roads, infrastructures etc) damaged in the afore said floods all together.

A list of the vulnerable points of the district is given below:-

Table no-15

| Sl No | Name of the Block | Name of the River/ Embankment | Location Point |
|-------|-------------------|--|-----------------------|
| 1 | Khandapara | Mahanadi Right embankment | Sidhamula |
| 2 | -do- | -do- | Banapur to Kantilo |
| 3 | -do- | -do- | Patharchakada |
| 4 | -do- | Kuanria Right embankment | Gopinathpur |
| 5 | -do- | -do- | Duargaon |
| 6 | Bhapur | Mahanadi Right embankment | Padmabati (Seulaghai) |
| 7 | Bhapur | Do | Gudupada |
| 8 | Nuagaon | Kuanria Ritght embankment | Jagarnathprasad |
| 9 | -do- | Kuanria Right embankment | Sikrida |
| 10 | Daspalla | Brutanga left embankment | Kimbhirakhani |
| 11 | Dasapalla | Kuanria left embt. | Madhya Khanda |
| 12 | Nayagarh | Kusumi Right embankment | Baunsiapada |
| 13 | -do- | -do- | Sarapada |
| 14 | -do- | Dahuka Left embankment From DD Weir to M.D. Road | Kridaspur |
| 15 | -do- | Lunijhara Right embankment. | Khedaberana |
| 16 | -do- | -do- | Sanapandusara |
| 17 | -do- | Lunijhara Left embankment | Champatipur |
| 18 | -do- | Duanta Left embankment | Deuli |

The table given below indicates the number of villages, GPs, Populations, Cattles & other critical infrastructure vulnerable towards Flood in the district. Analysing the history of floods, the table has been developed, although the district has already started taking mitigation measures for low lying areas by strengthening of road networks, infrastructures & embankments etc.

Table no-16: **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 Infrastruc |
| 1 | Bhapur | 10 | 23 | 28869 | 8237 | 6710 | 49 | 1 | 34 | 4 culverts |
| 2 | Gania | 6 | 95 | 30931 | 32998 | 7384 | 75 | 5 | 70 | - |
| 3 | Khandapada | 13 | 37 | 38249 | 4997 | 8911 | 93 | 2 | 43.5 | - |
| 4 | Nayagarh | 13 | 33 | 43363 | 12056 | 10479 | 83 | - | | - |
| 5 | Nuagaon | 10 | 21 | 21569 | 4133 | 5318 | 45 | - | 20 | - |
| 6 | Odagaon | 13 | 23 | 37131 | 7180 | 8794 | 57 | - | 76 | - |
| 7 | Khandapada NAC | NA | 1 | 689 | 139 | 42 | 3 | 0 | 1.5 | - |
| 8 | Total | 65 | 233 | 200801 | 69740 | 47638 | 405 | 8 | 245 | |

Data source:- BDO

(Detailed list of vulnerable Villages/Wards is at table No. 68 of Volume II of the DDMP.)

Table No. 17: **Causing agent wise flood vulnerable areas of the district**

The below given table indicates the River wise vulnerability of the district in terms of population & infrastructure. Mahandai happens to be the major river system in the district causing flood in the district followed by Kusumi, Duanta, Dahuka etc.

| Sl. No. | Causing agent- Rivers/ Water bodies/Tidal Wave/ Others | No. of Susceptible Blocks/ULB | No. of Susceptible GPs | No. of Susceptible Villages / Wards | Vulnerable Population | Milch and Draught animals | Houses | Vulnerable Infrastructure | | | |
|---------|--|-------------------------------|------------------------|-------------------------------------|-----------------------|---------------------------|--------|---------------------------|-----------|---------------|-----------------------|
| | | | | | | | | School / AWC Buildings | Hospitals | Roads (in Km) | Other Critical Infra. |

| | | | | | | | | | | | |
|---|-----------|----|----|-----|--------|-------|-------|-----|---|-----|---|
| 1 | Mahanadi | 3 | 24 | 140 | 72340 | 43137 | 17012 | 154 | 8 | 147 | - |
| 2 | Kusumi | 3 | 14 | 30 | 43495 | - | 10336 | 78 | - | 36 | |
| 3 | Duanta | 2 | 13 | 25 | 36304 | - | 8699 | 62 | - | 36 | |
| 3 | Lunijhara | 1 | 2 | 3 | 2584 | - | 637 | 6 | - | 2 | |
| 4 | Dahuka | 2 | 11 | 23 | 23620 | - | 5792 | 37 | - | 13 | |
| 5 | Kaligiri | 1 | 1 | 3 | 6850 | - | 1632 | 8 | - | 20 | |
| 6 | Kuanria | 1 | 1 | 1 | 9181 | - | 2118 | 11 | - | 15 | |
| 7 | Sulia | 1 | 3 | 6 | 4965 | - | 1179 | 13 | | 5 | |
| 8 | Total | 14 | 69 | 231 | 199339 | 43137 | 47405 | 369 | 8 | 274 | |

Data source:- BDO

Table No. 18: **Agriculture and Flood Vulnerability**

The flood causes submergence of crop plants restricting respiration and gaseous exchange thereby ceasing all growth processes leading to death and decay. Aerobic crops cannot resist standing water and submergence. Rice resists standing water due to supply of oxygen to root through aerial parts but cannot tolerate submergence for more than 7 days. Deep water paddy can resist flood to the extent of 15 days when at rapid growth stages. But at early stage of growth, sudden rise of water level, speed and muddiness of water are the factors which makes most of the varieties susceptible to damage under submergence. Since rice is the main crop in rainy season, the extent of damage varies according to days of submergence depending on topography of the land. In addition to that crops are also damaged due to sand cast.

The table given below indicates the area (Paddy & non paddy) susceptible to flood in the district.

| Sl. No. | Name of the Block | Cultivable Area (Hectares) | | Area susceptible to Flood (Hectares) | |
|---------|-------------------|----------------------------|-----------|--------------------------------------|-----------|
| | | Paddy | Non Paddy | Paddy | Non Paddy |
| 1 | Bhapur | 7410 | 4419 | 2590 | 1545 |
| 2 | Gania | 5450 | 2939 | 2730 | 1470 |
| 3 | Khandapada | 9320 | 5407 | 3540 | 2050 |
| 4 | Total | 22180 | 12765 | 8860 | 5065 |

Data source:- Deptt of Agriculture

Table No. 19: **Electrical Infrastructure in the Flood Prone Area**

Power supplies in Nayagarh face a “**significant**” threat from flooding because substations serving thousands of people are not adequately protected, the district has learned. Even a slight chance of flooding can pose too great a threat to the delivery of services offered by the maintenance and

operation of a community's critical facilities. For a critical facility to function, electrical systems and equipment must remain operational.

Each substation takes high-voltage electricity from the power stations' giant transmission lines, transforming it to lower-voltage electricity which is then fed to individual buildings through the local grid. Their exposure to flooding will intensify concerns about the dangers posed by extreme weather to the district's power supply.

Below given a list of electrical infrastructures susceptible to flood in the district

| Sl. No | Name of the Block/ ULB | No. of Grid Stations | No. of 33/11 KV Substations | No. of Distributing Transformers | | | Conductor/ Electrical lines-11 KV or less (length in Kms.) | No. of Poles | No. of High Tension Towers | High Tension lines above 11 KV (length in Kms.) |
|--------|------------------------|----------------------|-----------------------------|----------------------------------|-------------------|-----------------|--|--------------|----------------------------|---|
| | | | | 11 KV or Less | 11 KV < and <60KV | 60 KV and above | | | | |
| 1 | Bhapur | 1 | 1 | 0 | 210 | 0 | 120 | 1850 | 0 | 10 |
| 2 | Dasapalla | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Gania | | 1 | 0 | 114 | 0 | 124 | 1981 | 0 | 16 |
| 4 | Khandapada | | 2 | 0 | 130 | 0 | 115 | 1782 | 0 | 5 |
| 9 | Total | | 4 | 0 | 454 | 0 | 359 | 5613 | 0 | 31 |

Data source:- CESU, Nayagarh

Table No. 20: **Drinking water and Flood Vulnerability:**

The table given below indicates the drinking water sources likely to be vulnerable during flood situations.

| Sl. No. | Name of the Block/ ULB | Total No. of Tube Wells | No. of Tube Wells with raised platforms | No. Sanitary Wells | PWS Schemes | | | | Other Drinking Water Sources If any |
|---------|------------------------|-------------------------|---|--------------------|-------------|-----------------|------------------------|---------------------|-------------------------------------|
| | | | | | Total No. | Length in Mtrs. | No. of Over Head tanks | No. of Stand Points | |
| 1 | Bhapur | 222 | 60 | 1 | 5 | 4190 | 2 | 278 | - |
| 2 | Gania | 550 | 70 | 26 | 28 | 65000 | 4 | 300 | - |
| 3 | Khandapada | 346 | 31 | 12 | 21 | 35030 | 4 | 390 | - |
| 4 | Nayagarh | 373 | 25 | 11 | 28 | 28000 | 3 | 202 | - |
| 5 | Nuagaon | 167 | 12 | 8 | 18 | 18000 | 2 | 67 | - |

| | | | | | | | | | |
|---|----------------|------|-----|----|-----|--------|----|------|---------------|
| 6 | Odagaon | 393 | - | 22 | 10 | 4600 | 3 | 407 | 8 (solar PWS) |
| 7 | Khandapada NAC | 16 | - | 2 | 6 | 5000 | 1 | 30 | - |
| 8 | Total | 2067 | 198 | 82 | 116 | 159820 | 19 | 1674 | 8 |

Boat operation points:

Table No. 21: A **boat** is a watercraft of a large range of sizes designed to float, plane, work or travel on water. Small boats are typically found on inland waterways (e.g. rivers and lakes) or in protected coastal areas. However, boats such as the whaleboat were designed for operation from a ship in an offshore environment.

Since the River Mahandi flows touching the district boundary, usually the boat operation points in 3 blocks are only operated during flood situations. The neighbouring districts are very well connected in roadways, so the private boats available are only used for fishing purpose. Only in Gania block a couple of boats are operational for transport purpose. The district has a total 4 boat operation points with 4 number of power boats provided by the SRC. A boat inventory detail is given in table no- 69 of the DDMP vol 2. Below given table indicates the the status of deployment of boat operation point, deployment of power boat etc.

| 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 fro movement of people in Nos. (Approx.) | Type of boats operating in Nos. | |
|---------|-------------------|--|------------------------|---------------------------------------|---|---------------------------------|----------------|
| | | | | | | Mechanised | Non-Mechanised |
| 1 | Gania | Rasanga | Mahanadi | 02 G.P.s/40 | 30-40 | 1 | - |
| 2 | Gania | Chhadamula | Mahanadi | 02 G.P.s/52 | 20-30 | 1 | 1 |
| 3 | Khandapada | Banapur | Mahanadi | 2 G.Ps/10 | - | 1 | - |
| 4 | Bhapur | Bhapur | Mahanadi | 2 G.Ps/6 | - | 1 | - |

Data source:- BDO

3. Drought

A **drought** is a period of drier-than-normal conditions that results in water-related problems. Precipitation (rain or snow) falls in uneven patterns across the country. When little or no rain falls, soils can dry out and plants can die. **Drought in India** has resulted in tens of millions of deaths over the course of the 18th, 19th, and 20th centuries. The state of Odisha is heading towards massive degradation of land because of loss of forest lands, agricultural land taken away for other purposes, increase in fallow land and loss of tree cover in plantations. Since the failure of the Kharif crop, farmers in the district have been in a very critical phase. Many farm areas of the

district, especially in southern and interior are rain fed. Mostly common factors causing for draught are:-

Climate Change

The agricultural sector lies at the core of Indian society. Sixty percent of the population works in agriculture, and it accounts for roughly a fifth of the country's gross domestic product. The drivers of India's monsoon are often confounding to climate scientists. Projecting the timing and intensity of the rainfall they produce involves significant scientific uncertainties, whether looking decades into the future or even a few weeks. Ninety percent of the country's water resources is used in the agricultural sector, often inefficiently, with 10 to 15 percent ending up nourishing crops. Much of the remaining amount ends up on the ground, where it evaporates -- a wasteful outcome given that farmers often pump groundwater from deep below the surface.

Rainfall or Precipitation Deficiency

Indian agriculture is heavily dependent on the climate of India: a favorable southwest summer monsoon is critical in securing water for irrigating Indian crops. In some parts of India, the failure of the monsoons result in water shortages, resulting in below-average crop yields. This is particularly true of major drought-prone regions such as southern and eastern Maharashtra, northern Karnataka, Andhra Pradesh, Odisha, Gujarat, Telangana and Rajasthan. They also usually occur in rain shadow areas of the districts of Andhra Odisha. They also can be overcome by adopting scientific methods of conservation of soil and by constructing check dams, water level could be raised. This would help to avoid droughts. The damage might have been lesser if the areas had equipped with irrigation facilities. Lack of irrigation leaves the farmers in distress when the monsoon is deficient or even if the rains are unevenly distributed. Most farmers skipped the Rabi crop because of lack of water in reservoirs and canals.

Drying out of Surface Water Flow

Lakes, rivers, and streams are the primary suppliers of downstream surface waters in various geographical regions around the globe. In extremely hot seasons or because of certain human activities, these surface water flows may dry out downstream contributing to drought – meaning the demands for water supply become higher than the available water.

Irrigation systems and hydro-electric dams are some of the human activities that can significantly diminish the amount of water flowing downstream to other areas.

Global Warming

Human actions have contributed to more and more emissions of greenhouse gasses into the atmosphere thus resulting in the continued rise of the earth's average temperatures. Consequently, evaporation and evapotranspiration levels have risen, and the higher temperatures have led to wildfires and extended dry spell periods. The global warming situation tends to exacerbate the drought conditions. Some of the worst droughts witnessed in sub-Saharan Africa have been associated with global warming and climate change.

Nayagarh & Draught

Nayagarh has limited number of perennial river systems, vast forest cover and it receives above average rainfall annually. Most farm holdings are small or marginal dependent on the rains for

irrigation. The deficit rains in 2011 & 2015-16 pushed the district over the edge. The district is facing extensive crop loss and severe water shortage. Even after exploiting its resources to the hilt, the people of the district have not been provided with adequate piped water supply. In many ways, the drought in the district is manmade.

The district was worst hit by drought in the year 2011 & 2015, where all the blocks were completely declared as drought affected. **Ground water** level is going down rapidly due to excessive use for irrigation; thousands of deep borewells are being operated by well-off farmers and also by the Odisha Lift Irrigation Corporation (OLIC). The Rural Water Supply and Sanitation (RWSS) also operate piped water projects using tube wells and deep bore wells. Many water bodies have dried up and many have been built over. Decrease in moisture of land led to loss of paddy crop in the district. However, as part of drought relief, the government has again announced to provide pump set and deep bore wells for irrigation. Contrary to logic, on May 5, 2016, the Agriculture Department officials announced a plan to increase cotton cultivation in the upcoming Kharif season. Cotton is known to be a water-guzzling crop.

Only 25% of the district's cultivable area is irrigated despite of the efforts undertaken by OLIC, MI, Irrigation & IWMP. If, reports are to be taken into consideration, then the district may face possibly worst situations in future. The Table given below indicates the irrigated & rainfed areas of the district.

Table No-22

| Sl. No. | Name of the Block | Average Annual Rain Fall | Ground Water Level (in mtrs.) | Cultivated Area (In Hectares) | | | |
|---------|-------------------|--------------------------|-------------------------------|-------------------------------|----------------|---------------|----------------|
| | | | | Paddy | | Non- Paddy | |
| | | | | Rain fed Area | Irrigated area | Rain fed Area | Irrigated area |
| 1 | Bhapur | 1290.08 | 10 to 15 | 12510 | 1940 | 5460 | 70 |
| 2 | Dasapalla | 1054.20 | 12 to 18 | 17425 | 2218 | 3042 | 70 |
| 3 | Gania | 929.4 | 10 to 15 | 3637 | 1116 | 1200 | 200 |
| 4 | Khandapada | 1695.78 | 12 to 18 | 9180 | 3626 | 2770 | 80 |
| 5 | Nayagarh | 1134.40 | 10 to 18 | 13950 | 3600 | 3240 | 100 |
| 6 | Nuagaon | 746.15 | 10 to 16 | 13631 | 2898 | 2500 | 100 |
| 7 | Odagaon | 1415.80 | 12 to 16 | 15472 | 5472 | 5740 | 80 |
| 8 | Ranpur | 950.65 | 09 to 15 | 17093 | 4145 | 5900 | 90 |
| 9 | Total | 1152.06 | 11 to 16 | 77881 | 25015 | 29852 | 790 |

Table No. 23: **Drought Vulnerability.**

| Sl. No | Name of the Block | Year- 2015-16 | | | | Year – 2011 | | | | Year- | | | | Year- | | | |
|--------|-------------------|--------------------------------|-----------------|--|-----------|--------------------------------|-----------------|--|-----------|--------------------------------|-----------------|--|-----------|--------------------------------|-----------------|--|-----------|
| | | 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 | Bhapur | 19 | 112 | 8918.12 | - | | | | - | - | - | - | - | - | - | - | |
| 2 | Dasapalla | 19 | 359 | 8184 | - | 17 | 293 | 9059.49 | - | - | - | - | - | - | - | - | |
| 3 | Gania | 8 | 103 | 4192.55 | - | 7 | 66 | 2088.64 | - | - | - | - | - | - | - | - | |
| 4 | Khandapada | 21 | 184 | 8970 | - | | | | - | - | - | - | - | - | - | - | |
| 5 | Nayagarh | 26 | 146 | 13081.54 | - | 35 | 188 | 15005.14 | - | - | - | - | - | - | - | - | |
| 6 | Nuagaon | 20 | 220 | 12759 | 516 | 20 | 221 | 12660.75 | - | - | - | - | - | - | - | - | |
| 7 | Odagaon | 28 | 116 | 3664.89 | - | | | | - | - | - | - | - | - | - | - | |
| 8 | Ranpur | 35 | 245 | 18157.35 | - | 35 | 247 | 22199 | - | - | - | - | - | - | - | - | |
| 9 | Total | 176 | 1485 | 77927.46 | 516 | 114 | 1015 | 61013.02 | | - | - | - | - | - | - | - | |

Data source:- Tahasil [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. 69 of Volume II of the DDMP]

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

Culture of Nayagarh District is a composite culture of heterogeneous faiths. Culture of Nayagarh District includes several indigenous festivals like Ravanapodi at Daspalla, Pana Sanakranti of Dakhinakali, Shivaratri at Sarankul, Magha Saptami (Kantilo Mela) at Kantilo, Ramnavami at Odagaon and Car Festival at Nayagarh, Khandapara, Dasapalla and Ranapur. Kalesi dance, Dinda Dhangedi dance, Matia dance, Paika dance, Dhuduki nacha, Duari dance and Danda nacha are some of the popular folk dances of Nayagarh District.

Additionally the district HQ as well as NACs have started “Mahotsav” every year with a huge gathering of both urban & rural population every year. The table given below indicates the seasonality of festivals with possible gatherings making it vulnerable towards a wild stampede, which may occur at anytime. Looking at the occurrences of neighbouring districts & States, it is required to have mass public awareness during the festivals & mahotsavs to reduce the risk. Below given table indicates about the festivals celebrated in all the blocks & possible gathering etc.

Table No. 24

| 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 | Nayagarh Mahotsav | Nayagarh | Daily upto 3 days | December | 5000 | |
| 2 | Odagaon Mahotsav | Odagaon | Daily upto 3 days | January | 5000 | |
| 3 | Sarankul Mahotsav | Odagaon, Sarankul | Daily upto 3 days | January | 3500 | |
| 4 | Ranpur Mahotsav | Ranpur | Daily upto 4 days | January | 4000 | |
| 5 | Daspalla Lanka Podi | Daspalla | Once | April | 10000 | |
| 6 | Kantilo Magha Mela | Khandapada, Kantilo | Daily upto 7 days | February | 10000 | |
| 7 | Odagaon Sriram Navami | Odagaon | Daily upto 8 days | April | 7000 | |
| 8 | Sarankul Maha Shivaratri | Odagaon, Sarankul | Once | February | 20000 | |
| 9 | Odagaon Maha Shivaratri | Odagaon | Once | February | 15000 | |
| 10 | Khandapada Rath Yatra | Khandapada | Once | June | 15000 | |

| | | | | | | |
|----|------------------------|-------------------|-------------------|-----------|------|--|
| 11 | Ranpur Rath Yatra | Ranpur | Once | June | 5000 | |
| 12 | Nayagarh Rath Yatra | Nayagahr | Once | June | 5000 | |
| 13 | Sarankul Chandan Yatra | Odagaon, Sarankul | Once | June-July | 5000 | |
| 14 | Kalapata Yatra | Gania, Chhamundia | Daily upto 4 days | November | 7000 | |

5. Lightning:

There are several factors that make eastern India a deadly place when lightning strikes. But first, a little know fact: according to the National Crime Records Bureau, which tracks unnatural deaths across the country, lightning kills more people in India than floods, heatstroke, earthquake or cyclone.

The NCRB data claims at least 2,000 deaths were associated with lightning every year since 2005. Yet, it is not classified as a natural calamity. It was only in 2015 that the Centre allowed it to be declared as a state-specific disaster, making affected people or their families eligible for compensation.

The problem with lightning, like earthquakes, is that it cannot be predicted. That makes the task of issuing timely warning more challenging. “Generally, lightning develops in uneven and hilly areas. This is why eastern parts of India are more prone to lightning,” During pre-monsoon or monsoon season, the air coming from sea carries ample moisture. The hilly area creates a hurdle and adds additional heat to it. The air along with moisture rapidly uplifts due to intense heat and other synoptic conditions and develops cumulonimbus cloud, which is a thundery cloud that causes lightning.

Since there is no study conducted to find out the lightning prone areas of the district, but taking the history into concerned it is observed that the Nayagarh block of the district is more prone to lightning incidents and the below given table indictes the lightning related data of the district of the past 5 years.

Table No. 25

| 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 | Bhapur | 3 | 3 | 3 | 3 | - |
| 2 | Dasapalla | 2 | 4 | 4 | 4 | - |
| 3 | Gania | 2 | 2 | 2 | 2 | - |
| 4 | Khandapada | 6 | 6 | 6 | 6 | - |
| 5 | Nayagarh | 17 | 19 | 23 | 18 | 1 |

| | | | | | | |
|---|---------|----|----|----|----|---|
| 6 | Nuagaon | 1 | 1 | 1 | 1 | - |
| 7 | Odagaon | 6 | 7 | 7 | 9 | - |
| 8 | Ranpur | 1 | 1 | 1 | 1 | - |
| 9 | Total | 38 | 43 | 47 | 44 | 1 |

Data source:- Tahasil

[List of villages is at Table No. 68 of Volume II of the DDMP]

6. Fire Events

A fire can happen at any time at any place irrespective of its occupancy status. You can expect a fire at any structure, may be at your home or at your workplace or in a hospital or in public places like theatres, malls, etc. Fire in any occupancy has the potential to cause harm to its occupants and severe damage to property. Though the number of deaths has been decreasing in the past five years, the figure still remains a cause for concern.

On an average, in India, every year, about 25,000 persons die due to fires and related causes. Female accounts for about 66% of those killed in fire accidents. It is estimated that about 42 females and 21 males die every day in India due to fire. According to the statistics released by the National Crime Records Bureau, fire accounts for about 5.9% (23,281) of the total deaths reported due to natural and un-natural causes during the year 2012. Probably many of these deaths could have been prevented, had we taken enough fire protection measures.

The cause-wise analysis of the fire accidents reveals that the maximum;-

- 18.3% of the total incidents, were reported in residential/dwelling buildings
- The other causes include fire in school buildings, mines, trains, private vehicles, government buildings and manufacturing units of combustible materials like crackers and match boxes.
- Individual housing with roof of straw and storage of straw/ hay in close proximity of the house
- Close proximity of houses in many areas leading to spread of fire and wider destruction
- Lack of availability of adequate water and nil or poor equipment for firefighting especially in rural areas and small towns
- Lack of awareness of basic do's and don'ts when people live in houses that uses inflammable materials

There is no separate data available for fire in temples. One must also admit that the fires are caused almost entirely by people, either through their actions, which may be accidental or deliberate and malicious or through their failure to make appropriate precautions such as, for example, the regular inspection, maintenance and repair of defective equipment.

The district is vulnerable to Fire accidents because 48% of the total HHs are thatched or kutcha house. Most of the fire accidents occurred in the district is village fires & in rural areas barring the one that occurred in the cracker factory under Nayagarh block, which registered 9 deaths & 2 injured. Mostly a wide spread awareness campaign can reduce the number of incidents in the rural pockets of the district. The table given below implies incidents occurred in the past 5 years in the district.

Table no- 26

| Sl. | Name of the | Identifiable incidents | No. of | No. | Injured |
|-----|-------------|------------------------|--------|-----|---------|
|-----|-------------|------------------------|--------|-----|---------|

| No. | Block/ ULB | of fire hit in last 5 years | | fire events | fatality/ Deaths | Persons |
|-----|------------|-----------------------------|------------------------|-------------|------------------|---------|
| | | No. GPs | No. of Villages/ Wards | | | |
| 1 | Bhapur | 42 | 62 | 62 | 1 | - |
| 2 | Dasapalla | 64 | 105 | 105 | - | - |
| 3 | Gania | 21 | 26 | 31 | - | - |
| 4 | Khandapada | 44 | 48 | 100 | - | - |
| 5 | Nayagarh | 68 | 76 | 85 | 9 | 2 |
| 6 | Nuagaon | 59 | 88 | 88 | 2 | - |
| 7 | Odagaon | 103 | 122 | 150 | - | - |
| 8 | Ranpur | 35 | 78 | 118 | - | - |
| 9 | Total | 436 | 605 | 739 | 12 | 2 |

7. Forest fire

Despite the Odisha government having a standard operating procedure to prevent forest fires that cause massive ecological and economic losses, there has been no let up in such incidents in the State. If occurrences of forest fires during the months of February and March are taken into account, 2,303 fires have so far been detected since February 1 this year whereas 1,175 fires were captured by satellite images during the same period in 2016. Usually in summer months the district witnesses forest fires. Several incidents of fires have occurred in the forests of the district in March and April causing huge damage to forest and wildlife resources.

Types

Ground fire:- A **ground fire** can occur in any conditions and is where peat, coal, tree roots or other materials ignite and burn under the **ground**. **Ground fires** can burn through to the surface and become surface **fires**. Surface **fires** are low to high intensity **fires** that burn on the surface of the **ground**. The district is more prone to Ground fire.

Crown fire:- A forest fire that advances with great speed jumping from crown to crown ahead of the ground fireforest fire - an uncontrolled fire in a wooded area. No major incidents of this kind have been reported tilldate in the district.

Major causes

The entire Nayagr district forest range is prone to forest fires because of the following reasons. Three major natural causes of wildfire ignitions are lightning, **sparks from rockfalls & spontaneous combustion**. Beside these Tropical forests, their rich bio-diversity, are also a source of variety of fruits, flowers, grass, seeds, barks, roots and vines, known as NTFP (non-timber forest produce).

The forest dwellers and surrounding population heavily depend on them for their sustenance. The state's forests boast of mahua flowers and seeds, kusum seeds, sal seeds, mango, hill broom, sal leaves siali fibre, kendu fruits and leaves, thatch grass and many others which are collected by the people living in and around the forests. And to collect these, the easiest way is to set fire. Also

the Poachers set to fire to forest to catch wild animals. Also people collecting wood from forests use to set fire unknowingly by smoking “bibis” etc.

Damage

- Huge loss to forest and wildlife sources
- Organic content of soil affected
- Ecological balance disturbed
- Inhabitants residing in forest lose livelihood etc

Major incidences

- On April 22, 2016 a massive forest fire outbreaked at the Rukhi Hill Forest under Nayagrh forest range destroying its flora & fauna.

Remedy

- Drawing fire lines
- Engagement of Vana Suraksha Samiti volunteers and forest staff to douse fire
- Installation of fire blower machines
- Mass campaign to reduce man made forest fires etc.

8. Drinking Water Crisis:

Odisha villages are showing symptoms of desertification, with more and more people in rural belts being denied drinking water. Around 38.5% families travel at least half a km to fetch drinking water in Odisha villages. The number of such families was 32.5% in 2001, which increased by 6% in 10 years. In most of these places, the people have no alternative, as piped water supply has not been provided by the department. Rural water supply infrastructure is lying defunct for a range of reasons such as no power supply, disrupted power supply due to non-payment of dues or shortage of staff. Reservoirs have also dipped causing water shortages in areas where they supplied water. Some of the causes of drinking water crisis is given below:-

Ground water depletion

Groundwater levels in India are plunging at an alarming rate where some states experience water levels dwindling to criticality. Use of groundwater spans from irrigation purposes to industries and human consumption & the poor distribution system on part of the government too adds to the existing poor condition of water. Cities like Pune and Delhi lose 40% of water supply due to leakages.

River pollution & water scarcity in summer

Water in most rivers is polluted making it unfit for drinking or any other use. The poor quality rises from insufficient and delayed investment in urban water-treatment facilities. Industrial effluent rules are not implemented due to inadequate technical and human resource availability with the state pollution control boards. In summers usually the water in the rivers getting dried up resulting in failure of drinking water supply system.

Population explosion

The bursting population is a reason for insufficient water per head. While it has been estimated that the amount of usable water should be between 700-1200 billion cubic meter, India has only 1000 cubic meters of water per head.

Naygarh & drinking water crisis

Rising temperatures have dried up surface water sources in almost all the rivers of the district barring Mahanadi. Ground water levels have been falling rapidly because of which many tube wells across the district are lying defunct. Hundreds of families are dependent on 1 or 2 tube wells in some villages in districts. In many water stressed areas, tube well water is laced with **Fluoride Contamination**. As per the latest data of RWS&S as many as 383 villages & 222457 populations are affected with the fluoride contamination in the district.

Urban water supply is also dismal as Ranapur NAC & Khandapada NAC become the worst affected in the summer & dependent upon deployment of tankers. Gradually year by year the condition is degrading in most wards of the urban settlements. Making matters worse, people are struggling with the water crisis in the middle of an intense heat wave. An analysis of the drinking water crisis in the district for the year 2017 is given below.

Table No. 27:

| 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 | Bhapur | - | - | 6 | 4788 | 46 | 30038 | 27 |
| 2 | Dasapalla | - | - | 71 | 23469 | 56 | 31136 | 21 |
| 3 | Gania | 25 | 10,010 | 25 | 10,010 | 17 | 7803 | 17 |
| 4 | Khandapada | - | - | 2 | 370 | 69 | 37398 | 30 |
| 5 | Nayagarh | - | - | 1 | 5769 | 66 | 45672 | 48 |
| 6 | Nuagaon | 13 | 1000 | 38 | 17127 | 28 | 18508 | 39 |
| 7 | Odagaon | 47 | 25205 | 47 | 25205 | 39 | 18174 | 55 |
| 8 | Ranapur | 15 | 26111 | 20 | 32320 | 62 | 33728 | 7 |
| 9 | Daspalla NAC | 5 | 4600 | 5 | 4600 | - | - | - |
| 10 | Khandapada NAC | - | - | 13 | 9038 | - | - | - |

| | | | | | | | | |
|----|--------------|-----|-------|-----|--------|-----|--------|-----|
| 11 | Nayagarh NAC | - | - | 13 | 17030 | - | - | - |
| 12 | Ranpur NAC | - | - | 15 | 14715 | - | - | - |
| 13 | Total | 105 | 66926 | 241 | 149726 | 383 | 222457 | 244 |

Data source:- RWSS, BDO & NAC

[Block wise village list is at Table No. 68 of Volume II of the DDMP]

9. Heat wave

Heat Wave is defined as a condition of increased atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Quantitatively Heat Wave can be defined as any increase from the normal temperature. Again, depending on the upper deviation from the normal temperature it can be moderate Heat Wave or Severe Heat Wave. If the maximum temperature of any place continues to be 45° C for consecutive two days, it is called as Heat Wave condition. Physiologically human body can tolerate environmental temperature of 37° C. Whenever the environmental temperature increases above 37° C., the human body starts gaining heat from the atmosphere.

In the year 1998, the State of Odisha faced an unprecedented Heat Wave situation, as a result of which 2042 persons lost their lives. Though extensive awareness campaigns have largely reduced the number of casualties during post 1998 period, still a good number of casualties are being reported each year. Heat wave has become a menace during the hard summer causing insurmountable human suffering. The poor people, farmers and workers are the most vulnerable groups.

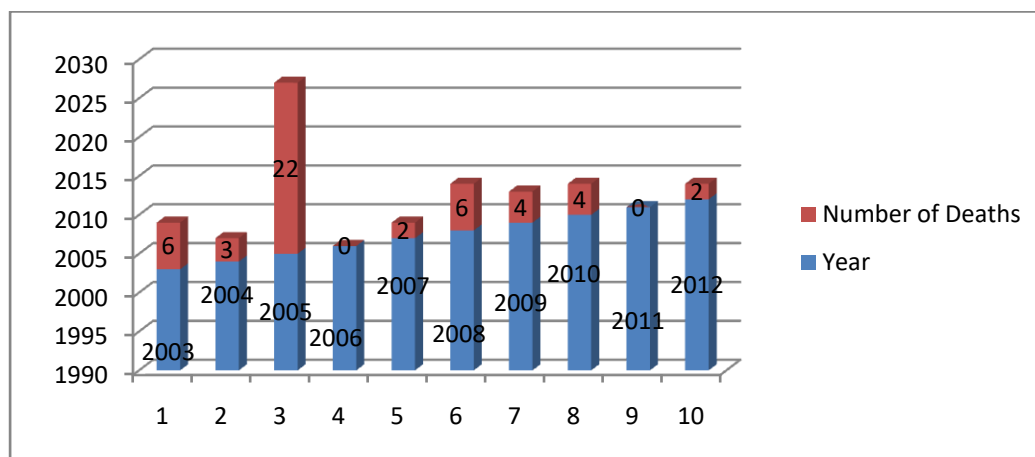
Heat wave & Nayagarh

Causes of heat wave

- Tropical climate where summer being extremely hot & winter being cold
- Green house effect
- Climate change
- Degradation of forest etc.

Heat Waves in Nayagarh in the year 1998 killed 125 people. In the year 1999, the state implemented first HAP in the state. Despite having a HAP in place the district experienced another massive Heat Wave casualty in the year 2005 by losing 22 lives. . The heat wave condition in Nayagarh is becoming increasingly prominent and regular due to rise of temperature upto 45 degree C. The main risk due to heat wave is heat stroke. After the large number of deaths in 1998, the main causal factor was identified as lack of awareness and not following certain do's and don'ts during heat wave conditions. Though extensive awareness campaigns has reduced large number of fatalities post 1998, poor socio-economic conditions, lack of enforcement and adoption of good working conditions during the summer months remain the main risks of heat wave.

Table no- 28: Heat wave related deaths in Nayagarh



10. Road accidents

There's one death every 4 minutes due to a road accident in India. One serious road accident in the country occurs every minute and 16 die on Indian roads every hour. 1214 road crashes occur every day in India. Two wheelers account for 25% of total road crash deaths. 20 children under the age of 14 die every day due to road crashes in in the country. 377 people die every day, equivalent to a jumbo jet crashing every day. Two people die every hour in Uttar Pradesh – State with maximum number of road crash deaths. Tamil Nadu is the state with the maximum number of road crash injuries. The gravity of the issue can easily be understood.

Causes

Distracted driving, speeding, drink & drive, reckless driving, teenage driving, unsafe lane changes, improper turns, driving under the influence of drugs, etc are the main causes of accidents.

Table no- 29: Damages

The table is based on the reported cases only, yet a significant number go unreported every year.

| Year | No.of road accident occur |
|---------|---------------------------|
| 2000-01 | 206 |
| 2001-02 | 208 |
| 2002-03 | 234 |
| 2003-04 | 175 |
| 2004-05 | 130 |
| 2005-06 | 193 |
| 2006-07 | 126 |
| 2007-08 | 132 |
| 2008-09 | 174 |
| 2009-10 | 191 |
| 2010-11 | 141 |
| 2011-12 | 155 |

Road Accidents:

Table No- 21: The table indicates the volume of National highways & State highways passes through the district. As you could see the highways pass through some of the block Hqs, district Hq & other traffic congestion areas ultimately making it vulnerable towards mishappenings. The list is indicative; the actual number of congestion areas & accident prone areas may vary a little.

| 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 | NH-57- Khariar to Brahmapur | 162.010Km to 251.900Km | 4 | 5 | 4 (Itamati, Nayagarh, Nuagaon, Daspalla) |
| 2 | Dasapalla to Bhanjanganar | 13.431 | 2 | 2 | 2 |
| 3 | Nayagr to Odagaon Laukhal road | 37.941 | 2 | 3 | 3 |
| 4 | Bhaghamari- Khandapada- Gania-Dasapalla | 61.443 | 6 | 3 | 3 |

Data source:- EE, NH & , R&B

Railway Line Exposed different Hazards:

It was dream of the people of Nayagr to have connected to Railway Network since 20 years & finally it came true. The district HQ is now connected to the Khordha Road railway station & targetted to connect to Dasapalla by 2019. As of now the district has a total of 23kms railway line connecting Khrodha road & district HQ.

Though the line passes through 7-8 kms of flood area, but the line has been raised to 30ft of height minimising the vulnerability of getting exposed to flood.

Population Requiring Special Care:

On the occurrence of a disaster, there are population barely require special care. Special Care serves children, with and without special needs, persons above 60 years, persons with disability (both men & women), orphans & palliative care for pregnant & lactating mothers. Our mission is to keep the population require special needs in safe, inclusive and supportive environments through adequate preparedness at all levels. The table gives us an idea about the said population:-

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 | Bhapur | 125 | 12 | 748 | 475 | 4345 | 7579 | - | 2 | 0 | 7157 | 6545 | 1454 |
| 2 | Dasapalla | 2630 | 286 | 727 | 651 | 3951 | 9785 | - | 59 | 65 | - | - | 1735 |
| 3 | Gania | 530 | 225 | 451 | 215 | 979 | 3242 | - | 12 | 7 | 2271 | 2234 | 586 |
| 4 | Khandapada | 2116 | 390 | 991 | 557 | 4587 | 8528 | - | 103 | 204 | 7805 | 7120 | 1792 |
| 5 | Nayagarh | 2223 | 732 | 764 | 366 | 5063 | 10986 | - | 35 | 30 | - | - | 1987 |
| 6 | Nuagaon | 1519 | 484 | 987 | 431 | 3410 | 7613 | - | 60 | 14 | 5573 | 4788 | 1351 |
| 7 | Odagaon | 3110 | 260 | 807 | 472 | 5367 | 15593 | - | 23 | 14 | - | - | 2975 |
| 8 | Ranpur | 1725 | 361 | 1098 | 899 | 4994 | 15285 | - | - | - | - | - | 2473 |
| 10 | Total | 13978 | 2750 | 6573 | 4066 | 32696 | 78611 | | 294 | 334 | 22806 | 20687 | 14353 |

Data source:- ICDS, Nayagarh. The 6-14 year populations counting is going on by DPC, Nayagarh, once completed will be put in the table.

[The table is the block wise abstract of population requiring special care. Village wise details are at Table No. 53 of Volume II of the DDMP]

Chapter – 4: 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, science and technology, space, telecommunication, urban development, rural development, water resources and chief of the integrated defence staff of the chief of staffs are other members of NEC.

(Please refer Figure 02 of Volume –II (Page no. 328) for Central Government Notification on constitution 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 are 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:-

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

- 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.
- Review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government & issue such guidelines as may be necessary.
- 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.

(Please refer Figure 03 of Volume –II (Page no. 329) for Odisha Government Notification on reconstitution of SDMA)

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.

(Please refer Figure 04 of Volume –II (Page no. 330) for Odisha Government Notification on constitution of SEC)

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 vides 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 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 -:

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

(Please refer Figure 05 of Volume –II (Page no 331) for Odisha Government Notification on reconstitution of SLCNC)

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

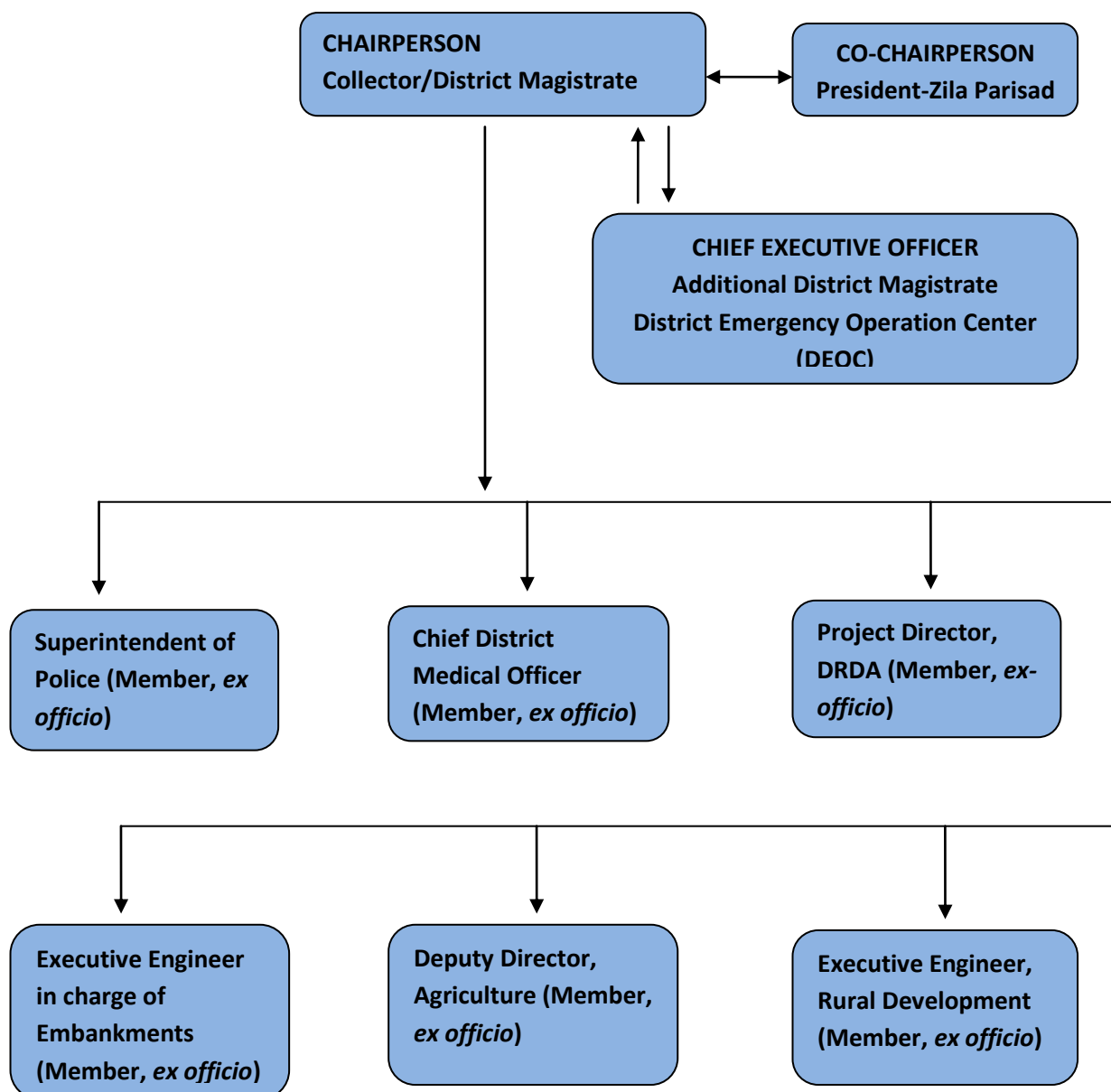
The State Government appoints an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be of the District to be Chief Executive Officer of DDMA.

(Please refer Figure 05 of Volume –II (Page no. 333) for Odisha Government Notification on constitution of DDMA)

Table__ : Structure of District Disaster Management Authority

| Sl No. | Name of the Officer | Designation | Position in DDMA | Contact No. |
|--------|-----------------------------|---|-----------------------------------|-------------|
| 1 | Sri. Arindam Dakua | Collector-cum- District Magistrate | Chairperson, <i>ex-officio</i> | 8895768995 |
| 2 | Smt. Baijayantimala Mohanty | President, Zilla Parishad | Co-chairperson, <i>ex-officio</i> | 7894077116 |
| 3 | Sri Nrusingha Charan Swain | Additional District Magistrate | Member, <i>ex-officio</i> | 9437087975 |
| 4 | Dr. Kanwar Vishal Singh | Superintendent of Police | Member, <i>ex-officio</i> | 9437378000 |
| 5 | Smt. Santoshi Sahoo | Project Director, DRDA | Member, <i>ex-officio</i> | 9437113665 |
| 6 | Smt Rajalaxmi Mohanty | Chief District Medical Officer | Member, <i>ex-officio</i> | 9861044623 |
| 7 | Sri C.S. Chol | Deputy Director, Agriculture | Member, <i>ex-officio</i> | 9861326626 |
| 8 | Sri Harihar Sahoo | Executive Engineering, RD-I | Member, <i>ex-officio</i> | 9437255347 |
| 9 | Sri Pranakrushna Prasad | Executive Engineering, RD-II | Member, <i>ex-officio</i> | 9437489474 |
| 10 | Sri Amarendra Mahapatra | Executive Engineer, Irrigation & in charge of Embankments | Member, <i>ex-officio</i> | 9437091192 |

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:-

- a) Prepare Disaster Management Plan including District Response Plan of the District.
- b) Coordinate and Monitor the implementation of the National DM Policy, State DM Policy, State DM Plan and District DM Plan.
- c) 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.

- d) 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.
- e) 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 programmes and awareness programmes 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 an 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

- 1) Chairperson, Zilla Parishad
 - To assist in preparation of DM Plan of the district
 - To act as the nodal point for coordination at the grass root level
 - To play a tangible role in preparedness, response, relief, rescue, rehabilitation & resettlement activities by involving PRI system
 - To ensure that awareness about all the hazards among the Panchayat functionaries & build their capacity through regular capacity building initiatives

- To oversee the smooth management of the Multipurpose cyclone & flood shelters constructed in different areas of the district
 - Providing training to Zilla Parishad members to identify & analyse the cross cutting issues in Disaster Management & to mainstream these through the developmental programmes at their level
- 2) Additional District Magistrate: The ADM in charge of emergency shall undertake the following assignments
- To coordinate the DDMA meeting & ensure the presence of all the members
 - To facilitate the discussions of the DDMA meeting
 - To function as the nodal point for preparation of DM plan of the district
 - To function as the nodal point for disbursement of CMRF
 - Management & functioning of the round the clock emergency helpline during heat wave & other emergency situations
 - Coordinating point for preparedness, response, relief, rehabilitation related activities of the district during disaster & normalcy
- 3) Superintendent of Police
- To communicate & alert all the personnel for readiness to tackle any kind of disaster situation
 - To maintain law & order & provide security at disaster locations
 - To prevent commission of cognizable offences against life, property & public tranquility
 - To train & capacitate human resources dealing with disaster response
 - To conduct mock drill & image building exercise of police at selected locations
- 4) Chief District Medical Officer
- To extend all possible support in preparation of the District Disaster Management Plan
 - To prepare separate plan for the district on disaster response
 - To make special arrangements for areas having the history of vulnerability to epidemics
 - To train & capacitate human resources for disaster response
 - Promotion of IEC materials using all possible grass root platforms on general & critical health issues
- 5) Deputy Director, Agriculture
- To extend all possible support in preparation of the District Disaster Management Plan
 - Agricultural mapping of the district with respect to different hazards
 - Ensure crop loss assessment of the district is performed in coordination with other line departments
 - Construction of structural measures at drought & flood prone areas in coordination with other line departments
 - Surveillance of pest & disease situation of crops
 - Usage of high productive crops by the farmers in the district
 - Promotion of IEC activities at the rural & drought affected belt of the district

6) Project Director, DRDA

- To extend all possible support in preparation of the District Disaster Management Plan
- Effective coordination with the Panchayati Raj Institution for cataloguing the development process of the district
- Oversee the effective implementation of different anti poverty schemes & linkages of schemes with post disaster rehabilitation activities
- Creation of water bodies to prevent drought through MGNREGS
- Improve awareness level of rural poor on rural development & poverty alleviation programmes
- To provide livelihood opportunity to population affected by disaster

7) Executive Engineer, Rural Development

- To extend all possible support in preparation of the District Disaster Management Plan
- Preparation of master plan of the entire rural road network of the district
- Undertake flood & drought mitigation measures in consultation with other line departments
- Ensure disaster resistant technological practices in construction of critical infrastructures
- Undertake training & capacity building of staff, elected representatives & other officials

8) Executive Engineer in charge of embankments

- To extend all possible support in preparation of the District Disaster Management Plan
- Identification, repair & maintenance of the weak embankments of the district
- Preparation of contingency plan
- Preparedness for possible breaches during flood

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. A meeting of the DLCNC shall be convened by the end of May & another in November every year. The committee which sits in May not only review the ongoing relief measures, if any, but it may also suggest the list of relief works to be undertaken, advise the precautionary measures to be taken for flood, drought etc.

The committee which sits in November may similarly make a review of the immediate post situation on crop conditions, relief measures, if any & also suggest on the immediate future relief activities.

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 | Sri. Arindam Dakua | District Collector-cum-Magistrate | 8895768995 |

| | | | |
|----|--------------------------------|---|---------------------------|
| 2 | Sri. Arun Sahoo | Hon'ble Minister, Law & PR, Govt. of Odisha & MLA, Nayagarh | 9437516147 |
| 3 | Sri. Anubhab Pattanaik | MLA, Khandapada | 9437015171 |
| 4 | Sri. Rabi Narayanana Mahapatra | MLA, Ranpur | 9013181957, 9437959116 |
| 5 | Sri. Purna Chandra Naik | MLA, Dasplla | 9692611750 |
| 6 | Sri. Pinaki Mishra | MP, Puri | 9437033059 |
| 7 | Prtyusha Rajeswari Singh | MP, Kandhamal | 9090900001 |
| 8 | Sri. Bhartruhari Mahatab | MP, Cuttack | 9868180308 |
| 9 | Sri. Dilip Kumar Sahoo | Sub-collector | 9438757486 |
| 10 | Rajalaxmi Mohanty | Chief District Medical Officer | 9861044623 |
| 11 | Sri. Narasingha Pattanaik | Chief District Veterinary Officer | 9437503854 |
| 12 | Amarendra Mahapatra | Executive Engineer, Irrigation & in charge of Embankments | 9437091192 |
| 13 | Indurekha Paschimakabat | District Emergency Officer | 8895569090 |

4.8 Any other existing committees for Disaster Management at District/ Block/Panchayat and Village level may be incorporated in tables.

The district is in the process of forming Block Disaster Management Authority in all the blocks to decentralize the process of disaster management involving grass root. The process is likely to be completed by the end of June 2017.

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

| SI No. | Battalion, Location | State | Man power drawn from | Contact Person | Contact No. |
|--------|--------------------------|-------------------|----------------------|---|---------------------------|
| 1 | 01 Bn, NDRF, Guwahati | Assam | BSF | Sh. S.K. Shastri, Commandant | 09401307887, 0361-2840027 |
| 2 | 02 Bn, NDRF, Kolkata | West Bengal | BSF | Sh. Nitish Upadhyay, Commandant | 09434742836, 033-25875032 |
| 3 | 03 Bn, NDRF, Munduli | Odisha | CISF | Sh. M.K.Yadav, Commandant | 09439103170, 0671-2879710 |
| 4 | 04 Bn, NDRF, Arakkonam | Tamil Nadu | CISF | Ms. Rekha Nambiyar, Commandant | 09423506765, 02114-247010 |
| 5 | 05 Bn, NDRF, Pune | Maharashtra | CRPF | Sh. Anupam Srivastava, Commandant | 09423506765, 02114-247010 |
| 6 | 06 Bn, NDRF, Gandhinagar | Gujrat | CRPF | Sh.R.S Joon, Commandant | 09428826445, 079-23202540 |
| 7 | 07 Bn, NDRF, Ghaziabad | Uttar Pradesh | ITBP | Sh. P.K. Srivastava, Commandant | 09968610014, 0120-2766013 |
| 8 | 08 Bn, NDRF, Bhatinda | Punjab | ITBP | | |
| 9 | 09,Bn,NDRF, Patna | Bihar | BSF | Shri Vijay Sinha, Commandant | 07762884444, 06115-253942 |
| 10 | 10 Bn, NDRF, Vijayawada | Andhra Pradesh | CRPF | Sh. Parshant Dar, Commandant | 07382299621, 0863-2293178 |
| 11 | 11Bn,NDRF, Varanasi | Uttar Pradesh | SSB | Sh. A.K. Singh, Commandant | 09455511107, 0542-2501201 |
| 12 | 12 Bn, NDRF, Itanagar | Arunachal Pradesh | SSB | Sh. Angom Kiran Chand Singh, Commandant | 09485236141, 03621-242940 |

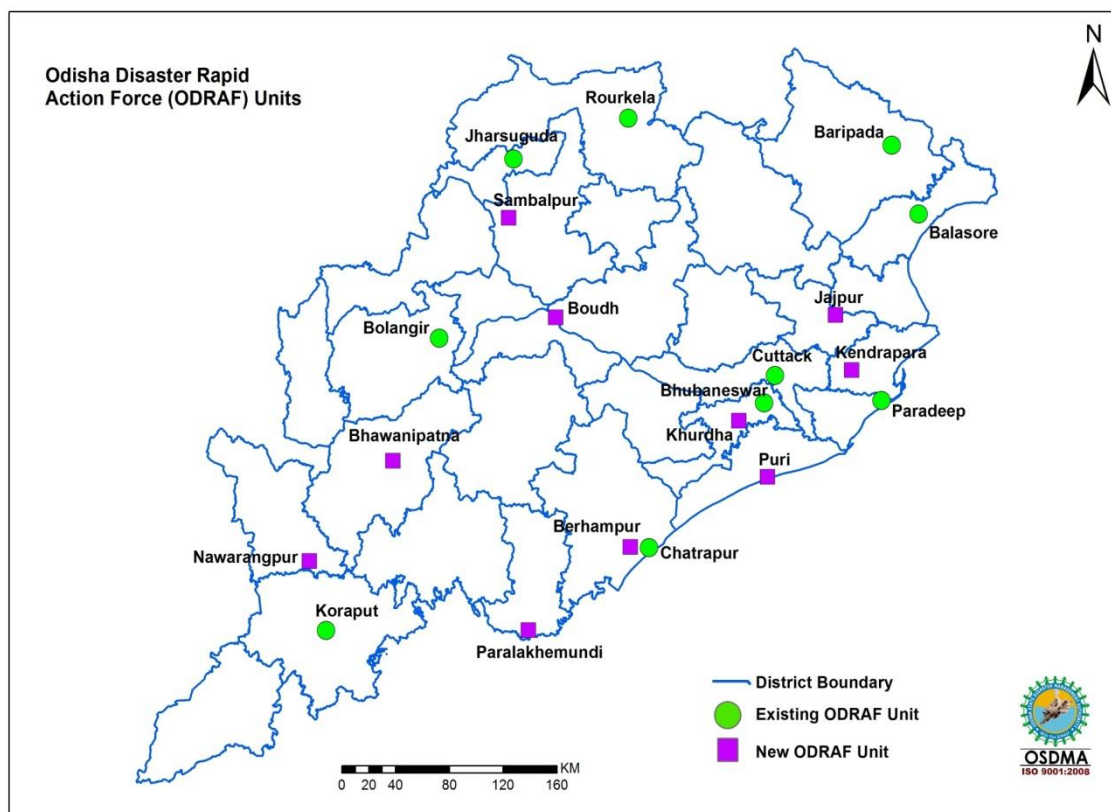
4.10 Odisha Disaster Rapid Action Force (ODRAF)

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, Khorda, 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. | ODRAF In charge | Contact No. |
|--------|---------------------------|--|-----------------------------|----------------|--------------------------|----------------|
| 1 | Cuttack | OSAP 6th Bn, Cuttack | Mr. Lingaraj Parida, OPS | 98610 39267 | Mr. Mahatang Hansda | 94394 57443 |
| 2 | Jharsuguda | OSAP 2nd Bn, Jharsuguda | Mr Mohammed Zahid, OPS | 94371 76264 | Mr. Kul Bahadur Thapa | 96586 30354 |
| 3 | Koraput | OSAP 3rd Bn, Koraput | Mr. Subash Chandra Nayak | 94372 50194 | Mr. Ramesha Chandra Hati | 99384 06905 |
| 4 | Chatrapur | OSAP 8th Bn, Chatrapur | Mr. B.N. Mishra | 94370 87055 | Mr. C.R. Bisoi | 82800 33508 |
| 5 | Balasore | Armed Police Reserve (APR), Balasore district | Mr. Nithi Sekhar, IPS | 94381 53309 | Mr. P.K. Ransingh | 94393 79619 |
| 6 | Bhubaneswar | OSAP 7th Bn, Bhubaneswar | Mr. Biren Ku. Sasmal, OPS-I | 94370 81266 | Mr. D.K. Dehuri | 94371 85548 |
| 7 | Mayurbhanj at Baripada | OSAP 5th Bn, Baripada | Mr. Abinash Kumar, IPS | 94381 53308 | Mr. Chandamani Bag | 98619 86183 |
| 8 | Rourkela | OSAP 4th Bn, Rourkela | Mr. Khageswar Goud, OPS | 94373 58292 | Mr. Ashok Behera | 94374 19436 |
| 9 | Balangir | Armed Police Reserve (APR), Balangir district | Mr. Ashish Kumar Singh, IPS | 88950 46814 | Mr. M. Laxmiranjan | 94392 68154 |
| 10 | Jagatsinghpur at Paradeep | Armed Police Reserve (APR), Jagatsinghpur district | Mr. J.N. Pankaj, IPS | 94371 02020 | Mr. P.K. Routray | 94384 36188 |

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 | Home Guards | Sanjay Kumar Barik | Sergeant | 88957 26481 | 06753 252578 | 325 |
| 2 | National Service Scheme (NSS) | Dr. (Mrs.) Surekha S. Swain | Programme Coordinator | 0674 2581515 (O) | 2582850 (F) | 1160 |
| 3 | National Cadet Corps (NCC) | Capt. Bhabani Prasad Hota | Captain | 94377 62354 | - | 400 |
| 4 | Nehru Yuva Kendra (NYK) | Basanta Mishra | Local Coordinator | 94372 03908 | - | 2909 |
| 5 | Red Cross | Jaminikrushna Pattanaik | Convenor | 94372 87001 | - | 40 |

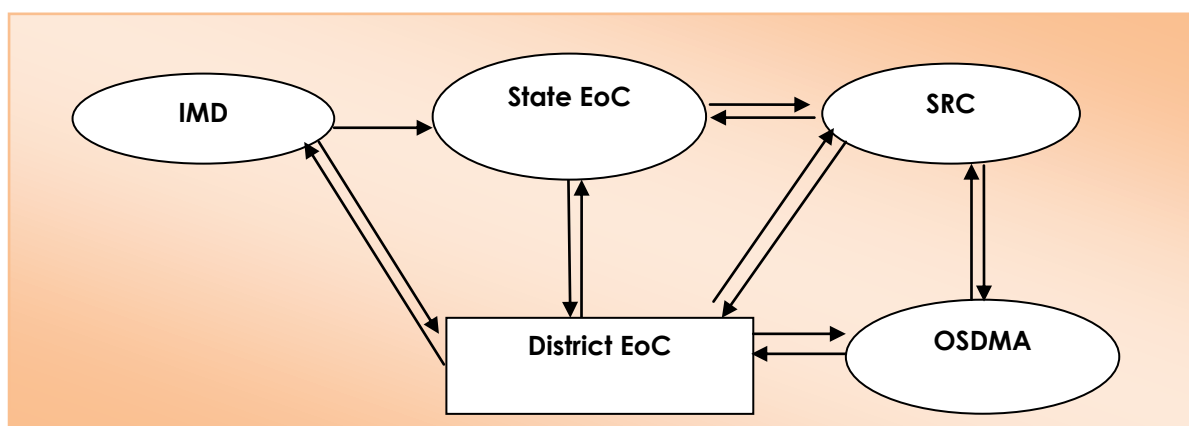
| | | | | | | |
|---|------|---------------------|-----------|----------------|---|----|
| 6 | NGOs | Aruna Kumar Mohanty | Secretary | 94373 24853 | - | 30 |
|---|------|---------------------|-----------|----------------|---|----|

4.12 Emergency Communication System

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)

As per the Government of India national framework for disaster management, the districts are being assisted to set up control rooms/emergency operations centres at district level. An **emergency operations center (EOC)** is a central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency, and ensuring the continuity of operation of the district.

An EOC is responsible for strategic direction and operational decisions and does not normally directly control field assets, instead leaving tactical decisions to lower commands. The common functions of EOCs is to collect, gather and analyze data; make decisions that protect life and property, maintain continuity of the organization, within the scope of applicable laws; and disseminate those decisions to all concerned agencies and individuals.

Emergency Operation Center plays a vital role in the Emergency Operation activation. It coordinates the flow of information with respect to activities associated with relief operations. During the normal times it maintains a systematic database of the resources available, important phone numbers, names and addresses of important government and non-government officials, international bodies, NGOs. During crisis it is expected to function as a center for

decision-making and help flow of information horizontally and vertically to the respected departments for smoother relief operations.

Role of EOC on occurrence of disaster

The EOC will function to its fullest capacity on the occurrence of disaster. The district EOC will be fully activated during Level 0 and Level 1 disasters. The activation would come into effect either on occurrence of disaster or on receipt of warning. On the receipt of warning or alert from any such agency which is competent to issue such a warning, or on the basis of reports from IMD, OSDMA, SRC of the occurrence of a disaster, all community preparedness measures including counter-disaster measures will be put into operation. The Collector will assume the role of the Chief of Operations for Disaster Management. The Level disaster/event would be communicated to the following BDOs, Tahasildars, SP, Fire Officer immediately on phone. The EOC may perform the below given actions on the occurrence of a disaster:-

- The occurrence of disaster shall be immediately communicated to all the first responders such as police, fire, health, water and other stakeholders such as NGOs, trained SAR volunteers through SMS gateway for which specific provision of group mobile directory would be mad
- Act as the communications link between line departments and the affected facility.
- Ensure that specifically trained response individuals are available or are being mobilized in the event their expertise is necessary.
- Ensure that necessary equipment is available on site. This may require ordering and arranging delivery of equipment and materials from contractors.
- Monitor TV, radio, and wire services to determine accuracy of public information
- Update executive management as the incident transpires and changes.
- Ensure that all regulatory, state and local notifications and procedures are performed. Act as a liaison with Federal, State, and local regulatory agencies and officials affected by the location and specific nature of the incident.
- Ensure employees and the impacted community is adequately informed of the incident and response actions.
- The directory would be grouped according to the disaster specific response groups.

Role of EOC during normal time

The normal time activities of the District EOC will be to

- Ensure through appropriate statutory instruments that :
- SDMP and DDMPs are operationalised.
- Standard Operating Procedures for various departments are operationalised.
- Ensure that all departments/ blocks continue to update DDMP on a regular basis.
- Encourage departments/ blocks to prepare area-specific plans prone to specific disasters receive reports on preparedness from the district control room.
- Serve as a data bank to all line departments and the planning department with respect to risks and vulnerabilities and ensure that due consideration is given to mitigation strategies in the planning process.
- Convey policy guidelines and changes if any in the legal and official procedures, eligibility criteria with respect to relief and compensation.

- Upgrade and update State DMP according to changing scenarios in the State.
- Update data bank IDRN.
- Monitor preparedness measures undertaken at the district levels including simulation exercises undertaken by various departments.
- Organise post-disaster evaluation and update state DMP accordingly.
- Ensure warning and communication systems and instruments are in working condition.
- Inform district control room about the changes if any in legal and official procedures with respect to loss of life, injuries, livestock, crop, houses, to be adopted (death certificates, identification procedures, etc.)

Table: 3 Equipments provided to DEOC and their operational status

| Sl No. | Equipments | Unit | Status | | Remarks |
|----------|---|--------------------------------------|-------------|-----------------|---|
| | | | Operational | Non-Operational | |
| A | Communication Equipment | | | | |
| 1 | Satellite Phone | 1 No | Yes | - | - |
| 3 | Fax Machine | 2 No | 1 | 1 | 1 in good condition, another one out of order |
| 4 | VHF Base Station | 1 No | - | 1 | Defunct condition & needs painting and re-erection at new Collectorate Building |
| 5 | VHF Mobile Station | 1 No | - | 1 | Defunct condition & needs to be reinstalled at DEOC of New building |
| 6 | VHF Handsets (Walkie-talkie) | 2 Nos | - | 2 | Out of order |
| 7 | Television Set | 1 No | 1 | - | - |
| 8 | Public Address System-Handheld Mega Phone | 1 No | 1 | - | - |
| 9 | Siren | 1 No | 1 | - | - |
| B | Computer Hardware | | | | |
| 10 | Desktop Computers | 2 Nos | 2 | - | - |
| 11 | UPS | 2 Nos | 2 | - | Defunct & irreplaceable |
| 12 | Laser Printer(Hp Laserjet-1150) | 1 Nos | - | 1 | 1 printer is damaged & beyond repair |
| 13 | Scanner | 1 Nos | - | 1 | 1 scanner is damaged & beyond repair |
| 13 | Fax | 2 Nos | 1 | 1 | One fax machine is out of order & beyond repair |
| 14 | Multi Utility Machine (Printer, Scanner, Fax, copy) | 1 No | 1 | - | - |
| C | Other Equipments | | | | |
| 15 | GPS Unit | The GPS has been taken back by OSDMA | | | |

| | | | | | |
|----|--|-------|---|---|--|
| 16 | Satellite Phone | 2 Nos | 1 | 1 | 1 defunct |
| 17 | Digital Camera | 1 No | 1 | | |
| 18 | CO2 Fire Extinguisher | 3 Nos | 3 | - | Good condition & needs replacement of the liquid in due time |
| 19 | White Board | 1 No | 1 | - | - |
| 20 | Soft Boards for display of Maps & Charts | 1 No | 1 | - | - |
| 21 | Diesel Generator Set | 1 No | 1 | - | - |
| 22 | Computer Chair | 1 No | 1 | - | - |
| 23 | Computer Table | 1 No | 1 | - | - |
| 24 | Life Buoy | 5 Nos | 5 | - | - |
| 25 | Life Jacket | 5 Nos | 5 | - | - |
| 26 | Inflatable Tower light | 2 Nos | 1 | 1 | 1 needs to be repaired |
| 27 | Power Saw | 2 Nos | | 2 | Need repair |
| 28 | G.I. Trunk | 1 No | 1 | | |
| 29 | Inverter with Battery | 1 No | 1 | | 1 inverter with 2 nos battery |
| 30 | Inflatable Tower Light | 2 Nos | 2 | 1 | 1 needs to be repaired |
| 32 | Aluminum Ladder | - | - | - | - |
| 33 | Megaphone | - | - | - | - |
| 34 | Colour TV/Stand | - | - | - | - |
| 35 | Mobile Phone | - | - | - | - |
| 36 | Rack | 1 | 1 | - | - |
| 37 | Book Case | | | - | - |
| 38 | Commando Search Light | 1 | 1 | - | - |
| 39 | Steel Almirah | 2 | 2 | - | - |

Table__ Important Line Departments at the District.

| Sl No. | Department | Head of the Department at District | Name of the Nodal Officer & Designation | Contact No. |
|--------|--------------|------------------------------------|---|-------------|
| 1 | Police | SP | Dr. Kanwar Vishal Singh, IPS, SP | 9437378000 |
| 2 | Forest | DFO- Territory | Laxminarayan Behera | 9437052226 |
| 3 | Forest | DFO- Wildlife | Ansuprava Das | 9437202000 |
| 4 | DRDA | PD | Susanta Kumar Barik, PD | 9437113665 |
| 5 | Health | CDMO | Rajalaxmi Mohanty, CDMO | 9861044623 |
| 6 | Education | DEO | Supriya Mallick | 9853204985 |
| 7 | Livestock | CDVO | Narasingha Pattanaik, CDVO | 9437503854 |
| 8 | Food Supply | CSO | Bikram Majhi | 9439532663 |
| 9 | Agriculture | DDA | Khangedranath Jena, DDA | 9861326626 |
| 10 | Horticulture | DDH | S. Mahanta | 9437414627 |
| 11 | Transport | RTO | Pravakar Panigrahi, I/c | 9437262528 |

| | | | | |
|----|-----------------------------|--------------------|-------------------------|------------|
| 12 | Road & Building | EE, R&B | H.S. Sarangi, EE | 9437900261 |
| 13 | Drinking Water & Sanitation | EE- RWSS | Kalpataru Sethi, EE | 8280408057 |
| 14 | Electricity | EE, CESU | Ashit Ray, EE | 9437094252 |
| 15 | Irrigation | EE, Irrigation | A.K Mahapatra, EE | 9437091192 |
| 16 | NH | EE, NH | P.Nayak, AEE | 9437159047 |
| 17 | Minor Irrigation | EE, MI | J.C.Nayak | 9438184674 |
| 18 | Fire | Asst. Fire Officer | Balaram Pradhan | 9437066085 |
| 19 | Social Welfare | DSWO | Sailbala Panda | 9437475013 |
| 20 | Social Security | DSSO | Trinath Padhy | 9437111898 |
| 21 | Emergency | DEO | Indurekha Paschimakabat | 8895569090 |

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

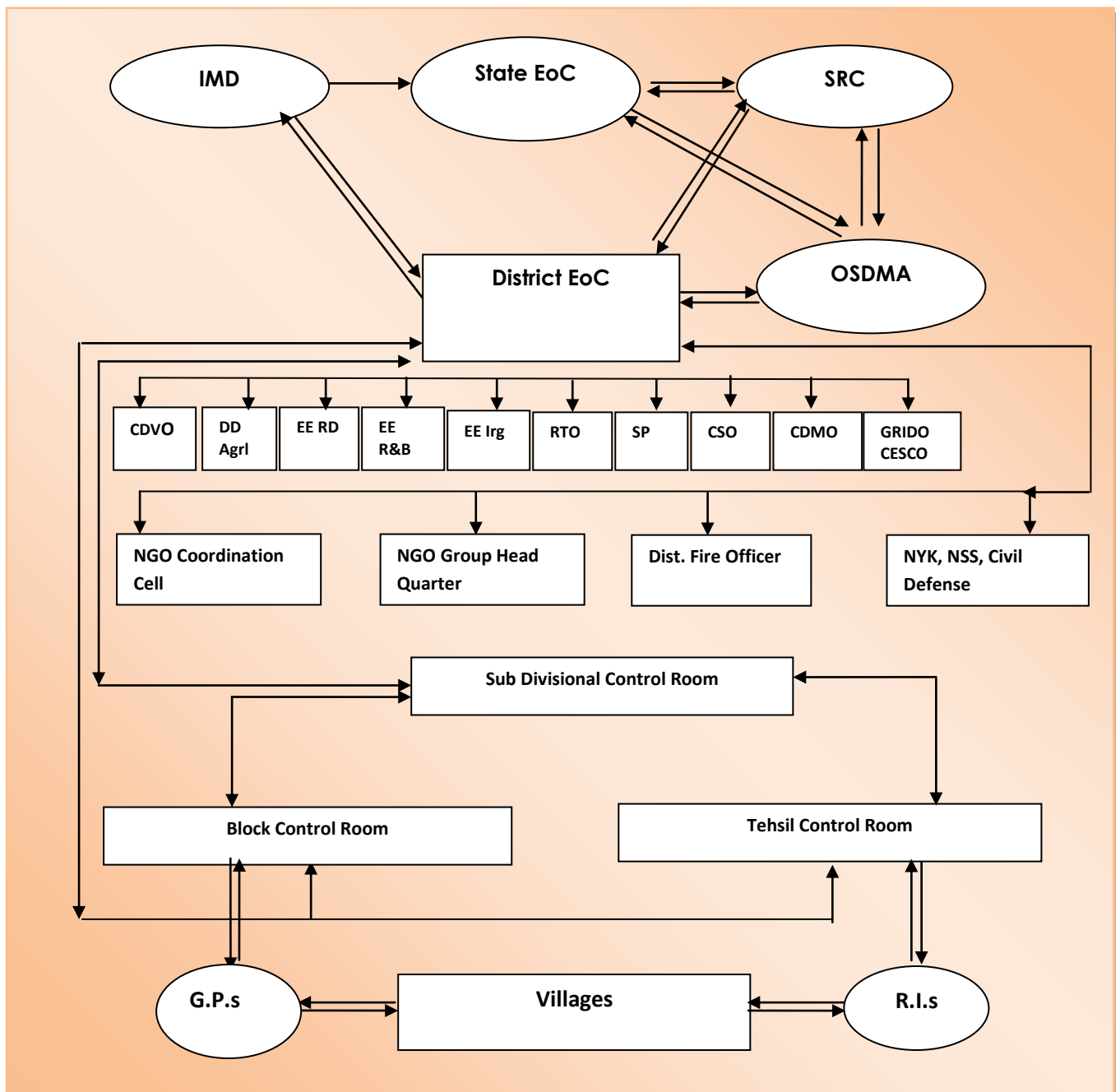
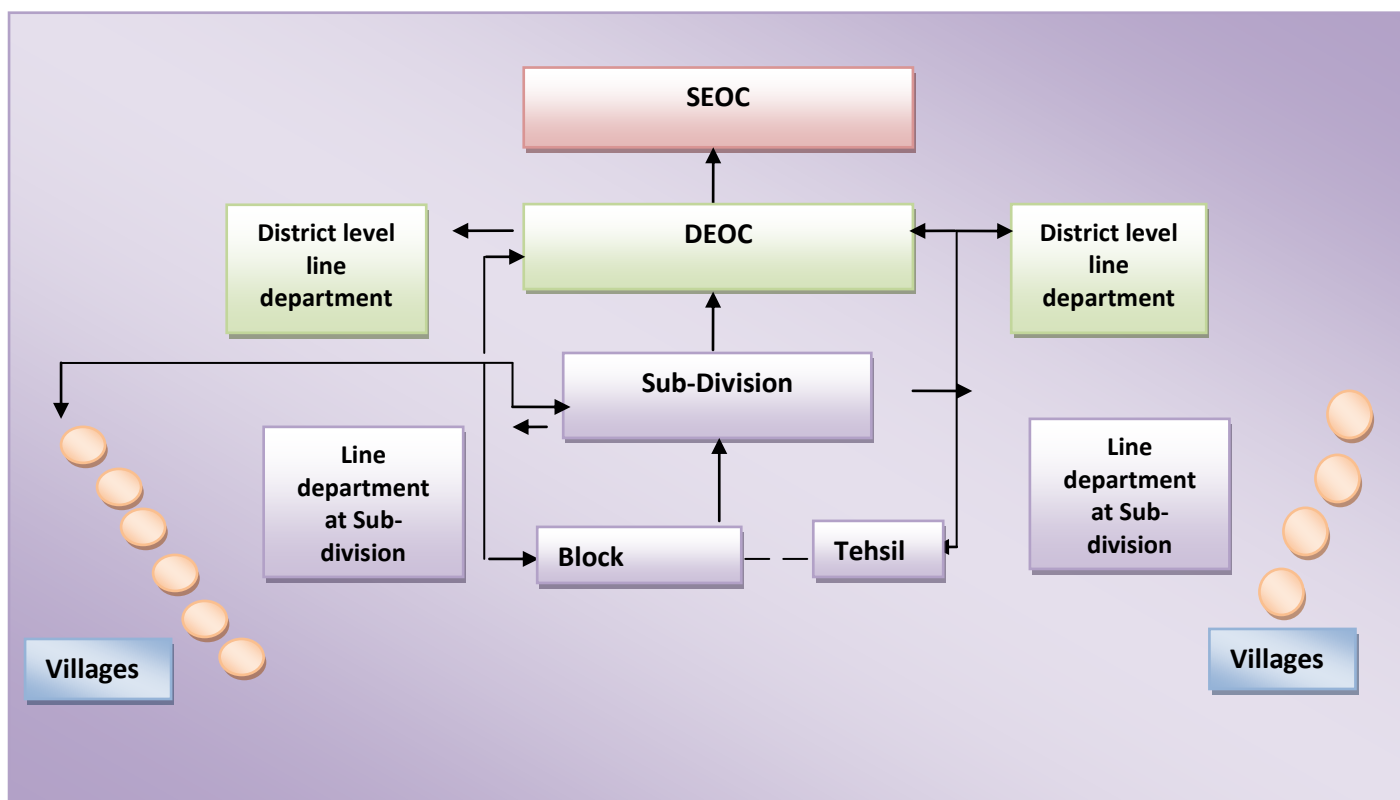


Figure __: Information flow chart from Villages to District Emergency Operation Center (DEoC) without early warning



Block & NAC emergency contact details:-

| Sl No. | Department | Head of the Department at Block | Name of the Nodal Officer | Contact No. |
|--------|-----------------|---------------------------------|---------------------------|-----------------------------|
| 1 | BDO, Bhapur | BDO | Ranjita Sahoo | 94371 43593 06757-238025 |
| 2 | BDO, Dasapalla | BDO | Arati Sahoo | 94398 59562 06757-220025 |
| 3 | NAC, Dasapalla | EO | Baidyanath Pradhan | 9853394861 |
| 4 | BDO, Gania | BDO | Rudra Prasad Dash | 94372 83864 06757-226025 |
| 5 | BDO, Khandapada | BDO | Sipra Sethi | 94372 23050 06757-230025 |
| 6 | NAC, Khandapada | EO | Dr. Srikant Dash | 8338884221 |
| 7 | BDO, Nayagarh | BDO | Dayanidhi Satapathy | 98615 74712 06753-252207 |
| 8 | NAC, Nayagarh | EO | | 9861527654 |
| 9 | BDO, Nuagaon | BDO | Bijay Ketan Sahoo | 94370 91767 06753-263025 |
| 10 | BDO, Odagaon | BDO | Abhimanyu Majhi | 94370 92240 |

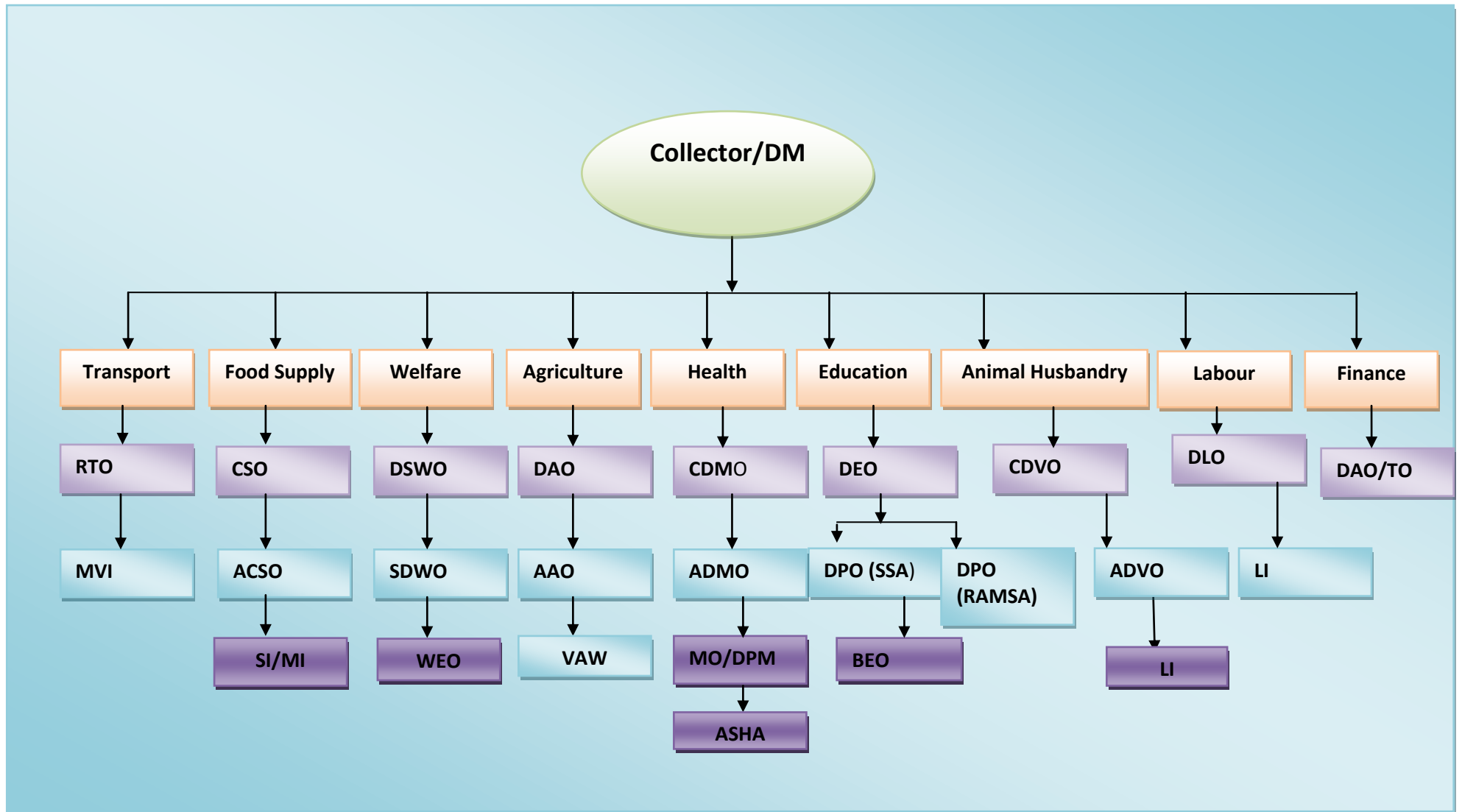
| | | | | |
|----|-------------|-----|---------------|-----------------------------|
| | | | | 06753-260800 |
| 11 | BDO, Ranpur | BDO | Lagnajit Rout | 94371 07397 06755-236050 |
| 12 | NAC, Ranpur | EO | P.K Sahoo | 9438486439 |

4.12.4 Any other Alternative Emergency Operation Center in the district

Beside these other departments like transport, police, fire service & health are operating round the clock emergency operation centre in the district. The contact details are given below:-

| Sl. no | Name of the Block | Name of the Department/ Agency | Contact Number |
|--------|-------------------|--------------------------------|--------------------------|
| 1 | Nayagarh | CHC, Badapandusar | 06753-256040 |
| 2 | Bhapur | CHC, Bhapur | 06757-238085 |
| 3 | Gania | CHC, Gania | 9439991568 |
| 4 | Daspalla | CHC, Madhyakhanda | 9439991577 |
| 5 | Nuagaon | CHC, Mahipur | 9439991607 |
| 6 | Khandapada | CHC, Nuagadisahi | 9178638025 9439991720 |
| 7 | Ranapur | CHC, Rajsunakhala | 9439991557 |
| 8 | Odagaon | CHC, Sarankul | 9439991587 |
| 9 | Dist HQ | Police Control Room | 06753-252568 |
| 10 | Dist HQ | Fire Services | 06753-252101 |
| 11 | Odgaon | Fire Station | 06753-260050 |
| 12 | Daspalla | Fire Station | 06757-220023 |
| 13 | Khandapada | Fire Station | 06757-230033 |
| 14 | Bhapur | Fire Station | 06757-238101 |
| 15 | Nuagaon | Fire Station | 06753-215101 |
| 16 | Ranpur | Fire Station | 06755-236022 |
| 17 | Gania | Fire Station | 06757-226101 |
| 18 | Dist HQ | Irrigation Division | 06753-252256 |

4.13 Coordination structure at the District level and down the line



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

Since the community is the first responder in any disaster situation, there is a great need for community level initiatives in managing disasters. The initiatives taken by various agencies, including the NGOs, need to be people-centric and the level of community participation should be gauged through the role played by the community in the process of planning and decision-making. Efforts should also be made to strengthen local economies, thereby making people independent of external assistance.

The voluntary sector has been in the forefront of mobilizing communities, enabling them to cope with disasters in the past decades. Their initiatives and experiences have been consolidated and demonstrated on a larger scale with the help of the state. Development organizations working in communities share a good rapport with the community, which helps the state in implementing its plans more effectively; village level plans prepared after the Super Cyclone in Orissa could be seen as an example of the same.

The focus of GO-NGO coordination in disaster management plan now incorporates the following:

- Community Based Disaster Preparedness
- Development of block, Gram Panchayat and Village disaster management plans
- Capacity building
- Response & rescue

The district has no GO-NGO coordination cell in place right now but talks are in progress & likely to form in near future.

4.15 Role of Corporate Sector in the district relating to Disaster Management

Globally disaster risk mitigation and management is now taken up as everybody's business. It is increasingly realized that private, or more appropriately, corporate sector cannot remain insulated from either the effects of increasing natural disasters or the responsibilities of reducing the risks of disasters. Corporate sector depends on community at large for sustenance, not only as a source of labour, capital and material but also as a market for products and services. If the community life itself is destroyed by disaster the lifeline of the corporate gets threatened. Further in a globalized economy market in the remotest part is integrated by a long supply chain, which is disrupted by disasters.

There are three main ways in which corporate sector contributes to the process of disaster risk reduction:

- Corporate Social Responsibility (CSR) in supporting relief, rehabilitation and risk reduction activities;
- Redefining the business continuity plan to factor in hazards, risks and vulnerabilities;
- New business opportunities created in disaster reduction due to the increase in emphasis on risk reduction.

Corporate Social Responsibility

Historically business houses have been spending money on disaster relief and rehabilitation on following grounds:

- a) It helps community in distress;
- b) It helps community to bounce back as ultimate consumers as also producers and therefore helps to sustain business;
- c) It improves the image and public relations of the company;
- d) It attracts tax concessions.

In many countries big business houses have their own non-profit organizations which run a range of social projects on education, health, community development and entrepreneurship development etc which reduce disasters in the long run.

Smaller business houses mainly contribute to projects run by NGOs. Government can create an enabling environment for greater corporate sector investment in disaster risk reduction activities through innovative partnership. A few examples of such partnerships are:-

APELL (Awareness and Preparation for Emergencies at the Local Level): It involves private sector, government and people to raise awareness of communities to prevent technological accidents. This network has been supported in a number of countries by United Nations Environment Programme;

DRN: (Disaster Resource Network). This network is run by Construction Federation of India to encourage safe construction practices;

IDRN: (India Disaster resource Network): This is a web based inventory of human and material resources on disaster response;

Innovative Public Private Partnership

Various innovative models of Private-Public-Partnerships are emerging in many countries for promoting multi-sectoral partnerships on disaster risk reduction under the leadership of the private sector. Some of the examples of such innovative models are:

- Private-Public-People Partnership - private sector joining hands with government and community based organizations for risk reduction programs at local level. Example: Bhagidari of Delhi;
- Pro-Poor Public-Private Partnerships designed to attract investment and technology in dry land areas for production of high value food commodities and for creating supply chain in a globalized economy. New hybrid organizations involving corporate sector, government, civil society and NGOs coming up. Proactive policy interventions of national governments shall encourage such innovations on disaster risk reduction with minimal direct investments of government.

4.16 Public Private Partnership: Public & Private Emergency service facilities available in the district.

Red Cross Volunteer Forum

The Indian Red Cross is a voluntary humanitarian organization having a network of over 700 branches throughout the country, providing relief in times of disasters/emergencies and promotes health & care of the vulnerable people and communities. It is a leading member of the largest independent humanitarian organization in the world, the International Red Cross & Red Crescent Movement. The movement has three main components, the International Committee of Red

Cross (ICRC), 187 National Societies and International Federation of Red Cross and Red Crescent Societies.

The Red Cross Voluntary Forum was established 10-12 years ago in the district with an objective to Promoting humanitarian principles and values; Disaster response; Disaster preparedness; and Health and Care in the Community. Although in the past years the paradigm has also been extended to a number of local issues including promoting awareness on road safety, organizing health & blood donation camps, arrangement of funeral work of deceased, medical assistance to injured, mass marriage of poor/ backward girls, transportation facility to patients faced accidents etc.

A total of 40 self motivated volunteers from different blocks of the district are working under the forum. In the past years the volunteers have significantly contributed towards disaster response during the 2013 Phailin & 2014 flood in the district as well as in 2008 Kandhamal communal riot.

Table__Contact Details of Private emergency services

| Sl. No. | Name of the Contact Person | Contact No. |
|---------|-----------------------------------|-------------|
| 1 | Jaminikanta Pattanaik, Convener | 94372 87001 |
| 2 | Bibhuti Bhusan Pattanaik, Advisor | 99382 27515 |

4.17 Multi Purpose Cyclone Shelters (MCS) in the district

a) Details of Cyclone Shelter Management and Maintenance Committee (CSMMC)

After the Super Cyclone 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. Only 23 cyclone shelters were constructed by Indian Red Cross before the super cyclone, wherein about 42000 people took shelter and saved their life. In the aftermath of the Super cyclone 1999, 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 under different programmes like NCRMP, ICZMP, CONCOR, NCRMP & CMRF. The Cyclone Shelter Buildings are designed to withstand a wind speed of 300 km per hour. The plinth level has been fixed above the recorded high tide level to prevent inundation by possible storm surge or high floods. Most of these buildings have been constructed within school premises for use as schools and for other community activities during normal time. All the Cyclone Shelters have been provided with generator sets for alternative power supply; disruption in power supply being a known phenomenon during cyclone.

Community based Cyclone Shelter Management and Maintenance Committee (CSMMC) have been formed under the Chairmanship of Sarpanch and a volunteer from the community as Secretary and the buildings have been handed over to the concerned CSMMC for management and maintenance. Local Tahasildar, Medical Officer, Junior Engineer of the Block, Revenue Inspector, Head Master of the School, ANM and Anganwadi Supervisor are Ex-Officio Members of the Committee. Representatives from local NGO, from shelter and served villages, SHG and SC & ST communities are also members of the Committee. The CSMMC takes the charge of day-to-day management and maintenance of the building. Most of the buildings have been constructed in School premises so that the buildings will be used for School purposes during

normal time. The CSMMC has also been authorized to put the building for economic / community uses like community house, kalia mandap etc. and earn user fees. The amount so earned is kept in a joint account and as and when necessary spent for the purpose of maintenance of the building. 4 numbers of MCSs have been constructed in Ranpur block at most vulnerable locations & are managed by CSMMC of the concerned vicinity. Aim and Objectives of the CSMMC/ FSMMC:

- To manage and maintain the Multipurpose Cyclone Shelter (MCS) constructed by Orissa State Disaster Mitigation Authority (OSDMA) as a caretaker to the community asset on behalf of OSDMA and the community.
- To ensure safe custody of the building and the equipment supplied/ to be supplied from time to time.
- To keep the building in readiness for use as shelters by the evacuated persons during the disaster and to vacate the same after disaster.
- To ensure lawful use of the building during normal time, to put it on income generating use and collect funds for maintenance and to carry out actual minor repair work as per the rule out of the fund and maintain the records as per rules.
- To ensure participation of the vulnerable community including the shelter village and served villages in disaster preparedness activities and in management and maintenance of the MCS.
- To organize community based capacity building activities like workshops, seminars, training programme on disaster related skills, padayatra etc to sensitize, involve and to strengthen the community.
- To develop a spirit of voluntarism among the youth of the community and to organize them into different task forces, strengthen their capacity and ensure their participation in disaster management.
- To disseminate disaster warnings and preparedness safety tips in the community and helps them in preparedness.
- To establish and maintain relation with field level officials of different departments of Govt., VDMC members and NGOs for better preparedness and management of activities during disaster.

The details of the CSMMC are given below:-

Table : Details of CSMMC

| Sl No | Name of the MCS | Location | Name of President | Contact No. | Name of Secretary | Contact No. |
|--------------|------------------------|---|---------------------------------|--------------------|-----------------------------|--------------------|
| 1 | MCS, Champagada | Panchayat High School, Champagada | Bishnu Priya Baliarsingh | 986130 0400 | Haluri Sahoo | 9439950 168 |
| 2 | MCS, Raipada | Near Gram Panchayat Office, Raipada | | | Yudhistri Ransingh | 9861728 909 |
| 3 | MCS, Muktapur | Muktapur Prakalpa Upper Primary School, Muktapur | | | Prahallad Paltasingh | 9438639 724 |
| 4 | MCS, | Balukeswar | | | Ramesh | 7894872 |

| | | | | | | |
|--|---------------------|-------------------------------------|--|--|-------------------------|------------|
| | Barangagadia | Bidya Pitha, Baranggadia | | | Chandra Rout | 474 |
|--|---------------------|-------------------------------------|--|--|-------------------------|------------|

b) Equipments provided to the MCS

Table __: Details of equipments provided to MCS

| SI No. | Name of the MCS | Location | Equipments Provided | Status | | Remarks |
|--------|-----------------|----------|---------------------|-------------|-----------------|---------|
| | | | | Operational | Non Operational | |
| 1 | | | | Nil | | |

4.18 Flood Shelters (FS) in the District

a) Details of Flood Shelter Management and Maintenance Committee (FSMMC)

Community based Flood Shelter Management and Maintenance Committee (FSMMC) constituted at the shelter level are responsible for the sustainable maintenance and management of these shelters by generating resources on putting these buildings in income generating use under the leadership of Sarpanch. The FCS buildings have been handed over to the respective Flood Shelter Management and Maintenance Committee (FSMMC). Task Forces have been constituted for each shelter and they have been trained on Search & Rescue, First Aid and use of basic search and rescue Equipment provided to the cyclone shelters. 13 numbers of MFSs have been constructed in the district at most vulnerable locations & are managed by FSMMC of the concerned vicinity. Out of that 8 shelters are under construction/ not submitted to the district. The detail is given below:-

Table __: Details of FSMMC

| SI No. | Name of the FS | Location | Name of President | Contact No. | Name of Secretary | Contact No. |
|--------|-----------------|--|-------------------|-------------|--------------------------|-------------|
| 1 | MFS, Champapedi | GP office campus, Champapedi | | | | |
| 2 | MFS, Raipada | Arjunpur UGSS School, Arjunpur | | | | |
| 3 | MFS, Badmul | Bethisahi Project UP School, Badmul | Mangulu Sahoo | 7682955277 | Raghunath Sahoo | 78943 29493 |
| 4 | MFS, Wallipur | Wallipur Lower Primary School, Wallipur | | | | |
| 5 | MFS, Kantilo | Infront of East gate of Nilamadhab Temple, Kantilo | | | Pradipta Kumar Mahapatra | 99373 15354 |
| 6 | MFS, Sidhamula | Gokulananda Bidyapitha, Sidhamula | | | | |
| 7 | MFS, Karabara | Adjacent to Girls High School, Karabara | | | Saumya Ranjan Mahapatra | 97763 88517 |
| 8 | MFS, Kalipalli | Kalipalli | | | | |
| 9 | MFS, Madhapur | Madhapur | | | | |
| 10 | MFS, | Hanumantprasad | | | | |

| | | | | | | |
|-----------|-------------------------------|--|--|--|--|--|
| | Hamumantprasad | | | | | |
| 11 | MFS, Natugaon | Near Natugaon GP Office, Natugaon | | | | |
| 12 | MFS, Badapandusara | Badapandusara High School, Badapandusara | | | | |
| 13 | MFS, Bilagoroda | Bilagoroda Project Primary School, Bilagoroda | | | | |

b) (Equipments provided to the FS)

Table 8: Details of equipments provided to FS

| SI No. | Name of the MCS | Location | Equipments Provided | Status | | Remarks |
|----------|-----------------|----------|---------------------|-------------|-----------------|---------|
| | | | | Operational | Non Operational | |
| 1 | | | | Nil | | |

4.19 Other identified Safe temporary shelters in the district

Table __: Identified Safe temporary shelters

| Sl No. | Block | GP | Village | Name of the Institutions/Buildings | Type of Roof | No. of Rooms (Size) | No. of Toilets (M/F) | Availability of Kitchen | Total useable area |
|--------|--------|--------------|-----------------|------------------------------------|--------------|-----------------------------|----------------------|-------------------------|--------------------|
| 1 | Ranpur | Patia | Patia | Club Building | RCC Roof | 3rooms, 16 x 14" | 1 | Temporary Chulla | 4000sqft |
| 2 | Ranpur | Raipada | Raipada nuasahi | Club Kothaghar | RCC Roof | 2rooms, 14 x 12" , 10 x 12" | 1 | Temporary Chulla | 1800sqft |
| 3 | Ranpur | Chandpur | Chandpur | Madhuban Sahi Club Kothaghar | RCC Roof | 1rooms, 18 x 12" | 0 | Temporary Chulla | 1200sqft |
| 4 | Ranpur | Chandpur | Jemadeipur | Harachandsahi Kothaghar | RCC Roof | 1rooms, 20 x 12" | 0 | Temporary Chulla | 1400sqft |
| 5 | Ranpur | K. Nayagarh | K. Nayagarh | Kothaghar | RCC Roof | 1room, 11 x 20" | 0 | Temporary Chulla | 1600sqft |
| 6 | Ranpur | Champagarh | Champagarh | Kothaghar | RCC Roof | 2room, 16 x 12" , 8 x 12" | 0 | Temporary Chulla | 1200sqft |
| 7 | Ranpur | Champagarh | Benta | Kothaghar | AC Roof | 1room, 12 x 8" | 0 | Temporary Chulla | 600sqft |
| 8 | Ranpur | Champagarh | Srikrushnapur | Kothaghar | AC Roof | 2room, 10 x 12" | 0 | Temporary Chulla | 600sqft |
| 10 | Ranpur | Kerendatangi | Kerendatangi | Kothaghar | AC Roof | 2room, 10 x 12" | 0 | Temporary Chulla | 600sqft |
| 11 | Ranpur | Kerendatangi | Gourachandrapur | Club Building | RCC Roof | 2room, 20 x 16" | 1 | Temporary Chulla | 1800sqft |
| 12 | Ranpur | Kerendatangi | Ekatal | Kothaghar | RCC Roof | 1room, 12 x 16" | 0 | Temporary Chulla | 600sqft |

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|----|--------|---------------|--------------------|-----------------------------------|----------|--|---|------------------|----------|
| 13 | Ranpur | Kerendatangi | Brundabanbiharipur | Kothaghar | RCC Roof | 2room, 12 x 16" | 0 | Temporary Chulla | 600sqft |
| 14 | Ranpur | Mayurjhalia | Mayurjhalia | Club Building | RCC Roof | 2room, 14 x 10" | 1 | Temporary Chulla | 600sqft |
| 15 | Ranpur | Jankia | Jankia | Kothaghar | RCC Roof | 2room, 20 x 20" Ground floor, 20 x 20" 1st floor | 1 | Temporary Chulla | 1800sqft |
| 16 | Ranpur | Jhadapada | Jhadapada | Kothaghar | RCC Roof | 2room, 10 x 12" | 1 | Temporary Chulla | 1100sqft |
| 17 | Ranpur | Champapedi | Barangagadia | Kothaghar | AC Roof | 3room, 12 x 14" | 1 | Temporary Chulla | 2000sqft |
| 18 | Bhapur | Fategarh | Fategarh | Fategarh High School | R.C.C. | 10 (12'x15') | 4 | Yes | 2000sft |
| 19 | Bhapur | Fategarh | Manipur | Manipur PUP School | R.C.C. | 3 (12'x15') | 2 | Yes | 1500sft |
| 20 | Bhapur | Karabara | Karabara | Samant Chandrasekhar Bidya Mandir | R.C.C. | 6 (12'x15') | 2 | Yes | 1800sft |
| 21 | Bhapur | Sasana | Hemantapatana | Hemantapatana PS | R.C.C. | 3 (12'x15') | 2 | Yes | 1500sft |
| 22 | Bhapur | Padmabati | Padmabati | Gopinath Bidyapitha | R.C.C. | 5 (12'x15') | 2 | Yes | 1700sft |
| 23 | Bhapur | Padmabati | Padmabati | Padmabati Nodal PS | R.C.C. | 5 (12'x15') | 2 | Yes | 1700sft |
| 24 | Bhapur | Padmabati | Padmabati | Padmabati Girls HS | R.C.C. | 5 (12'x15') | 2 | Yes | 1300sft |
| 25 | Bhapur | Kendualli | Hanumantaprasad | Shelter Building | R.C.C. | 3 (12'x15') | 4 | Yes | 2500sft |
| 26 | Bhapur | Patharchakada | Madhapur | Shelter Building | R.C.C. | 3 (12'x15') | 4 | Yes | 2500sft |
| 27 | Bhapur | Patharchakada | Patharchakada | Patharchakada PUP School | R.C.C. | 5 (12'x15') | 2 | Yes | 2300sft |

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|----|----------|----------------|----------------|---|--------|-------------|---|-----|-----------------|
| 28 | Bhapur | Dhanachangada | Kaliapalli | Shelter Building | R.C.C. | 3 (12'x15') | 4 | Yes | 2500sft |
| 29 | Bhapur | Dhanachangada | Laxmiprasad | Laxmiprasad PS | R.C.C. | 4 (12'x15') | 2 | Yes | 1900sft |
| 30 | Gani | Gania | gania | K.C.Bidyapitha Gania | Pucca | 4 (12'x15') | 2 | Yes | Ac.0.20 dec |
| 31 | Gani | Rasanga | Rasanga | Rasanga High School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0.16 dec |
| 32 | Gani | Belapadapatana | Belapadapatana | Belapadapatana High School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0.17 dec |
| 33 | Gani | Kishoreprasad | Kishoreprasad | Kishoreprasad High School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0. 14 dec |
| 34 | Gani | Adakata | Adakata | Adakata High School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0. 10 dec |
| 35 | Gani | Karadapada | Kalasimili | Kalasimili Project Primary School | Pucca | 2 (12'x15') | 2 | Yes | Ac.0. 05 dec |
| 36 | Gani | Chhamundia | Chhamundia | K.B Nodal Primary School Primary School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0. 10 dec |
| 37 | Gani | Badasilinga | Badasilinga | Badasilinga Sevashrama School | Pucca | 4 (12'x15') | 2 | Yes | Ac.0. 21 dec |
| 38 | Daspalla | Kujamendhi | Kujamendhi | Araniganda AS | RCC | 5-20*15 | 2 | 1 | 1 acre |
| 39 | Daspalla | Chadeyapalli | Areniganda | Chadeyapalli PS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 40 | Daspalla | Chadeyapalli | Dimiritadi | Dimiritadi PPS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 41 | Daspalla | Chadeyapalli | Bam | Govt. UGHS, Bam | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 42 | Daspalla | Chadeyapalli | Hanumanta | Hanumanta PUPS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 43 | Daspalla | Duda | Juraganda | Juraganda PS | RCC | 2-15*12 | 1 | 1 | 1 acre |

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|----|----------|--------------|---------------|--------------------|-----|---------|---|---|--------|
| 44 | Daspalla | Chadeyapalli | Kanthipadar | Kanthipadar PPS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 45 | Daspalla | Duda | Kathapatani | Kathapatani PS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 46 | Daspalla | Chadeyapalli | Khajurigochha | Khajurigocha PPS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 47 | Daspalla | Chadeyapalli | Osamaska | Osamaska PS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 48 | Daspalla | Kalasakhman | Panderi | Panderi PPS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 49 | Daspalla | Kalasakhman | Sisiraghati | Sisiraghati PS | RCC | 2-15*12 | 1 | 1 | 1 acre |
| 50 | Daspalla | Chadeyapalli | Sundurukumpa | Sundurukumpa AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 51 | Daspalla | Kujamendhi | Ambalimba | Ambalimba PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 52 | Daspalla | Kujamendhi | Bandarsahi | Bandarasahi PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 53 | Daspalla | Kujamendhi | Bandhakhman | Bandhakhman PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 54 | Daspalla | Kujamendhi | Bani | Bani P.S | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 55 | Daspalla | Banigochha | Banigochha | Banigochha HS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 56 | Daspalla | Banigochha | Banigochha | Banigochha PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 57 | Daspalla | Banigochha | Banigochha | Banigochha UPME. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 58 | Daspalla | Banigochha | Batagaon | Batagaon PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 59 | Daspalla | Banigochha | Burupalu | Burupalu AS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 60 | Daspalla | Duda | Gadiapada | Gadiapada PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 61 | Daspalla | Kujamendhi | Kalakiari | Kalakiari PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 62 | Daspalla | Kujamendhi | Kankanmendhi | Kankanamendhi PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 63 | Daspalla | Kujamendhi | Kujamendhi | Kujamendhi AS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 64 | Daspalla | Kujamendhi | Kumbhikila | KumbhiKila PPS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 65 | Daspalla | Kujamendhi | Pradhanpada | Padhanapada SS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 66 | Daspalla | Duda | Sirisira | Sirisira PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 67 | Daspalla | Pokharigochha | Bebiri | Bebiri PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 68 | Daspalla | Bhogabadi | Bhogabadi | Bhogabadi GOVT.UGUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 69 | Daspalla | Bhogabadi | Bhogabadi | Bhogabadi AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 70 | Daspalla | Bhogabadi | Bulunda | Bulunda PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 71 | Daspalla | Chadeyapalli | Gochha | Gochha PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 72 | Daspalla | Pokharigochha | Kainyadiha | Kainyadiha PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 73 | Daspalla | Bhogabadi | K.Bhogabadi | Kandhabhogobadi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 74 | Daspalla | Chadeyapalli | Kilapadar | Kilapadara SS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 75 | Daspalla | Bhogabadi | Bhogabadi | P.C HS. ,Bhogabadi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 76 | Daspalla | Pokharigochha | Pilipaju | Pilipaju PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 77 | Daspalla | Pokharigochha | Pokharigochha | Pokharigochha PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 78 | Daspalla | Pokharigochha | Sadabhuin | Sadabhuin PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 79 | Daspalla | Pokharigochha | Ududa | Ududa PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 80 | Daspalla | Dihagaon | Dindabhuin | Dindabhuin PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 81 | Daspalla | Dihagaon | Dwaragaon | Dwargaon PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 82 | Daspalla | Gholahandi | Gholahandi | Gholahandi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 83 | Daspalla | Gholahandi | G.Patna | Gobindapur patana PS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 84 | Daspalla | Gholahandi | Jillinda | Jilinda PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 85 | Daspalla | Madhyakhanda | Madhyakhanda | Madhyakhanda Girls PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 86 | Daspalla | Madhyakhanda | Madhyakhanda | Madhyakhanda HS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 87 | Daspalla | Madhyakhanda | Madhyakhanda | Madhyakhanda Nodal UPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 88 | Daspalla | Madhyakhanda | Mahantipalli | Mohantipalli PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 89 | Daspalla | Gholahandi | Gholahandi | PCHS, Gholahandi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 90 | Daspalla | Gholahandi | Gholahandi | RN UPME ,Gholahandi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 91 | Daspalla | Gholahandi | Talera | Talera PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 92 | Daspalla | Madhyakhanda | Tentuliapalli | Tentuliapalli PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 93 | Daspalla | Duda | Baijhari | Baijhiri PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 94 | Daspalla | Kujamendhi | Darsanipada | Dasanipada PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 95 | Daspalla | Duda | Duda | Duda UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 96 | Daspalla | kulurukumpa | Durgaprasad | Durgaprasad AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 97 | Daspalla | Banigochha | Garsa | Garasha PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 98 | Daspalla | Kulurukumpa | Jamusahi | Govt. UGHS ,Jamusahi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 99 | Daspalla | Kulurukumpa | Kulurukumpa | Govt. UGHS,Kulurukumpa | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 100 | Daspalla | Kulurukumpa | Gurha | Gurha PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 101 | Daspalla | Kujamendhi | Darsanipada | Jagannath UP(ME)S | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 102 | Daspalla | Pokharigochha | Kurudangi | Kurudangi PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 103 | Daspalla | Banigochha | Nephari | Nephari PS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 104 | Daspalla | kulurukumpa | Pamperedda | Pampreda PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 105 | Daspalla | Kujamendhi | Podapanda | Podapanda PPS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 106 | Daspalla | Banigochha | Takuda | Takuda PPS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 107 | Daspalla | kulurukumpa | Taladikri | Taladikiri PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 108 | Daspalla | kulurukumpa | Bidapaju | Bidapaju UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 109 | Daspalla | Ghugudipada | Champadali | Champadali PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 110 | Daspalla | Ghugudipada | Gohariamada | Gohariamada PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 111 | Daspalla | Ghugudipada | Ghugudipada | Gughudipada PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 112 | Daspalla | Ghugudipada | Kadalibari | Kadalibari PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 113 | Daspalla | Ghugudipada | Khalighati | Khalighati PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 114 | Daspalla | Ghugudipada | Khalisahi | Khalisahi B PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 115 | Daspalla | Ghugudipada | Kachapalli | L.N. H.s. , Kachapalli | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 116 | Daspalla | Ghugudipada | Makarprasad | Makaraprasada PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 117 | Daspalla | Ghugudipada | Mardabadi | Maradabadi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 118 | Daspalla | Ghugudipada | Raimada | Raiamada PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 119 | Daspalla | Ghugudipada | Saradhapur | Saradhapur UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 120 | Daspalla | Khamarsahi | Arasahi | Arasahi-Nuasahi PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 121 | Daspalla | Khamarsahi | Bhogara | Bhogara PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 122 | Daspalla | Khamarsahi | Chakradharpur | Chakradharapur PS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 123 | Daspalla | Khamarsahi | Kauda | Kauda PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 124 | Daspalla | Khamarsahi | Khamarsahi | Khamarasahi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 125 | Daspalla | Khamarsahi | Khamarsahi | Khamarasahi High School | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 126 | Daspalla | Khamarsahi | Khamarsahi | Khamarasahi UPME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 127 | Daspalla | Khamarsahi | P.Daspalla | Puruna Daspalla PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 128 | Daspalla | Khamarsahi | Sareniganda | Sareniganda PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 129 | Daspalla | Khamarsahi | Subalaya | Subalaya UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 130 | Daspalla | similisahi | Godibida | Godibida PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 131 | Daspalla | similisahi | Jagapur | Jagapur P.S. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 132 | Daspalla | similisahi | Kaima | Kaima P.S. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 133 | Daspalla | similisahi | Dedhasar | Dedhasara UGME. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 134 | Daspalla | similisahi | Dedhasar | Anchalik HS. ,Dedhasara | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 135 | Daspalla | tendabadi | Bateni | Bateni PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 136 | Daspalla | tendabadi | Khalisahi | Khalisahi A PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 137 | Daspalla | tendabadi | Tendabadi | GP HS, Tendabadi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 138 | Daspalla | tendabadi | Kusumagadia | Kusumagadia PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 139 | Daspalla | tendabadi | Kusumakana | Kusumakana PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 140 | Daspalla | tendabadi | Masabadi | Masabadi PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 141 | Daspalla | tendabadi | Pankua | Pankua PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 142 | Daspalla | tendabadi | Poibadi | Poibadi PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 143 | Daspalla | tendabadi | Tendabadi | Tendabadi Nodal UP | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 144 | Daspalla | tendabadi | Sakeni | Sakeni UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 145 | Daspalla | Sariagnda | Bandhugaon | Bandhugaon PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 146 | Daspalla | Tuimandi | Boipaju | Boipaju PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 147 | Daspalla | Sariagnda | Daliapadar | Dalipadara PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 148 | Daspalla | Sariagnda | Rangamatia | Hariharanagara PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 149 | Daspalla | Sariagnda | K.Andharkot | Kandhaandharakut PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 150 | Daspalla | tumandi | Kurubari | Kurubari PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 151 | Daspalla | tumandi | Narajipada | Narajipada PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 152 | Daspalla | Sariagnda | Neliguda | Neliguda PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 153 | Daspalla | Sariagnda | R.Odasar | Odasara PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 154 | Daspalla | Sariagnda | O.Budhapadar | Odiabudhapadara PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 155 | Daspalla | Sariagnda | Saliagochha | Saliagochha PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 156 | Daspalla | Sariagnda | Sariganda | Sariganda GP. HS. | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 157 | Daspalla | Takera | Bankataila | Bankataila PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 158 | Daspalla | Takera | Buguda | Buguda Govt. Girls HS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 159 | Daspalla | Takera | Bugu\ | Buguda PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 160 | Daspalla | Takera | Burusahi | Burusahi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 161 | Daspalla | Takera | Chilipathat | Chilipathara PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 162 | Daspalla | Takera | Manjari | Manjari PS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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|-----|----------|--------------|--------------|------------------------|-----|---------|---|---|--------|
| 163 | Daspalla | Takera | Mitukuli | Mitukuli PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 164 | Daspalla | Takera | Munduli | Mundulis AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 165 | Daspalla | Takera | Panabari | Panabari PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 166 | Daspalla | Tumandi | Tumandi | Panchayat HS , Tumandi | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 167 | Daspalla | Takara | Takara | Takara AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 168 | Daspalla | Takara | Takara | Takara Govt. HS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 169 | Daspalla | Tumandi | Tumandi | Tumandi UGME | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 170 | Daspalla | nuagaon | Abhaypur | Abhayapur PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 171 | Daspalla | nuagaon | Dolamundei | Dolamundei PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 172 | Daspalla | nuagaon | Gochhabari | Gochhabari PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 173 | Daspalla | Kalasakhaman | Kalasakhaman | Kalasakhamana PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 174 | Daspalla | Kalasakhaman | Kanapaju | Kanapaju PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 175 | Daspalla | Kalasakhaman | Kanipokhari | Kanipokhari PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 176 | Daspalla | nuagaon | Kutibari | Kutibari UGHS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 177 | Daspalla | nuagaon | Madhikumpa | Madhikumpa PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 178 | Daspalla | nuagaon | Minagadu | Minagadu PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 179 | Daspalla | nuagaon | Nuagaon | Nuagaon AS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 180 | Daspalla | nuagaon | Nuagaon | Nuagaon ME (AIDED) | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 181 | Daspalla | nuagaon | Putungi | Putungi PPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 182 | Daspalla | Kalasakhaman | Ullisahi | Ullisahi UGHS | RCC | 5-15*12 | 1 | 1 | 1 acre |

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| 183 | Daspalla | Nachhipur | Gambhariganda | Gambharikhola PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 184 | Daspalla | Dihagaon | G.Pankalsahi | Gaudapankalasahi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 185 | Daspalla | Nachhipur | Gobardhanpur | Gobardhanapur PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 186 | Daspalla | Dihagaon | Dihagaon | Jaleswara PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 187 | Daspalla | Dihagaon | Janisahi | Janisahi PUPS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 188 | Daspalla | Dihagaon | K.Pankalsahi | Khaira pankalasahi PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 189 | Daspalla | Nachhipur | Lembugochha | Lembugochha PS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 190 | Daspalla | Nachhipur | Nachhipur | Nachipur UGHS | RCC | 5-15*12 | 1 | 1 | 1 acre |
| 191 | Daspalla | Sariagnda | Neliguda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 192 | Daspalla | Sariagnda | Rangamatia | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 193 | Daspalla | Sariagnda | K.Andharkot | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 194 | Daspalla | Takera | Buguda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 195 | Daspalla | Tuimandi | Burusahi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 196 | Daspalla | Takera | Rathipur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 197 | Daspalla | Kulrukumpa | Pamperedda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 198 | Daspalla | Kulrukumpa | Gurha | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 199 | Daspalla | Kulrukumpa | Kulurukumpa | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 200 | Daspalla | Banigochha | Takuda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 201 | Daspalla | Banigochha | Buruplau | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 202 | Daspalla | Banigochha | Garasa | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |

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| 203 | Daspalla | Kujamendhi | Ambalimba | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 204 | Daspalla | Kujamendhi | Kankanmendhi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 205 | Daspalla | Kujamendhi | Chancharapalli | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 206 | Daspalla | Nuagaon | Kutibari | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 207 | Daspalla | Nuagaon | Nuagaon | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 208 | Daspalla | Nuagaon | Dolamunde | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 209 | Daspalla | Kalasakhman | Kalasakhman | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 210 | Daspalla | Kalasakhman | Kalamba | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 211 | Daspalla | Chadeyapalli | Chadeyapalli | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 212 | Daspalla | Chadeyapalli | Bam | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 213 | Daspalla | Chadeyapalli | Sundurukumpa | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 214 | Daspalla | Pokharigochha | Pilipaju | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 215 | Daspalla | Pokharigochha | Pipalpadar | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 216 | Daspalla | Similisahi | Kaima | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 217 | Daspalla | Similisahi | similisahi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 218 | Daspalla | Similisahi | Dedhasar | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 219 | Daspalla | Khamarsahi | Bhogara | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 220 | Daspalla | Khamarsahi | P.Daspalla | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 221 | Daspalla | Khamarsahi | Subalaya | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 222 | Daspalla | Khamarsahi | Kauda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |

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| 223 | Daspalla | Khamarsahi | Damahandi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 224 | Daspalla | Tenadabadi | Pankua | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 225 | Daspalla | Madhyakhanda | Ekachaliasahi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 226 | Daspalla | Madhyakhanda | Gadasahi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 227 | Daspalla | Madhyakhanda | Mahantipalli | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 228 | Daspalla | Gholahandi | Gholahandi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 229 | Daspalla | Gholahandi | GP Patna | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 230 | Daspalla | Gholahandi | Zillinda | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 231 | Daspalla | Gholahandi | Talera | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 232 | Daspalla | Dihagaon | Madhupur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 233 | Daspalla | Ghugudipada | Basantpur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 234 | Daspalla | Ghugudipada | Saradhapur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 235 | Daspalla | Ghugudipada | Mardabadi | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 236 | Daspalla | Ghugudipada | Raimada | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 237 | Daspalla | Ghugudipada | Gohariamada | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 238 | Daspalla | Nachhipur | Gobardhanpur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 239 | Daspalla | Nachhipur | Srirampur | AWC Building | RCC | 2-15*12 | 1 | 1 | 0.5Acr |
| 240 | Nuagaon | Sorada | Sorada | Sorada PUPS | Concrete | 2 | Yes | Yes | |
| 241 | Nuagaon | Sorada | Sorada | J.Prasad HS | Concrete | 3 | Yes | Yes | |
| 242 | Nuagaon | Sikrida | K.Prasad | K.Prasad UGMES | Concrete | 3 | Yes | Yes | |

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|-----|---------|-----------|------------------|--------------------------------|----------|---|-----|-----|--|
| 243 | Nuagaon | Sikrida | K.Prasad | K.Prasad PUPS | Concrete | 2 | Yes | Yes | |
| 244 | Nuagaon | Udayapur | Jiginipada | Jiginipada PUPS | Concrete | 2 | Yes | Yes | |
| 245 | Nuagaon | Udayapur | Naitaila | Naitaila PUPS | Concrete | 2 | No | Yes | |
| 246 | Nuagaon | Udayapur | Sikhargochha | Udaypur UGMES, Sikhargochha | Concrete | 5 | Yes | Yes | |
| 247 | Nuagaon | Korada | Mahitama | Mahitama PS | Concrete | 2 | Yes | Yes | |
| 248 | Nuagaon | Sorada | Lunisara | Lunisara UGMES | Concrete | 2 | Yes | Yes | |
| 249 | Nuagaon | Korada | Acchupada | Acchupada PS | Concrete | 1 | Yes | Yes | |
| 250 | Nuagaon | Korada | Korada | Bharat PPS, Korada-1 | Concrete | 3 | Yes | Yes | |
| 251 | Nuagaon | Nuagaon | Nuagaon | Nuagaon PS | Concrete | 5 | Yes | Yes | |
| 252 | Nuagaon | Nuagaon | Nuagaon | Nuagaon HS | Concrete | 5 | Yes | Yes | |
| 253 | Nuagaon | Nuagaon | Khalamada | Rameswar NMES, Khalamada | Concrete | 5 | Yes | Yes | |
| 254 | Nuagaon | Jakeda | Kandha Khalamada | Kandha Khalamada PS | Concrete | 1 | Yes | Yes | |
| 255 | Nuagaon | Korada | Minagadia | Minagadia PS | Concrete | 1 | No | Yes | |
| 256 | Nuagaon | Jakeda | Jakeda | Jakeda Sevashram | Concrete | 5 | Yes | Yes | |
| 257 | Nuagaon | Jakeda | Chhanabania | Chhanabania PS | Concrete | 1 | Yes | Yes | |
| 258 | Nuagaon | Paradhipi | Paradhipi | Paradhipi PUPS | Concrete | 2 | No | Yes | |
| 259 | Nuagaon | Paradhipi | Maskabari | Maskabari PS | Concrete | 1 | No | Yes | |
| 260 | Nuagaon | Paradhipi | Balanda | Balanda UPHS | Concrete | 2 | Yes | Yes | |
| 261 | Nuagaon | Maichheli | Gohiribadu | Gohiribadu SS | Concrete | 1 | No | Yes | |

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| 262 | Nuagaon | Maichheli | Sampada | Sampada UGMES | Concrete | 5 | Yes | Yes | |
| 263 | Nuagaon | Maichheli | Kosakata | Kosakata PUPS | Concrete | 1 | Yes | Yes | |
| 264 | Nuagaon | Maichheli | Maichheli | Maichheli PS | Concrete | 2 | Yes | Yes | |
| 265 | Nuagaon | Maichheli | Kanigiri | Kanigiri PS | Concrete | 1 | Yes | Yes | |
| 266 | Nuagaon | Malisahi | Gudupangi | Gudupangi PS | Concrete | 3 | Yes | Yes | |
| 267 | Nuagaon | Malisahi | Dhipamala | Dhipamala PUPS | Concrete | 1 | Yes | Yes | |
| 268 | Nuagaon | Malisahi | Malisahi | Malisahi MES-1 | Concrete | 3 | Yes | Yes | |
| 269 | Nuagaon | Malisahi | Deuli | Deuli NPS | Concrete | 3 | Yes | Yes | |
| 270 | Nuagaon | Malisahi | Hiradeipur | Hiradeipur PS | Concrete | 3 | Yes | Yes | |
| 271 | Nuagaon | Malisahi | Khanguri | Khanguri MES | Concrete | 2 | Yes | Yes | |
| 272 | Nuagaon | Mahipur | Mahipur | Patulisahi PUPS-R-1, Mahipur | Concrete | 4 | Yes | Yes | |
| 273 | Nuagaon | Mahipur | Mahipur | Patulisahi PUPS-R-2, Mahipur | Concrete | 4 | Yes | Yes | |
| 274 | Nuagaon | Paradhipi | Thuabari | Thuabari PS | Concrete | 2 | Yes | Yes | |
| 275 | Nuagaon | Mahipur | Mahipur | Mahipur HS, Mahipur | Concrete | 4 | Yes | Yes | |
| 276 | Nuagaon | Mahipur | Niladripur | Niladripur PS | Concrete | 2 | Yes | Yes | |
| 277 | Nuagaon | Mahipur | Malisara | Malisara NUPS-R-1 | Concrete | 2 | Yes | Yes | |
| 278 | Nuagaon | Mahipur | Malisara | Malisara NUPS-R-2 | Concrete | 2 | Yes | Yes | |
| 279 | Nuagaon | Chahali | Raipur | Daliameda UPS, Raipur | Concrete | 3 | Yes | Yes | |
| 280 | Nuagaon | Chahali | Chahali | Raghnatha MES, Chahali | Concrete | 3 | Yes | Yes | |

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| 281 | Nuagaon | Dhenkena | Dhenkena | Dhenkena UGMES | Concrete | 4 | Yes | Yes | |
| 282 | Nuagaon | Dhenkena | Madhuban | Madhuban PS | Concrete | 3 | Yes | Yes | |
| 283 | Nuagaon | Dhenkena | Balabhadrapur | Balabhadrapur PS | Concrete | 1 | Yes | Yes | |
| 284 | Nuagaon | Khandugaon | Khandugaon | Khandugaon UGHS | Concrete | 5 | Yes | Yes | |
| 285 | Nuagaon | Khandugaon | Golagola | Golagola UPS | Concrete | 2 | Yes | Yes | |
| 286 | Nuagaon | Durudura | Similisahi | Similisahi UPS | Concrete | 5 | Yes | Yes | |
| 287 | Nuagaon | Durudura | Durudura | Durudura NUPS | Concrete | 4 | Yes | Yes | |
| 288 | Nuagaon | Badagotha | Khuntubandha | Khuntubandha PS | Concrete | 1 | Yes | Yes | |
| 289 | Nuagaon | Badagotha | Viruda | Viruda PS | Concrete | 2 | Yes | Yes | |
| 290 | Nuagaon | Badagotha | Badagotha | Badagotha PS | Concrete | 3 | Yes | Yes | |
| 291 | Nuagaon | Badagotha | Radhanathapur | Radhanathapur PS | Concrete | 2 | Yes | Yes | |
| 292 | Nuagaon | Badagotha | Bakalabandha | Bakalabandha PPS | Concrete | 2 | Yes | Yes | |
| 293 | Nuagaon | Badagotha | Dimirijhari | Dimirijhari HS | Concrete | 4 | Yes | Yes | |
| 294 | Nuagaon | Gateri | Gateri | Gateri PS | Concrete | 2 | Yes | Yes | |
| 295 | Nuagaon | Gateri | Dakadhola | Dakadhola PUPS | Concrete | 2 | Yes | Yes | |
| 296 | Nuagaon | Gateri | Adipada | Adipada PPS | Concrete | 2 | NO | Yes | |
| 297 | Nuagaon | Singarapalli | Singarapalli | Singarapalli HS | Concrete | 6 | Yes | Yes | |
| 298 | Nuagaon | Singarapalli | Bantala | Sivaram NUPS, Bantala | Concrete | 4 | Yes | Yes | |
| 299 | Nuagaon | Singarapalli | Sundhijhola | Sundhijhola NUPS | Concrete | 2 | Yes | Yes | |
| 300 | Nuagaon | Singarapalli | Kaithapalli | Kaithapalli PPS | Concrete | 2 | Yes | Yes | |

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| 301 | Nuagaon | Singarapalli | Ambapada | Ambapada NUPS | Concrete | 2 | No | Yes | |
| 302 | Nuagaon | Bahadajhola | Bahadajhola | Bahadajhola Centre HS | Concrete | 3 | Yes | Yes | |
| 303 | Nuagaon | Bahadajhola | Ghadeibandha | Ghadeibandha PUPS | Concrete | 2 | Yes | Yes | |
| 304 | Nuagaon | Bahadajhola | Bahadajhola | Bahadajhola HS | Concrete | 5 | Yes | Yes | |
| 305 | Nuagaon | Bahadajhola | Bahadajhola | Bahadajhola MES-4 | Concrete | 5 | Yes | Yes | |
| 306 | Nuagaon | Singarapalli | Senteri | Senteri PUPS | Concrete | 5 | Yes | Yes | |
| 307 | Nuagaon | Gumi | Gumi | Gumi PS | Concrete | 6 | Yes | Yes | |
| 308 | Nuagaon | Jakeda | Kendubania | Chadakamara PS, Kendubania | Concrete | 2 | Yes | Yes | |
| 309 | Nuagaon | Gateri | Bhaliapadar | Bhaliapadar PS | Concrete | 2 | Yes | Yes | |
| 310 | Nuagaon | Gumi | Dimiripalli | Dimiripalli HS | Concrete | 7 | Yes | Yes | |
| 311 | Nuagaon | Gumi | Barakola | Barakola PS | Concrete | 2 | No | Yes | |
| 312 | Nuagaon | Kaptapalli | Kaptapalli | Kaptapalli PUPS | Concrete | 2 | Yes | Yes | |
| 313 | Nuagaon | Betanati | Betanati | Betanati PUPS | Concrete | 3 | Yes | Yes | |
| 314 | Nuagaon | Beruanbari | Badhulipur | Bhagabat Jew NUPS, Badhulipur | Concrete | 4 | Yes | Yes | |
| 315 | Nuagaon | Beruanbari | Todigadia | Todigadia PUPS | Concrete | 2 | Yes | Yes | |
| 316 | Nuagaon | Beruanbari | Beruanbari | Beruanbari Nodal School- 1 | Concrete | | Yes | Yes | |
| 317 | Nuagaon | Beruanbari | Bandhabhuin | Bandhabhuin PS | Concrete | 4 | Yes | Yes | |
| 318 | Nuagaon | Haripur | Hatiasila | Hatiasila PS | Concrete | 3 | Yes | Yes | |
| 319 | Nuagaon | Haripur | Siarimala | Siarimala PUPS | Concrete | 3 | Yes | Yes | |

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| 320 | Nuagaon | Haripur | Bhatasahi | Bhatasahi PS | Concrete | 2 | Yes | Yes | |
| 321 | Nuagaon | Haripur | Haripur | Haripur PS | Concrete | 3 | Yes | Yes | |
| 322 | Nuagaon | Durudura | Kirialanji | Kirialanji PS | Concrete | 3 | Yes | Yes | |
| 323 | Nuagaon | Durudura | Ekatala | Ekatala PS | Concrete | 3 | Yes | Yes | |
| 324 | Nuagaon | Durudura | Sribantdeipur | Sribantdeipur UGMES | Concrete | 2 | No | Yes | |
| 325 | Odagaon | Angising | Angising | Angisingi PS | Pucca | 5 *16'/22' | 2 | Yes | 1760 |
| 326 | Odagaon | Angising | Angising | BACO UGHS, Angisingi | Pucca | 10 *16'/22' | 2 | Yes | 3520 |
| 327 | Odagaon | Godipali | Sikharapur | Gopinath HS, Godipalli | Pucca | 4 *16'/22' | 0 | Yes | 1408 |
| 328 | Odagaon | Garjani | Korapitha | Garjani PUPS | Pucca | 6 *16'/22' | 2 | Yes | 2112 |
| 329 | Odagaon | Bhadikila | Bhadikila | Bhadikila PUPS | Pucca | 4 *16'/22' | 2 | Yes | 1408 |
| 330 | Odagaon | Ambarapur | Bausagadia | Ambarapur PUPS | Pucca | 5 *16'/22' | 2 | Yes | 1760 |
| 331 | Odagaon | Gunthasahi | Bausagadia | Gunthasahi PUPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 332 | Odagaon | Saradhapur | saradhapur | Saradhapur PUPS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 333 | Odagaon | Korapitha | Korapitha | Janata Nodal UPS Korapitha | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 334 | Odagaon | Sakeri | Sakeri | BN Nodal UPS Sakeri | Pucca | 7*16'/22' | 2 | Yes | 2464 |
| 335 | Odagaon | Baunsagadia | Bausagadia | Baunsagadia UPS (To) | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 336 | Odagaon | Badakutuni | Kajaleipali | Badakutuni PUPS | Pucca | 7*16'/22' | 2 | NO | 2464 |

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| 337 | Odagaon | Panibhandra | Golagan | Panibhandra PUPS | Pucca | 8*16'/22' | 2 | NO | 2816 |
| 338 | Odagaon | Kurumundali | Golagan | Kurumundali PUPS | Pucca | 5*16'/22' | 2 | NO | 1760 |
| 339 | Odagaon | Barasahi | Barasahi | Barasahi UGHS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 340 | Odagaon | kajalaipali | Kajaleipali | SL Bidyapitha HS kajalaipali | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 341 | Odagaon | Khairapati | Bhaliadhi | J. Khairapati PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 342 | Odagaon | Dayanajhari | Panchumu | Dayanajhari PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 343 | Odagaon | Bhaliadihi | Bhaliadhi | Bhaliadihi Nodal UPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 344 | Odagaon | Keshapania | Panchumu | Keshapania Nodal UPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 345 | Odagaon | Gaudput | Goudaput | Gaudput CPS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 346 | Odagaon | Banthapur | Banthapur | Banthapur U.G.H.S | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 347 | Odagaon | Ostia | Banthapur | Ostia Ashrma School | Pucca | 8*16'/22' | 2 | Yes | 2816 |
| 348 | Odagaon | Dimisar | Dimisar | Dimisar PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 349 | Odagaon | Haridabandha | godipada | Haridabandha PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 350 | Odagaon | Patulisahi | patulisahi | Patulisahi PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 351 | Odagaon | Haripur | Dimisar | Haripur PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 352 | Odagaon | Komanda | Godipada | Komanda A PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |

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| 353 | Odagaon | Komanda | Godipada | Komanda B PUPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 354 | Odagaon | Darapada | Kalyanpur | Darapada PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 355 | Odagaon | Binayakpur | Magarabandha | Binayakpur Nodal UPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 356 | Odagaon | Magarbandha | Magarabandha | Magarbandha PUPS | Pucca | 11*16'/22' | 2 | Yes | 3872 |
| 357 | Odagaon | Bhagabatiprasad | Komanda | Bhagabatiprasad PUPS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 358 | Odagaon | Komonda | Komanda | Komonda Nodal UPS | Pucca | 8*16'/22' | 2 | Yes | 2816 |
| 359 | Odagaon | Udayapur | Komanda | Udayapur PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 360 | Odagaon | Rohibanka | Baghua | Rohibanka UGHS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 361 | Odagaon | Kural | Kural | Kural CPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 362 | Odagaon | Nathiapali | Kural | Nathiapali PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 363 | Odagaon | Hanumantia | Kural | Hanumantia PUPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 364 | Odagaon | Pandiripada | Kural | Pandiripada PUPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 365 | Odagaon | Kural | Kural | JN Nodal UPS Kural | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 366 | Odagaon | Dandore | Kural | Dandore UGMEs | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 367 | Odagaon | Kural | Kural | Kural Ups (To) | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 368 | Odagaon | Madanpur | Panderipada | Satrughan UPS Madanpur (To) | Pucca | 4*16'/22' | 2 | Yes | 1408 |

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| 369 | Odagaon | Ranganipatana | RANGANIPATANA | Ranganipatana CPS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 370 | Odagaon | Bhaliadihi | Bhaliadhi | Bhaliadihi UGMES | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 371 | Odagaon | Masabari | Masabari | Masabari UGMES | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 372 | Odagaon | K.bankatara | Masabari | T.S.Nodal UPS, K.bankatara | Pucca | 8*16'/22' | 2 | Yes | 2816 |
| 373 | Odagaon | P.Bankatara | Masabari | P.Bankatara PUPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 374 | Odagaon | Ranganipatana | RANGANIPATANA | Uddhaba UPME,Ranganipatana(To) | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 375 | Odagaon | Bahadapitha | RANGANIPATANA | Bahadapitha PS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 376 | Odagaon | Nandighore | Nandighore | Nandighore CPS | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 377 | Odagaon | Ostia | Nandighore | Ostia PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 378 | Odagaon | Arada | Nandighore | U.Nodal UPS, Arada | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 379 | Odagaon | Nandighore | Nandighore | Nandighore UPS (TO) | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 380 | Odagaon | Odagaon | Odagaon | Govt. MES Odagaon | Pucca | 9*16'/22' | 2 | Yes | 3168 |
| 381 | Odagaon | Odagaon | Odagaon | Odagaon C.P.S | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 382 | Odagaon | Odagaon | Odagaon | Odagaon UGMES | Pucca | 8*16'/22' | 2 | Yes | 2816 |
| 383 | Odagaon | Paikasahi | Odagaon | Paikasahi PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 384 | Odagaon | Rabara | Odagaon | Rabara UGMES | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 385 | Odagaon | Odagaon | Odagaon | Block Colony PPS Odagaon | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 386 | Odagaon | Sarankul | Sarankul | Nilakantha PS, Sarankul | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 387 | Odagaon | Sarankul | Sarankul | Birajai PS, Sarankul | Pucca | 5*16'/22' | 2 | Yes | 1760 |

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|-----|---------|--------------|--------------|----------------------------------|-------|------------|---|-----|------|
| 388 | Odagaon | Badaput | Badaput | Badaput PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 389 | Odagaon | Sarankul | Sarankul | Sarankul PUPS | Pucca | 5*16'/22' | 2 | Yes | 1760 |
| 390 | Odagaon | K.Hariharpur | K.Hariharpur | K.Hariharpur UGMES | Pucca | 7*16'/22' | 2 | Yes | 2464 |
| 391 | Odagaon | Panchrida | Panchrida | Panchrida UGMS | Pucca | 7*16'/22' | 2 | Yes | 2464 |
| 392 | Odagaon | P.Manapur | P.Manapur | Anand Chandra Nodal P.Manapur | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 393 | Odagaon | Sarankul | Sarankul | Narayan HS, Sarankul | Pucca | 10*16'/22' | 2 | Yes | 3520 |
| 394 | Odagaon | Sarankul | Sarankul | Girls High School Sarankul | Pucca | 9*16'/22' | 2 | Yes | 3168 |
| 395 | Odagaon | Machhipada | Machhipada | CS Nodal UPS, Machhipada | Pucca | 6*16'/22' | 2 | Yes | 2112 |
| 396 | Odagaon | Solapata | Gotisahi | Solapata Nodal UPS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 397 | Odagaon | Giridipalli | Sunamuhi | Giridipalli PS | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 398 | Odagaon | Balisinsa | Sunamuhi | Balisinsa Pups | Pucca | 4*16'/22' | 2 | Yes | 1408 |
| 399 | Odagaon | Sunamuhin | Sunamuhi | Sunamuhin Nodal UPS | Pucca | 4**16'/22' | 2 | Yes | 1408 |

4.20. Other Safe Sites for temporary shelter for Flood/ Tsunami etc.

| Sl. No. | Block Name | GP Name | No. of Mounts | No. of High Bridges |
|---------|------------|-------------|---------------|---------------------|
| 1 | Gania | Chhamundia | 10 | 03 |
| 2 | Nayagarh | Champatipur | - | 01 |

Chapter – 5

Prevention & Mitigation Measures

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

5.2 a) Structural Measures

Structural measures may refer to both- engineered structures & non engineered structures. Engineered structures involve architects & engineers during the planning, designing & construction of structures including buildings, dams, embankments, roads, bridges etc. Many countries have laws & rules providing codes for engineered construction. These codes provide guideline for appropriate design & construction techniques in disaster prone areas for specific disasters such as earthquakes & cyclones.

Non engineered structures are generally constructed by people with the help of local artisans like masons, carpenters etc using locally available resources & raw materials. These structures are normally low cost but less strength/ resistance for disaster.

Multi Hazard Mitigation Actions

The following structural measures may also be considered in addition to hazard specific actions:-

- All public buildings like schools, hospitals, health centres etc should be multi hazard resilient, being built on raised grounds & platforms with retrofitting and having adequate exit gates and fire extinguishers in place.
- Construct multipurpose community shelters/ cyclone shelters/ flood shelters in all vulnerable areas.
- Houses built in the area should have multi hazard resilient features keeping in tune with cultural housing practices.
- A study may be conducted by the district administration to assess the existing structures and systems in place for watershed management and recommend best options for effective watershed management.
- Promotion of Earthquake resistant construction mainly includes construction safety, quality control and proper inspection. Previously there were no specific guidelines on earthquake resistant constructions and seismic strengthening.
- Periodically cleaning, de-silting & deepening of natural water reservoir & drainage channels.
- Construction of irrigation channels. Sluice gates may be linked with ponds which could be used as a water resource for enhancing livelihood.

Below given table indicates some structural measures planned to implement for prevention of **drought** situations in Nayagrh district by the **IWMP**. Construction of rain water harvesting structure like ponds, canals, dams & recharging of the ground water table etc are the main aims of IWMP.

| Sl. No. | Name of the Block | Unit | Name of the Department/ Office | Activity/ Project | Starting date | Date of completion | Cost (in Lakhs) | Funding source |
|---------|-------------------|------|--|---|---------------|--------------------|-----------------|----------------|
| 1 | Nayagarh | 0 | Soil Conservation and Watersheds Development, Odisha/ Project Director, Watersheds, Nayagarh | PMKSY (Watershed Development)/PMKSY (PDMS, Other Intervention) | 2017-18 | 2018-19 | 5.98 | Govt of Odisha |
| 2 | Daspalla | 0 | | | | | 8.10 | |
| 4 | Khandapada | 2 | | | | | 4.37 | |
| 5 | Odagaon | 13 | | | | | 38.19 | |
| 6 | Ranpur | 28 | | | | | 77.97 | |
| 7 | Nuagaon | 6 | | | | | 17.67 | |
| 8 | Bhapur | 10 | | | | | 24.46 | |

Source:- IWMP, Note- No new projects will be taken up, expenditure will be made for turfing of the projects taken up in the previous year

Table no- Structural Measures under Irrigation division

| <i>Scheme wise works under Nayagarh Irrigation Division, Nayagarh for the year 2017-18</i> | | | | | |
|--|---|---------|------------|-------------------------|------------------|
| Sl No. | Name of the work | Block | Agrrt No. | Agrrt. Amount (in Lakh) | Status of work |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | STATE PLAN FLOOD CONTROL (RE) | | | | |
| 1 | Raising and strengthening of Dahuka Left near village Deuli for 2017-18. | Nuagaon | 29P1/16-17 | 24.27 | Work in progress |
| 2 | Protection and Improvement to Dahuka left at Hiradeipur for 2017-18 (WRD from RD7920m to 9350m). | Nuagaon | 69P1/16-17 | 21.04 | Work in progress |
| 3 | Repair and Protection to Kuanria left and right embankment near village Jagannathprasad, Sikirida, Krushnaprasad for the year 2017-18 | Gania | 25P1/16-17 | 21.16 | Work in progress |
| 4 | Repair and Protection to Brutang left and right embankment near village Kimbhirakhani, Dhobabarei, Rajingi for the year 2017-18 | Gania | 26P1/16-17 | 25.26 | Work in progress |
| 5 | Protection to Kuanria left bank from Dwaragaon to Dihagaon for 2017-18 (RD 00m to 240m). | Gania | 32P1/16-17 | 16.91 | Work in progress |
| 6 | Protection to Kuanria right bank near village upper Dindabhuin for 2017-18 (From RD 00m to 240m). | Gania | 75P1/16-17 | 21.14 | Work in progress |
| | TOTAL | | | 129.78 | |
| | RESTORATION | | | | |
| 1 | Restoration of Brutang left near Khandadhua for the year 2017-18. | Gania | 24P1/16-17 | 25.59 | Work in progress |
| 2 | Restoration of Brutanga left near Siligadia for 2017-18(RD 00 m to 280 m). | Gania | 31P1/16-17 | 17.01 | Work in progress |

| | | | | | |
|---|--|----------|----------------|--------------|------------------|
| 3 | Restoration to Kuanria Right near Project U.P. School Dindabhuin for the year 2017-18. | Gania | 23P1/16-17 | 17.16 | Work in progress |
| | TOTAL | | | 59.76 | |
| | <u>CRITICAL LUMP RIVER EMBANKMENT</u> | - | | | |
| 1 | Improvement & Protection of Dahuka left near Puruna Raipur RD 4135m to 4455m for the year 2017-18. | Nuagaon | 70P1/16-17 | 12.63 | Work in progress |
| 2 | Improvement and protection of Baghamari right near Jautukapatna for the year 2017-18 | Nuagaon | 30P1/16-17 | 8.16 | Work in progress |
| 3 | Improvement and Protection to Bhagamari left near Kanchanbeli for the year 2017-18. | Nuagaon | 28P1/16-17 | 8.24 | Work in progress |
| 4 | Improvement and Protection to Kuanria right bank near Barapurikia for the year 2017-18 | Gania | 22P1/16-17 | 16.84 | Work in progress |
| 5 | Improvement and Protection to Kuanria left bank near veterinary hospital for the year 2017-18. | Gania | 20P1/16-17 | 25.36 | Work in progress |
| 6 | Improvement and Protection to Kuanria left bank near village Mahulia for the year 2017-18 | Gania | 21P1/16-17 | 16.93 | Work in progress |
| | TOTAL | | | 88.16 | |
| | <u>ROAD (LMB)</u> | - | | | |
| 1 | Improvement of road from Khandugaon high school to Dahuka Diversion weir and Dahuka right embankment for the year 2017-18 (WRD 9840m to 10890m). | Nuagaon | 60P1/16-17 | 14.87 | Work in progress |
| | TOTAL | | | 14.87 | |
| | <u>ROAD (RVN)</u> | - | | | |
| 1 | Imp to service road of Right Distry from Village Nuasahi to Tendabadi of Kip for 2017-18. | Daspalla | 35P1/16-17 | 17.08 | Work in progress |
| | TOTAL | | | 17.08 | |
| | <u>CRITICAL LUMP (PROJECT)</u> | - | | | |
| 1 | Improvement of left distributary along with repair and renovation of 6 nos. canal syphone with C.C lining of Kuanria Irrigation Project for 2017-18 (RD 60m to 10940m) | Daspalla | 33P1/16-17 | 17.19 | Work in progress |
| 2 | Improvement of right distributary along with repair and renovation of 5 nos. canal syphone with C.C lining of Kuanria Irrigation Project for 2017-18 (RD 900m to 17445m) | Daspalla | 36P1/16-17 | 17.23 | Work in progress |
| 3 | Improvement of Mangalpur Minor with repair and renovation of 6 nos. structures with C.C lining of Kuanria Irrigation Project for 2017-18 (RD 60m to 2500m) | Daspalla | 37P1/16-17 | 10.38 | Work in progress |
| 4 | Improvement of Pithakhai Minor with repair and renovation of 4 nos. structures with C.C lining of Kuanria Irrigation Project for 2017-18 (RD 30m to 1227m) | Daspalla | 34P1/16-17 | 10.72 | Work in progress |
| 5 | Improvement of Lunisara S/M from RD 4325m to 5760m along with repair of three | Nuagaon | 02K2(PP)/16-17 | 3.00 | Work in progress |

| | | | | | |
|---|---|---------|----------------|--------------|------------------|
| | Nos. Structures with C.C lining of KIP for 2017-18. | | | | |
| 6 | Improvement of Lunisara S/M from RD 230m to 4250m along with repair of Structures of Right distributary of KIP for 2017-18. | Nuagaon | 03K2(PP)/16-17 | 3.00 | Work in progress |
| | TOTAL | | | 61.52 | |

Source:- Irrigation division, Nayagarh

5.2 b) Structural Measures: For Mitigation of Flood & Cyclone

Since Nayagarh has continuously become the victim of multiple natural hazards, it is of utmost importance to undertake mitigation measures. Depending upon the need & vulnerability of the vicinity 4 numbers of MCSs & 5 MFS have already been constructed & handed over to the district, however 8 numbers of MFSs are under constructed in the district. Below given table gives a glimpse of the structural measures undertaken to mitigate the impact of flood & cyclone in the district by the Government. Below given infrastructures are the ongoing & the concerned BDOs are supervising the activities.

| Sl. No. | Name of the Department/ Office | Activity/ Project | Starting date | Date of completion | Cost | Funding source |
|---------|--------------------------------|----------------------------|---------------|--------------------|-----------|--------------------------------|
| 1 | RD Deptt | Multipurpose Flood Shelter | 28.11.2014 | On Going | 63.62 lks | CMRF (By RD dept-post Phailin) |
| 2 | RD Deptt | Multipurpose Flood Shelter | 28.11.2014 | On Going | 64.92 lks | CMRF (By RD dept-post Phailin) |
| 3 | RD Deptt | Multipurpose Flood Shelter | 28.11.2014 | On Going | 62.76 lks | CMRF (By RD dept-post Phailin) |

Source:- OSDMA, Bhubaneswar, Odisha

5.3 Non-structural Measures:

It is of utmost importance that the non-structural mitigation measures are also to be framed essentially in such a way that the population of the district will be aware on disaster preparedness & mitigation measures & simultaneously their capacity shall be developed to cope up with hazardous situations in future.

- Risk transfer mechanisms: Insurance brings quality consciousness in the infrastructure & culture of safety by insisting to follow building codes, norms, guidelines & quality materials in construction. Establishment & strengthening of insurance schemes & policies which would transfer the risk & losses to a third party. Insurance schemes for crop, cattle, small business & life should be strengthened & promoted to minimize economic losses.
- Formation of trained groups of architects, engineers & masons for construction of disaster resilient infrastructures.

- Alternate safe housing technology with rain water harvesting structure is constantly encouraged & mainstreamed for long-term vulnerability reduction. Policies & bylaws could be developed for the same.
- Continuous awareness campaign & encouragement for disaster proof habitat planning at community level including shifting/ relocating from low lying areas & villages within embankments to safe raised grounds.
- Disaster Management may include first-aid, evacuation & search & rescue as a part of school, college, educational institutions curriculum.
- The DDMA may suggest conducting research on alternative cropping to reduce adverse effect due to flood, water logging or drought.
- Specialised projects may be implemented in the district to strengthen the process of Community Based Disaster Risk Reduction (CBDRR).

District Consists up of weak & illegal constructions, which compounds its vulnerability to earthquake, fire & building collapse. Buildings constructed with good design are not necessarily disaster resilient & built with earthquake safe design. There is a need of an urgent mitigation planning under which new constructions should be come up as per building bylaws & standard codes. The RD department & district administration needs to administer flood, cyclone & fire safety assessments of the infrastructures & fire-fighting arrangements shall be promoted in all minor & major buildings & establishments. Below given some of the activities undertaken at the district level:-

Crop insurance

The Pradhan Mantri Fasal Bima Yojana (Prime Minister's **Crop Insurance** Scheme) was launched by Prime Minister of India Narendra Modi on 18 February 2016. It envisages a uniform premium of only 2 per cent to be paid by farmers for Kharif **crops**, and 1.5 per cent for Rabi **crops**.

Swasthya Kantha

Under the programme of NHM, the health department in the district is using the common accessible places to display all the infromations, reduce epidemic related morbidity & mortality & mitigate the impact etc both in rural & urban areas.

Road safety week

The district is observing the road safety week at all the vital & strategic locations to spread awareness among the inhabitants to enhance the understanding & reduce the risk.

Mock drill & demo exercise

The fire services wing in the district is conducting safety mock drill & exercises in schools, colleges, hospitals & vulnerable locations on fire safety, first aid, rescue etc through out the year.

Vana Suraksha Samiti

The district has 326 VSS in place & entrusted for the protection of forest. Their main task is to protect the forest from forest fire. And quite significantly the said groups have performed in the past years volunteerly. Since the forest in the district is prone to Ground fire, the existence of such groups is quite helpful in tackling the forest fire easily.

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

DRR means Integrating risk reduction into development policies and plans at all levels of government including poverty reduction strategies and multi-sectoral policies and plans (HFA 2005-2015). Mainstreaming Disaster Risk Reduction into Development and Disaster Management Plans is an important mandate of the Disaster Management Act 2005. Already there is an emerging consensus that the key to achieve sustained reduction in disaster losses lies in factoring risk considerations into development activities. Risk sensitive land-use planning, building regulations with provisions for structural safety against natural hazards, construction of hazard resistant infrastructures including housing, mechanism for disaster risk audit, catastrophic risk insurance etc. could reduce future disaster risks.

Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimizing that activity's potential contribution to hazard specific vulnerability. In order to mainstream DRR appropriate policy interventions and adequate financial allocation would be required. Below given a table indicates the possible convergence of DRR with mainstreamed schemes of the government.

| Sl. No. | Scheme | Possible activities for DRR |
|---------|---|---|
| 1 | Pradhan Mantri Fasal Bima Yojna (PMFBY) | <ul style="list-style-type: none"> Identified drought prone villages of the district can be covered under the scheme to encourage risk transfer mechanism The DDMA can stretch the awareness to all the corners of the district & encourage farmers to avail the facility |
| 2 | Pradhan Mantri Gramin/ HFA-Urban Awas Yojana, Biju Pucca Ghar Yojana, Indira Awas Yojana, Rajiv Awas Yojana | <ul style="list-style-type: none"> Disaster resilient technology can be utilised during construction of the rural/ urban housing under the said schemes All the JEs, AEs, masons of the district can be trained on how to promote & utilise the technology during construction of buildings & infrastructures |
| 3 | Nehru Yuva Kendra, National Cadet Core, National Service Scheme | <ul style="list-style-type: none"> Youths & volunteers can be trained on different aspects of disaster management directly & simultaneously their family members indirectly |
| 4 | Biju Setu Yojana | <ul style="list-style-type: none"> Mainly targets the the rural connectivity (GP/PS roads) & can play a tangible role in DM. The new technology can be utilised to make the infrastructures disaster resilient |

Chapter – 6

Capacity Building Measures

6.1 Approach

As per the High Powered Committee Report, Capacity Building is a complex, long term phenomenon requiring the development of human resources, the establishment of well functioning organisations within a suitable work environment & a supportive socio-political environment for improving the performance of institutions & personnel. Developing a DDMP without building capacity or raising awareness amongst stake- holders 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.:

The approaches of the DDMA are proactive in prevention, mitigation & preparedness thereby follow a holistic & integrated approach in dealing with disasters. Holistic approach is all about integrating all aspects of disaster management like preparedness, response, recovery etc with sustainable development. Whereas integrated approach is about involving all stake holders, the Government, NGOs & the community with DM.

| Sl. No. | Name of the Course/ Training Programme | Participants | Duration of the Training Programme | Month of Organization | To be Organized by | Remarks if any |
|---------|---|--|------------------------------------|-----------------------|--------------------|--|
| 1. | Orientation training programme on Sustainable Development Goals & Sendai Frame Work | ADM, Sub-Collector All BDOs, Tahasildars, Head of line departments, Police & Fire Dept. etc. | ½ day | August | DDMA/ Collector | To be coincided with the first quarter meeting of the DDMA |
| 2 | Training programme on heat wave preparedness | All BDOs/ EE RWS &S, CDMO, CDVO, NGOs, etc. | ½ day | April | DDMA/ Collector | |

| | | | | | | |
|---|---|---|---------|------------------|----------------|--|
| 3 | Hospital preparedness and mass casualty management including hospital management plan | Doctors and Hospital Administrators | 1 day | December | CDMO, DEOC | |
| 4 | Post disaster damage assessment | AEs of all Blocks and line departments | 1 day | November | DDMA, DEOC | |
| 5 | Role of PRIs and ULBs in disaster management. | Members of ZP and ULBs, Chairman & Vice Chairman of PS. | 1 day | July | DDMA/Collector | |
| 6 | Block level training programmes on role of PRIs in disaster management | Sarapanchas & PS members | 1 day | August | BDO, DEOC | |
| 7 | Orientation on disaster preparedness & management, role of volunteers etc | NYK volunteers | 1/2 day | August-September | DEOC | |
| 8 | Role of Media in Disaster Management | Media Personal | 1/2 day | October | DIPRO, DEOC | |

Tabletop Exercise:

The tabletop exercise is a meeting to discuss a simulated emergency situation. Members of the campus review and discuss the actions they would take in a particular emergency, testing their emergency plan in an informal, low-stress environment. Tabletop exercises are used to clarify roles and responsibilities and to identify additional campus mitigation and preparedness needs. The exercise should result in action plans for continued improvement of the emergency plan.

Major Elements:

- Policy level personnel evaluate plans and procedures
- Resolution of coordination and responsibility questions
- Facilitated group discussion

Advantages:

- Low stress environment
- Low cost
- Ongoing evaluation
- Facilitated group discussion of problem areas

Disadvantages:

- Lacks realism
- Not a true test of operational capability
- Provides only a superficial review of an organization's overall plan

The table top exercise will be carried out on the 1st week of April under the chairmanship of Collector & DM of the district.

District/ Block level Mock Drills:

The ultimate objective of the training programmes on preparedness & mitigation is to conduct mock drills, which reflects an artificial scenario of the disaster to some extent. The objectives encompassed in the mock drills are to validate the Standard Operating Procedures (SOPs) & ascertain the capabilities created by DDMA in managing & responding to natural disasters. The DDMA will propose the following mock drills to be organised at district level & block level.

| /Sl. No. | Type of Mock Drill | Officials/ Institutions to be involved | Month/ Date | Remarks |
|----------|--------------------|--|-------------|---|
| 1 | Flood | All BDOs, Tahasildars, Line departments | June | Flood & Cyclone mock drills to be done at one stretch |
| 2 | Cyclone | | | |
| 3 | Flood & Cyclone | All block level officials of Gania block | July | Flood & Cyclone mock drills to be done at one stretch |

6.3 Disaster management Education (School Safety and School Disaster Preparedness):

Keeping in view School safety programme as one of the most important components of Disaster Risk Reduction (DRR) and in order to save children's lives and protect damages in infrastructures and investments costs in the education sector, the DEOC has planned to implement school safety programmes in coordination with the Fire department. The objectives of the School Safety training are:

- To enhance conceptual understanding on various aspects of Disaster Risk Reduction and School Safety from an inclusive perspective.
- To develop competencies of the participants to undertake Disaster Risk Reduction measures in schools and in day today hazards.
- To enable their families to undertake preparedness at individual & family level.

During 2017-18, the district has planned to focus on the schools & colleges situated in the District HQ, simultaneously the needs assessment will be conducted to replicate the same in other strategic locations.

| 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 generation on DM, evacuation drill, basic first-aid and mock drills for fire/earth quake, debate & drawing competition on allied issues etc. | 5 schools & 5 colleges of the district | For 5 days in April | In coordination with fire department |
|---|--|--|---------------------|--------------------------------------|

6.4 Community Capacity Building and Community Based Disaster Management:

Taking into account the negative impact of the natural disasters in the district, community is the first responder to any disaster & the first to be affected. Hence defining community is the first step towards community preparedness & stressed that any strategy must focus on the community & its problems for effective implementation of the programme. The community needs to be empowered for coping with disasters & as well as the need to mobilise their capabilities & capacities for effective DM. Therefore effective participation of the community which includes all sections of a society is emphasised to capacitate the community & increase their preparedness level so that loss of life & property can be reduced. It is also known that the local communities have an active part to play in all phases of disasters because:-

- A good state of preparedness by the community before a disaster strikes may reduce its impact.
- The community can save more number of lives during the golden hours after a disaster strikes till the arrival of external help.
- The community can effectively address the issues of water & sanitation, health, rehabilitation in more organised way.

CBDM approach is about involving the community in every aspect of the disaster management planning. Involving communities in disaster preparedness programmes provides platform for these communities to implement their own solutions thus inculcating ownership & an increased probability of sustainability. The DDMA has planned to form VDMC & Task Force in 4 selected villages of Nayagarh block under Natugaon GP on a pilot basis & BDOs are instructed to take up at least 4 villages in their vicinity. Taking the assessment results & learning into consideration, further the number may be increased afterwards.

| Sl. No. | Block Name | No. of vulnerable villages to be covered during 2017-18 | No. of VDMC and task force member to be oriented | No. NGOs to be involved in the process | Time line | Remarks |
|---------|------------|---|--|--|---------------|---|
| 1 | Nayagarh | 4 | 60 | Nil | June-December | The DDMA to initiate the activity on pilot basis in 4 flood prone |

| | | | | | | |
|---|------------|---|----|-----|---------------|--|
| | | | | | | villages |
| 2 | Gania | 4 | 60 | Nil | June-December | The BDO to initiate the activity on pilot basis in 4 flood prone villages each |
| 3 | Khandapada | 4 | 60 | Nil | June-December | |
| 4 | Bhapur | 4 | 60 | Nil | June-December | |
| 5 | Ranpur | 4 | 60 | Nil | June-December | |

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

For all round management of the MCS/ MFS, it is the community who needs to drive up front & take the responsibility & to see that happening, the all round capacity building of the members is of utmost importance. The CSMMC members and Village Disaster Management have witnessed mock drills but no formal training has been imparted. Similarly the district is in the process of forming 20 Task forces & Village Disaster Management Committee (VDMC) in Natugaon GP of Nayagarh block by DEOC & BDOs of Gania, Khandapada, Bhapur, Ranpur in 20 villages. A glimpse of the trainings to be imparted with time line is given below.

| Sl. No. | Name of the Training Programme | Total No. of Persons to be trained | No. of Training Programmes to be organized | Time Line | Remarks if any |
|---------|---|------------------------------------|--|------------------------------|--|
| 1 | Orientation of CSMMC and FSMMC | 180 | 9 | June 2017-September 2017 | The focus would be on registration of shelters, clarification on roles & responsibilities, management & maintenance etc. |
| 2 | Training of task force members on Search & Rescue and basic First Aid | 300 | 5 | September 2017-February 2018 | The newly formed Task force members will be trained in collaboration with Fire department |

6.6 Shelter level mock drills:

Mock drill is a participatory method to practice the safety-related measures and evacuation during an emergency situation. For fire- related evacuation **mock drills**, the fire-alarm is activated and the building is evacuated as though a real fire had occurred. Hence to train the members of the shelter committee by creating artificial emergency situations & possible actions to overcome the same needs to be carried out at regular intervals. Usually DDMA in coordination with NDMA perform the mock drills at different shelters of the district. This year

the district has planned to carry out the activity in 4 shelters located in Ranpur & Nayagarh blocks.

| Sl. No. | Type | No. of Cyclone/ Flood Shelters to be covered | No. of villages to be covered. | Month/ Date |
|---------|--------------------|--|--------------------------------|-------------|
| 1 | Cyclone Mock drill | 2 | 11 | June |
| 3 | Flood Mock drill | 2 | 6 | June |

Chapter – 7: 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 | Nayagarh | Khandapada | 19 Kms of Pucca road | During severe wind flow the trees at both the sides of the road may fall down & block the road. | Nayagarh & Khndapada |
| 2 | Nayagarh | Nuagaon | 23Kms of Pucca road (NH57) | The road passes through 5Kms of jungle before reaching the block HQ with huge amount of trees both the sides making it difficult to operate during heavy wind. Additionally one accident prone point at Nuagaon exists in the route | Nayagrh & Nuagaon |
| 3 | Nayagarh | Ranpur | State highway (35Km) | Newly improved from Pratappasad to D.Npur & D.Npur to Ranpur under New Gajannath SadakCyclone affected | Nayagarh & Ranpur |
| 4 | Nayagarh | Bhapur | BT 40Km | The road passes through 5Kms of jungle before reaching the block HQ with huge amount of trees both the sides making it difficult to operate during heavy wind. During hail storm & cyclone trees are likely to block the road | Khandpada & Bhapur |
| 5 | Nayagarh | Gania Via Khandapada | BT 50Km | Partially cyclone affected | Khandapada |
| 6 | Nayagarh | Gania Via Daspalla | BT 63Km | The road passes through 5Kms of jungle at Nuagaon block before with huge amount of trees both the sides making it difficult to operate during heavy wind. | Nuagaon & Daspalla |

| | | | | | |
|---|----------|-----------|---------------|---|---------|
| | | | | Additionally two accident prone points at Nuagaon & Dasapalla exists in the route before reaching Gania block | |
| 7 | Nayagarh | Dasapalla | NH-57 (40 KM) | The road passes through 5Kms of jungle at Nuagaon block before with huge amount of trees both the sides making it difficult to operate during heavy wind. Additionally two accident prone points at Nuagaon & Dasapalla exists in the route | Nuagaon |
| 8 | Nayagarh | Odagaon | BT 26Km | Nil | Odagaon |

7.2 Relief Line Channels : *Block to GPs & Villages*

| Sl. No. | Name of the Block | Name of the Road | | Type of Road & Length | Vulnerability of the route (Description of the Vulnerability) | Coverage (In Nos.) | |
|---------|-------------------|------------------|-------------|-----------------------|---|--------------------|------------|
| | | From | To | | | Village | Population |
| 1 | Ranpur | Ranpur | Patia | BT Road (20Km) | PMGSY Road from Raipada to Patia Narrow Road | 11 | 4225 |
| 2 | | Ranpur | Raipada | BT Road (14Km) | 3Km jeepable Moorum Road | 7 | 2894 |
| 3 | | Ranpur | Chandpur | BT Road (15Km) | State highway vulnerable to cyclone | 2 | 6477 |
| 4 | | Ranpur | K. Nayagarh | BT Road (16Km) | State highway vulnerable to cyclone | 1 | 4671 |
| 5 | | Ranpur | Champagarh | 21Km | State highway 15Km, NH 4 Km other village C.C. | 4 | 3996 |

| | | | | | | | |
|----|--------|--------|-------------------|--------------|--|----|------|
| | | | | | Road vulnerable to cyclone | | |
| 6 | | Ranpur | Kerendatangi | 18Km | State Highway 13Km other village C.C. Road vulnerable to cyclone | 7 | 5469 |
| 7 | | Ranpur | Mayurjhalia | 20Km | State Highway 8Km RD Road 8Km village C.C. Road 4Km vulnerable to cyclone | 3 | 3511 |
| 8 | | Ranpur | Jankia | 25Km | State Highway 8Km & RD Road 10Km village C.C. Road 5Km vulnerable to cyclone | 3 | 4272 |
| 9 | | Ranpur | Jhadapada | 12Km | State Highway 8Km & RD Road 4Km vulnerable to cyclone | 2 | 2611 |
| 10 | | Ranpur | Champapedi | 17Km | State Highway 11Km & village C.C. Road 6Km Jeepable Road vulnerable to cyclone | 7 | 4058 |
| 11 | Bhapur | Bhapur | Badasahara | BT & CC 8Km | NIL | 9 | 6422 |
| 12 | | Bhapur | Baghuapalli | BT & CC 13Km | NIL | 11 | 7318 |
| 13 | | Bhapur | Baigunia | BT & CC 10Km | NIL | 9 | 8938 |
| 14 | | Bhapur | Baunsabati | BT & CC 8Km | NIL | 4 | 4170 |
| 15 | | Bhapur | Bhagabanpur | BT & CC 15Km | NIL | 8 | 4025 |
| 16 | | Bhapur | Bhapur | HQ | Cyclone affected | 7 | 6112 |
| 17 | | Bhapur | Bijipur | BT & CC 3Km | NIL | 7 | 6062 |
| 18 | | Bhapur | Chakaradharprasad | BT & CC 8Km | NIL | 3 | 4793 |
| 19 | | Bhapur | Dhanchanagada | BT & CC 17Km | Partially flood affected | 7 | 5125 |
| 20 | | Bhapur | Fategarh | BT & CC 4Km | Partially flood affected | 5 | 8004 |

| | | | | | | | | |
|----|----------|----------|----------------|-----------------------------------|--------------------------|---|------|------|
| 21 | Bhapur | Bhapur | Golapakhari | BT & CC 4Km | NIL | 8 | 7006 | |
| 22 | | Bhapur | Kainfullia | BT & CC 2Km | NIL | 2 | 3193 | |
| 23 | | Bhapur | Karabara | BT & CC 7Km | Partially flood affected | 5 | 5932 | |
| 24 | | Bhapur | Kendupalli | BT & CC 10Km | NIL | 3 | 2452 | |
| 25 | | Bhapur | Nimani | BT & CC 11Km | NIL | 4 | 3968 | |
| 26 | | Bhapur | Padmabati | BT & CC 7Km | Partially flood affected | 4 | 4979 | |
| 27 | | Bhapur | Patharachakada | BT & CC 11Km | Partially flood affected | 2 | 4158 | |
| 28 | | Bhapur | Rakama | BT & CC 6.5Km | NIL | 3 | 3551 | |
| 29 | | Bhapur | Salapada | BT & CC 3.5Km | NIL | 9 | 5426 | |
| 30 | | Bhapur | Sasana | BT & CC 5Km | Partially flood affected | 2 | 3717 | |
| 31 | | Gania | Gania | Badasilinga | Pichu & Morum/45 K.M | Road from Rasanga to Badamulapatana totally submerged during flood. | 13 | 2515 |
| 32 | | | Gania | Chhamundia | Pichhu/18 K.M | Road from Rasanga to Chhamundia totally submerged during flood. | 9 | 1172 |
| 33 | Gania | | Kishoreprasad | Pichu/5 K.M. | Nil | 2 | 997 | |
| 34 | Gania | | Karadapada | Pichu/4 K.M. | Nil | 3 | 1090 | |
| 35 | Gania | | Adakata | Pichu/8 K.M. | Nil | 3 | 1310 | |
| 36 | Gania | | Belapadapatna | Pichu/3 K.M. | Nil | 3 | 1119 | |
| 37 | Gania | | Rasanga | Pichu/6 K.M. | Nil | 3 | 1396 | |
| 38 | Gania | | Gania | Pichu/1 K.M. | Nil | - | - | |
| 39 | Daspalla | Daspalla | Kujamendhi | Black top and metaling road-50 KM | Nil | 35 | 3815 | |
| 40 | | Daspalla | Banigochha | Black top road-35 KM | Nil | 20 | 3789 | |
| 41 | | Daspalla | Duda | Black top & Ghat road-37 KM | Partially flood affected | 15 | 2853 | |

| | | | | | | | |
|----|-------------|------------|-----------------|-----------------------|---------------------|--------------------|------|
| 42 | Daspalla | Daspalla | Kulurukumpa | Black Top road -30KM | Nil | 20 | 3701 |
| 43 | | Daspalla | Takera | Black Top road -15KM | Nil | 19 | 4006 |
| 44 | | Daspalla | Tumandi | Black Top road -13KM | Nil | 13 | 2322 |
| 45 | | Daspalla | Bhogabadi | Black Top road -16KM | Nil | 15 | 2410 |
| 46 | | Daspalla | Pokharigochha | Black Top road -23KM | Nil | 12 | 2295 |
| 47 | | Daspalla | Sariganda | Black Top road -8KM | Nil | 19 | 5321 |
| 48 | | Daspalla | Nachhipur | Black Top road -5KM | Nil | 14 | 3690 |
| 49 | | Daspalla | Ghugudipada | Black Top road -13KM | Nil | 22 | 4879 |
| 50 | | Daspalla | Dihagaon | Black Top road -8KM | Nil | 12 | 6955 |
| 51 | | Daspalla | Madhyakhanda | Black Top road -10KM | Nil | 3 | 5614 |
| 52 | | Daspalla | Gholahandi | Black Top road -13KM | Nil | 9 | 4057 |
| 53 | | Daspalla | Khamarsahi | Black Top road -3KM | Nil | 13 | 7618 |
| 54 | | Daspalla | Similisahi | Black Top road -5KM | Nil | 10 | 4502 |
| 55 | | Daspalla | Tendabadi | Black Top road -7KM | Nil | 20 | 5420 |
| 56 | | Daspalla | Chadeyapalli | Black Top road -25KM | Nil | 27 | 5055 |
| 57 | | Daspalla | Kalaskhama | Black Top road -40KM | Nil | 25 | 3208 |
| 58 | | Daspalla | Nuagaon | Black Top road -50KM | Nil | 19 | 3927 |
| 59 | | Khandapada | Khandapada | Sikharpur | Black Top road- 5Km | Cyclone & affected | 5 |
| 60 | Sikharpur | | Jogiapalli | Black Top road- 4Km | Nil | 10 | 2584 |
| 61 | Jogiapalli | | Ranipada | Black Top road - 3Km | Flood affected | 3 | 2876 |
| 62 | Khandapada | | Salajharia | Black Top road - 4Km | Flood affected | 5 | 1664 |
| 63 | Salajharia | | Gunthuni | Black Top road - 6Km | Flood affected | 3 | 4443 |
| 64 | Khandapada | | Jagannathprasad | Black Top road - 14Km | Nil | 10 | 4910 |
| 65 | Khandapada | | Banamalipur | Black Top road - 5Km | Nil | 9 | 9077 |
| 66 | Banamalipur | | Ranichheli | Black Top road - 5Km | Flood affected | 7 | 1733 |
| 67 | Khandapada | | Khalisahi | Black Top road - 2Km | Cyclone affected | 9 | 7557 |

| | | | | | | | | |
|----|------------|--------------|------------------|--|---------------------------|------------------|------|------|
| 68 | Khandapada | Khalisahi | Mardarajpur | Black Top road - 1Km | Nil | 6 | 4381 | |
| 69 | | Mardarajpur | Bodasa | Black Top road - 3Km | Nil | 6 | 4022 | |
| 70 | | Mardarajpur | Benagadia | Black Top road & 4Km | Cut off during heavy rain | 12 | 8479 | |
| 71 | | Benagadia | Banpur | Black Top road & 4Km | Cut off during heavy rain | 16 | 5066 | |
| 72 | | Benagadia | Kantilo | Black Top road & 7Km | Flood affected | 1 | 9181 | |
| 73 | | Banpur | Sidhamala | Black Top road & 12Km | Flood affected | 10 | 5801 | |
| 74 | | Khalisahi | Singhapada | Black Top road & 4Km | Cyclone affected | 20 | 5327 | |
| 75 | | Singhapada | Gadiasahi | Black Top road & 2Km | Cyclone affected | 9 | 3435 | |
| 76 | | Gadiasahi | Kiajhara | Black Top road & 4Km | Nil | 18 | 4072 | |
| 77 | | Kiajhara | Koska | Black Top road & 10Km | Nil | 16 | 3807 | |
| 78 | | Koska | Balabhadraprasad | Black Top road & Km | Nil | 11 | 2797 | |
| 79 | | Koska | Kumbharapada | Black Top road & 4Km | Cut off during heavy rain | 4 | 2858 | |
| 80 | | Kumbharapada | R. Dholamara | Black Top road & 4Km | Nil | 11 | 5144 | |
| 81 | | Nuagaon | Nuagaon | Nuagaon | Pucca Road- 1 K.M | Nil | 7 | 4719 |
| 82 | | | Nuagaon | Korada | Pucca Road- 3 K.M | Cyclone affected | 10 | 4844 |
| 83 | Nuagaon | | Sorada | Pucca Road- 7 K.M | Cyclone affected | 3 | 4903 | |
| 84 | Nuagaon | | Sikida | Pucca Road- 4 K.M & kacha Road- 4 K.M | Cyclone affected | 8 | 3062 | |
| 85 | Nuagaon | | Udayapur | Pucca Road- 7 K.M | Cyclone affected | 11 | 3452 | |
| 86 | Nuagaon | | Jakeda | Kachha Road- 11 K.M | Cyclone affected | 23 | 2643 | |
| 87 | Nuagaon | | Kaptapalli | Kachha Road- 20 K.M & Pucca Road- 6 K.m | Cyclone affected | 24 | 2442 | |
| 88 | Nuagaon | | Gumi | Kachha Road-20 K.M Pucca Road- 10 K.M | Cyclone affected | 14 | 3724 | |
| 89 | Nuagaon | | Bahadajhola | Pucca Road-26 K.M | Cyclone affected | 4 | 6639 | |
| 90 | Nuagaon | | Nuagaon | Beruanbari | Pucca Road-32 KM | Cyclone affected | 17 | 5628 |

| | | | | | | | |
|-----|---------|---------|--------------|---|------------------------------------|-----|------|
| 91 | | Nuagaon | Haripur | Pucca Road-30 KM | Cyclone affected | 5 | 2987 |
| 92 | | Nuagaon | Singarapalli | Pucca Road- 16KM | Cyclone affected | 11 | 5893 |
| 92 | | Nuagaon | Gateri | Pucca Road- 13 K.M | Cyclone affected | 10 | 3375 |
| 93 | | Nuagaon | Mahipur | Pucca Road- 10 K.M | Cyclone affected | 4 | 5414 |
| 94 | | Nuagaon | Durudura | Pucca Road- 13 K.M | Cyclone affected | 11 | 6144 |
| 95 | | Nuagaon | Khandugaon | Pucca Road- 13 K.M | Cyclone affected | 4 | 2504 |
| 96 | | Nuagaon | Chahali | Pucca Road- 10 K.M & Kacha Road- 3 K.M | Cyclone affected | 3 | 2890 |
| 97 | | Nuagaon | Maichheli | Pucca Road- 7 K.M | Cyclone affected | 9 | 4449 |
| 98 | | Nuagaon | Dhenkena | Pucca Road- 19 K.M | Cyclone affected | 5 | 3522 |
| 99 | | Nuagaon | Malisahi | Pucca Road- 10 K.M & Kacha Road- 5 K.M | Cyclone affected | 14 | 6062 |
| 100 | | Nuagaon | Badagotha | Pucca Road- 12 K.M | Cyclone affected | 9 | 4369 |
| 101 | | Nuagaon | Paradhipi | Pucca Road- 7 K.M & Kacha Road- 10 K.M | Rough Road and cyclone affected | 11 | 3588 |
| 102 | | Odagaon | Odagaon | Sunamuhin | Pucca Road- 16 | Nil | 9 |
| 103 | Odagaon | | Kural | Pucca Road- 9 | Nil | 6 | 8358 |
| 104 | Odagaon | | Panderipada | Pucca Road- 8 | Nil | 4 | 3768 |
| 105 | Odagaon | | Pantikhari | Pucca Road- 4 | Nil | 5 | 3519 |
| 106 | Odagaon | | Rabigadia | Pucca Road- 7 | Nil | 9 | 5144 |
| 107 | Odagaon | | Korapitha | Pucca Road- 5 | Nil | 3 | 2083 |
| 108 | Odagaon | | Saradhapur | Pucca Road- 10 | Nil | 8 | 4103 |
| 109 | Odagaon | | Bhadikila | Pucca Road- 12 | Nil | 3 | 2953 |
| 110 | Odagaon | | Magarabandha | Pucca Road- 15 | Nil | 8 | 5147 |
| 111 | Odagaon | | Gotisahi | Pucca Road- 24 | Nil | 9 | 5411 |
| 112 | Odagaon | | Solpata | Pucca Road- 25 | Nil | 3 | 2698 |

| | | | | | | | |
|-----|---------|--------------|----------------|------------------|------------------|------|------|
| 113 | Odagaon | Odagaon | Dimisar | Pucca Road- 24 | Flood affected | 2 | 5144 |
| 114 | | Odagaon | Sarankul | Pucca Road- 15 | Nil | 7 | 6623 |
| 115 | | Odagaon | Nandighore | Pucca Road- 6 | Nil | 3 | 5124 |
| 116 | | Odagaon | Areda | Pucca Road- 8 | Flood affected | 4 | 2898 |
| 117 | | Odagaon | Odagaon | Pucca Road- 1 | Nil | 4 | 6450 |
| 118 | | Odagaon | Dalak | Pucca Road- 2 | Nil | 4 | 5491 |
| 119 | | Odagaon | Rabara | Pucca Road- 4 | Flood affected | 3 | 2159 |
| 120 | | Odagaon | Ranganipatana | Pucca Road- 3 | Nil | 6 | 4577 |
| 121 | | Odagaon | Komanda | Pucca Road- 8 | Cyclone affected | 6 | 4907 |
| 122 | | Odagaon | Banthapur | Pucca Road- 16 | Cyclone affected | 15 | 3094 |
| 123 | | Odagaon | Goudaput | Pucca Road- 12 | Cyclone affected | 14 | 4601 |
| 124 | | Odagaon | Godipalli | Pucca Road- 10 | Nil | 3 | 5299 |
| 125 | | Odagaon | P.Manpur | Pucca Road- 8 | Nil | 2 | 4325 |
| 126 | | Odagaon | Hariharpur | Pucca Road- 14 | Flood affected | 5 | 6360 |
| 127 | | Odagaon | Sikharpur | Pucca Road- 17 | Flood affected | 1 | 5216 |
| 128 | | Odagaon | Barasahi | Pucca Road- 16 | Cyclone affected | 5 | 3324 |
| 129 | | Odagaon | Golagaon | Pucca Road- 22 | Nil | 2 | 3130 |
| 130 | | Odagaon | Kajalaipalli | Pucca Road- 25 | Cyclone affected | 10 | 3618 |
| 131 | | Odagaon | Bhaliadihi | Pucca Road- 24 | Nil | 3 | 3035 |
| 132 | | Odagaon | Panchumu | Pucca Road- 28 | Nil | 6 | 3657 |
| 133 | Odagaon | Godipada | Pucca Road- 26 | Cyclone affected | 3 | 5590 | |
| 134 | Odagaon | Haridabandha | Pucca Road- 29 | Nil | 3 | 2520 | |
| 135 | Odagaon | Angisingi | Pucca Road- 19 | Flood affected | 2 | 2888 | |
| 136 | Odagaon | Badagorada | Pucca Road- 21 | Flood affected | 3 | 3335 | |

| | | | | | | | |
|-----|---------|---------|-------------|----------------|------------------|---|------|
| 137 | Odagaon | Odagaon | Giridipalli | Pucca Road- 11 | Nil | 8 | 3407 |
| 138 | | Odagaon | Rohibanka | Pucca Road- 10 | Cyclone affected | 7 | 4785 |
| 139 | | Odagaon | Sakeri | Pucca Road- 8 | Nil | 6 | 4437 |

7.1 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 | Police | 596 | - | - | - | Sridhar Pani | 94373 60590 |
| 2 | Home Guards | 325 | - | - | - | Sgt. Sanjay Kumar Barik | 88957 26481 |
| 3 | NCC | 400 | - | - | - | Capt. Bhabani Prasad Hota | 94377 62354 |
| 4 | NSS | 1160 | - | - | - | Dr. (Mrs.) Surekha S. Swain | 0674 2581515 (O) |
| 5 | NYK | 2909 | - | - | - | Basanta Kumar Mishra | 94372 03908 |
| 6 | Fire | 56 | 56 | 56 | 56 | Balaram Pradhan | 94370 66085 |
| 7 | Red Cross | 40 | 02 | 40 | 4 | Jaminikrushna Pattanaik | 94372 87001 |

7.4 Preparedness at District level:

Preparedness is the state of readiness to deal with a threatening disaster situation or disaster and the effects of thereof. Those who are unaware & unprepared generally get affected more due to their lack of knowledge and physiological pressure. Hitherto, the approach towards coping the effects of disasters has been post-disaster management, involving many problems related to law and order, evacuation, communications, search and rescue, fire-fighting, medical, and psychiatric assistance, provisions of relief and shelters etc. After initial trauma, next phase starts with long-term reconstruction planning which takes about 5 to 6 years to normalize the life-style in a particular area.

In view of these problems the district administration, has prepared a comprehensive plan. The plan detailed out preparedness strategy under which communities and district authorities would be prepared so that level of destruction and unnecessarily delay in relief and response can be reduced. The preparedness measures include setting up disaster relief machinery, formulation of community preparedness plans, training to the specific groups and earmarking funds for relief operations.

Components of Community Preparedness Plan

Several previous attempts have been made by researchers to measure community preparedness within various indicators. Some of the important components of measuring preparedness are given below:

1. **Physical Safety:** i.e. how safe community members are in view of the physical danger from these hazards? The parameters essentially tries to measure how effective structural mitigation measures are e.g. resistance of building structures for earthquakes, availability of safe shelters and its capacity etc.
2. **Hazard awareness:** i.e. awareness level about hazards which have a reasonably higher probability of occurrence
3. **Organization preparedness:** i.e. how far the community is organized to face disaster i.e. existence of committee at community level, task forces, and volunteers of civil defense and other local volunteers, trained disaster management teams and community disaster management plan etc.
4. **Infrastructure and services** which tries to measure current state of these services and how well restoring critical services as and when disruptions occur.
5. **Recovery ability:** i.e. ability of the community members to recover from the impact of the hazard
6. **Physical environment:** i.e. state of environment to face hazards e.g. Condition of sub-surface aquifers and vegetation etc
7. **Social capital:** i.e. degree to which social networking and cooperation exists among community members.
8. **Psychological preparedness:** i.e. how safe and prepared do community members feel in view of these hazards
9. **Cultural capital:** i.e. cultural richness such as existence, recognition and use of traditional mechanism to cope with such disasters
10. **Household preparedness:** i.e. preparedness at a house hold members

Components of Administrative Preparedness

Administrative preparedness is another very important issue which helps in reducing relief and response time in a disaster situation. Preparedness plan is based on below-given components

1. Operation readiness of facilities, equipments and stores in advance
2. Maintaining response inventory of equipments and materials required for response
3. Assignment of responsibilities to agencies and organizations
4. Management training of crisis group members, desk officers and officers of respective departments likely to be assigned management duties
5. Specialized trainings of district disaster committee members, officials, community organizations through seminars and workshop
6. Training of taskforces
7. Raising community awareness
8. Improving response mechanism through conducting practice drills etc
11. Annual updating of District and community level plans

| 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 • Standard Operating Procedures for various departments are operationalised |
| 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 • 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 1 |
| Planning & Reporting | <ul style="list-style-type: none"> • Collect & transmit Rain fall data regularly • Collect & transmit weather report regularly • Monitor preparedness measures undertaken at the district levels including simulation exercises undertaken by various departments • Ensure preparation of Disaster Management Plans & Safety plans at all levels • DDMP is operationalised in the district • Ensure that all departments/ blocks continue to update DDMP on a regular basis • Integrate the District plan with block & Village disaster management Plans • Capacity building of all Stake holders • 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 • Preparation of resource & vulnerability map • 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 |

| | |
|----------------------|---|
| Planning & Reporting | <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 |
| Shelter Management | <ul style="list-style-type: none"> • Management & maintenance of the MCS & FCS constructed in the vicinity • Maintenance of the emergency equipments available at the shelter • Coordination with all the members & ensure regular committee meetings conducted & sharing meeting minutes with DEOC/ BEOC • Coordination with DEOC/ BEOC for conducting capacity building exercise & mock drill |

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 • Display of all emergency contact numbers at a well accessible location of the house |
| 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 & review and update precautionary measures & procedures • Orient field staff with standards of services, procedures including tagging • Ensure that stakeholders are aware about the emergency facilities/ resources available at each hospital |

| | |
|-------------------------------|---|
| Superintendent of Police (SP) | <ul style="list-style-type: none"> • Prepare & update DM plan especially identifying the sensitive areas with the active involvement of all concerned line departments & local bodies in the district • Prepare a deployment plan for the police force, based on the needs of the most vulnerable & sensitive areas • Formation of search & rescue team & take necessary steps for the training & capacity building of teams • Develop emergency traffic plan including detail mapping with focus on strategic points, which may used at the time of incident for safe transporting of personnel, resources and relief goods to and from the affected area • Develop communication protocols for responding during disasters eg designate separate channels for rescue, relief for example • To conduct mock exercises with various stakeholders & test and update their different plans • Keep the police vehicles & other modes of transport in readiness for deployment of police • Review & update emergency measures & procedures & ascertain with staff the precautions that have been taken to protect equipment |
| EE- RWSS | <ul style="list-style-type: none"> • RWSS must develop a disaster management plan to tackle any kind of disaster & share with DDMA • Keeping the structures, plants, machinery, equipments & other facilities in an optimum working order • Develop manuals on water scarcity, resources of safe drinking water etc as a part of preparedness measure • Will coordinate with Block DEE/ Panchayat AE/ Village JE on vulnerability analysis to various forms of disaster with close support form VWSC • Must support DDMA on overall coordination of emergency water & sanitation response • Coordinate vulnerability hazard analysis exercise conducted in the district • An inventory/ check list of water supply & sanitation resources in the district will be listed out & updated regularly • All the Executive Engineers/ AEEs should be instructed to check up the PWS schemes which are prone to disasters in their jurisdiction & compile a report on water supply position of the concerned area & present before DDMA • Ensure stock piling of supplies like water purification tablets, essential spare parts, etc |
| EE- Irrigation | <ul style="list-style-type: none"> • Prepare & update the disaster risk map of the district with focus on vulnerability & risk analysis of the critical infrastructure related to irrigation • Set up the protocol for exchange of information with Disaster Control Rooms at District, State & National levels • Undertake channel improvement for rivers, nullahs & canals to the extent possible to improve flow of water • Preparation of contingency plan for the maintenance & repair of |

| | |
|------------------|--|
| | <p>Bundhs & embankments</p> <ul style="list-style-type: none"> • To take up drought prevention & mitigation measures • Plan for providing irrigation facility to farmers during drought • Commence timely repair of critical bundhs before & after monsoons, after surveying the damages & ensure the completion within the stipulated time • Check all the siphons & regulators on the bundhs & canals & cleaning before monsoon • Creation of assured irrigation facilities by constructing check dams, water storage tanks (ahars) and safe water channels (pynes) • Promotions of water shed management in hilly areas • Encouraging rooftop water harvesting in plain as well as hilly areas • Construction of community based water storage facilities like ponds • Promotion of research in water conservation and management in the drought affected areas |
| DDA- Agriculture | <ul style="list-style-type: none"> • Prepare HRV analysis of the district & develop contingency plan by taking up appropriate measures accordingly for the agriculture sector • Timely assessment of drought situation of the district & sharing update with DDMA • To update information regarding the area under various types of crops, the progress of agriculture operations & the growth of crops sown during Khariff season linked to the advance of monsoons • A pest & disease monitoring system should be developed to ensure that a full picture of risks is maintained • Preparation of action plan to meet scarcity conditions that accounts commencement of relief works, primarily fodder for the cattle, crop contingency plan etc • Continue educating farmers on soil & water conservation technologies through implementation of watershed projects & know-how of drought resistant crops • Develop a pest & disease monitoring system so that timely steps can be taken to reduce damage to crops • Suggest varieties of seeds & cropping patterns, which can reduce losses & risk to famers |
| EE- Rural Works | <ul style="list-style-type: none"> • Should have master plans for the entire rural road network in the digitized form & for roads devolved to PRIs, simple inventory details (length, width, cross drainage works) & visual based condition surveys may be carried out • Construction of ODR, VR bridges & culverts keeping in view the vulnerability of the area & by putting mitigation measures in consultation with DMD, Water Resources & MI department • Ensure disaster resistant technological practices in construction of critical infrastructures • Off-carriageway routine maintenance & repair of rural roads & bridges involve activities like restoration of rain cuts on shoulders |

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| | <p>& side slopes, dressing of berms, removing silt & debris from drains & clearance of vegetation growth in the waterway passage of culverts & bridges etc</p> <ul style="list-style-type: none"> • Enhance safety through maintenance (open to movement of traffic, cautionary signs near speed breaker, roads signs, pavement markings etc) • Keeping in view the hazard profile of the area make preparations & keep ready man & materials for the reconstruction of roads, bridges & culverts to of restoration movement • Undertake training & capacity building of staff, elected representatives & other officials |
| EE- Public Works | <ul style="list-style-type: none"> • Preparation, updation & review of the Disaster Management plan & to conduct HRV analysis of the district • Ensure technology transfer to local artisans, builders, engineers on how to make better structures should be a part of reconstruction exercise • Ensure all the stakeholders involvement in reconstruction exercise • Construction & repair of roads, bridges, culverts in the district including construction & repair of public buildings of the district • Provide regular capacity building / training for staffs to undertake vulnerability assessment of critical lifelines, develop mitigation options • Periodical inspection of the buildings, residences, high rise buildings under their control • Maintain the departmental equipments such as bulldozers, tractors, water tankers, dumpers, earthmovers excavator, generators, cutters etc; which can be used during emergency |
| DTO-Telecom | <ul style="list-style-type: none"> • Inspect the telephone exchanges/ sub-exchanges in the damage prone area at every 3 months • Action plan for repairs/ alternative arrangement in case of disruption of telephone lien & microwave towers • To ensure that the telephone lines at the shelters, emergency hospitals, police stations, control room & other vital places of emergency services, which can be used during disaster are not disrupted • Assess the different disaster scenarios & match the communication needs with the available resources • Assess the needs & capabilities of the response personnel, relief officers, NGOs & other critical users of communication means • Perform periodic, well documented & effective tests on the procedures & equipments used during emergencies • To mobilize deployable satellite terminals & satellite phones in inaccessible & remote area • To organise & conduct awareness campaigns on the use of communications systems during disaster |
| CDVO | <ul style="list-style-type: none"> • Develop & quarterly update the DM plan that includes the contingency action plan for the department based on the HVRC analysis • Review & update precautionary measures & precautions that have |

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| | <p>been taken to protect equipments</p> <ul style="list-style-type: none"> • Prepare a list of water borne diseases that are preventable by vaccination & publicize the list of common ailments in disaster with possible precautions • Undertake fodder assessment & develop contingency plan in case of drought & drought like conditions • Arrangement of repairs/ alternative options in case the facilities related to animal husbandry & veterinary services disrupted • Capacity building of staffs & farmers in regular intervals on dealing with livestock during disaster • Undertake campaigns in the drought affected areas to increase the awareness of the farmers about cattle health issues related to fodder & feed, vitamins & minerals & sanitation etc |
| RTO/MVI | <ul style="list-style-type: none"> • Develop & update Disaster Management plan that includes the contingency action plan for the department based on HVRC analysis • Prepare a list of vehicles- trucks, buses, jeeps, tractors, etc of the Govt. & private agencies in the district & share with DEOC & DDMA • Issue standing instructions to bus, truck owner's association to ensure availability of vehicles during the time emergency • Ensure connectivity of all GPs/ villages with transport services |
| DFO- Territory & Forest | <ul style="list-style-type: none"> • Develop & update Disaster Management plan & HRV analysis of forests of the district • To undertake effective forest management services • Check erosion & management of environment infrastructure of the district • Protection & sustainable use of natural resources • Educate the mass on environment protection & to prevent forest fire in the district • Support income generation activities under JFM scheme • Arrangement of alternative source of drinking water for wildlife during scorching summer • Identification of areas that could be opened or made available for grazing or fodder collection in case of disaster • Ensure plantation to the maximum possible extent • Implementation of social forestry scheme in mission mode • Preparation of wild life protection programme & activities during various disaster related crisis |
| Railway | <ul style="list-style-type: none"> • Develop & update Disaster Management plan & HRV analysis of the terrain • Management & maintenance of the Self Propelled Accident Relief Train (SPART) to deal with crisis/ disaster • Provision of emergency escape route • Capacity building of staffs, search & rescue teams dealing with different disasters • Strengthening of railway networks • Preparation to provide better facilities |

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| | <ul style="list-style-type: none"> • Expansion of resources to meet requirements in major accidents • Conducting mock drills with communities at accident prone areas on communication, early response, search & rescue of victims |
| EE- Electricity | <ul style="list-style-type: none"> • Prepare hazard/ disaster specific contingency plan of the district • Ensure 24*7 supply of electricity to public water sources require electricity • Undertake risk assessment of the lifeline infrastructure (generation, transmission & distribution systems) to hazard risks & address through mitigation measures • Provide adequate power supplies to the consumers in usual as well disaster environments • Protection of power stations from disaster by raising the height of compound d walls, arrange gunny bags, install pump sets for drainage of water etc |
| EE - PHED | <ul style="list-style-type: none"> • Formulation of Public Health Engineering related programme & activities by intonating them with hazard specific preventive & mitigation measures • Creation of stocks of installation materials at the district level for use in emergency • Capacity building of technical assistance team to hasten the installation during emergency • Strategizing the installation of hand-pumps etc with hazard profile of the area in mind • Keep a track of ground water level & having a fresh look at the facilities created as a part of the programme & activities • Organising interaction with GPs for having proper sanitation facilities & providing them support & guidance in planning, implementation & maintenance of the same • To ensure safe hygiene through Total Sanitation Campaign (TCS) • Providing safe drinking water to all the schools located in rural areas • procurement, upkeep & maintenance of sanitation equipment for use in emergencies |
| DEO- School & Mass Education | <ul style="list-style-type: none"> • Incorporate disaster management into education curriculum of schools • Maintain & ensure school facilities across the district can stand safe from known hazards & can be used during & post disaster environment • Identify/ Designate school buildings & infrastructure for providing shelter during emergency situations • Making adequate arrangements for getting hand pumps installed, storage facility created, toilet & bathrooms built in those schools where communities do take shelter during disaster • Ensure necessary facilities built up to cater support to the evacuated • Undertake training & capacity building initiatives & develop a resource pool of teachers & students trained in DM |

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| | <ul style="list-style-type: none"> • Conduct mock drills in school in coordination with fire, police & R & DM dept • Construction of earthquake resilient school buildings |
| DEO - Higher Secondary Education | <ul style="list-style-type: none"> • Incorporate disaster management into education curriculum of colleges • Maintain & ensure infrastructure & other facilities across the district can stand safe from known hazards & can be used during & post disaster environment • Identify/ Designate college buildings & infrastructure for providing shelter during emergency situations. • Making adequate arrangements for getting hand pumps installed, storage facility created, toilet & bathrooms built in those schools where communities do take shelter during disaster • Ensure necessary facilities built up to cater support to the evacuated • Undertake training & capacity building initiatives & develop a resource pool of lecturers & students trained in DM • Coordinate with Nehru Yuva Kendra volunteers & locality based youth clubs & undertake joint exercise in escort services, relief works, establishment of community kitchen & taking care of children, women, old & sick • Conduct mock drills in school in coordination with fire, police & R & DM dept • Construction of earthquake resilient buildings |
| CSO- Food & Civil Supplies | <ul style="list-style-type: none"> • Maintain adequate stock of food supplies & ensure food security in the district • Identification of supply of food needs to be dispatched in case of declaration of disaster • Arrangement of community kitchens during disaster • Build reserve stock of supplies in most vulnerable & difficult to access regions of the district • Implementation of food security act effectively |
| DIPRO- Information & Public Relation | <ul style="list-style-type: none"> • Undertake education & awareness programmes among masses, build societal awareness • Take steps towards enhancing department level preparedness to HRV in the district • Capacity building of media houses on the coverage, reporting, flow of information, SOP during disaster situation • Preparation of information sharing/ dissemination protocol/ guideline & sharing with line departments |

8. Response

Disaster response is the second phase of the disaster management cycle. It consists of a number of elements, for example;-

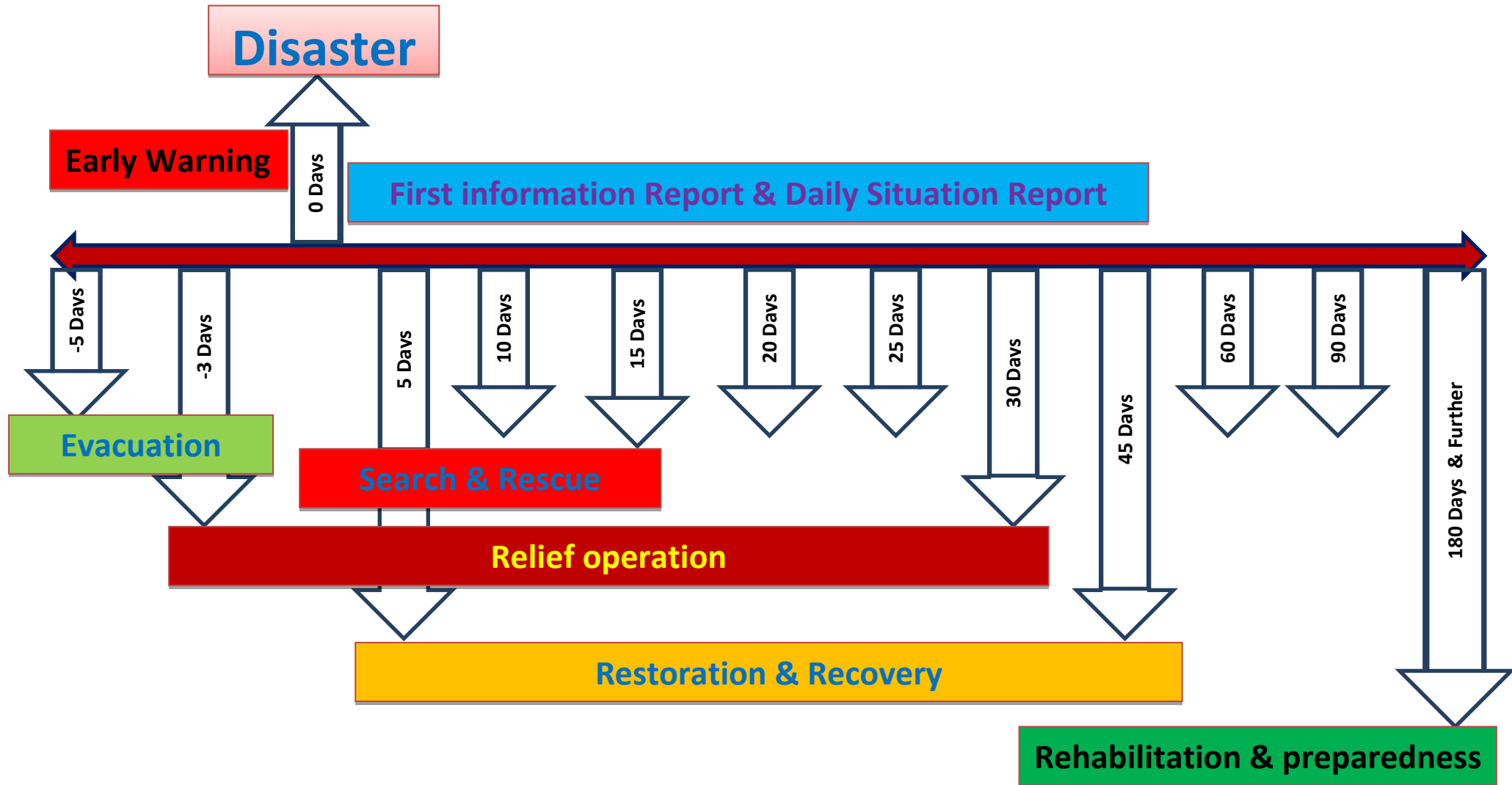
- Warning/ evacuation
- Search and rescue
- Providing immediate assistance
- Assessing damage & continuing assistance
- And the immediate restoration of infrastructure

The aim of emergency response is to provide immediate assistance to maintain life, improve health and support the morale of the affected population. Such assistance may range from providing specific but limited aid, such as assisting refugees with transport, temporary shelter, and food, to establishing semi-permanent settlement in camps and other locations. It also may involve initial repairs to damaged infrastructure.

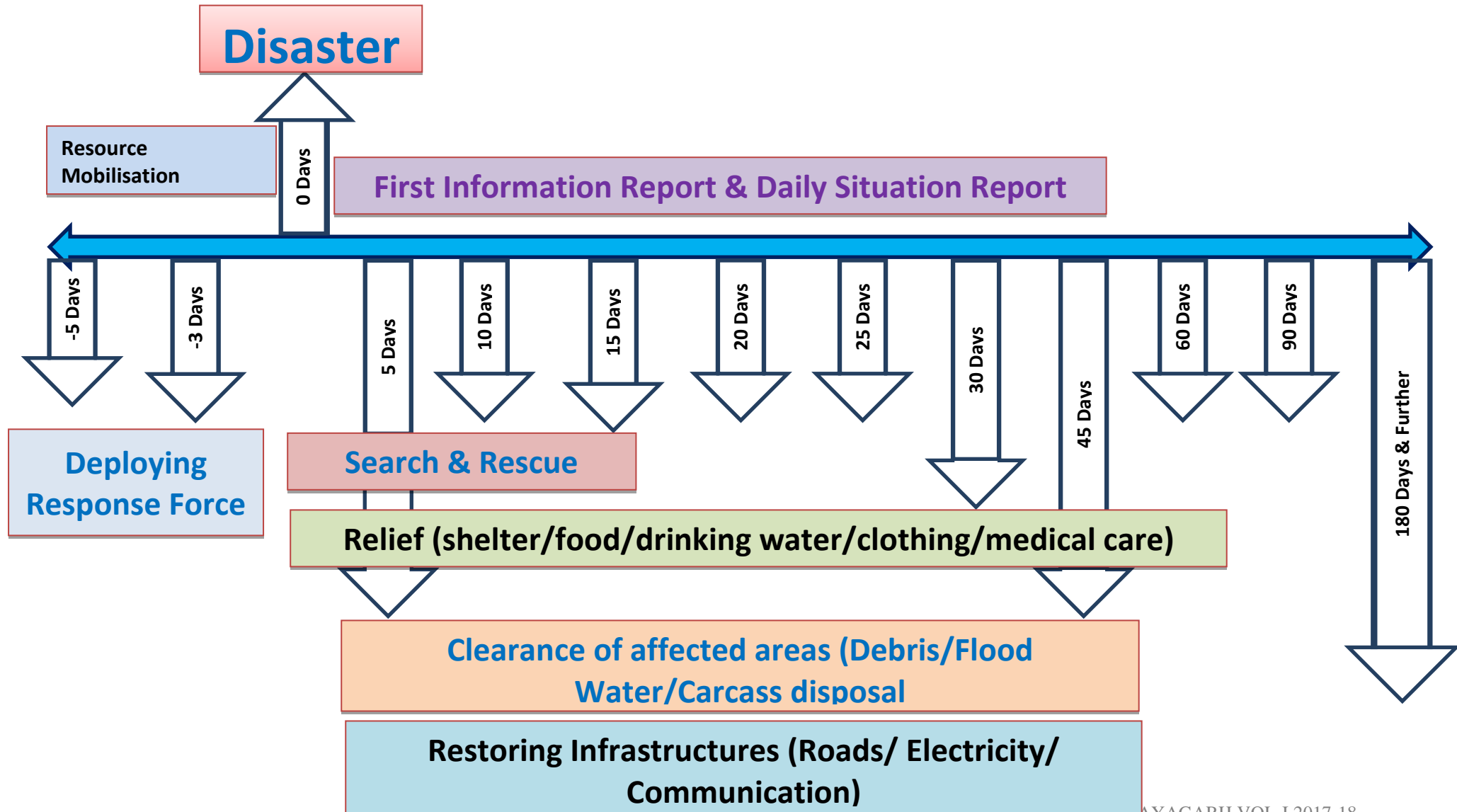
Response refers to activities done for handling disaster to bring the situation to normalcy not exceeding fifteen days from the abatement of disaster. The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential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

The focus in the response phase is on meeting the basic needs of the people until more permanent and sustainable solutions can be found. The main responsibility to address these needs and respond to a disaster lies with the government or governments in whose territory the disaster has occurred. In addition, Humanitarian organizations are often strongly present in this phase of the disaster management cycle, particularly in countries where the government lacks the resources to respond adequately to the needs.

8.1 Phases of Response : Timeline (Indicative)



8.2 Relief Management: Timeline



8.3 Response

District

| Task | Activity |
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| 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. |
| Rersponse | <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 foddors for |

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| | animals to the affected areas |
| | <ul style="list-style-type: none"> • 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 |
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| <ul style="list-style-type: none"> • 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 |
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| Response | <ul style="list-style-type: none"> • 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 |
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| Collector/ADM / Emergency Officer | <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) • Communication to line departments for readiness • In touch with IMD/ SRC/ OSDMA for regular update about the situation • Arrangement of alternative communication, power supply etc | <ul style="list-style-type: none"> • Activate Search & Rescue • Arrange temporary shelters • Arrange logistics in shelters • Workout financial estimates (evacuation / relief /recovery) | <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 |
| CDMO | <ul style="list-style-type: none"> • Disseminate the alert to all concerned (Staff list) about the disaster, likely damages & aftermath as well as the ways to protect life etc • Arrangement of medicine, First aid kits & teams • Mobile Health units for inaccessible pockets • Identifying & shifting patients requiring intensive care to safer places • Identify type of injuries/ illness expected & drugs & other items required & | <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) • Additional laboratories • Sterilise large number of dressing pads to last for 4-5 days | <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 Death Certificate |

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| | <p>accordingly ensuring the extra supply is obtained</p> <ul style="list-style-type: none"> • Supply of medicines & pre-positioning of medical teams to vulnerable areas • Vaccination for prevention of communicable diseases • Measures to dis –infect drinking water • Availability of Blood Banks/Ambulance • All valuable electrical equipments likely to be affected should be marked & kept safe once the warning is received | <ul style="list-style-type: none"> • Carcass disposal team & units • Develop a system of monitoring the outbreak of disease to ensure that timely measures can be initiated to check the loss | |
| Superintendent of Police (SP) | <ul style="list-style-type: none"> • Maintain line of communication as per the protocol • Disseminate the alert to all concerned • Ensure adequate personnel are available for response • Mobilise the response teams to hazard prone locations based on the warning information • Facilitate evacuation orders, enforcements/ monitor through police • Appointment of nodal officer in the control room • Ensure that evacuation order by the District/ State administration is carried out • Ensure functioning of all the police | <ul style="list-style-type: none"> • Providing assistance to the District Emergency Operation Centre • Maintain law & order and enforcement of traffic rules & regulations at the disaster site • Review the situations at the department level & organise reinforcements if required • Organising security at the relief camps • Deployment of trained forces & search & rescue for clearance of relief lines • Security of the transportation of the relief material • Dispatch police to systematically identify & assist people & communities in life threatening situations | <ul style="list-style-type: none"> • Maintain law & order situation at the disaster site & other places as required • Organising security at the relief camps • Managing enquiry centre & emergency helpline • Providing escort services • Undertake search & rescue operations • Provide security cover for VIP visits • Assist in management of deceased • Help injured people & assist the community in organizing emergency transport of seriously injured to facility centres |

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| | <p>stations once the warning is received</p> <ul style="list-style-type: none"> • Support the DDMA as when required | | |
| EE- RWSS | <ul style="list-style-type: none"> • Overall coordination of emergency water & sanitation response • Deployment of team of trouble shooters at the site of incident to take preventive measures • Setting up emergency control room in the office for daily monitoring under the guidance of DDMA • AEEs/ AEs to check up the PWS schemes & submit updated report on water supply situation • Arrange for procurement of emergency water & sanitation materials • Maintain adequate stock of chlorine tablets & bleaching powder • Safeguard pump stations from water logging | <ul style="list-style-type: none"> • Ensure supply of clean drinking water supply to affected areas • Arrangement of alternate water supply & storage in all transit camps, feeding centers, relief camps, cattle camps etc till normal water supply is restored • Transportation of water with minimum wastage to affected areas • Ensure special care is taken of women with infants, kids, senior citizens, pregnant women etc • Ensure availability of adequate toilets to prevent further contamination of water sources • Ensure that the drinking water supplied conforms to the prescribed quality standards • Deployment of staffs from outside area if required | <ul style="list-style-type: none"> • Restoration of water supply & sanitation infrastructures as per assessment • To enhance the reach of pipe water supply & to make it sustainable • Identify unacceptable water resources & take precautions to ensure that no one accessing those by posting the department guards or any other measures |
| EE- Irrigation | <ul style="list-style-type: none"> • Identification & measure for critical bundhs • The emergency tool kits & materials like empty cement bags, boulders, ropes, sand, wire mesh, shovels, etc be ready with each technical assistant | <ul style="list-style-type: none"> • Round the clock inspection of bundhs, dams, irrigation channels, bridges, culverts etc • Survey of the blocked water ways & opening up alternative channels for releasing excess water | <ul style="list-style-type: none"> • Immediate repairing of damaged infrastructure • Assessing the damage to small check dams & removal of debris • providing alternative irrigation facility to the drought affected lands for |

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| | <ul style="list-style-type: none"> • Designate one officer to be posted at areas warned to be hit by hazard • Ensure the wireless network & all the flood stations are active • Secure all repairs/ under construction activity with sand bags, rock falls etc • Ensure that all rain gauge stations are functional & arrangements have been made to report the readings | <ul style="list-style-type: none"> • Opening up alternate channels for releasing excess of water during disaster • Organise round the clock inspection of all the critical infrastructures • Periodic monitoring of water levels of check dams • Check the top of all the bundhs, if they have been cleared of encroachments & motorable • Use information formats & monitoring checklist for programme monitoring & development | <ul style="list-style-type: none"> • sowing & saving the standing crops • Creation of new irrigation & rain water harvesting schemes |
| DAO- Agriculture | <ul style="list-style-type: none"> • Gather information related to warning of impending flood, drought & pest attacks • call for emergency meeting to take stock of the situation & develop strategies for early recovery • Establish work schedules to ensure that adequate workforce is available • Take necessary precaution actions, including moving of farm equipments/ tools to safe locations • In case of pest attack, determine the source/ disease & take measures for protection of standing crop • Plan for emergency accommodation of for agriculture staff from outside the | <ul style="list-style-type: none"> • Assessment of damaged crops & daily reporting & recording • Estimate needs for recovery • Discuss with the farming community through agriculture extension cell & support to conduct cleaning operations | <ul style="list-style-type: none"> • Crop damage assessment • Assess the extent of damage to soil, crop, plantation, micro-irrigation systems & storage facilities • Strategizing the storage & supply of seeds, fertilizers & pesticides • operations, restore soil conditions • Provide support & material inputs/ farm implements to assist in recovery • Equip farmers with knowledge to deal with drought risks/ hydro-meteorological & climate related disasters • Providing support in the implementation of alternative cropping |

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| | <p>area</p> <ul style="list-style-type: none"> • Develop strategy for early recovery | | <p>programme in draught as well as flood affected area</p> |
| EE- Rural Works | <ul style="list-style-type: none"> • Coordinate with officials to relay information & activation of plan • Making a map of ODR & VR indicating their connectivity to State Highways & National Highways • Emergency check up of relief lines & other rural road networks | <ul style="list-style-type: none"> • Restoration of road connectivity & remaining vigilant to attend to similar needs elsewhere • Emergency clearance of rural road networks, • Provide support to road construction department in restoring traffic movement • GIS mapping of the damaged area | <ul style="list-style-type: none"> • Gathering information about the damages & start repair & maintenance of the damaged infrastructures • Deployment of work team carrying emergency tool kits depending upon the nature of emergency • Construction of temporary roads to connect the rehabilitation sites, hastening rescue & relief works etc |
| EE- Public Works | <ul style="list-style-type: none"> • Undertake emergency repairs/ shoring measures • Determine routes for mobilisation of resources • Establish inter & intra emergency communication networks • Secure tools & equipments in safe places • Secure all under construction works with ropes, sandbags, & cover them with tarpaulins if necessary • Preparation of plan for emergency inspection by engineers | <ul style="list-style-type: none"> • Direct department engineering cadre for emergency response operations • Provide equipment support for search & rescue • Coordinate temporary repairs to damaged infrastructures • Undertake emergency repair of roads/ communication and shoring of buildings • Establish missing road links • Create/ provide emergency access in areas which communication links are lost/ damaged severely during the event • Removal of debris flow, conduct clearance operations & reestablishment of roads & bridges • Mobilise community assistance for | <ul style="list-style-type: none"> • Take on construction of temporary roads to serve as access to temporary transit & relief camps & medical facilities for disaster victims • Participate in conduct of structural damage assessment • Undertake detailed damage assessment of critical infrastructure • Supervise the civil work activities & ensure safe construction practices are streamlined during recover/ reconstruction phase • Guide urban authorities & line agencies on structural repair works & package development of repair/ reconstruction scheme for housing & |

| | | clearance works of the affected areas | social infrastructures |
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| DTO-Telecom | <ul style="list-style-type: none"> • Set up of control room at the district HQ & operationalization • The Disaster Response Task Force to be alerted with all the equipments ready in advance • Ensure availability of spares at the site • Store backup spares & other requisites in an accessible area • Coordinate the requirement of temporary telecommunication in the affected areas | <ul style="list-style-type: none"> • To mobilize deployable mobile phone systems or portable base stations to be in position & operational anywhere on the main cities within 8 hrs of the request & additionally 2-4 hrs are granted for rural areas due to nature of difficulty • If required portable/ vehicle mounted/ air transportable BTSs/ BSCs with backhaul on satellite media may be installed by TSPs • Shall broadcast messages at regular intervals in consultation with STDCC/ DEOC to all subscribers in the affected areas | <ul style="list-style-type: none"> • To mobilize deployable satellite terminals & satellite phones in inaccessible & remote areas • To replace damaged or destroyed telecoms physical infrastructure • If required, TSPs shall open sufficient number of PCOs preferably free of cost for use of public in affected areas • TSPs shall submit first information report as per formats & thereafter daily status report about their network, helpline, PCOs etc to DDMA |
| CDVO | <ul style="list-style-type: none"> • Identify shelters, fodder requirements, veterinary equipments • Prepare a plan for setting up cattle camps & cattle feeding centers • In case of disease outbreak, follow necessary instruction & protocol identified by the department • Detection, diagnosis, assessment of risk & surveillance of the disease • Vector control, quarantine control • Storing of sterilized surgical packs & | <ul style="list-style-type: none"> • Administering vaccination to prevent outbreak of any disease • Deployment of teams to do quick access of damage & identify requirement for relief/ rescue, equipment & fodder • Arrangements for removal of carcass in a scientific manner, disinfection of contaminated areas • Coordinate with wildlife department to take necessary measures & treatment of injured animals • Coordinate with agencies for supply & | <ul style="list-style-type: none"> • Thorough checking of livestock before handing over to the owners • Continue giving veterinary advice till business returns to normalcy • Organise transfer of seriously injured livestock from villages to veterinary aid centres • Ensure that adequate sanitary conditions through cleaning operations are maintained to avoid outbreak of any epidemic |

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| | <p>other important equipments in safe & damage proof locations</p> <ul style="list-style-type: none"> • Setup teams of veterinary doctors & assistants for visiting disaster affected areas | <p>distribution of fodder & other materials</p> <ul style="list-style-type: none"> • Draw measures for protection & care of abandoned livestock | |
| RTO/MVI | <ul style="list-style-type: none"> • To set up a temporary control room & information centre at the main bus station. • Make a quick assessment of population that require evacuation or movement to safe locations/ shelter • Control & restrict vehicular traffic to risk prone areas • Issue standing instruction to the small & heavy vehicle associations for providing bus, truck & other vehicles required for evacuation & relief • Keep emergency vehicles on standby at pre-identified locations/ district/ block HQs • Move population to safe areas • To assist the district administration to send the messages of warning to the remote areas through the drivers/ conductors on transport routes | <ul style="list-style-type: none"> • Facilitate movement of emergency personnel, equipment & relief to affected sites • Resumption of road transportation as soon as the road connectivity is restored • Facilitate movement of emergency medical supplies & first responders to affected sites • Move population to safe areas & back on clearance from the administration • Maintain & operate round the clock connectivity to all the areas • To engage manpower & available resources to manage disaster | <ul style="list-style-type: none"> • Provide recovery support to line departments • Assess damage to transport infrastructure • Coordinating the reinstatement of transport services & infrastructure • Coordinate arrangement of vehicles for transportation of relief supplies from helipads, airports, railway stations etc to the designated places • Coordinate arrangement of vehicles for transportation of search & rescue activities • Making available cranes to the district administration |
| DFO- Forest | <ul style="list-style-type: none"> • Determining of protocol during various types of disaster | <ul style="list-style-type: none"> • Allow the transportation of fodder from forest areas, when the fodder is not freely | <ul style="list-style-type: none"> • Assessment of damaged infrastructures • Immediate removal of fallen trees |

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| | <ul style="list-style-type: none"> • Call for emergency meeting to take stock of situation, develop strategy • Deployment of field staffs at disaster prone areas • Determine strategy for flow of information & status update at regular intervals | <p>available</p> <ul style="list-style-type: none"> • Allow local farmers to take forest produce, such as cutting of fodder yielding trees, free of charge or upon payment of fee | <p>obstructing the movement of traffic</p> <ul style="list-style-type: none"> • Allow certain forest land for free grazing of livestock during disaster |
| Railway | <ul style="list-style-type: none"> • To set up a temporary control room & information centre at the railway station, main bus station etc • The Disaster Response Task Force to be alerted with all the equipments ready in advance | <ul style="list-style-type: none"> • Rapid access to the sites of incidents/ crisis/ disaster • Effective site management by making best use of on-board & locally available resources • Quick extrication of victims • Speedy transportation of victims to hospital • Proper communication system both for assisting the stranded passengers as well as giving out timely information to the media | <ul style="list-style-type: none"> • Assessment of critically damaged infrastructures • Arrangement of alternatives until the normalcy restored |
| EE- Electricity | <ul style="list-style-type: none"> • On receipt of advisory, maintain vigil & undertake inspection works wherever necessary • Prepare a list of public properties related to MSEDCL, which are in the damage prone areas & will make advance arrangements to minimize the damage • Undertake emergency rapid works if | <ul style="list-style-type: none"> • Inspection of damage to power infrastructure in regular interval • Undertake emergency repair of damage poles, other equipments • Dispatch quick response teams for restoration of power lines • Making proper lighting arrangements • Providing dedicated power supply to the | <ul style="list-style-type: none"> • Power supply & lighting arrangements in the rehabilitation areas • Restoration of power supply • Undertake detailed damage assessment to power infrastructure • Take steps towards speedy repair & complete restoration of services • Document lesson learnt & incorporate/ |

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| | <p>necessary</p> <ul style="list-style-type: none"> • Immediate inspection of high tension lines, towers, sub-stations, transformers, insulators etc • Ensure all personnel are available as per IRS plan • Sharing update with the DEOC regarding the state of power supply • Review & update precautionary measures & procedures & review the precautions that have been taken to protect equipment | <p>rural areas during drought like situations as per the decision of State Government</p> <ul style="list-style-type: none"> • Provide temporary electricity supply to temporary shelters, relief camps, feeding centres etc • Disconnection of temporary power supply for the affected area to prevent outbreak of fire & others • Assist hospitals in establishing an emergency supply by assembling generators & other emergency equipments, if necessary | <p>update in the DM plan</p> <ul style="list-style-type: none"> • Establish temporary electricity supplies to transit camps, feeding centres, relief camps & site operation centres, DEOC & on access roads to the same |
| EE - PHED | <ul style="list-style-type: none"> • Ensuring provisions for acquiring water supply tankers • Undertake chlorination programme • Protect vital water supply infrastructure from contamination • Arrange for alternate energy source in the event of failure of electricity supply • Installation of extra hand pumps to sustain the supply of drinking water | <ul style="list-style-type: none"> • Provide immediate safe drinking water supply in disaster affected areas • Provide immediate safe drinking water supply for conduct of response activities at hospitals, emergency shelters, schools designated as shelters, relief camps etc • Provide drinking water facilities in shelter for livestock • Daily reporting to the DEOC in the prescribed format • | <ul style="list-style-type: none"> • Assist line departments & agencies in identification sources of potable water • Assess the impacts of extreme events on facilities of the department & propose/ undertake reconstruction measures. • Implementation of plan & making arrangements for the repair & maintenance of the same • Continue the supply of safe drinking water at camps & shelters until normalcy is restored |
| DEO- School & Mass Education | <ul style="list-style-type: none"> • Convey appropriate information to the administration staff in the department, further relay of information based on | <ul style="list-style-type: none"> • Safe keeping of infrastructure of schools converted into shelters • Notify continuation of activities or | <ul style="list-style-type: none"> • Getting the school vacated as soon as the normalcy is restored • Detailed damage assessment of |

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| | <p>established protocol</p> <ul style="list-style-type: none"> • Coordination with line departments in establishing temporary shelters in schools | <p>temporary closure till situation is normalized</p> <ul style="list-style-type: none"> • Based upon the notification/ disaster declaration, provide necessary support to schools to function as temporary shelters/ relief camps | <p>education infrastructure</p> <ul style="list-style-type: none"> • Resumption of teaching work at the earliest |
| DEO - Higher Secondary Education | <ul style="list-style-type: none"> • Convey appropriate information to the administration staff in the department, further relay of information based on established protocol • Coordination with line departments in establishing temporary shelters in schools | <ul style="list-style-type: none"> • Safe keeping of infrastructure of colleges converted into shelters • Notify continuation of activities or temporary closure till situation is normalized • Based upon the notification/ disaster declaration, provide necessary support to colleges to function as temporary shelters/ relief camps | <ul style="list-style-type: none"> • Getting the colleges vacated as soon as the normalcy is restored • Detailed damage assessment of education infrastructure • Ensure DRR concerns are considered in design of new facilities/ strengthening of existing facilities |
| SCO- Food & Civil Supplies | <ul style="list-style-type: none"> • Keep updated on weather bulletins & warning related information • Estimate the population at risk & would be needing support • Cataloguing of available food supplies & resources • Identify mechanism for safe transport of food items to the affected population • Maintain adequate stock of food supplies to provide food security during disaster | <ul style="list-style-type: none"> • Coordinate with local authorities & transport essential supplies to disaster affected areas & pre determined locations • Provide tailored food packets to people with special needs • Making provisions for smooth running of kitchen at relief camps, shelters etc • Ensure that food distributed is fit for human consumption • Mobilise & coordinate with other ESFs for air dropping of food in the affected areas | <ul style="list-style-type: none"> • Maintain the supply of food grains till the rehabilitation is complete • Provide food supply to relief centres & kitchens till lifted off by the district authority • Establishment PDS points as per the changed scenario/ resettlements • Issuing of duplicate ration cards to the disaster victims, who lost their papers • Maintain price of basic commodities in disaster affected areas • Curb unfair practices |

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| | | <ul style="list-style-type: none"> • Compliance of food grain demand received from Disaster management Department in time for earthquake, flood, cyclone, fire etc | <ul style="list-style-type: none"> • Coordinate/ manage transportation of essential supplies to communities affected & at risk during post disaster situation |
| DIPRO- Information & Public Relation | <ul style="list-style-type: none"> • Disseminate warnings to communities based on established warning protocol • Flash warning message on radio & television network • Gather authentic & updated information regarding the field situation • Mobilise personnel to areas prone to disaster • Curb spread of wrong information, rumors, non-scientific/ non-verified forecasts | <ul style="list-style-type: none"> • Coordinate a large scale response to disaster • Collect reliable information from the field • Act as a focal point for release of official & updated information to media & public • Regular sharing of information about the disaster & highlight actions undertaken or planned • Continue broadcasting of message & updated information in radio & television • Provide key information & messages through loud speakers in field • Establish media information centre if necessary for media liaison • Undertake press briefings & provide official version • Provide regular updates to DEOC, line departments, key personnel & public | <ul style="list-style-type: none"> • Oversee efforts towards restoration activities undertaken by District Telecom Circle & service providers • Document cases/ lessons learnt from the field & dissemination of findings • Update the media on post disaster situations |

Sop for the Departments to be done accordingly

Chapter 9:

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 the following:-

- Organize initial and subsequent technical assessments of disaster affected areas
- Determine the extent of loss and damage and volume and nature of relief required
- disposal of debris
- Visit and coordinate the implement of various rehabilitation programmes
- Allocate funds for the repair, reconstruction of damaged infrastructure after considering their overall loss and damage
- Disbursement of assistance for houses
- Formulation of assistance packages
- Ensure supply of food, drinking water, medical supplies and other emergency items to the affected population
- 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 administrating 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 |
|-----------------------------------|---|
| Collector/ADM / Emergency Officer | <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 health in the affected areas • Adopt sustainable mitigation measures in the restoration activities • Recommend the SRC/ Government to declare as Natural Disaster |
| CDMO | <ul style="list-style-type: none"> • Carry out Disease surveillance measures to check epidemic prone diseases • Dis-infection of drinking water & measures for health & hygiene • Rehabilitation of deprived & destitute • Carry out Trauma & Psycho-social counseling • Monitor the medical needs & welfare of people sheltered in relief camps |

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| Superintendent of Police (SP) | <ul style="list-style-type: none"> • Play a tangible role in restoration of critical infrastructure • Safe exit of the personnel involved in disaster management activities • Contingency planning as the police is familiar with the local terrain • Maintain law & order in the disaster affected areas • Deployment of guards wherever needed particularly at stores, & distribution centers • Assist relevant agencies & the community in road-cleaning operation • Assist district authorities to take necessary action against Hoarders, Black Marketers & those found manipulating relief materials • Coordination with fire & military services & act as local point of contact during emergency |
| EE- RWSS | <ul style="list-style-type: none"> • Restoration of water supply & sanitation infrastructures as per assessment • Coordination & cooperation with GPs/ community in attending quality maintenance of drinking water supply systems • Ensure potable water supply is restored as per standards & procedures laid down in “Standards for potable water” • Take samples for bacteriological analysis & determine the chlorine residue at the end of disinfection operation but before the main is put back into service |
| EE- Irrigation | <ul style="list-style-type: none"> • Inspect all the Bundhs, and check their height & slope • Check that all the Bundhs have been repaired/ reinforced, in particular those Bundhs damaged during disaster • Check the drainage system of the Bundhs & ensuring that the seepage & rat holes etc have been closed • Check that all rain gauge stations are functional & arrangements have been made to record & report the readings • To check all the anti erosion works, necessary to maintain the Bundhs • Promotion of research in water conservation & management in the drought affected areas |
| DAO- Agriculture | <ul style="list-style-type: none"> • Assessment & restoration of critical infrastructures • Coordinate the provisions of agricultural services with irrigation deptt, DRDA, district EOC etc • Providing agricultural input subsidy • Assessment of crop loss & ensuring the benefits provided to farmers • Strategizing the implementation of rain harvesting programme & activities • Providing technical support to prevent further damages & help restart agriculture/ farming • Ensure supply of certified seeds of required varieties are supplied to farmers in adequate quantities • Ascertain the requirements of seeds, pesticides, equipments to salvage the situation or go for replantation • Depending upon the intensity of the damage, establish a programme for agriculture rehabilitation • Establish contact with soil & water testing laboratories post disaster • Assist farmers to re-establish their contacts with agriculture produce markets & ensure that produce gets proper support price • Development of strategy for farmers taken agricultural loan |

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| EE- Rural Works | <ul style="list-style-type: none"> • Usage of advanced scientific technology (disaster resilient) to drive the restoration movement of critical infrastructures • Reconstruction of rural roads as soon as possible to ensure uninterrupted services • Construction of roads, bridges, & culverts to connect the rehabilitation site & affected areas • Making machinery & manpower available to the PWD, EE-NH, R & B to restoration of critical infrastructures |
| EE- Public Works | <ul style="list-style-type: none"> • Prepare estimates & undertake repair/ strengthening works • Give priority attention to urgent repair works that need to be undertaken in disaster affected areas • Construct/ reinforce the connecting roads from villages to roads, canals & bunds & raise their level so that people can access the high ground • Keep an up-to-date report of all damages & repairs in the district office report book & communicate the same to the District Control Room • Institute repair of all paved & unpaved road surfaces including edge metalling, pothole patching, & any failure of surface, foundations in the affected areas |
| DTO-Telecom | <ul style="list-style-type: none"> • Formation of Rapid Damage Assessment Team to operationalise the damaged/ destroyed towers & other communication facilities • Submit a report within 2 weeks of the declaration of disaster to the DDMA outlining the damage, action taken, lessons learned & planned remedial actions • Coordinate the availability of temporary telecommunication & other networks in the affected areas |
| CDVO | <ul style="list-style-type: none"> • Ensure relief distribution & administer financial assistance • Establish cattle camps & additional veterinary aid centres at affected sites & accordingly ensure that extra supplies of medical items & materials are obtained quickly • Undertake detail damage & loss assessment for the sector & determine final assistance • Organise vaccination campaigns in hazard prone villages for disease control • Develop a system of monitoring outbreak of diseases to ensure that timely measures can be initiated to contain them |
| RTO/MVI | <ul style="list-style-type: none"> • Coordinate & implement emergency related response & recovery functions, search & rescues & damage assessment • To collect the details of roads damaged & will get them repaired in coordination with the competent authority to restore the bus services • Ensure speedy normalcy as soon as possible by connecting roots with transport services |
| DFO- | <ul style="list-style-type: none"> • Ensure that adequate supply of small poles or bamboo is available for reconstruction of houses of the affected people as well as wood for cremation of dead at free or subsidized rate • Survey & study of the disaster affected areas & strategies & prepare an action plan for the kind of plantation which shall bring about ecological balance & betterment • Determining long term strategy to minimize the impact disaster on critical infrastructures & forestry |

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| Railway | <ul style="list-style-type: none"> • Ensure restoration of critically damaged infrastructures • |
| EE- Electricity | <ul style="list-style-type: none"> • Set up temporary electricity supplies for staging area (Staging area to hold data, & perform data cleansing & merging before loading the data into warehouse) • Compile an itemized assessment of damage, from reports made by various electrical receiving centres & sub stations • Assessment of damage for National assistance • Review the total extent of damage to the power supply installations by reconnaissance survey |
| EE – PHED | <ul style="list-style-type: none"> • Assess the impacts of disaster on facilities of the department in different areas of the district & propose/ undertake mitigation measures • Undertake risk assessment & management of ground water resources in emergency situations • Restore all services to pre- disaster phase and maintain check on vital quality including bacteriological parameters • Survey & study of the area for the rehabilitation of victims • Working out layout plan for sanitation & drinking water supply in consultation with agency involved in construction of houses |
| DEO- School & Mass Education | <ul style="list-style-type: none"> • Ensure DRR concerns are considered in design of new facilities/ strengthening of existing facilities Detailed assessment of damaged infrastructure & coordinate with line department for reconstruction & repair • Notify continuation of activities or temporary closure till situation is normalized |
| DEO - Higher Secondary Education | <ul style="list-style-type: none"> • Resumption of teaching work at the earliest • Detailed assessment of damaged infrastructure & coordinate with line department for reconstruction & repair • Notify continuation of activities or temporary closure till situation is normalized |
| SCO- Food & Civil Supplies | <ul style="list-style-type: none"> • In consultation with Water Resources, Disaster Management & Agriculture Department, marking of flood & drought prone areas & making storage, packing & supply of food during disaster & post disaster period • Air dropping of food packets where ever necessary in coordination with the line departments • Coordinate procurement of goods & supplies required for the relief distribution • Issue duplicate ration cards |
| DIPRO- Information & Public Relation | <ul style="list-style-type: none"> • Provide support to recovery operation • Document recovery & rehabilitation efforts • Update the media & other on the restoration & rehabilitation measures undertaken |

Chapter-10:

Recovery

The value of a Disaster Recovery or Control Plan is the ability to react to a threat or event swiftly and efficiently. This can only be achieved when a department has informed staff, disaster supplies and planned procedures -- in short, a Disaster Recovery Plan.

A series of long term activities framed to improve upon the repaired activities in the Reconstruction & rehabilitation phase are covered under Recovery phase. Recovery includes all aspects of mitigation and also incorporates the continuation of the enabling process, which assists the affected persons and their families not only to overcome their losses, but also to achieve a proper and effective way to continue various functions of their lives. The Recovery process is therefore a long-term process in which everyone has a role – the Government including the PRI members, NGOs and especially the affected people, their families and the community.

The Disaster Recovery Plan

The Disaster Recovery Plan should be prepared by the Disaster Recovery Committee, which should include representatives from all critical departments or areas of the department's functions. The committee should include at least one representative from management, computing, risk management, records management, security, and building maintenance. The actual size and composition of the committee will depend on the size, location, and structure of the individual department or facility. The committee needs to prepare a time line to establish a reasonable deadline for completing the written plan. This time line may take the form of a Program Evaluation and Review Technique (PERT) chart or a decision.

- Preparation of Recovery plan for displaced population, vulnerable groups, environment, livelihoods
- Organise initial and subsequent technical assessments of disaster affected areas and determine the extent of recovery works necessitated in addition to reconstruction & rehabilitation works.
- Evaluate the extent of works under SDRF/NDRF & other sources(damaged infrastructures)
- Explore opportunities for external aids like (International Agencies / Civil Society / Corporate Sector)
- Allocate funds for the stabilisation of the repaired & reconstructed infrastructure.
- Integrate Climate change & Disaster Risk Reduction features in the recovery programmes

The DM & Collector will be the co-ordinator of all Recovery activities in the District. The role of the DM & Collector will be to:

- Generally monitor the management of the recovery process;
- Ensure implementation of the recovery plan by line departments, blocks
- Effective service delivery minimising overlap and duplication;

What was discussed earlier about planning for disaster prevention applies equally to planning for disaster recovery. The planning is a senior management function and cannot succeed without top level support. Recognition of the need for such a plan must be present at an early.

Team Task Organization

The plan must spell out the titles and functions of each team member involved in the disaster recovery process. The individuals who will compose the team or teams should be identified by title or position and name. In a small facility or department with only a handful of employees, the entire staff may become the Disaster Recovery Team with one person designated to lead the recovery effort. The DM may act as Coordinator must be given the necessary authority to declare a disaster, and to act quickly and effectively during the salvage operation.

Information Distribution Procedures

The plan must include specific methods for contacting team members and alternates, vendors, support agencies, suppliers, consultants and all those with whom special disaster contracts and agreements are in effect.

Specific Disaster Reactions

The plan must provide for both major and minor disasters, and must address individual and community-wide natural disasters such as flood, cyclone and drought. The plan should also define in terms of business interruption what constitutes a disaster; thus, authorizing the activation of the disaster recovery plan.

Training of Employees

The recovery plan must provide for initial and ongoing employee training. Skills are needed in the reconstruction and salvage phases of the recovery process. Your initial training can be accomplished through professional seminars, special in-house educational programs, the wise use of consultants and vendors, and individual study tailored to the needs of your department. A minimal amount of training is necessary to assist professional restorers/recovery contractors and others having little knowledge of your information, level of importance, or general operations.

Priorities for the Restoration of Essential Functions

The disaster recovery plan must not only spell out which functions are vital, but also the order they are restored. This is especially critical in the vital, complex computing functions where accounts receivable, payroll, and accounts payable have fluctuating priorities throughout the month.

The plan should establish only general priorities. Leave individual decisions to managers who know which functions are critical at a specific period of the month or in a particular situation.

Contracts and Agreements with Disaster Support Agencies

Copies of contracts and agreements with all disaster support agencies and businesses including salvage and reconstruction consultants, available alternative sites, and vendors of other essential equipment and supplies must be included in the written plan.

A list of additional recovery resources should include:

- Local fire department
- Police department
- Civil defense
- Ambulance services
- Paper supply vendors
- Copy machine(s)

- Office equipment
- Computer equipment and supplies
- Resources for freezer space/freezer trucks
- Local volunteers or temporary help

The disaster recovery plan must specify by name, address, position, and phone number the various resources the disaster team will use.

A List of Disaster Salvage Equipment and Supplies

A list of the equipment and supplies gathered for the disaster salvage kit forms part of the disaster recovery plan. This list should indicate the available items and their location. Each department must decide what items should or should not be included on the supply list. **Below are some items to consider:**

Your disaster recovery supplies can be assembled within the department as part of disaster planning, or they can be purchased after a disaster from previously contracted suppliers. The latter approach is risky in a general disaster when such supplies are in great demand.

Summary

A disaster recovery plan maps out the process of resuming normal business operations, reconstructing or salvaging vital and other important records and equipment, and becomes a guide for all managers and employees during and after a disaster. The plan's key elements fall into three categories: those common to all sections of the plan; those pertaining mainly to the resumption of business operations; and those pertaining mainly to the reconstruction or salvage.

Chapter- 11:

Financial Arrangement

11.1 National Disaster Response Fund (NDRF)

The National Disaster Response Fund (NDRF) has been constituted by the Government of India as per the sub-sections (1) of section (46) of Disaster Management Act, 2005 and recommendation of the 13th Finance Commission. NDRF has been constituted by replacing the National Calamity Contingency Fund (NCCF). It is administered by the National Executive Committee (NEC).

In the event of a calamity of a severe nature when the State Disaster Response Fund (SDRF) is insufficient to meet the relief requirements, additional central assistance is provided from NDRF, after following the laid down procedure. The State Government is required to submit a memorandum indicating the sector-wise damage and requirement of funds. On receipt of memorandum from the State,

- An Inter-Ministerial Central Team is constituted and deputed for an on the spot assessment of damage and requirement of funds for relief operations, as per the extant items ad norms.

- The report of the Central Team is considered by the Inter-Ministerial Group (IMG) / A Subcommittee NEC constituted under section 8 of DM act, 2005, headed by the Home Secretary.
- Thereafter, the High Level Committee (HLC) comprising of the Finance Minister, the Agriculture Minister, the Home Minister and the Deputy Chairman, Niti Ayog considers the request of the State Government based on the report of the Central Team recommendation of the IMG thereon, extant norms of assistance and approves the quantum of assistance form NDRF.
- This is, however, subject to the adjustment of 75% of the balance available in the State's SDRF for the instant Calamity.

(Please refer page no. 317 of Volume-II for NDRF Items and Norms)

11.2 State Disaster Response Fund (SDRF)

As per the provisions of Disaster Management Act, 2005 sub-section (1)(a) of Section (48) and based on the recommendation of the 13th Finance Commission, the Government of Odisha has constituted the State Disaster Response Fund (SDRF) replacing the Calamity Relief Fund (CRF). The amount of corpus of the SDRF determined by the 13th Finance Commission for each year the Finance Commission period 2010-15 has been approved by the Central Government. The Central Government contributes 75% of the said fund. The balance 25% matching share of contribution is given by the State Government. The share of the Central Government in SDRF is released to the State in 2 installments in June and December respectively in each financial year. Likewise, the State Government transfers its contribution of 25% to the SDRF in two installments in June and December of the same year.

Ministry of Home Affairs, upon being satisfied that exigencies of a particular calamity so warrant, may recommend an earlier release of the Central share up to 25% of the funds due to the State in the following year. This release will be adjusted against the installments of the subsequent year.

As per the Guidelines on Constitution and Administration of the State Disaster Response Fund (SDRF) laid down by the Ministry of Home Affairs, Government of India, the SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst and pest attack. The State Executive Committee (SEC) headed by the Chief Secretary SEC decides on all matters connected with the financing of the relief expenditure of immediate nature from SDRF.

(Please refer page no. 317 of Volume-II for SDRF Items and Norms)

11.3 Chief Minister Relief Fund (CMRF)

Chief Minister's Relief Fund aims to provide assistance to calamities and in distress condition, to indigent persons suffering from critical ailments and to undertake charitable activities for public welfare.

11.3.1 Cases Eligible for Assistance under CMRF

11.3.1.1 Poor and persons in distress: Relief to the poor, including grant and aid (financial or otherwise) to persons in distress.

11.3.1.2 Aged, differently able, orphans, AIDS affected : Assistance for the relief and rehabilitation of the aged, differently able' orphans, HIV/AIDS affected persons/families and those otherwise differently able or incapable of earning their livelihood, by grant and aid (financial and otherwise) and / or maintenance, establishment and support of institutions and homes for the benefit of such persons.

11.3.1.3 Persons affected by calamities or violence: Assistance for relief & rehabilitation of persons affected by natural or man-made calamities, communal violence', naxal violence or public disorder of a serious nature or any other calamity' affecting a family or a community, which deserves extreme compassion and not covered under any existing assistance scheme of State/central Government.

11.3.1.4 Assistance for Rural Development: Financial assistance out of CMRF may also be considered to undertake, promote, aid or otherwise support rural development including any programme for promoting the social and economic welfare of the public in any rural area either directly or through an independent agency following due procedure.

To assist more number of deserving person and for better utilisation of the Chief Minister's Relief Fund, the State Government have delegated powers to the Collectors for sanction of assistance out of CMRF so as to extend such assistance to the deserving persons immediately at the time of their need.

11.4 Release of Funds to Departments and Districts:

Funds required towards pure relief to affected persons / families for natural calamities in shape of emergency assistance, organizing relief camp / free kitchen / cattle camp, agriculture input subsidy and other assistances to affected farmers, ex-gratia as assistance for death cases, grievous injury, house building assistance, assistance to fisherman / fish seed farmers / sericulture farmers, assistance for repair / restoration of dwelling houses damaged due to natural calamities are administered through the respective collectors.

Part funds towards repair / restoration of immediate nature of the damaged public infrastructure are released to the Departments concerned. On receipt of requisition from the Collectors / Departments concerned, funds are released after obtaining approval / sanction of S.E.C. However, funds towards pure relief are released under orders of Special Relief Commissioner / Chief Secretary and the same is placed before the State Executive Committee in its next meeting for approval. To save time, Collectors have been instructed to disburse the ex-gratia assistance from the available cash and record the same on receipt of fund from Special Relief Commissioner.

11.5 Damage Assessments and Report after Flood/Cyclone

Private properties and properties of Government under different Departments are damaged by high floods and cyclones. As per para-75 of Orissa Relief Code, the Collector shall undertake assessment of damages to private properties as well as properties of Government. This assessment shall be done quickly soon after the abatement of flood in the prescribed formats prescribed in Appendix- X of Orissa Relief Code.

11.5.1 Submission of preliminary damage report (Para-76 of ORC)

1. The Collector as well as the district level officers under each Department of Government shall immediately after assessment of flood damage forward a copy of their report to their immediate Head of Department. The district level officers may also supply reports to the Collector.
2. The Heads of Departments after necessary scrutiny shall forward their reports to their respective Departments of Government with copy to Special Relief Commissioner, not later than two weeks from the date of abatement of flood.
3. The Special Relief Commissioner shall compile the State report and shall furnish the consolidated preliminary report to the Revenue Department within a week of the receipt of the reports from the Heads of Department.
4. The preliminary flood damage report should be prepared as accurately as possible, as the relief measures, if any, are to be based on the merit and statistical data of that report.

11.5.2 Submission of final flood damage report (Para-77 of ORC)

The concerned Heads of Departments as well as the Collector shall take immediate steps to compile the final report on flood/cyclone damage in the formats prescribed in Appendix- X soon after submission of the preliminary report.

Accidental errors, clerical mistakes, shortcomings, if any, noticed should be rectified in the final report. The final report shall be made available to Special Relief Commissioner as soon as possible and not later than one month from the date of abatement of flood.

On receipt of the reports from the different sources, Special Relief Commissioner shall forthwith compile the State report and furnish the same to the Revenue Department.

11.6 Central and State Government programmes and Schemes on Natural Calamities

Mainstreaming Disaster Management in development planning is the most critical component to mitigate disaster risks. That's why it's important to make note of financial resources which are used in the implementation of such programmes and schemes which can lessen the risk from disasters by reducing vulnerability. It is also crucial to build communities resilience to deal with them. Moreover, as mandated by Ministry of Finance & Ministry of Home Affairs on 01st and 03rd June, 2014 respectively, 10 % flexi-fund within the centrally sponsored schemes (CSS) to be utilised, inter alia for mitigation / restoration activities in the event of natural calamities in the sector covered by CSS. Thus, relevant Central Government and State Government funded schemes are identified which are crucial to build over resilience of communities in the context of the district.

Table__ : Different State and Central Government Schemes and Programms

| Sl No. | Name of the Scheme | Sector | Nodal Department | Objective of the Scheme |
|--------|---|----------------|---|---|
| 1 | National Agriculture Insurance Scheme (NAIS)/ Rastriya Krishi Bima Yojna (RKBY) | Crop Insurance | Agriculture Insurance Company of India (AICI) | To protect the farmers against the losses suffered by them due to crop failures on account of natural calamities, such as droughts, floods, hailstorm, storms, animal depredation, etc. |
| 2 | Janashree Vima Yojna | Life Insurance | Life Insurance Corporation Of India | The objective of the scheme is to provide life insurance protection to the rural and urban poor persons below poverty line and marginally above the poverty line. |
| 3 | Modified National Agricultural Insurance Scheme (MNAIS) | Crop Insurance | Agriculture Insurance Company of India (AICI) | To provide insurance coverage and financial support to the farmers, sharecroppers, tenant farmers, individual owner-cultivator, pesticide farms, group of farmers, SHGs etc in the event of prevented sowing & failure of any of the notified crop as a result of natural calamities, pests & diseases. |
| 4 | Coconut Palm Insurance Scheme (CPIS) | | Agriculture Insurance Company of India (AICI) | Assist coconut growers in insuring coconut palms, against natural and other perils. |
| 5 | National Cyclone Risk Mitigation Project(NCRMP)Ph-I | | National Disaster Management Authority (NDMA) | The Project development objective of the NCRMP is to reduce vulnerability of coastal communities to cyclone and other hydro meteorological hazards. |

11.7 Roles of District Planning Committee on financial outlay on mainstreaming Disaster Risk Reduction (DRR) in development programms.

District Planning Committee (DPC) is the committee created as per article 243ZD of the Constitution of India at the district level for planning at the district and below. The Committee in each district should consolidate the plans prepared by the Panchayats and the Municipalities in the district and prepare a draft development plan for the district.

The District Planning Office, Nayagarh started its functioning w.e.f. November'1994. Prior to that period, it was functioning under the control of the Chief Planning & Development Officer, Puri. As per G.O. No.11741/P. dt.29.8.2000 of the Govt. in Planning & Co-Ordination Deptt. Orissa, the District Planning Officer, Nayagarh has been vested with the powers of functioning as its Head of Office. Accordingly, necessary financial and administrative powers have also been conferred to the D.P.O.

Schemes

Members of Parliament Local Area Development Scheme (Mplads)

Objective

The objective of the scheme is to enable MPs to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs to be taken up in their constituencies. Right from inception of the scheme, durable assets of national priorities viz. drinking water, primary education, public health, sanitation and roads, etc. are being created.

Integration with DRR

Natural calamities:-

In the event of "Calamity of severe nature" in any part of the country, MP can recommend works up to a maximum of Rs.50 lakh for the affected district. Whether a calamity is of severe nature or not, will be decided by the Government of India. The funds in this regard will be released by the Districts Authority of the Nodal district of the MP concerned to the Districts authority of the affected district to get the permissible works done. The Works Completion Report, Utilisation Certificate and Audit Certificate for such works and funds will be provided by the District Authority to the respective Districts Authority from whom funds were received.

Members of Legislative Assembly Local Area Development Fund (Mlalad)

Objectives :-With a view to increasing the participation of local people and their representatives in the planning process, which is one of the main objectives of the decentralized planning, the concept of Members of Legislative Assembly Local Area Development Fund "MLALAD Fund" has been introduced in the State of Orissa since 1997-98, similar to that of MPLAD Fund, introduced by Govt. of India in 1993. Under the Scheme funds to the tune of Rs.50.00 lakh per constituency will be provided in the State's plan budget every year, which may change depending on the resources position and other commitments of the State. The "MLALAD Fund" is intended to be utilized for small but essential Projects/Works based on the felt needs of the local public. It is also meant to be used for providing missing links to operationalise the non-operational plan assets for which funds cannot be provided under any other on-going programmes.

Special Problem Fund

Objectives:- The scheme of "Special Problem Fund" has been introduced in the State during the year 1997-98. The scheme aims at taking up small and essential projects of local importance involving special nature of problems in the absence of which the development process will remain incomplete.

Chapter 12:

Preparation and Implementation of District Disaster Management Plan

12.1 Procedure for preparation of DDMP as per the DM act to be elaborated

Vision

“Make Nayagarh disasters resilient, achieve substantial disaster risk reduction, and significantly decrease the losses of life, livelihoods, and assets – economic, physical, social, cultural, and environmental – by maximizing the ability to cope with disasters at all levels of administration as well as among communities”.

The district adopted a holistic approach addressing all the hazards, its vulnerability for preparation of the District DM Plan. The district has identified the vulnerable areas & measures for prevention & mitigation of its effects taking the past lessons, experience, systems at different levels, infrastructures, capacity etc into account during the HRV analysis. During HRV analysis the district has made sure that the guidelines for prevention of disasters, mitigation of its effects; preparedness & response measures as laid down by the National Authority & the State Authority are followed by all the line departments. The plan also focused on the capacity building measures required at various levels of the implementation of the Dm plan. The district has also provisioned for the regular review & updation of the DM plan.

District Disaster Management Plan for Nayagarh 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 such as Fire Service, Health Department of Food and Civil Supplies, Public Works Departments etc where as the Vertical plan includes Block Level Plans, Community Plans, School/Hospital plans and State disaster management plans and National disaster management plans at the higher level. Preparing the DM plan the district has followed the below mentioned steps:-

- Preparation of plan is the ultimate responsibility of the District Disaster Management Authority DDMA (Nayagarh) / consultants / sub committee appointed by the DDMA in the district.
- The first draft plan has been discussed in the DDMA in the presence of line departments & finalization of responsibility for data collection, compilation & timelines.
- The assigned & responsible Officers to review the progress & act as nodal point for discussion, coordination, data collection & drafting.
- The collection, compilation & analysis done by the DEO

- Later the first draft of the DDMP discussed in DDMA & necessary rectifications to be done accordingly.
- After final approval, the District Authority shall send a copy of the DM plan to the State Authority which shall forward it to the State Government.
- If it is approved then the same to be circulated across all the line departments else necessary rectifications to be done again & resubmitted.
- The district Plan shall be reviewed & updated annually by the DDMA or the committee appointed. In order to update, all the vertical & horizontal plans shall be collected & incorporated into the DM plan.
- The copies of the district DM plan referred to in sub-sections (2) & (4) shall be made available to the Departments of the Government in the district.
- The District Authority shall review from time to time, the implementation of the plan & issue such instructions to different departments of the Government in the districts as it may deem necessary for the implementation thereof.

12.2 Roles of ADM, DEO and Nodal Officers support from other line Departments to be defined

Role of Additional District Magistrate (ADM)

- ADM being the supervising authority to check the progress of DDMP in terms of data collection, coordination & compilation, timely update to collector.
- Ensuring the first draft presented & discussed in DDMA.
- Ensuring the plan is submitted to SDMA.
- Ensuring the IDRN is updated from time to time.

Role of District Emergency Officer (DEO)

- Ensuring the meeting with DDMA & other line departments conducted within the stipulated time & facilitation of discussion on updation of DDMP.
- Follow up on collection of data, coordination with officials, and line department for data collection.
- Sharing of progress/ update with ADM/ Nodal Officer from time to time.
- Ensuring the collected data is incorporated & updated in the DDMP.
- Ensuring the draft plan is prepared within the timeframe set by DM Act, 2005 & discussed in the meeting of DDMA.
- Ensuring the draft DM plan is approved in DDMA with all the queries/ corrections resolved.
- Ensuring the IDRN data collected & updated in the online portal.

12.3 Support of line departments (for providing information) to be mentioned.

Line departments play one of the most tangible roles in preparation & updation of the DDMP. Hence their timely & prompt response is of utmost importance, which is mentioned below:-

- Extend all possible support for preparation of the DM plan
- Submission of data required to prepare & update the DDMP within the stipulated time frame.
- Provide inputs in joint review cum planning meeting for preparation & updation of DDMP.
- Ensure submission of data for updation of India Disaster Resource Network online inventory.
- Ensure timely support as and when require during the time of disaster as defined in DDMP.
- Implementation of activities as designed in DDMP.

12.4 Time lines for updating DDMP to be mentioned. (From January to February of every) should be incorporated in matrix (information to line departments etc.)

| SI No. | Activities to be done | Timeline |
|--------|--|----------------------------------|
| 1 | Consultation with line department officials and important stakeholders at district level | 1 st week of January |
| 2 | Sharing of formats for baseline data | 1 st week of January |
| 2 | Submission of base line data by all line departments | 3 rd week of January |
| 3 | Compilation of information's and preparation DDMP. Sharing of draft with Chairperson, members of DDMA and other stakeholders | 1 st week of February |
| 4 | Necessary modification and finalization | 2 nd week of February |
| 5 | Placing the final copy before DDMA, finalization and submission of a copy to SDMA | Last week of February |
| 6 | Approval by SDMA | By March |

12.5 Details of number of consultation and meetings, discussion with stakeholders for modification and final sharing.

| SI No. | Activities to be done | Numbers |
|--------|--|---------|
| 1 | Consultation with line department officials and important stakeholders at district level | 2 |
| 2 | Discussion with DDMA for modification | 1 |
| 3 | Discussion with DDMA for finalisation, approval & submission | 1 |
| 4 | Final submission of approved DDMP before DDMA | 1 |

12.6 Sharing and placing before DDMA for approval

Upon completion the first draft of the DM Plan to be shared with the DDMA, may be in the presence of all the district level officials & line departments. A detailed discussion may be carried out on the quality of information, data & taking necessary suggestions into concern the final DM Plan may be sen to the SDMA for approval. Upon approval, the same may be uploaded in the website.

Chapter 13:

Lessons learnt and Documentation

Our experiences have taught us that practice makes perfect and that it probably is unreasonable to expect everything to be orderly, sane, and appropriate during disaster management. The best we can hope for probably is controlled chaos. We do believe that we have generated an improved plan, that the plan is known, and that it is being revised continuously. We can no longer rely on our goodwill and good intentions to manage mass casualties in a disaster. There are too many factors that can reduce our ability to provide medical care in this situation.

- Hospital planning is essential. The hospital should be represented on the emergency preparedness committee so it is knowledgeable about the various plans throughout the city. Hospital staff must be kept current on the various plans to understand the communication, authority, responsibility, security, and medical control for each plan.
- Each plan must be practiced and critiqued to identify potential problems.
- The DM plan allows the personnel in these departments to review their responsibilities continually in a concise manner and allows practice of disaster preparedness without implementing an entire disaster drill.
- Time has come to shift the paradigm from response to disaster preparedness & capacity building to mitigate the impact of disasters.
- Involvement of community in the process of Disaster Risk Reduction is of utmost importance.

Annexure

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).

Daily Status Report on Relief/ Restoration Measures Undertaken By Departments

1. Health Department.

- Medical Relief Centres Opened-
- Mobile teams deployed-
- Wells disinfected-
- ORS distributed-
- Halogen Tablets distributed-
- Minor Ailment Treated-

2.R.D. Department.

- Mobile vans deployed-
- Water tanker deployed-
- ORS powder distributed-
- Halogen Tablets distributed-
- Water pouches distributed-
- Bleaching powder distributed-
- Sintex Tanks available-
- Tube wells disinfected-

3.FS & CW Department

-Qtls. Chuda, Qtls gur supplied to Blocks
(Qty .in quintals)

| District | Chuda | Gur |
|----------|-------|-----|
| | | |
| | | |
| | | |
| | | |

- Qtls of rice has been allocated to the Districts mentioned below

Blocks

Quantity allocated (in quintal)

Total:

4.Fisheries & A,R.D. Department

- Animals vaccinated-
- Animals treated-

Damages to Roads/River Embankments

1.R.D. Department.

Roads damaged-
CD/Breach occurred-
Breach closed-
Building damaged-
Building collapsed-
Pipe water supply affected-
Tube Wells affected-

2.Works Department.

Roads damaged-
Breach occurred-
CD works damaged-
CDs washed away-
Breach closed-

3.W.R Department.

Breach occurred-
Breaches closed-

Breach closing works in progress

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 | | | | | | | | | |

Extent of damage due to natural calamities

Dist : _____ Nature and period of natural calamity : _____

| Sl. | Item | Details |
|---------------------------------------|--|-------------------------|
| 1. | Total number of Blocks in the district | |
| 2. | Number and names of Blocks affected | |
| 3. | Number of villages affected | |
| 4. | Population affected (in lakh) | |
| 5. | Total land area affected (in lakh ha.) | |
| 6. | Cropped area affected (in lakh ha) | |
| | i) Total cropped area affected | |
| | ii) Estimated loss to crops (Rs. in lakh) | |
| | iii) Area where cropped damage was more than 33% | |
| 7. | Percentage of area held by SMF | |
| | i) In the State as a whole | |
| | ii) In the affected districts | |
| 8. | House damaged | |
| | a) No. of houses damaged | |
| | i) Fully damaged pucca houses | |
| | ii) Fully damaged kutch houses | |
| | iii) Severely damaged pucca houses | |
| | iv) Severely damaged kutch houses | |
| | v) Partly damaged houses (pucca + kutch) | |
| | 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 | |

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 | | | | | |

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 croploss 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 | | | | | | | | | | | |

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 | | | | | | | | | | |

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)

Animal Husbandry (Replacement of Animals)

| Name of the Block | No of Livestock / Birds lost | | | | Poultry Birds | 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 | | | 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) |
| | | | | | | | | | | | | | | | |
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Contd..

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.-5200/- | Kutcha | Amount @ Rs.-3200/- | Nos. | Amount @ Rs.-4100/- | Nos. | Amount @ Rs.-4100/- | |
| | | Pucca | Amount @ Rs.-95100/- | kutcha | Amount @ Rs.-95100/- | pucca | Amount Rs.- 101900/- | Kutcha | Amount @ Rs.-101900/- | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | |

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 | Rural Water | No of Tube wells damaged – | | | |

| | | | | | | |
|---|--------------------------------|---|--|--|--|--|
| Supply | Supply | 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 - | | | | |
| | M I 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 Panchayat Ghar/Community Hall damaged - | | | | |
| | AWW Centres | No of Anganwadi Centres 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 | | | | | | |

PROCEDURE FOR USING INMARSAT ISAT PHONE 2

1. Stand outside with a clear view to the sky with the phone antenna pointing upwards.
2. There must be a clear line of sight between the phone's antenna and the satellite.
3. Point the antenna towards **South-East** direction.
4. Switch on the phone by pressing the Red power button of the phone for few seconds. Until the screen lights up.
5. Align the antenna for getting the maximum satellite signal strength (minimum two bars)
6. The screen will show "searching for satellite" "registering with network".
7. The screen will show "ready for service". Inmarsat name will come in top right corner.
8. Then the phone is ready to operate
9. Simply dial the desired no:
 - i. From satellite to landline : Dial **00** + Country code 91+ **STD code (without 0)** + desired **Telephone No**
 - ii. From **Satellite to mobile** : Dial 00 + 91+ Mobile Number
 - iii. From **Satellite to satellite**: 00+ satellite phone number
 - iv. From **Landline**(should have ISD facility) to **satellite**: 00 + satellite phone number
 - v. From **Prepaid mobile**(should have ISD facility with sufficient balance)to **satellite**: 00 + satellite phone number
10. To end the call Press 'red' button



NOTE:

- A delay in microseconds will be observed so the user is advised to listen to one end and then speak.
- The user is also advised to SPEAK SOFTLY to get better voice quality at the other end.
- Check the Battery. (Display will show a rectangular block that will be filled according to the charge in the battery). Always charge the battery till it gets charged 100%.
- For more detail information please follow the **User Guide document**.

Alloted Satellite Phone Numbers

| Sl | Districts | Calling Numbers |
|-----------|---------------------------------------|------------------------|
| 1 | Collector Angul | 870776146926 |
| 2 | Collector Balasore | 870776146936 |
| 3 | Collector Bargarh | 870776146928 |
| 4 | Collector Bhadrak | 870776146927 |
| 5 | Collector Bolangir | 870776146930 |
| 6 | Collector Boudh | 870776146929 |
| 7 | Collector Cuttack | 870776146932 |
| 8 | Collector Deogarh | 870776146931 |
| 9 | Collector Dhenkanal | 870776146934 |
| 10 | Collector Gajapati | 870776146933 |
| 11 | Collector Ganjam | 870776146949 |
| 12 | Collector Jagatsinghpur | 870776146950 |
| 13 | Collector Jajpur | 870776146947 |
| 14 | Collector Jharsuguda | 870776146948 |
| 15 | Collector Kalahandi | 870776146945 |
| 16 | Collector Kandhamal | 870776146946 |
| 17 | Collector Kendrapada | 870776146943 |
| 18 | Collector Keonjhar | 870776146944 |
| 19 | Collector Khorda | 870776146935 |
| 20 | Collector Koraput | 870776146942 |
| 21 | Collector Malkangiri | 870776146918 |
| 22 | Collector Mayurbhanj | 870776146925 |
| 23 | Collector Nabarangpur | 870776146924 |
| 24 | Collector Nayagarh | 870776146923 |
| 25 | Collector Nuapada | 870776146921 |
| 26 | Collector Puri | 870776146922 |
| 27 | Collector Rayagada | 870776146919 |
| 28 | Collector Sambalpur | 870776146920 |
| 29 | Collector Subarnapur | 870776146951 |
| 30 | Collector Sundargarh | 870776146952 |
| 31 | ODRAF Cuttack, OASP 6th Battalion | 870776146961 |
| 32 | | 870776146962 |
| 33 | ODRAF Bhubaneswar, OSAP 7th Battalion | 870776146959 |
| 34 | | 870776146960 |
| 35 | ODRAF Baripada, OSAP 5th Battalion | 870776146957 |
| 36 | | 870776146958 |
| 37 | ODRAF Rourkela, OSAP 4th Battalion | 870776146955 |
| 38 | | 870776146956 |
| 39 | ODRAF Koraput, OSAP 3rd Battalion | 870776146953 |
| 40 | | 870776146954 |
| 41 | ODRAF Jharsuguda, OSAP 2nd Battalion | 870776146908 |
| 42 | | 870776146909 |
| 43 | ODRAF Chatrapur, OSAP 8th Battalion | 870776146906 |

| | | |
|----|------------------------------------|---------------------|
| 44 | | 870776146907 |
| 45 | ODRAF Balasore | 870776146904 |
| 46 | | 870776146905 |
| 47 | ODRAF Bolangir | 870776146902 |
| 48 | | 870776146903 |
| 49 | ODRAF Jagatsinghpur | 870776146963 |
| 50 | | 870776146964 |
| 51 | Special Relief Commissioner (SEOC) | 870776146917 |
| 52 | Managing Director, OSDMA | 870776146916 |