

Cuttack City - A Step Towards Resilience:
GOI- UNDP-USAID Partnership Project on **“Developing Resilient Cities through Risk Reduction in the context of Disaster and Climate Change”**.

Cuttack, the commercial capital of Odisha, is one of the oldest cities and is located at the confluence of two big rivers, namely, the Mahanadi in the north and Kathajodi and is about 30 km away from the State capital. It has a population of 6.5 lakhs (2017) distributed among 59 wards with a spatial spread of 82.43 sq km. It has a population density of about 7,823 people per sq km with trade and commerce as the key economic activities.

The city is vulnerable to cyclone, flood, earthquake, and heat wave that affect the socio economics of the city. The city was impacted severely by the 1999 super cyclone and the floods of 1982, 2008 and 2011. The historical cyclone event data shows that 142 cyclonic disturbances passed within 100 km of the city of which the maximum wind speed experienced was 258 km/h. The recent cyclone that affected the city was the Phailin cyclone of 2013 when the city experienced a wind speed of 215 km/h. The impact was mostly in terms of damage to assets, particularly infrastructure and houses.

Considering the location of the city in the delta area, the city is vulnerable to flooding. Flooding is due to heavy localized rainfall as well as discharge of water from the Hirakund dam located 330 km upstream. The topography of the city is saucer shaped with unplanned urban development and choking of the narrow drains with solid waste causing frequent water logging problems in many parts of the city. The flood analysis shows that Ward Nos. 2, 3, 9, 14, 17, 20, 26, 33, 40, 43 are especially vulnerable to water logging. The city operates pumps to pump out water during rainy season to avoid water logging. The city, under various development projects, is also developing drains to reduce the impact of flood and water logging. Climate change can intensify rainfall, which can influence the runoff thus increasing flood vulnerability.

Extremely high-rise in annual average maximum temperature, continuous increase in the number of hot days and rising temperature difference between Cuttack and the nearby cities provides an impression of the gradual emergence of the city as an urban heat island. During May 2013, Cuttack recorded a maximum temperature of 44.5°C. Very severe heat stress conditions prevailed in May/June months.

Cuttack city is located in seismic zone-III, which is moderately vulnerable to earthquakes. However, minor to moderate earthquakes, not of damaging scale, have occurred in the past at different localities. Recently, on May 21, 2014 an earthquake of magnitude 6 on the Richter scale occurred in the Bay of Bengal, and shock was felt in different parts of Cuttack and neighboring cities due to local soil-amplifications, though there was no report of any significant damage in the city.

Considering the high-density of population, traditional houses, and high temperatures in the summer months, the city is vulnerable to fire accidents. Historical fire accident data

shows that the occurrence of fire hazards is higher in residential buildings compared to commercial and industrial buildings. Climate change analysis shows projected annual mean warming of about 4.56°C by the end of this century over Cuttack with increases in the number of hot days and warmer nights.

In view of the increasing risk exposure of the urban areas of India, often accentuated by climate change and variability, a project on “Climate Risk Management in Urban Areas through Disaster Preparedness and Mitigation” has been approved jointly by the Government of India (GoI) and United Nations Development Programme (UNDP) with financial support from USAID in October 2012 .In the Phase II of the project titled “Developing Resilient Cities through Risk Reduction in the context of Disaster and Climate Change” implemented over a period of four years (June 2016 – May 2020) in Cuttack.

The key objectives of the project are to:

1. **Reduce disaster risks** in urban areas by enhancing institutional capacities to (i) integrate climate risk reduction measures in development programs,(ii) undertake mitigation activities based on scientific risk assessment.
2. **Enhance capacities of local governments and urban communities** including private sector stakeholders, to manage Disaster and Climate Risks.

Towards these objectives the following activities have been envisaged under the project:

- Enhanced risk sensitive city development planning through Disaster Risk Assessments and Structural Safety Audit
- Strengthened Early Warning Systems through implementation of pilots
- Enhanced capacities of the local governments and communities to respond to disaster and mitigate risks
- Strengthened Knowledge base of Urban Managers and other stakeholders
- Enhanced Private Sector investment for Risk Reduction by innovative pilots

Major Activities till date:

1.Project Inception Consultation: Multi-stakeholder consultation meeting in Cuttack to initiate discussions on GOI- UNDP-USAID partnership project on “**Developing Resilient Cities through Risk Reduction in the context of Disaster and Climate Change**” held on 27.10.2016 under the Chairmanship of Mayor ,Cuttack Municipal Corporation.The participants from UNDP,USAID,Cuttack Municipal Corporation,OSDMA and Chairperson of different Standing Committees,NGOs and Educational Institutions participated and discussed on the different aspects of Climate Change & various emerging issues and Project Objectives to address those with reference to Cuttack City.

2.Consultation on Urban Flooding in CMC Area-Lesson Learnt (20.01.2017) :

A Consultation on Lesson Learnt : Urban Flooding /Water Logging in Cuttack Municipal Corporation was conducted on 20.01.2017 in the Town Hall, Cuttack Municipal Corporation at 11.00 am under the Chairmanship of Municipal Commissioner. Different Officials of CMC from



Engineering , Health n, Slum Improvement, Electricity, Sanitation, MIS, Control Room and Administration attended the Consultation. The major point of discussion in the consultation is the sharing of past lessons from the water logging and urban flooding situations. The

discussion also focused on the major problems, constraints, issues, technical difficulty, capacity building, co-ordination issues and other related problems. It has been discussed to address all these issues in Monsoon Planning of CMC 2017 for the better management of Urban Flooding

3.Multi Hazard Risk vulnerability Assessment (HRVA) of Cuttack City: The Hazard Risk and Vulnerability Analysis (HRVA) for the city of Cuttack, Odisha is being carried out as part of the on-going GOI-UNDP-USAID Project by aimed at strengthening the institutional structure to undertake disaster risk reduction activities at various levels, and develop preparedness for recovery. The study assesses hazard risks with a focus on climate related hazards and how they are likely to be impacted by climate change. The output of this assignment aims to integrate DRR initiatives in city development including strengthening the institutional capacity for DRR activities and risk resilient urban planning.The report also provides findings of hazard mapping and analysis of key natural hazards the city is exposed to, namely – Cyclonic wind, Flood, Earthquake, Heat wave, and climate change impact on hydro meteorological hazards; exposure data development, and vulnerability analysis. The HRVA report of Cuttack City has six components / scope of works i.e

- Component 1: Multi Hazard Mapping and Analysis.
- Component 2:Development of Exposure Database at City Level with Ward Level Resolution
- Component 3:Vulnerability Assessment (Physical,Economic,Social and Environment)
- Component 4:Risk Assessment
- Component 5:Capacity Assessment at Community, Ward and City Level
- Component 6 : Priority Areas for Risk Reduction and Action Plan to build Resilience

The draft report of HRVA Study for Cuttack City has already been shared among the stakeholders from State, City and CMC level. The major extracts of the Hazard Analysis, Vulnerability Analysis and Risk Analysis have been reflected in the City Disaster Management Plan for Cuttack City.

4. “Review of Early Warning System Study and Developing Action Plan to Strengthen the Last Mile Connectivity” of Cuttack City : The review of Early Warning System of Cuttack City involved has been taken up under GoI-UNDP-USAID Project. The inception meeting and the sharing of Draft report of review of Early Warning System of Cuttack City shared among the stakeholders. The report is still under review and shared among the stakeholders. The EWS review of Cuttack City advocates for the disaster wise EWS flow to the Community Level for better disaster management. It also highlighted systematic flow of EWS governance at the State, district and city level, institutional mechanism and their role in within the elements of EWS, delivery of product and services by technical and disaster management agencies, as well as co-ordination mechanism and operational co-operation and role of agencies in EWS and their integration in the disaster management institutional framework. The review of key agencies brought to forefront the realization of early warning system for all hazards and success of EWS flow depends on the understanding of city risk.

5. Resilience Baseline Studies of Cuttack City has already been initiated under GoI-UNDP-USAID Project “Developing Resilient Cities through Risk Reduction in the context of Disaster & Climate Change”. The below mentioned needs, components, and Proposed output are in the project research paper. The inception workshop of the Baseline Study was conducted with the below mentioned proposed output i.e

Needs and Proposed Components of Baseline Study:	Proposed Output
a. City Specific Vulnerabilities, Risks and Capacity b. Assess City Specific past practices and research c. Create Data Management System d. Organise Consultations e. Organise Trainings	1. City Reports 2. Meetings and Consultations 3. A Digital Web portal 4. Training Workshops

6. Development of Multi Hazard City Disaster Management Plan of Cuttack City: The CDMP of Cuttack City will be prepared under GoI-UNDP-USAID partnership project on “**Developing Resilient Cities through Risk Reduction in the context of Disaster and Climate Change**”. Repeated consultations have been conducted with the City and District Level Stakeholders for the development of sectoral plans and management plans for various disasters. The draft CDMP has already been shared among the stakeholders. The CDMP chapters and contents have been finalised and the draft CDMP of Cuttack City will be finalised by December 2017.

7. Under GOI- UNDP-USAID partnership project various training programmes has been finalised i.e
 - Training of School Teachers for School Safety Programme,
 - Training of Ward Level Volunteers and Officers for creating a cadre of facilitators at the Ward Level Programme interventions
 - And training of Community Organisers for the Ward Level Planning and training.
8. An Information Education Communication (IEC) committee at CMC has been constituted for the finalisation of IEC and Awareness Activities at the City Level under the Project.
9. City Disaster Management Committee has been formed and subsequently the committee will constitute various sub committees for the better management of Planning , preparedness and integration of CCA-DRR into development activities.
10. Discussion with the stakeholders has already been initiated for holding a Public Private Partnership (PPP) workshop to understand the different issues pertaining to CCA-DRR , business continuity ,peripheral sustainable development etc. Industries in CMC areas, NGOs, Govt. Counterparts, Puja Committees/Shanti Committees , financial institutions / big marketing houses, Educational institutions are under considerations.

Odisha State Disaster Management Authority (OSDMA),Bhubaneswar is the State Level Nodal Agency under the GoI-UNDP-USAID Project. Cuttack Municipal Corporation (CMC) has also co-ordinated with OSDMA and sought OSDMA support and expertise as and when required for the implementation of the project in Cuttack City. With these initiations Cuttack Municipal Corporation has been marching towards the Urban Resilience and DRR in the context of Climate Change. Further ,project deliverables and objectives achievement will add on to the City Disaster Management initiatives.

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