GOVERNMENT OF MAHARASHTRA

Environment and Climate Change Department

State Climate Action Cell

Guidelines for preparing Climate Action Plan for Districts and Cities of Maharashtra State

Introduction

The Government of India's climate commitments, announced by the Hon. Prime Minister at COP26 Glasgow in 2021, including the target of achieving net-zero emissions by 2070, provide the overarching direction for India's climate action. These commitments are reflected in India's Nationally Determined Contributions (NDCs) under the Paris Agreement and supported by the national level framework of the National Action Plan on Climate Change (NAPCC), coordinated by the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India.

At the State level, the vision of Viksit Maharashtra 2047, approved by the Hon. Chief Minister of Maharashtra, provides a long-term direction for Climate resilience and sustainable development, to address these the Environment and Climate Change Department (DoECC), Government of Maharashtra released the Maharashtra State Action Plan on Climate Change (SAPCC) in 2025, which translates national climate priorities into State-specific mitigation and adaptation strategies.

To operationalize these climate priorities at the local level, the DoECC has prepared the guidelines for District Climate Action Plans (DCAPs) and City Climate Action Plans (CCAPs), to provide a structured framework for identifying and implementing locally relevant climate actions, aligned with the State's climate objectives and long-term development vision.

I. **Climate Adaptation** – Climate adaptation refers to adjustments in natural or human systems to reduce vulnerability to climate change impacts such as droughts, floods, and heatwaves. It involves preparing for effects such as rising temperatures, erratic rainfall, or sea-level rise. Adaptation helps communities become more resilient to the changing climate. Examples include building flood-resistant infrastructure, adapting drought-resilient crops, and improving water management systems.

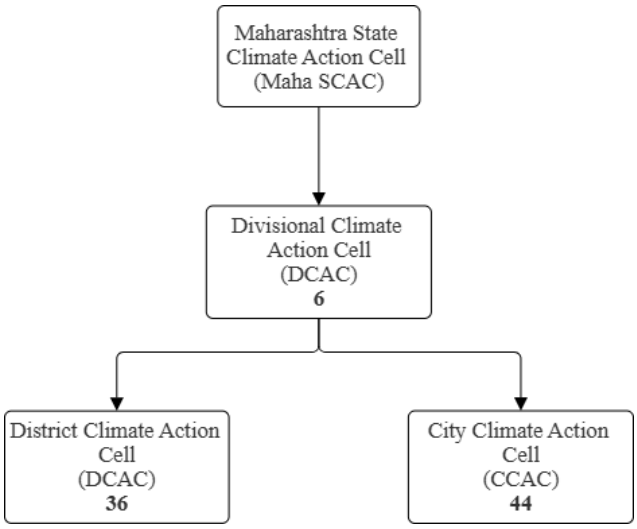
II. **Climate Mitigation –** Climate Mitigation refers to actions that reduce greenhouse gas emissions or enhance carbon sinks to slow global warming. In easy words Mitigation means reducing pollution that causes climate change. Examples include shifting to renewable energy, improving energy efficiency, and increasing forest cover through

afforestation. Mitigation helps slow down global warming and stabilize the Earth's climate system.

III. **Cross sectoral Climate Change actions –** Cross-sectoral actions encompass the integration of strategies, policies, and initiatives that involve multiple sectors collaborating to address the causes and impacts of climate change**.**

IV. **Climate Finance –** Climate finance is essential for enabling the implementation of climate mitigation, adaptation and resilience-building actions identified under DCAPs and CCAPs. The identified actions may also be developed into a pipeline of bankable climate projects to facilitate project preparation, prioritization and mobilization of financial resources. Local governments may mobilize finance through public and private sources, national and international climate funds, development finance institutions, PPPs, carbon markets, green bonds, blended finance, CSR and philanthropic sources. Convergence with existing Central and State schemes and integration of climate priorities into local budgets can further strengthen resource mobilization. Climate Budget Tagging and other innovative financing mechanisms may also be explored to track and enhance climate-related investments. For detailed information on climate finance sources and mechanisms, refer to Chapter 8 of the SAPCC.

Hierarchy of Climate Action Cells at Divisional, District and City Levels in Maharashtra



As per the Government of Maharashtra GR no. रावकृ-२०२४/प्र. क्र. २५/ तां. क. १, dated 25th July 2024, Climate Action Cells (CACs) have been established at the divisional, district and city levels to

strengthen climate action at the local level. The District and City Climate Action Cells are responsible for formulating and implementing the respective District and City Climate Action Plans (DCAPs and CCAPs). The Divisional Climate Action Cells will undertake monitoring and supervisory functions in coordination with the State Climate Action Cell (SCAC).

Broad Guidelines:

For a District and City Climate Action Cell, the following common guidelines and principles should be used while formulating a Climate Action Plan:

1. The District and City Climate Action Cells needs to be regular and functioning and will be responsible for formulating the District and City Climate Action Plans (CAPs) of the respective District and City.
2. The District and City CAP should be in alignment with the Maharashtra State Action Plan on Climate Change (SAPCC) and Viksit Maharashtra 2047.
3. The District and City CAP should highlight the Climate Vulnerability / Challenges and it should be a policy document outlining the major initiatives and strategies of the local government, reflecting the commitments and proposed actions in the district and city to tackle the vulnerabilities and impacts of climate change across priority sectors.
4. The District and City Climate Action Cells will be responsible for formulating the District and City CAP, it should envisage inclusive, sustainable and climate resilient low carbon development pathways focusing on climate change, adaptation and mitigation within the key sectors. (*Annexure I* for District and City sectors).
5. District and City CAP should consider the latest scientific assessments and projections on global warming, vulnerabilities, and Climate Change impacts.
6. DCAP & CCAP shall serve as a localization and implementation framework for the Maharashtra State Action Plan on Climate Change (MHSAPCC), translating state-level climate priorities, strategies and targets into district/city-specific, evidence-based, time-bound and financially implementable climate actions.
7. Map the existing institutional structure and the roles and responsibilities of climate relevant departments, agencies and committees.
8. Develop output and outcome indicators for each action and align them with state missions, schemes and national commitments.
9. Integrate equity, gender, health, livelihoods and climate co-benefits across all deliverables.
10. The plans shall be prepared based on local climate risks, vulnerabilities, emission sources, developmental priorities, institutional capacities and available financial resources, while ensuring convergence with existing government schemes, programmes, plans and budgets

11. District and City Climate Action Cell should schedule a meeting per month as outlined in the department's GR, the minutes of meeting of consultations and other details during these processes must be provided and updated in the monitoring and evaluation sheet.
12. The District and City Climate Action Cells should consult with their respective Finance Departments on climate finance and implementation strategy of the climate action plan.
13. Approval committee under the chairperson of Hon. Principal Secretary / Secretary along with the Director (SCAC) and relevant department officials.
14. After approval, SCAC will monitor and evaluate the implementation of CAPs through tracking the Key Performance Indicators (KPIs) for key strategies / priority actions.

Systematic Process for preparation of DCAP and CCAP:

The District / City Climate Action Cell is required to initiate and facilitate the process as per the GR. The plan may be drafted by identifying a relevant expert organization/ institution and signing an MoU for successful completion.

Phase I	• Formation of Core Group
Phase II	• Preliminary Planning and Data Collection
Phase III	• Drafting of the City / District Climate Action Plan (DCAP / CCAP)
Phase IV	• Appraisal of the DCAP / CCAP
Phase V	• Approval of the DCAP / CCAP
Phase VI	• Evaluation and Monitoring

Phase I- Formation of the Core group

Implementing Entity: District / City Climate Action Cell (Core Group)
Tentative timeline: 1 month

Key Activities:

- Appointment of Knowledge Partner
- Signing of MoU between the District / City Climate Action Cell and Knowledge Partner
- Formation of Core Group
- Official communication of the formed group to the State Climate Action Cell along with the contact details of Nodal officer (Point of Contact) as stated in GR dated 25th July 2024.

Phase II - Preliminary Planning and Data Collection
Implementing Entity: District / City Climate Action Cell & Knowledge Partner / Organization
Tentative timeline: 4 - 6 Months

Key Activities:

- Creation of a baseline study for the district / city.
- Develop a Climate Hazard, Risk and Vulnerability Assessment (CHVA) framework.
- Creation of GHG Inventory (as per GPC Guidelines addressing at least Scope 1, 2). Future emission scenario analysis with 3-scenarios – Business as Usual, Existing and Planned and High Ambition scenarios for interim and target years.
- Completion of vulnerability assessments (as per IPCC AR 5,6).
- Completion of stakeholder consultations.
- Finalization of adaptation, mitigation, cross-sectoral actions/recommendations and Sectoral KPIs.
- Submission of updates with duly updated monitoring and evaluation sheet to the SCAC.

*Do refer to *Annexure I* and *Annexure II* for the sectoral framework and district level climate vulnerability assessment to guide the identification and prioritization of climate risks and actions.

Phase III – Drafting of the District / City Climate Action Plan
Implementing Entity: District / City Climate Action Cell & Knowledge Partner / Organization
Tentative timeline: 2 months

Key Activities:

- Creation of the draft climate action plan with the support of Knowledge Partner.
- Inputs on the draft DCAP / CCAP from relevant line departments.
- Finalization of the draft DCAP / CCAP by the Core Group.

*Do refer *Annexure III* for the inductive table of contents of Climate Action Plan

Phase IV - Appraisal of the DCAP / CCAP

Implementing Entity: District / City Climate Action Cell (Core Group)
Tentative timeline: 1 month

Key Activities:

- Review and Appraisal of the Draft CAP by the respective District / City Climate Action Cell.

Phase V – Approval of the DCAP / CCAP

Implementing Entity: Hon. Principal Secretary / Secretary, DoECC & Director (SCAC)
Tentative timeline: 1 month

Key Activities:

- Presentation of the Draft Climate Action Plan to State Approval Committee.
- Review and Approval of the Draft DCAP / CCAP by the State Approval Committee.

Phase VI – Evaluation and Monitoring

Implementing Entity: District / City Climate Action Cell & Director (SCAC)
Tentative timeline: Quarterly (After approval)

Key Activities:

- Monitoring of KPIs during and after implementation.
- Remarks or Corrective actions from the State Committee.

*Do refer *Annexure IV* for preparing the monitoring and evaluation sheet.

Annexure I

Adaptation and Mitigation sectors to be considered in the District Climate Action Plans

Adaptation	Mitigation
Agriculture	AFOLU (Agriculture, Forest and Other Land Use)
Water Resource Management (Fresh, Waste and Storm Water)	Energy
Public Health	Industries
Disaster Management	Transport
Waste Management	Urban and Rural Planning
Rural and Tribal Development	Biodiversity
Tourism	Waste Management
Air Quality and Promotion of Afforestation	

Adaptation and Mitigation sectors to be considered in the City Climate Action Plan

Adaptation	Mitigation
Water Resource Management (Fresh, Waste and Storm Water)	Energy
Public Health	Industries
Disaster Management	Transport
Waste Management	Urban Planning & Waste Management
Air Quality and Urban Greening, etc.	AFOLU (Agriculture, Forest and Other Land Use)

Annexure – II

Climate Vulnerability of Districts mapped in the SAPCC (Chapter 4)

The Maharashtra State Action Plan on Climate Change (SAPCC) evaluates district level climate vulnerability using a composite Climate Vulnerability Index (CVI) framework (evaluating Exposure, Sensitivity, and Adaptive Capacity) for extreme hydro-meteorological events (droughts, floods, and cyclones).

Sector specific Vulnerability highlights for Climate Action Plans:

1. **Agricultural Risk Index (ARI):**
   - Very high Risk Districts: Parbhani, Dharashiv, Latur, Hingoli, and Ahilyanagar.
   - High Risk Districts: Pune, Solapur, Chhatrapati Sambhaji Nagar, Jalna, Nanded, Jalgaon, and Nandurbar.
   - Key Drivers: High percentage of rainfed/smallholder farming, degraded soil, low soil moisture, and low net irrigated area.
2. **Water Risk Index (WRI):**
   - Very high Water Risk: Ahilyanagar, Nandurbar, Parbhani, and Solapur.
   - Key Drivers: High rainfall variability, low per-capita reservoir storage, high groundwater extraction stage, and high proportion of BPL population.
3. **Extreme Heatwave Vulnerability:**
   - 15 high Heatwave Prone Districts: Akola, Amravati, Bhandara, Buldhana, Chandrapur, Dhule, Gadchiroli, Gondia, Jalgaon, Latur, Nagpur, Nanded, Yavatmal, Wardha, and Washim.
   - Warmest Projected Districts (2030s): Chandrapur, Gadchiroli, Nandurbar, Yavatmal, and Gondia.

Below is the district wise climate vulnerability classification from the SAPCC, structured as an annexure format for District and City Climate Action Plans:

1. Very High Vulnerability for Hazard

District	Primary Hazard
Sangli	Drought
Ahilyanagar	Drought
Solapur	Drought
Dhule	Drought
Mumbai City	Flood & Cyclone
Mumbai Suburban	Flood & Cyclone
Buldhana	Drought
Hingoli	Drought
Jalgaon	Flood & Drought

2. High Vulnerability for Hazard

District	Primary Hazard
Dharashiv	Drought
Parbhani	Drought
Nandurbar	Drought
Nagpur	Drought
Satara	Drought
Akola	Drought
Nanded	Drought
Beed	Drought
Chhatrapati Sambhaji Nagar	Flood & Drought

3. Moderate Vulnerability for Hazard

District	Primary Hazard
Latur	Drought
Pune	Flood & Drought
Amravati	Flood & Drought
Nashik	Flood & Drought
Jalna	Drought
Gadchiroli	Drought
Ratnagiri	Flood & Cyclone
Sindhudurg	Flood & Cyclone
Washim	Drought
Raigad	Drought
Chandrapur	Drought
Gondia	Drought

4. Low and Very Low Vulnerability for Hazard

District	Primary Hazard	Vulnerability tier
Wardha	Flood & Drought	Low
Yavatmal	Drought	Low
Thane	Flood & Cyclone	Low
Bhandara	Drought	Very Low
Kolhapur	Drought	Very Low

Note: Palghar district was excluded from Census 2011 baseline index data used in this mapping.

Annexure – III

Chapters and Indicators to be included in CAPs

It is suggested that the DCAP / CCAP should contain the following chapters and indicators. The following inductive table of contents will be decided into parts outlining the process for districts and cities separately:

*These include general and specific climate risk to the District / City depending on the socio-economic and infrastructure vulnerability of the District / City.

Table of Contents	
District / City Profile	Foreword by District / City and State Authorities
	Table of Contents
	Executive Summary
	History
	Geographical Profile
	Demographic Profile
	Economic Profile
	Natural resources profile (like land, water, air quality and forestry)
	Energy profile (primary energy supply, present and projected energy demand, installed capacity etc.)
	District / City development profile (priorities and issues)
District / City Climate Profile	District / City Climate Profile
	Approach and Methodology used for District / City Climatological Assessment
	Historical and Projected Trends of District / City Climate Profile (temperature, rainfall, sea-level rise) (minimum 30 years)
	Projections of possible climate impacts at relevant spatial and temporal scale on priority sectors of the District / City
Vulnerability & Risk Assessment (Updated every 5 years)	Climate risks of the District / City (general and specific risks)
	Methodology used for District's/City's Vulnerability
	• Adaptive capacity • Exposure • Sensitivity
	Vulnerability Assessment

	Vulnerable sectors Vulnerable groups Vulnerability to extreme climate events • Floods • Droughts • Heatwaves • Cyclones • Other hazards including Air Pollution • Sub-division risk assessment • Socio-economic consequences
	Cost of projected impacts (losses)
	Assessment of District Disaster Management Plan
Greenhouse Gas (GHG) Emissions (Updated every 3-5 years)	Sector-wise emission inventory
	Future Projections • Sectoral GHG emissions • Targets for reducing GHG emissions (timeline-based targets are preferred e.g. targets aligned by Viksit Maharashtra 2030, 2035 and 2047)
Sectoral Strategies	Sector wise Climate Adaptation and Climate Mitigation strategies with short, medium and long-term targets
	Sectoral Key Performance Indicators (KPIs)
Implementation Strategy	Institutional Mechanism (The structure of the District / City Climate Action Cell should be included)
	Inclusion of equity, gender, health, youth, tribals and other vulnerable groups in the implementation strategy of the District / City Climate Action Plan
	Implementation plan (3 years, 5 years, and 10 years)
Climate Finance	Climate Finance (national and sub-national scenario)
	Preparation of an estimate for the implementation of the CAP
	Sector-wise recommendations and estimated outlay for adaptation and mitigation activities
	Recommendations on climate finance instruments for ensuring the sustainability of District / City climate finance (CSR, Carbon Markets, Green Municipal Bonds, etc)
Monitoring and Evaluation	Monitoring and Evaluation (M&E) framework for sectoral targets and recommendations
Best Practices	Mapping of climate action-oriented pilot projects and initiatives in the District / City
	Mapping the impact of Climate Action incentives like Majhi Vasundhara Abhiyan and Smart Cities

Annexure IV

It is suggested that the Climate Action Cells of Districts and Cities should prepare a monitoring sheet quarterly. Following is the format for monitoring and evaluation sheet of the KPIs.

Sr. No	Sector	Climate Action / Activity	Type	Lead Department / Agency	Supporting Agency	Target Indicators	Baseline	Annual Target	Achivements	% Progress	Financial Allocation (in Crores)	Expenditure (in Crores)	Funding Source	Timeline	Status	Remarks / Corrective Actions
1	Water Resource Management	Rainwater Harvesting in public Buildings	Adaptation	Water Department	PWD	Number of Buildings covered	25	50	42	84	0.5	0.38	CSR	2026-2027	Ongoing	Complete remaining Buildings
2	Energy	Solarisation of Public Buildings	Mitigation	Energy/Electricity Department	Energy Department	MW installed	1.5	2	1.6	80	2	1.35	State Scheme	2026	Completed	Expand the existing projects

References:

1. Government of India. India's Updated First Nationally Determined Contribution (NDC) under the Paris Agreement. 2022.
2. Government of Maharashtra. Viksit Maharashtra 2047.
3. Government of Maharashtra, Environment and Climate Change Department. "Government Resolution No. रावकृ-२०२४/प्र. क्र. २५/ तां. क. १, dated July 25, 2024, regarding the Establishment of Climate Action Cells and Climate Action Plans at District and City Levels." July 25, 2024.
4. Department of Environment and Climate Change, Government of Maharashtra, and Council on Energy, Environment and Water (CEEW). Maharashtra State Action Plan on Climate Change: Pathways for 2030. Mumbai: Department of Environment and Climate Change, Government of Maharashtra, 2025.