

# **SDC Uttarakhand Urban Agenda 2022**

## **Factsheet Three : December 26, 2021**

### **Dehradun Results**

### **Climate Smart Cities Assessment Framework**

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The Ministry of Housing and Urban Affairs (MoHUA) in partnership with the National Institute of Urban Affairs (NIUA) established the Climate Centre for Cities (C-Cube) in June 2020 with an aim to institutionalize climate actions in India. Understanding the need for sustainable urban planning and climate informed development actions across Indian cities, the Climate Smart Cities Assessment Framework (CSCAF) was developed and rolled out by the MoHUA. This is a first-of-its-kind self-assessment framework on climate relevant parameters with an intent to provide a roadmap for Indian cities towards mainstreaming climate actions within current and future policies, programs and projects.

The objective of Climate Smart Cities Assessment Framework is to provide a clear roadmap for cities towards combating climate change while planning and implementing their actions, including investments. In the last decade, an increasing frequency of cyclones, floods, heat waves, water scarcity and drought-like conditions have had adverse impacts on many of our cities. Such extreme events and risks cause loss of life as well as impact the economic growth. In this context, CSCAF initiative intends to inculcate a climate-sensitive approach to urban planning and development in India.

#### **Assessment Framework:**

A total of 126 cities including 100 Smart Cities, capital cities and other cities undertook the assessment in 2020. Dehradun is the only city from Uttarakhand which took part in CSCAF 2.0. Cities were evaluated across the five themes stated below which had 28 indicators (to see the 28 indicators, please refer to page 3 and 4)

- A. Energy and Green Buildings
- B. Urban Planning, Green Cover & Biodiversity
- C. Mobility and Air Quality
- D. Water Management
- E. Waste Management.

#### **Evaluation Criteria:**

For evaluation under CSCAF, five performance levels were used. The levels capture the progressive nature of cities and provide them directions that are needed to build climate actions. Thus, cities were awarded stars for their climate actions, Five Star City being the most progressive in the list.

- Five Stars - Cities that have showcased implementation of climate actions and are monitoring impacts.
- Four Stars - Cities that have initiated implementation of climate measures or have allocated budgets.
- Three Stars - Cities that have initiated climate action planning or have established institutional mechanisms to enable planning.
- Two Stars - Cities that have initiated data collection to conduct assessments or have established committees to guide the development of climate strategies.
- One Star - Cities that are in the early stages and are yet to conduct studies to inform the adoption of climate actions.

## **National Results:**

1. Out of 126 participating cities, none received the Five Star rank.
2. Nine cities received the Four Star rank. These are Ahmedabad, Indore, Pimpri Chinchwad, Pune, Rajkot, Surat, Vadodara, Vijayawada and Visakhapatnam.
3. 22 cities received Three Star rank.
4. 64 cities including Dehradun got Two Star rank.
5. 31 cities received the One Star rank.

At a national level, it is interesting to note that 10 cities have more than 15% of their electricity needs generated through renewable energy, 44 cities have initiated flood/water stagnation risk assessment and 41 cities conduct regular (annual) energy audits of their water supply systems. Cities have initiated preparations of disaster management plans, others have initiated water resource assessments and many have converted all streetlights to energy efficient or renewable energy operated ones.

## **Dehradun Results :**

The city of Dehradun received the following stars for each of the five, respective themes.

Waste Management : Three Stars

Energy and Green Buildings : Two Stars

Urban Planning, Green Cover and Biodiversity : One Star

Mobility and Air Quality : One Star

Water Management : One Star

The overall ranking for Dehradun was only Two Stars. There is a need to improve and work on climate issues in Dehradun and in the other cities in Uttarakhand.

## **Ten Point Climate Action Plan for Dehradun**

We suggest the following ten points for the Climate Action Plan for Dehradun. There can be several other suggestions, but we start first with the list of the ten, key action items that should be taken by city authorities.

1. There is a need for institutional coordination and management to ensure holistic planning, implementation and monitoring of climate actions. Specialized committees such as Biodiversity Management Committees, City Climate Cells and Environmental Committees can be established to focus on rejuvenating and safeguarding biodiversity and environment.
2. In order to adopt rejuvenation and conservation of water bodies and open spaces, enhance biodiversity and drive disaster resilience in Dehradun, local level strategies can be aligned with national and state level plans like the National and State Action Plans for Climate Change (NAPCC and SAPCC), National Clean Air Plan (NCAP), National and State Biodiversity Guidelines (Biological Diversity Act, 2002) and the State/District Disaster Management Plans.
3. City authorities should try and leverage government schemes and initiatives like the Rooftop Solar programme, Solar Net Metering and Grid Connected Wind-Solar Hybrid Power Projects for adopting renewable energy at city level.
4. Green building practices should be encouraged by adopting National Building Codes 2016 or Energy Conservation Building Code 2017 or Eco Niwas Samhita 2018 in the building rules, bye-laws and development control regulations.
5. The scenic Dehradun valley has a very sensitive ecology. City authorities should focus on public bicycle sharing and promote Non Motorised Transport (NMT) infrastructure. It should aim to increase the NMT coverage for cycle lanes and footpaths to over 35%, especially in high traffic clusters and high-use networks through dedicated planning and budget allocation.

6. Dehradun should install continuous air quality monitoring sensors and make the dynamic data available to the public through display boards and public applications like SAFAR/SAMEER. Moreover, the sensors should be calibrated in consultation with the Central and State Pollution Control Boards to ensure the quality of data captured.
7. Dehradun should prepare a water demand management plan to inform utilization of water resources keeping in mind the current and projected demand. This can provide direction towards adopting measures for rejuvenating water resources and replenishing groundwater.
8. It is recommended that the administration should identify vulnerable hotspots and adopt relevant structural and non-structural strategies to reduce the impact of water stagnation. This includes measures such as preparing a storm-water management plan to channel excess water efficiently and establishing SOPs for water logging prevention management.
9. City authorities should promote source segregation of dry and wet waste through various incentive based awareness programs and rigorous campaigning to achieve 100% recycling and reuse of waste. Citizens can be encouraged to adopt home or neighborhood composting.
10. It is important to have a robust construction and debris (C&D) waste management system. This includes maintaining inventories of construction activities in the city, notifying dumping points, expanding storage facilities for C&D waste, establishing a collection mechanism, enforcing user charges & penalty for non-compliance etc. Dehradun Nagar Nigam can do this on their own or in association with the private sector can initiate some of these measures.

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**Additional Information : The following is the list of the five themes and the 28 indicators**

**A. Urban Planning, Green Cover and Biodiversity**

The thematic area focuses on safeguarding biodiversity, conserving water bodies and open areas, increasing green cover, building disaster resilience and adopting climate action planning.

1. Rejuvenation & Conservation of Water Bodies & Open Areas
2. Proportion of Green Cover
3. Urban Biodiversity
4. Disaster Resilience
5. City Climate Action Plan

**B. Energy and Green Buildings**

The thematic area focuses on transitioning to clean energy and bringing efficiency in energy consumption besides promoting green buildings in cities.

6. Total electricity consumption in the city
7. Total electrical energy in the city derived from renewable sources
8. Fossil fuel consumption in the city
9. Energy efficient street lighting in the city
10. Promotion of green buildings
11. Green building adoption

**C. Mobility and Air Quality**

The thematic area focuses on transitioning to low carbon mobility besides ensuring adequate availability of non-motorized transport infrastructure and public transport. In addition, focus on clean air through monitoring, planning and implementation of measures are considered.

12. Clean Technologies Shared Vehicles
13. Availability of Public Transport
14. Percentage of coverage of Non-Motorized Transport network (pedestrian and bicycle) in the city

15. Level of Air Pollution
16. Clean Air Action Plan (Planning and Implementation)

#### **D. Water Management**

The thematic area focuses on efficient water management to address current and future water demand besides bringing energy efficiency into water and wastewater systems. In addition, focus on minimizing flood and water stagnation risks are also considered.

17. Water Resources Management
18. Extent of Non-Revenue Water
19. Wastewater Recycle and Reuse
20. Flood/ water stagnation risk management
21. Energy-efficient water supply system
22. Energy-efficient wastewater management system

#### **E. Waste Management**

The thematic area focuses on waste minimization, recycling of dry and wet waste, management of construction and demolition waste and scientific remediation of landfills.

23. Extent of dry waste recovered & recycled
24. Construction & Demolition (C&D) waste management
25. Extent of Wet Waste Processed
26. Scientific Landfill availability & operations
27. Landfill / dumpsite Scientific Remediation
28. Waste minimization initiatives undertaken by the City