Ahmedabad

Area: 480 sq.km
Population: 7.1 Million
Total Household: 1,179,823
Climatic Condition: Hot & Semi-arid

GHG Emissions (2020-21)

**Community-wide Sectors**
- Waste: 16%
- Transport: 5%
- Agriculture, forestry and fishing activities (i.e. mainly agriculture): 27%
- Manufacturing Industry and Construction (i.e. Industrial sector): 42%
- Commercial and Institutional Buildings/Facilities: 10%
- Residential Buildings: 0%

**Municipal Facilities**
- Transport: 11%
- Street Lighting: 2%
- Water Sector: 8%
- Waste water treatment: 19%
- Buildings: 60%

**GHG Emissions**
- tCO₂ₑ: 13.2 Million Tonnes CO₂ₑ
- Per Capita: 1.84 Tonnes CO₂ₑ
**Urban System Challenges**

- **Water**
  - Dependency on water sources outside city & ground water

- **Transport**
  - Limited public transport fleet & last mile connectivity

- **Biodiversity**
  - Decrease in green cover, unscientific approach to greening

- **Storm Water**
  - Water stagnation & flooding

- **Sewage**
  - Old sewerage network and illegal connections

- **Energy**
  - Low penetration of RE and EE appliances

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**Performance Assessment**

1) Procurement & Finance  
2) City Planning  
3) Cooperation & Communication  
4) Buildings  
5) Mobility  
6) Waste  
7) Water & Sewage  
8) Biodiversity  
9) Energy / Energy Infrastructure

<table>
<thead>
<tr>
<th>AREA</th>
<th>BASELINE</th>
<th>RESULT</th>
<th>GRADE</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement and Finance</td>
<td>2.00</td>
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<td>2.50</td>
<td>63%</td>
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<tr>
<td>City Planning</td>
<td>2.75</td>
<td>69%</td>
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<tr>
<td>Cooperation and Communication</td>
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<td>71%</td>
<td>3.33</td>
<td>83%</td>
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<tr>
<td>Buildings</td>
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<td>38%</td>
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<td>Mobility</td>
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<td>68%</td>
<td>3.61</td>
<td>90%</td>
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<td>Waste</td>
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<td>91%</td>
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<td>Water and Sewage</td>
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<td>56%</td>
<td>3.92</td>
<td>98%</td>
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<tr>
<td>Biodiversity</td>
<td>3.00</td>
<td>75%</td>
<td>4.00</td>
<td>100%</td>
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<tr>
<td>Energy / Energy-Infrastructure</td>
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<td>42%</td>
<td>2.00</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>2.42</strong></td>
<td><strong>61%</strong></td>
<td><strong>3.34</strong></td>
<td><strong>84%</strong></td>
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</tbody>
</table>

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*Note: The table above represents the baseline and target grades for various urban system challenges.*
Example of Implemented Climate Actions (2019-2022)

### Renewable Energy in Municipal Buildings
- **1 MW roof top solar PV for municipal buildings**
  - GHG Mitigation per year: 1,277 tCO₂e
  - Mode of Implementation: Municipal Budget
- **3.5 MW roof top solar PV for municipal buildings (proposed)**
  - GHG Mitigation per year: 4,471 tCO₂e
  - Mode of Implementation: Municipal Budget

### Renewable Energy in Water and Sewage Treatment
- **8.4 MW wind power plant for WTPs and STPs**
  - GHG Mitigation per year: 16,661 tCO₂e
  - Mode of Implementation: Municipal Budget
- **12.6 MW wind power plant for WTPs and STPs (proposed)**
  - GHG Mitigation per year: 25,918 tCO₂e
  - Mode of Implementation: Municipal Budget

### Climate Friendly Solid Waste Management
- **2000 TPD waste to energy plant (proposed)**
  - GHG Mitigation per year: 612,000 tCO₂e
  - Mode of Implementation: Public Private Partnership
  - Adaptation Benefits: Reduced waste at landfill & related health hazards
- **500 TPD Waste to Bio-CNG Plant (Proposed)**
  - GHG Mitigation per year: 126,930 tCO₂e
  - Mode of Implementation: Public Private Partnership
  - Adaptation Benefits: Reduced waste at landfill, replacing conventional fuel with Bio-CNG leading to reduced air pollution & related health hazards

### Wastewater treatment
- **Augmentation of existing STPs**
  - (Increased capacity from 712 MLD to 978)
  - Mode of Implementation: World Bank grant under Gujarat Resilient Cities Program (GRCP)
  - Adaptation Benefits: Reduced disposal of untreated wastewater into water bodies, reduced contamination and related health impacts

### Flood mitigation and ground water recharge
- **Lake Interlinking, flood mitigation and ground water recharge**
  - Mode of Implementation: National Lake Conservation Program (NLCP)
  - Adaptation Benefits: Reduced flooding impact, improved condition of local water resources, improved ground water table
**Improving Green Cover**

- **Development of 128 Urban Forest**
- **Mode of Implementation**: Municipal Budget and 15th FC Clean Air Budget
- **GHG Mitigation per year**: Not assessed
- **Adaptation Benefits**: Improved green cover & related biodiversity, decrease in surface temperature and heat island effect

**Low Carbon Mobility**

- **Replacement of 350 diesel buses with electric buses**
- **Mode of Implementation**: FAME II
- **GHG Mitigation per year**: 19,591
- **Adaptation Benefits**: Reduced air pollution and related health issues, reduction in heat sources

**Support Under CapaCITIES Phase II**

- **Climate Action Planning & Net Zero Targets**
  - Preparation of Comprehensive Climate Resilient City Action Plan

- **Bankable and Innovative Finance Projects**
  - Carbon Monetisation for e-bus project
  - Innovative financing through monetisation of plastic credits
  - Sustainable energy action plan for Ahmedabad to maximise use of RE for own use

- **Quick win/Co-Financing Projects**
  - Floating solar on lake
  - Electric Charging Station (Opportunity charging for buses)

- **Other Support**
  - CSCAF by MoHUA (City has received 4 start rating)
  - Urban Outcome Framework by MoHUA

**Actions proposed in Simplified Climate Action Plan contribute to India’s Nationally Determined Contribution (NDC) by enabling a ‘Lifestyle for Environment’, ensuring a climate friendly and cleaner path, contributing to a reduction in emissions intensity of GDP, enhancing renewable energy capacity, enhancing investments in key vulnerable sectors such as water resources, mobilizing domestic and international funds for climate action and building capacities and frameworks for quick diffusion of cutting edge climate technology in India.**

**Implementing partners**

- ICLEI - Local Governments for Sustainability, South Asia
- south pole
- econcept
- NIA

**Knowledge Partner**

- National Institute of Urban Affairs

For more information, please contact

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