Siliguri

INDIA

WEST BENGAL

Area
41.9 sq.km

Population
0.68 Million

Total Household
155,332

Climatic Condition
Subtropical humid

GHG Emissions (2020-21)

Community-wide Sectors

Municipal Facilities

<table>
<thead>
<tr>
<th>Sector</th>
<th>Waste</th>
<th>Transport</th>
<th>Agriculture, forestry and fishing activities (i.e. mainly agriculture)</th>
<th>Manufacturing Industry and Construction (i.e. Industrial sector)</th>
<th>Commercial and Institutional Buildings/Facilities</th>
<th>Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>tCO₂e</td>
<td>14%</td>
<td>26%</td>
<td>46%</td>
<td>12%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Transport</th>
<th>Street Lighting</th>
<th>Water Supply</th>
<th>Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>tCO₂e</td>
<td>15%</td>
<td>36%</td>
<td>47%</td>
<td>2%</td>
</tr>
</tbody>
</table>

1.66 Million Tonnes CO₂e

2.43 Tonnes CO₂e Per Capita
Vulnerability Assessment

Four Wards Highly Vulnerable

- Wards impacted by Four Fragile Urban Systems
- Wards impacted by Three Fragile Urban Systems
- Wards impacted by Two Fragile Urban Systems
- Wards impacted by One Fragile Urban Systems

Critical Urban Systems

- Solid Waste Management: Behavioural change for source segregation
- Water Supply: NRW and limited supply
- Transport: Dependence on private transport

Climate Action Plan Potential by Sectors (2018-19 to 2022-23)

Estimated annual mitigation potential of 0.15 million tCO₂e over the 2015-16 baseline

- Solid Waste: 56%
- Water Supply: 4%
- Buildings (Residential, Commercial and Industrial Buildings): 37%
- Street lighting: 2%
- Transport: 1%

Sectorwise GHG Mitigation Potential
Proposed Climate Actions
(short term and medium term)

- **Buildings (Residential, Commercial, Institutional)**
  - Solar PV systems, energy efficient fixtures, green building designs

- **Water Supply**
  - Reduction of non-revenue water and installation of captive solar PV plants at water pumping stations

- **Streetlights**
  - Replacement of existing street lighting with LED lamps through and installation of solar PV Systems

- **Solid Waste Management**
  - Scaling up Sunya to whole Siliguri and improved waste processing at end point

- **Biodiversity**
  - Carbon sequestration, urban forestry, Local Biodiversity Strategy and Action Plan

- **Transport**
  - Solar PVs, introduction of electric vehicles, traffic decongestion, and introduction of public transport systems, energy efficient fixtures, green building designs

**Implementation Status of Climate Resilient City Action Plan (September 2022)**

**MITIGATION TARGET**

- Baseline GHG emission 2015-16: 1,182,542
- CRCAP target (2022-23) (14% of 2015-16 baseline): 154,174
- Emission reductions achieved until September 2022: 117,377
- % of target achieved as of September 2022: 76%

**Energy Efficiency in Street lighting**

- Conversion of traditional streetlights to LED lights (21,042 streetlights converted)
- GHG Mitigation per year: 3,661 tCO₂e
  - Source of Funding: Smart City Mission

**Renewable Energy in Municipal Facilities**

- 100 kWp Solar PV for municipal buildings
- GHG Mitigation per year: 152 tCO₂e
  - Source of Funding: Smart City Mission

**Carbon Footprint**

14.6% less by 2022-23
Climate Friendly Solid Waste Management

CapaCITIES supported projects:
- IEC and awareness activities in 2 wards under Sunya
- Waste quantification and characterisation study
- 1 TPD organic waste processing facility

Replication by the city:
- IEC and awareness in 24 wards
- 20 TPD organic waste processing facility
- Legacy waste management

GHG Mitigation per year
113,483 tCO₂e

Source of Funding
Swachh Bharat Mission; Nirmal Bangla Mission

Adaptation Benefits
Avoided rainwater clogging due to waste lying on roads, enhanced quality of life, reduced vector borne diseases

Renewable Energy in Municipal Facilities

CapaCITIES supported projects:
- Two sensor based water leak detection instruments provided to the city
- Leaks in water distribution network assessed in 9 wards

Replication by the city:
- Leaks in water distribution network assessed in all 47 wards

GHG Mitigation per year
82 tCO₂e

Source of Funding
Municipal Budget

Adaptation Benefits
Reduced NRW, improved water management

Air Quality

CapaCITIES supported projects:
- Installation of sensor based ambient air quality stations at 3 locations & LCD screens for dissemination

GHG Mitigation per year
152 tCO₂e

Adaptation Benefits
Data based planning for air pollution for priority areas, awareness amongst citizens

CapaCITIES contribution 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

Building CapaCITIES Beyond Climate Actions

National and Global Reporting:
- CSCAF 2.0
- CDP- ICLEI Track
- Global Covenant of Mayors for Climate and Energy
- National Green Tribunal

CapaCITIES support to sustainable Urban Development
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
- Swachh Bharat Mission (SBM)
- Support during COVID

Implementing partners

Knowledge Partner

For more information, please contact
ICLEI - Local Governments for Sustainability, South Asia
C-3, Lower Ground Floor, Green Park Extension, New Delhi - 110016,
India Tel: +91 – 11 – 4974 7200, Fax: +91 – 11 – 4974 7201; E-mail: iclei-southasia@iclei.org