

# Environmental Sustainability Report

Generated Report for Ahmedabad, Nirma University



Factor	Value	Score	Explanation
Air Quality Index (AQI)		8.33	Low pollution, good for sustainability
Temperature	32.03°C	10	Ideal temperature range
Humidity	51%	7	Slightly elevated

Soil Type	None	10	Loam is ideal for agriculture
Flood Risk	1	9	Low flood risk
Seismic Activity	0.3067707070707071	8	Moderate risk, manageable
Wind Patterns	10 m/s	9	Moderate wind speeds

Environmental Sustainability Report

Location: AhemedaBad, Nirma University

Environmental Data:

- Air Quality Index (AQI): 3 (Excellent)
- Temperature: 32.03°C (Within ideal range)
- Humidity: 51% (Near ideal)
- Soil Type: Not specified
- Flood Risk: 1 (Very high risk)
- Seismic Activity: 0.3067707070707071 (Moderate)
- Wind Patterns: 10 m/s (Moderate)

Environmental Sustainability Score (ESS): 65.05166792929293

Key Strengths and Weaknesses:

Strengths:

- Excellent air quality (AQI 3)
- Moderate temperature within the ideal range

- Near-ideal humidity levels
- Moderate wind patterns conducive to stable weather conditions

#### Weaknesses:

- Very high flood risk
- Soil type not specified, but assumed to have limited agricultural productivity
- Moderate seismic activity

#### Recommendations for Improving Sustainability Score:

##### Air Quality:

Maintain and promote air quality standards through industrial emission regulations and public awareness campaigns.

##### Flood Risk:

Implement flood mitigation measures such as dams, levees, and stormwater management systems.

Restrict development in flood-prone areas and encourage green infrastructure to absorb excess water.

##### Seismic Activity:

Enforce strict building codes and earthquake preparedness measures to reduce the impact of potential seismic events.

### Soil Productivity:

Introduce soil improvement techniques to enhance agricultural productivity, such as adding organic matter and implementing sustainable farming practices.

### Other Considerations:

**Energy Efficiency:** Promote the adoption of renewable energy sources and implement energy-saving initiatives to reduce greenhouse gas emissions.

**Waste Management:** Establish comprehensive waste management programs to minimize pollution and promote recycling and composting.

**Water Conservation:** Implement water-saving practices in households, industries, and agriculture to preserve this vital resource.

### Implications of ESS:

A high ESS indicates that the area has a strong foundation for long-term environmental stability, resilience to climate change, and sustainable development. This score suggests that the local environment is conducive to a healthy and sustainable future, provided that the aforementioned recommendations are implemented to address the identified weaknesses.

### Conclusion:

The environmental sustainability of the area is generally good, but there are specific areas that require attention to improve the resilience and sustainability of the region. By implementing the recommended measures, the community can mitigate risks, enhance environmental conditions, and promote a sustainable future for generations to come.