

# 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 for Nirma University, Ahmedabad

Executive Summary

The Environmental Sustainability Score (ESS) for Nirma University, Ahmedabad, based on the provided data, is 65.05166792929293. This score indicates a moderate level of environmental sustainability and resilience in the area. While several factors contribute positively to the ESS, such as air quality, temperature, wind patterns, and flood risk, there are also areas where improvements can be made, such as soil type and seismic activity.

Key Strengths

Air Quality (AQI 3): The air quality in the area is excellent, contributing 25% to the overall ESS. Lower AQI values indicate cleaner air, which positively impacts human health and the environment.

Temperature (32.03°C): The temperature falls within the ideal range, contributing 15% to the ESS. Moderate temperatures promote a healthy environment for plant and animal life, reducing the stress caused by extreme heat or cold.

Wind Patterns (10 m/s): The moderate wind speeds contribute 15% to the ESS. Stable wind patterns support weather conditions favorable for sustainable agricultural practices and energy generation.

Weaknesses and Recommendations

Soil Type (None provided): The lack of information on soil type prevents an accurate assessment of its contribution to the ESS. However, improving soil quality through sustainable farming practices can enhance agricultural productivity and overall environmental health.

Seismic Activity (0.30677070707071): While the seismic activity is relatively low, initiatives to strengthen infrastructure and implement earthquake preparedness measures can mitigate the risks.

Flood Risk (1): The moderate flood risk indicates that the area is prone to flooding, which can impact infrastructure, ecosystems, and community safety. Implementing flood mitigation strategies, such as building floodwalls or improving drainage systems, can reduce the risk and improve the ESS.

### Environmental Sustainability Score (ESS)

The ESS represents the overall environmental resilience and sustainability of an area. It considers various environmental factors and their impact on long-term stability, climate change resilience, and potential for sustainable development. A higher ESS indicates a lower risk of environmental degradation, greater resilience to climate impacts, and better prospects for sustainable economic growth.

### Actionable Recommendations

To improve the ESS and enhance environmental sustainability in the Nirma University area, consider the following actionable recommendations:

Conduct a thorough soil analysis to determine the soil type and implement appropriate soil management practices to improve its quality.

Implement seismic preparedness measures, such as earthquake-resistant building codes and

community outreach programs, to mitigate seismic risks.

Develop and implement a comprehensive flood mitigation plan, including infrastructure upgrades and improved drainage systems, to reduce the impact of potential flooding.

Promote sustainable farming practices that preserve soil health and reduce the use of harmful chemicals, contributing to a more resilient ecosystem.

Engage in community outreach programs to raise awareness about environmental sustainability and encourage individual actions to protect the local environment.

## Conclusion

Nirma University, Ahmedabad, has a moderate ESS, highlighting the need for continuous efforts to enhance environmental sustainability. By addressing the weaknesses identified in this report and implementing the recommended actions, the university and the surrounding community can improve the overall environmental resilience, mitigate risks, and promote sustainable development in the region.