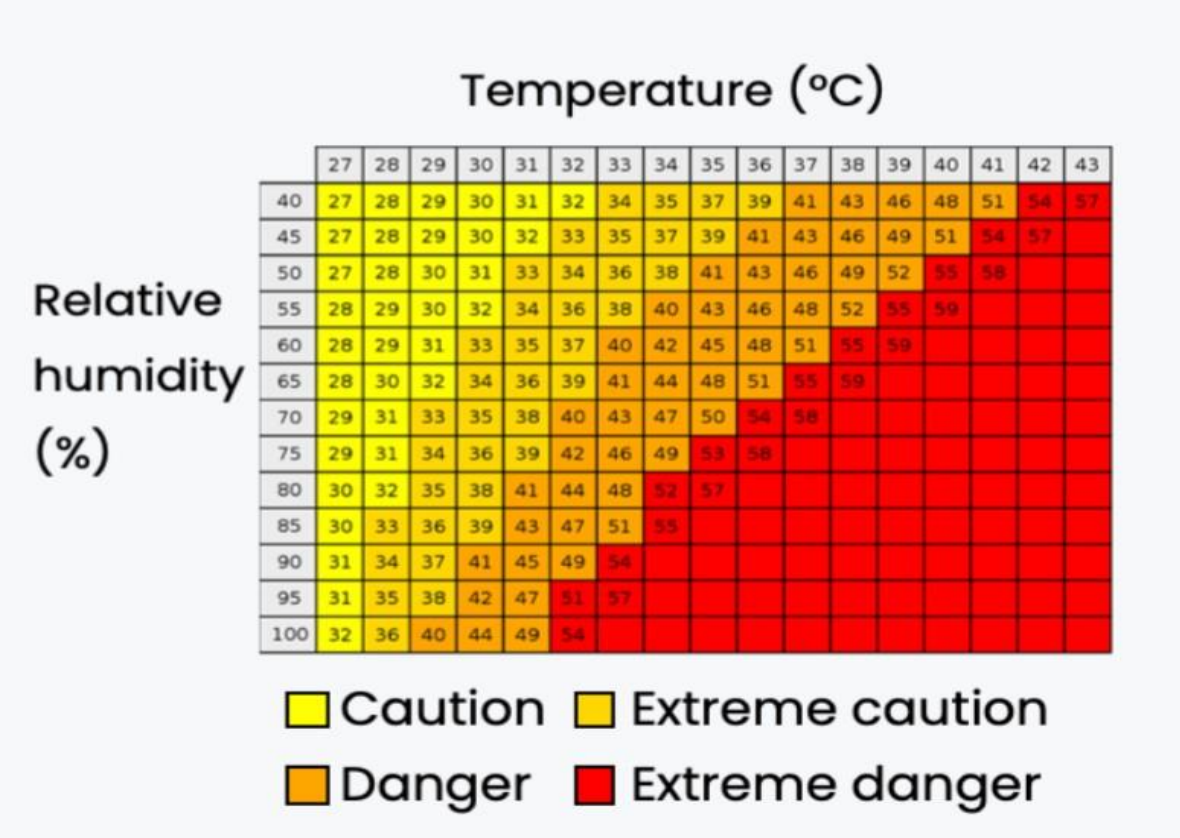
Heat Index Visualization Report



Relative humidity (%)	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
40	27	28	29	30	31	32	34	35	37	39	41	43	46	48	51	54	57
45	27	28	29	30	32	33	35	37	39	41	43	46	49	51	54	57	
50	27	28	30	31	33	34	36	38	41	43	46	49	52	55	58		
55	28	29	30	32	34	36	38	40	43	46	48	52	55	59			
60	28	29	31	33	35	37	40	42	45	48	51	55	59				
65	28	30	32	34	36	39	41	44	48	51	55	59					
70	29	31	33	35	38	40	43	47	50	54	58						
75	29	31	34	36	39	42	46	49	53	58							
80	30	32	35	38	41	44	48	52	57								
85	30	33	36	39	43	47	51	55									
90	31	34	37	41	45	49	54										
95	31	35	38	42	47	51	57										
100	32	36	40	44	49	54											

Overview

This report presents a comprehensive visualization of the heat index as a function of temperature and relative humidity using Power BI. The goal is to provide actionable insights to our users for understanding and mitigating heat-related risks.

User Group

The primary user group for this report includes:

Health and Safety Officers: Responsible for ensuring the well-being of employees, particularly those working in outdoor or high-temperature environments.

Facility Managers: Overseeing the maintenance and operation of buildings, ensuring that temperature and humidity levels are within safe limits.

Emergency Responders: Needing real-time data to respond quickly to heat-related emergencies.

Public Health Officials: Monitoring environmental conditions to issue warnings and health advisories to the public.

Target

The target of this report is to:

Identify Risk Levels: Identify areas of caution, extreme caution, danger, and extreme danger based on the combination of temperature and relative humidity.

Enhance Decision Making: Provide data-driven insights to help stakeholders make informed decisions regarding safety measures, resource allocation, and emergency response.

Increase Awareness: Raise awareness about the impact of heat and humidity on health, ensuring that all stakeholders are informed and can take preventative actions.

Visualization

The visualization is designed using a matrix in Power BI, which displays temperature (°C) on the x-axis and relative humidity (%) on the y-axis. The heat index values are color-coded to represent different risk levels:

Caution: Yellow **Extreme Caution:** Orange **Danger:** Red **Extreme Danger:** Dark Red

This color-coding helps users quickly identify areas of concern and take appropriate action.

Action

Based on the insights derived from the visualization, the following actions are recommended:

Implement Safety Measures: Health and Safety Officers should implement appropriate safety measures such as scheduling outdoor work during cooler parts of the day, providing hydration stations, and ensuring access to shaded or air-conditioned areas.

Monitor Environmental Conditions: Facility Managers should continuously monitor temperature and humidity levels, using this report to trigger cooling systems or adjust HVAC settings to maintain safe conditions.

Issue Health Advisories: Public Health Officials should issue timely health advisories and warnings to the public and vulnerable populations, advising them to stay hydrated, avoid strenuous activities, and seek cool environments.

Prepare Emergency Response Plans: Emergency Responders should prepare and rehearse emergency response plans for heat-related incidents, ensuring that resources and personnel are ready to act swiftly in an emergency.

Conclusion

This Power BI visualization provides a clear, actionable insight into the impact of temperature and humidity on heat risk levels. By targeting key user groups and outlining specific actions, we aim to enhance safety and preparedness, ultimately reducing the health risks associated with extreme heat conditions. This visualization's effective use will help create a safer environment

for all stakeholders involved, ensuring that preventive measures are in place and resources are optimally utilized.