

EFFECT OF CLIMATE CHANGE ON TOURISM

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ABSTRACT

Climate change is widely known as one of the biggest 21st-century challenges, marked by increasing extreme weather events. Although its impacts have been documented across numerous sectors, its influence on tourism remains somewhat understood. This paper will utilize various techniques to explain how tourism and weather are interlinked. Through this data-driven approach, we hope to gain invaluable knowledge that could benefit both individual lives and tourism industries worldwide.

Keywords: Climate Change, Data Analysis, Tourist Destinations, Tourism Preferences

BACKGROUND

Climate Change stands as one of the biggest challenges humanity is currently facing in the 21st century. Rising greenhouse gas emissions, deforestation, and industrial activities have all played an integral part in creating these changes; moreover, climate change is now widely recognized as an issue with long-term implications for ecosystems and societies worldwide (Jan C,2022).

Tourism is an integral component of the global economy, accounting for 10.4% of GDP and providing over 330 million jobs in 2019. Tourism also represents a substantial source of income in many developing countries and contributes to economic growth, job creation, and cultural heritage preservation worldwide. Each year, millions of travelers visit various destinations seeking experiences ranging from natural marvels to cultural immersion; thanks to this vibrant industry, it enables cross-cultural communication that enriches both the lives of travelers and host communities alike.

However, tourism is far from immune to external influences, where climate change, in particular, poses significant threats. Tourism's reliance on stable weather patterns, pristine natural environments, and accessible infrastructure makes it particularly susceptible to changes in climate (Nduduzo 2021). Climate change also poses direct and indirect threats to tourism itself by altering both natural attractions as well as the experience itself.

Climate change affects tourism in many ways. Changes to weather patterns can cause extreme weather events, seasonal shifts, and temperature variations that impact travelers' decisions and

preferences (Na Xiong 2022). Rising sea levels threaten coastal destinations with infrastructure threats; altered ecosystems could reduce wildlife availability while changing natural attractions may have adverse consequences (Rohit Agarwal 2022).

Extreme weather events like hurricanes and typhoons can have serious repercussions on tourism infrastructure and disrupt travel plans. Many popular tourist spots have experienced difficulties due to climate change--droughts and wildfires have disrupted travel plans, leading to financial losses for industry and inconvenience for travelers. Despite the growing recognition of climate change's influence on tourism, a research gap remains. To bridge the gap, this paper employs various techniques to examine its effect on tourism and offer insights that may improve the quality of life and help sustain it as an industry.

INTRODUCTION

As our world grapples with the far-reaching consequences of climate change, one industry facing significant transformations is Tourism. The connection between environmental shifts and the tourism sector has become a focal point of exploration and concern. The undeniable reality of climate change, marked by rising temperatures, altered weather patterns, and ecological shifts, has initiated a big impact on the destinations that tourists once flocked to with anticipation (Arsum, 2021).

As our planet experiences unprecedented shifts in weather patterns, from altered temperatures to irregular precipitation, the influence of these changes on the tourist's destination choices becomes a considerable point (Julie, 2022). This dimension of our investigation aims to uncover the different ways in which evolving weather conditions shape and redefine the preferences of global travelers.

There is a close relationship between a destination's environmental factors and the quality of the travel experience. Climate change-induced environmental degradation may alter landscapes, impact biodiversity, and consequently influence the satisfaction levels of tourists seeking specific natural and cultural experiences (Makbule Civelek, 2022). This research will probe whether environmental degradation resulting from climate change indeed correlates with diminished tourist satisfaction and altered travel experiences.

The unpredictability of the seasonal patterns of tourism can affect the economic sustainability of businesses reliant on peak tourist seasons, posing challenges for local economies. This study aims to uncover the extent to which climate change may alter tourism seasonality, investigating its potential impact on the economic viability of businesses reliant on specific seasons. As travelers become more cognizant of their environmental footprint, demand for sustainable travel experiences may change accordingly. Also, extreme weather events and changing environmental conditions can pose health and safety hazards for tourists (Arsum, 2021). Understanding and mitigating risks are integral to protecting traveler well-being and maintaining tourism's resilience. My study aims to explore how industry-led awareness campaigns can drive demand for sustainable travel experiences and will seek to understand the heightened risks of health and safety hazards posed by climate change for tourists.

Understanding how climate change is shaping tourism industry practices is not merely academic curiosity - it is crucial for making informed decisions, responsible tourism practices, and safeguarding irreplaceable locations worldwide.

FOCUS OF THE PAPER

This paper is focused on unraveling the intricate dynamics between climate change and the global tourism industry. The primary focus lies in synthesizing existing knowledge through a comprehensive literature review, identifying gaps that warrant exploration. Building upon this foundation, the study extends into the field, incorporating firsthand insights collected from interviews and surveys with local communities and travelers. The aim is to understand not just the statistical impact of climate change on tourism but also to capture the nuanced experiences and perspectives of those directly affected. With this multifaceted understanding, the paper proceeds to identify key climatic factors influencing tourism, examining their impacts on tourist behavior, industry resilience, and the destinations themselves.

Hypothesis 1: Changing weather patterns can influence tourist preferences.

Hypothesis 2: Environmental degradation due to climate change can reduce tourist satisfaction and experience.

Hypothesis 3: Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.

Hypothesis 4: Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.

Hypothesis 5: Climate change can increase the risk of health and safety hazards for tourists.

RESEARCH METHODOLOGY

1. Research Design:

The research will adopt a mixed-methods approach, combining qualitative and quantitative data collection and analysis methods.

2. Data Collection:

- Tourists: Tourists who have visited destinations that have been affected by climate change, such as those who have experienced extreme weather events or environmental degradation.
- Local communities: Residents in communities dependent upon tourism and who have been negatively impacted by climate change.

3. Data Analysis:

- The quantitative analysis of survey data will reveal patterns and discrepancies in viewpoints.
- Qualitative data from open-ended survey responses and focus group discussions will be transcribed and analyzed to extract insights and common themes.

4. Presentation of Results:

- Using tables and qualitative summaries, the results will be presented in an understandable and well-organized format.
- Every hypothesis will be examined in light of the research results, including the broader implications for tourism and climate change.

The factors were evaluated on the following rating scale:

- 0 – No Response
- 1 – Not Very High
- 2 – Not High
- 3 – Fair
- 4 – High
- 5 – Very High

Specific Questions for Testing the Hypotheses

Hypothesis 1: Changing weather patterns can influence tourist preferences.

- How much has the weather affected your choice of tourist destination?
- How likely are you to alter your travel plans because of concerns regarding extreme weather events?
- How important is it for you to visit tourist spots that do not experience climate change?

Hypothesis 2: Environmental degradation due to climate change can reduce tourist satisfaction and experience.

- How satisfied were you with your travel experience at locations suffering environmental degradation?
- How has environmental degradation impacted your enjoyment of travel experience?
- What importance do tourist destinations taking steps to protect the environment hold in your eyes?

Hypothesis 3: Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.

- To what degree has climate change altered tourism seasonality at the destinations you visit?
- To what degree are you concerned about the impact of climate change on tourism businesses' economic viability?

Hypothesis 4: Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.

- How effective have climate change awareness campaigns in the tourism industry been at raising awareness about climate change issues?
- What level of agreement do you hold that climate change awareness campaigns can foster demand for sustainable travel experiences?
- How willing are you to adopt sustainable travel practices such as staying at eco-friendly hotels or traveling during off-peak seasons?

Hypothesis 5: Climate change can increase the risk of health and safety hazards for tourists.

- How concerned are you about potential health and safety hazards while traveling, such as diseases or extreme weather events?
- To what degree has climate change increased your concerns regarding health and safety hazards when traveling?
- Do you take measures to safeguard against health and safety threats while traveling?

ANALYSIS

Table 1: Summary Analysis of Survey
(n=34 People)

Hypothesis	Mean	Standard Deviation	Number of Participants
H1. Changing weather patterns can influence tourist preferences.	4.09	0.87	34
H2. Environmental degradation due to climate change can reduce tourist satisfaction and experience.	3.2	1.24	34
H3. Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.	3.86	1	34
H4. Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.	3.63	1.12	34
H5. Climate change can increase the risk of health and safety hazards for tourists.	4.11	0.83	34

Table 2: Summary Analysis of Focus Groups
(n=8 People)

Hypothesis	Mean	Standard Deviation	Number of Participants
H1. Changing weather patterns can influence tourist preferences.	4	0.59	8
H2. Environmental degradation due to climate change can reduce tourist satisfaction and experience.	3.2	0.52	8
H3. Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.	3.95	0.47	8
H4. Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.	3.63	0.53	8
H5. Climate change can increase the risk of health and safety hazards for tourists.	4.06	0.54	8

Hypothesis 1: Changing weather patterns can influence tourist preferences.

Question 1.

The mean score of 4.08 suggests that weather significantly influences the selection of tourist destinations for the respondents. This result aligns with the hypothesis, indicating a substantial impact of weather on their travel decisions.

Question 2.

The mean score of 4.17 reflects a high likelihood of respondents altering their travel plans due to concerns regarding extreme weather events. This outcome emphasizes the perceived influence of weather on travel flexibility and decision-making.

Question 3.

With a mean score of 4.02, respondents express a notable importance placed on visiting tourist spots that do not experience climate change. This results in the significance of climate stability in destination preferences.

Hypothesis 2: Environmental degradation due to climate change can reduce tourist satisfaction and experience.

Question 1.

A lower degree of satisfaction with travel experiences at places experiencing environmental degradation is apparent in the low mean score of 2.26. This score supports the hypothesis by showing that environmental factors have a significant impact on visitors' satisfaction.

Question 2.

With a mean score of 3.33, respondents express a moderate impact of environmental degradation on their enjoyment of the travel experience. While not extremely high, the score suggests a notable influence on overall enjoyment.

Question 3.

The higher mean score of 4.02 highlights the importance respondents place on tourist destinations actively taking steps to protect the environment. This score reflects the relevance of environmental initiatives in shaping positive tourist experiences.

Hypothesis 3: Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.

Question 1.

The mean score of 3.73 indicates a moderate degree to which respondents perceive climate change altering tourism seasonality at the destinations they visit. This score suggests a noticeable influence of climate change on the timing and patterns of tourist visits.

Question 2.

With a mean score of 4.00, respondents express a notable degree of concern about the impact of climate change on the economic viability of tourism businesses. This score emphasizes the perceived threat to the financial sustainability of tourism-related enterprises.

Hypothesis 4: Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.

Question 1.

The mean score of 3.14 suggests a moderate perception regarding the effectiveness of climate change awareness campaigns in the tourism industry. Respondents acknowledge the campaigns but may not perceive them as highly impactful in raising awareness about climate change issues.

Question 2.

With a mean score of 3.7, participants suggest a high degree of agreement that raising awareness of climate change can increase demand for environmentally friendly travel experiences. This score implies a positive correlation between awareness campaigns and the promotion of sustainable travel practices.

Question 3.

The high mean score of 4.00 indicates a strong willingness among respondents to adopt sustainable travel practices, such as staying at eco-friendly hotels or traveling during off-peak seasons. This score suggests a positive attitude toward incorporating sustainability into travel behaviors.

Hypothesis 5: Climate change can increase the risk of health and safety hazards for tourists.

Question 1.

The high mean score of 4.2 indicates that respondents express a notable level of concern about potential health and safety hazards while traveling, including diseases or extreme weather events. This score suggests that these concerns are significant factors in shaping travel decisions.

Question 2.

With a mean score of 4, respondents acknowledge that climate change has increased their concerns regarding health and safety hazards during travel. This score implies a perceived connection between climate change and the heightened risks associated with travel.

Question 3.

The mean score of 4.1 indicates that respondents actively take measures to safeguard against health and safety threats while traveling. This score suggests a proactive approach by travelers in response to perceived risks.

IMPLICATIONS

The study emphasizes the tourism sector's susceptibility to climate change. Destinations facing environmental challenges should adopt sustainable management practices to mitigate adverse impacts on tourist satisfaction. Conservation initiatives and eco-friendly measures play a vital role in preserving destination appeal.

Responding to changing tourism seasons and economic concerns requires adaptive measures. Policymakers and industry stakeholders should prioritize resilience-enhancing strategies, including adaptive infrastructure, climate-resilient practices, and revenue diversification (Julie, 2022). Local businesses can benefit from diversifying services, promoting off-peak attractions, and implementing climate-smart practices for year-round sustainability.

This study also emphasizes the effectiveness of awareness campaigns in raising concerns and promoting demand for sustainable travel experiences. Stakeholders in the tourism industry should persist and strengthen such campaigns, emphasizing the pivotal role tourists play in driving positive environmental change (Judit Carrillo, 2022). Travelers' heightened concern and proactive measures underscore the importance of prioritizing health and safety in travel planning. Governments and travel agencies should integrate climate-resilient health and safety measures into policies and communications.

The findings advocate for policy integration across climate change, tourism, and public health sectors. Collaborative efforts can result in comprehensive policies addressing interconnected challenges faced by tourists, destinations, and industry. Involving local communities in climate change adaptation and mitigation is paramount (Jan C. Semenza, 2022). Encouraging community participation in sustainable practices, education, and tourism planning can cultivate a shared sense of responsibility. The research suggests areas for further exploration, including specific measures that travelers take to safeguard against climate-related hazards and the impacts of climate change on different tourism types. Future studies can delve into these aspects for a more comprehensive understanding.

LIMITATIONS AND OPPORTUNITIES

The study's reliance on a specific sample size and demographic may limit the generalizability of findings. Future research should aim for a more diverse and extensive participant pool to ensure broader representation. Climate change is a dynamic process with evolving impacts. The study provides a snapshot at a specific point in time. However, continuous monitoring and longitudinal studies would offer insights into the dynamics of climate-tourism interactions. Additionally, by recognizing the geographical variations in climate impacts, further research could explore a more comprehensive range of locations to capture diverse perspectives.

Long-term research can help us better understand how tourism is affected by climate change over time. This approach allows researchers to capture trends, adaptability, and evolving patterns. Furthermore, utilizing state-of-the-art technologies such as artificial intelligence may enhance the analysis of large-scale datasets and offer forecasting models for future situations. Another aspect to consider would be exploring the impacts of climate change on tourism from cross-cultural perspectives. Comparative studies across regions and countries can highlight unique challenges and adaptive strategies. Second, working with organizations, legislators, and local communities that are involved in the tourism sector can produce workable solutions to problems that have been identified. Furthermore, disseminating research findings in easily accessible formats and interacting with the public can promote a more comprehensive comprehension of the intricate interactions among climate change.

CONCLUSION

In summary, this study has clarified the connection between tourism and climate change. The results demonstrate how vulnerable tourism is to environmental issues and emphasize the significance of putting adaptive measures and sustainable management practices in place. Through a focus on policy integration, community engagement, and stakeholder awareness-building, we can effectively navigate a dynamic environment and maintain the tourism sector's long-term viability. This research encourages further exploration to refine the understanding of traveler behavior, develop effective adaptation strategies, and promote responsible tourism practices for a more sustainable future.

REFERENCES

- Anna Lucia Kiconco Barya, 2021. "Effect of Climate Change on Sustainable Tourism: A Perception of the Tourism Industry in Uganda."
<https://su-plus.strathmore.edu/items/2aaa28c3-4a01-4734-8b3c-864c4c39d054>
- Arsum Pathak, Philip E. van Beynen, Fenda A. Akiwumi, Kenyon C. Lindeman, 2021. "Impacts of climate change on the tourism sector of a Small Island Developing State: A case study for the Bahamas."
<https://www.sciencedirect.com/science/article/pii/S2211464520300786>
- Jan C. Semenza, PhD, Kristie L. Ebi, PhD, 2022. "Climate change impacts on migration, travel, travel destinations and the tourism industry."
<https://academic.oup.com/jtm/article/26/5/taz026/5445924>
- Judit Carrillo, Albano Gonzalez, Juan C Perez, Francisco Javier Exposito, 2022. "Projected Impacts of Climate Change on Tourism in the Canary Islands."
https://www.researchgate.net/publication/360124590_Projected_impacts_of_climate_change_on_tourism_in_the_Canary_Islands

Julie Harrington, Hongmei Chi, and Lori Pennington Gray, 2022. “Effect of climate change on sustainable tourism.”

Makbule Civelek, 2022. “Analysis of Climate Change and Tourism related studies with Visual Mapping Technique.”

https://www.researchgate.net/publication/364327663_Analysis_of_Climate_Change_and_Tourism_Related_Studies_with_Visual_Mapping_Technique

Murat Atasoy, Filiz Guneysoy Atasoy, 2021. “The Impact of Climate Change on Tourism: A Causality Analysis”.

https://www.researchgate.net/publication/339565810_The_Impact_of_Climate_Change_on_Tourism_A_Causality_Analysis.

Matei, N.A., García-León, D., Dosio, A., Batista eSilva, F., Ribeiro Barranco, R., Císcar Martínez, J.C. 2023. “Regional impact of climate change on European tourism demand.”

Nduduzo A. Ngxongo, 2021. “The impact of climate change on visitor destination selection.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8678961/>

Na Xiong, Bingteng Sun, Linli Jiang and Haitao Cui, 2022. “Spatial effects of climate change on tourism development.”

<https://www.frontiersin.org/articles/10.3389/fenvs.2022.952395/full>

Rohit Agarwal, Vishal Wankhede, Anil Kumar, Sunil Luthra, Donald Huisingh, 2022. “Big Data Analytics and Sustainable Tourism.”

https://www.researchgate.net/publication/363766258_Big_Data_Analytics_and_Sustainable_Tourism_A_Comprehensive_Review_and_Network_Based_Analysis_for_Potential_Future_Research

APPENDIX

Table 1: Analysis of Survey

Questions of Hypotheses	Mean	Standard Deviations	Number of Participants
H1. Changing weather patterns can influence tourist preferences.			
How much has the weather affected your choice of tourist destination?	4.08	0.74	34
How likely are you to alter your travel plans because of concerns regarding extreme weather events?	4.17	0.96	34
How important is it for you to visit tourist spots that do not experience climate change?	4.02	0.93	34

H2. Environmental degradation due to climate change can reduce tourist satisfaction and experience.			
How satisfied were you with your travel experience at locations suffering environmental degradation?	2.26	1.26	34
How has environmental degradation impacted your enjoyment of travel experience?	3.33	1.42	34
What importance do tourist destinations taking steps to protect the environment hold in your eyes?	4.02	1.05	34
H3. Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.			
To what degree has climate change altered tourism seasonality at the destinations you visit?	3.73	0.96	34
To what degree are you concerned about the impact of climate change on tourism businesses' economic viability?	4	1.04	34
H4. Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.			
How effective have climate change awareness campaigns in the tourism industry been at raising awareness about climate change issues?	3.1	1.28	34
What level of agreement do you hold that climate change awareness campaigns can foster demand for sustainable travel experiences?	3.76	0.92	34
How willing are you to adopt sustainable travel practices such as staying at eco-friendly hotels or traveling during off-peak seasons?	4	1.18	34
H5. Climate change can increase the risk of health and safety hazards for tourists.			
How concerned are you about potential health and safety hazards while traveling, such as diseases or extreme weather events?	4.2	0.74	34
To what degree has climate change increased your concerns regarding health and safety hazards when traveling?	4	0.92	34
Do you take measures to safeguard against health and safety threats while traveling?	4.1	0.84	34

Table 2: Analysis of Focus Groups

Questions of Hypotheses	Mean	Standard Deviations	Number of Participants
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H1. Changing weather patterns can influence tourist preferences.			
How much has the weather affected your choice of tourist destination?	3.87	0.75	8
How likely are you to alter your travel plans because of concerns regarding extreme weather events?	4	0.57	8
How important is it for you to visit tourist spots that do not experience climate change?	4.1	0.46	8
H2. Environmental degradation due to climate change can reduce tourist satisfaction and experience.			
How satisfied were you with your travel experience at locations suffering environmental degradation?	2.25	0.5	8
How has environmental degradation impacted your enjoyment of travel experience?	3.5	0.71	8
What importance do tourist destinations taking steps to protect the environment hold in your eyes?	3.87	0.35	8
H3. Climate change can shift tourism seasonality and impact the economic viability of tourism businesses.			
To what degree has climate change altered tourism seasonality at the destinations you visit?	3.8	0.5	8
To what degree are you concerned about the impact of climate change on tourism businesses' economic viability?	4.1	0.45	8
H4. Climate change awareness campaigns in the tourism industry can foster demand for sustainable travel experiences.			
How effective have climate change awareness campaigns in the tourism industry been at raising awareness about climate change issues?	3.2	0.66	8
What level of agreement do you hold that climate change awareness campaigns can foster demand for sustainable travel experiences?	3.7	0.43	8
How willing are you to adopt sustainable travel practices such as staying at eco-friendly hotels or traveling during off-peak seasons?	4.12	0.5	8
H5. Climate change can increase the risk of health and safety hazards for tourists.			
How concerned are you about potential health and safety hazards while traveling, such as diseases or extreme weather events?	4.3	0.49	8

To what degree has climate change increased your concerns regarding health and safety hazards when traveling?	4.12	0.81	8
Do you take measures to safeguard against health and safety threats while traveling?	3.87	0.33	8

SURVEY

How much has the weather affected your choice of tourist destination?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

How likely are you to alter your travel plans because of concerns regarding extreme weather events?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

How important is it for you to visit tourist spots that do not experience climate change?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

How satisfied were you with your travel experience at locations suffering environmental degradation?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High

5 = Very High

How has environmental degradation impacted your enjoyment of travel experience?

0 = No Response

1 = Not Very High

2 = Not High

3 = Fair

4 = High

5 = Very High

What importance do tourist destinations taking steps to protect the environment hold in your eyes?

0 = No Response

1 = Not Very High

2 = Not High

3 = Fair

4 = High

5 = Very High

To what degree has climate change altered tourism seasonality at destinations you visit?

0 = No Response

1 = Not Very High

2 = Not High

3 = Fair

4 = High

5 = Very High

To what degree are you concerned about the impact of climate change on tourism businesses' economic viability?

0 = No Response

1 = Not Very High

2 = Not High

3 = Fair

4 = High

5 = Very High

How effective have climate change awareness campaigns in the tourism industry been at raising awareness about climate change issues?

0 = No Response

1 = Not Very High

- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

What level of agreement do you hold that climate change awareness campaigns can foster demand for sustainable travel experiences?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

How willing are you to adopt sustainable travel practices, such as staying in eco-friendly hotels or traveling during the off-season?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

How concerned are you about potential health and safety hazards while traveling, such as diseases or extreme weather events?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

To what degree has climate change increased your concerns regarding health and safety hazards when traveling?

- 0 = No Response
- 1 = Not Very High
- 2 = Not High
- 3 = Fair
- 4 = High
- 5 = Very High

Do you take any steps to protect yourself against health and safety hazards during travel?

0 = No Response

1 = Not Very High

2 = Not High

3 = Fair

4 = High

5 = Very High