

UNCOVERING PEOPLE'S PERCEPTION ON CLIMATE CHANGE

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ABSTRACT

Climate change is an age old phenomenon. It is common from the beginning of the earth, but has speeded up in the recent decades due to increased population and industrialization. As an alternative to slow down the process, people have now started switching over to eco-friendly living but, not everyone understands the concept, causes and impacts of climate change. The present study **aims** to understand people's perception of climate change, their myths about climate change causes and impacts and spread awareness about the reality of climate change. The **research methodology** includes a systematic construction of a close ended questionnaire and data collection using questionnaire method. The data has been **analyzed** using MS-Excel and IBM SPSS software and represented accordingly. The **major findings** of the study indicate that maximum people believe that environmental alteration is not real as they do not feel the same and that climate change is not a current issue. It is thereby **recommended**, the legislation against damage of environmental assets be strictly implemented, awareness is the most crucial player in changing the thinking of the people and believing that changing climate is a reality and not just a myth. To **conclude**, maximum people are still not able to decide whether climate change is a reality or a myth but, science has proven that climate change is real and can be stopped. Hence, we must bring in sustainable development at the earliest to curb the issue.

Keywords: climate change, people, perception, myth, reality

Introduction

Uncovering people's perceptions on climate change is a multifaceted endeavour that involves delving into the diverse perspectives held by individuals across various communities and backgrounds. Through methods such as surveys, focus groups, and interviews, researchers aim to gauge peoples' attention towards changing climate, examining aspects like belief systems, awareness levels, and the perceived urgency of the problem. The urge to uncover people's perceptions on changing climate is imperative in the pursuit of effective global climate action. Understanding how individuals perceive and interpret climate change is crucial for tailoring communication strategies, educational initiatives, and policy interventions that resonate with diverse communities. By unravelling the intricate tapestry of public attitudes, researchers and policymakers can identify gaps in knowledge, address misconceptions, and design targeted approaches to foster awareness and engagement. Furthermore, recognizing the varied perspectives across different demographics, cultures, and regions is essential for developing inclusive and equitable climate solutions. In the face of a rapidly changing climate, uncovering people's perceptions not only enhances the effectiveness of mitigation and adaptation efforts but also promotes a shared understanding and collective commitment to address this urgent and complex challenge.

Review of Literature

[1] Concerns about climate change are shaped by various psychological, social, and background factors. Despite this, the impact of threat on climate change concern has not been explored using extensive cross-national data so far. Additionally, our analysis distinguishes between different levels of threats that individuals perceive in relation to climate change. When examining threat perceptions

and their influence on attitudes, political psychology literature often makes distinctions between various types or levels of threats. For instance, personal and national or collective threats are considered separate but interconnected concepts. Personal threats refer to risks to one's own physical well-being, and they typically evoke stronger emotional responses, such as fear and anxiety, compared to perceived threats to the nation or the collective. [2] Within our study group, the comprehension of changing climate (CC) was deemed moderate, while the perception and awareness of events associated with CC and its effects on health were notably high. Education emerged as a pivotal factor influencing the grasp of CC and its health-related impacts. Considering this, the potential for school-based interventions merits exploration as a strategy to enhance public knowledge about CC and promote essential health adaptations at the community level. [3] Human-induced climate change is emerging as the paramount issue of our contemporary era. Presently, ninety-seven percent of climate scientists affirm that human activities, including the extraction and combustion of fossil fuels, coupled with widespread deforestation, are leading to a swift accumulation of carbon dioxide and other greenhouse gases in both the air and water. These emissions contribute to the warming of the planet, potentially surpassing Earth's capacity for restoration.

Research Gaps

- Similar studies are absent in the area of study
- The myths covered in the present study are uncovered in the previous studies
- Suggestive measures are mostly theoretical and not practical in the earlier works

Research Objectives

- To understand people's perception of changing climate
- To uncover the myths about climate change among people
- To spread awareness about the reality of changing climate

Research Methodology

Coverage

The area chosen for the research is Greater Mumbai. Its latitudinal extension is from 18⁰ East to 19⁰ East and longitudinal extension is from 72.82⁰ North to 73.00⁰ North approximately. There are 24 wards in Greater Mumbai. The area comprises of Mumbai District and Mumbai Suburban District. The Arabian Sea borders it on the south and west, the Ulhas River on the north, and Thane Creek on the east. It serves as both the financial and state capital of Maharashtra. It is a significant industrial centre for the entire country. The area is under the management of Municipal Corporation of Greater Mumbai and is one of the largest (administrative area) municipal corporations of the country. The total area of Greater Mumbai is 437.71 sq. kms.

Data Collection

The tool used for collection of data is a close-ended questionnaire prepared using Google Forms for the ease of data collection and storage. The method used is survey method. The total number of respondents is 50. The sampling method is random sampling. The respondents are spread across the city within 24 wards of the city.

Data Analysis

The data has been analyzed using statistical tools of data analysis with the help of MS-Excel and IBM SPSS 21 software. The same has been represented using figures and charts.

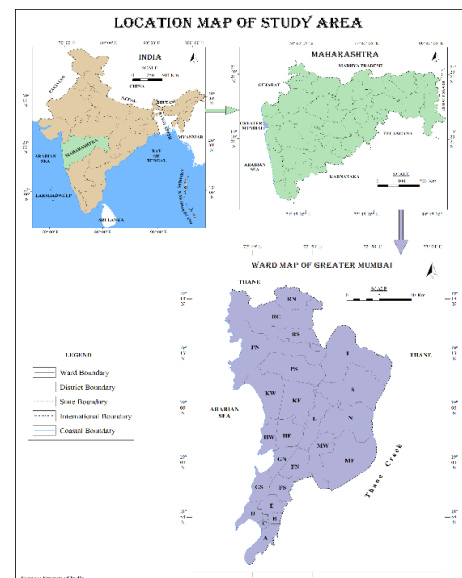
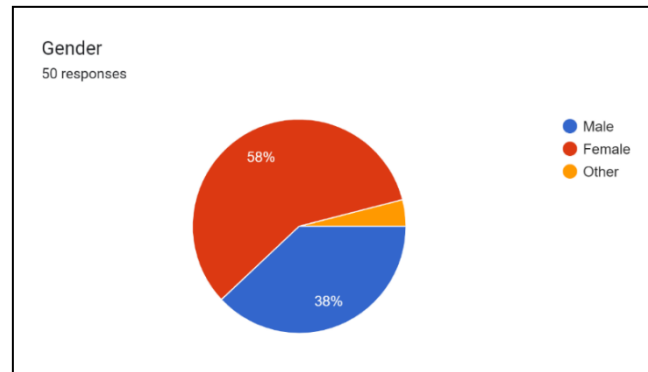
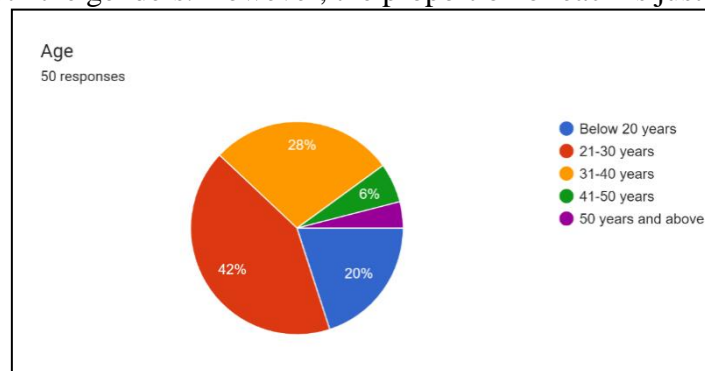


Figure 01: Location of Study Area

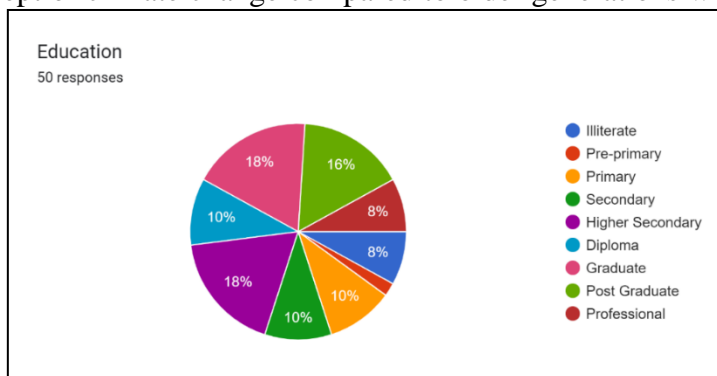
Results, Analysis and Discussion



The gender of maximum respondents is females followed by males and others. It implies that there is representation from both the genders. However, the proportion of each is just a random occurrence.

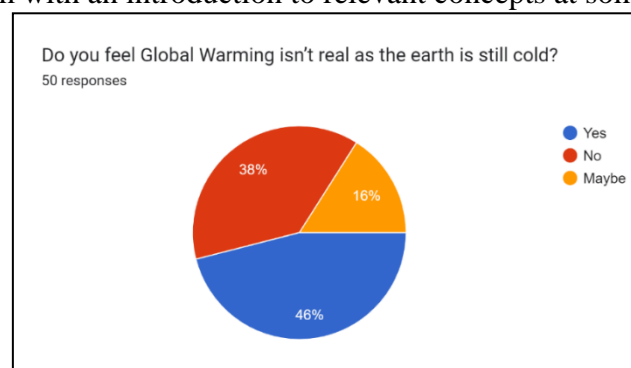


The distribution of respondents' ages indicates that the majority fall within the 21 to 30-year age range, followed by those aged 31 to 40, and those below 20 years. This suggests that a significant proportion of respondents are in the younger age group, implying that they are likely to possess better awareness of the concept of climate change compared to older generations who may not have been educated on

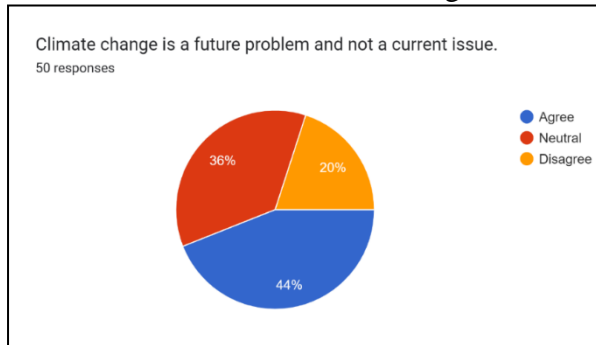


the subject.

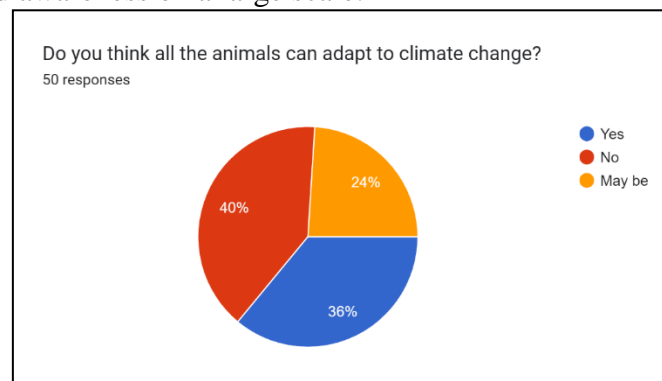
The educational background of the respondents indicates that the majority have completed education up to graduation and higher secondary levels, with post-graduation, primary, and secondary education following in descending order. This suggests that most respondents have received at least basic education, providing them with an introduction to relevant concepts at some point.



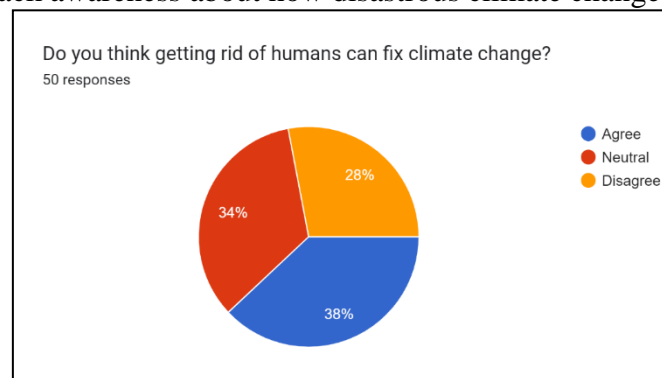
Global warming, typically perceived as a gradual process only noticeable outdoors without the comforts of luxuries, has undergone a significant shift. Over the years, the temperature has risen to the point where the effects of global warming are now discernible even indoors, despite the use of air conditioners and electronic devices. The survey reveals that a majority of respondents believe global warming isn't real, citing the Earth's perceived coldness as evidence. This perspective may be influenced by living conditions or misconceptions. However, a notable portion of respondents acknowledges the reality of global warming, and a significant number remain undecided. This suggests a need to raise awareness about signs and facts related to global warming and its associated aspects.



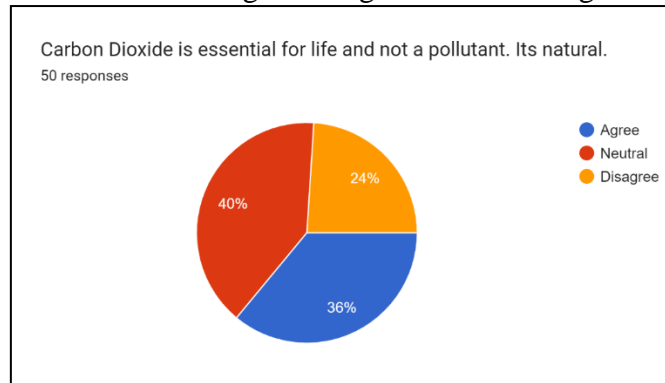
The phenomenon of climate change has been occurring since the planet's inception, typically at a gradual pace. However, there is a noticeable shift in recent times, with alterations in seasonal patterns becoming apparent, leading people to perceive changes in the atmosphere and environment. Surprisingly, a majority of respondents believe that climate change is not an immediate concern but rather a future problem. This perspective is attributed to insufficient knowledge and a lack of awareness. While a significant number do acknowledge it as a current issue, it underscores the necessity for widespread awareness on a large scale.



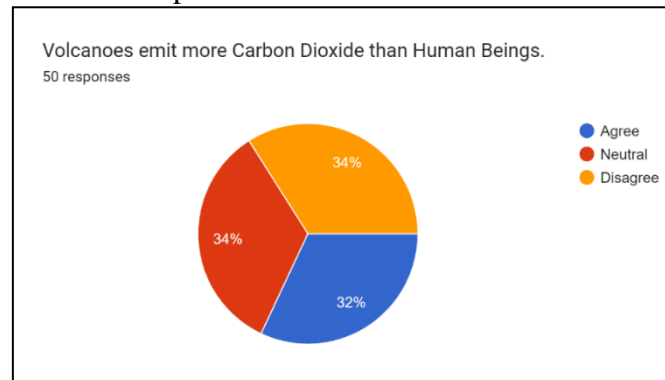
To be self centered is a basic human tendency, but, it is important to understand that other plants and animals are equally impacted by changes in the environment especially if they are man made because they are more disastrous. It is observed that maximum respondents agree that not all animals can adapt to climate change which means that there is consciousness among people about the problems of animals due to man-made alterations in nature. Almost equal number of people do not agree to the fact which means that they lack awareness about how disastrous climate change could be.



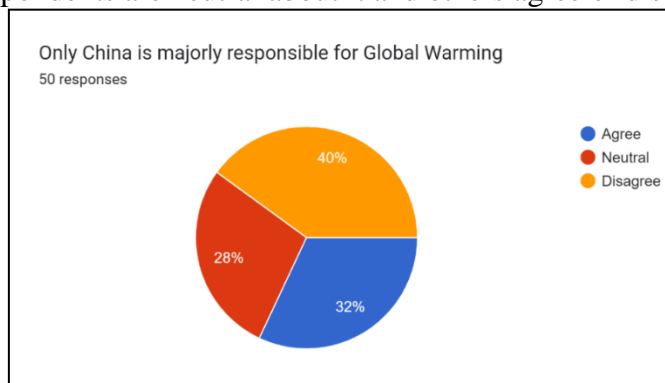
Climate change is a natural process which takes place slowly so that all flora and fauna species can adapt to the changes in an appropriate way. It only accelerates with man made activities. Therefore, maximum respondents have agreed that if we can get rid of human beings, we can fix climate change, however many disagree and are neutral. This indicates that people are quite aware of the fact that human beings are responsible for the damage leading to climate change.



It is a proven fact that carbon di oxide is a gas which is released during natural processes of respiration and Photosynthesis, but, when the concentration of the gas increases, it causes warming of the atmosphere due to pollution. However it is observed that maximum people are unaware of the fact and they are therefore unable to decide whether carbon di oxide is not just a natural gas but is also a pollutant. Only 36% agree that it is a pollutant.

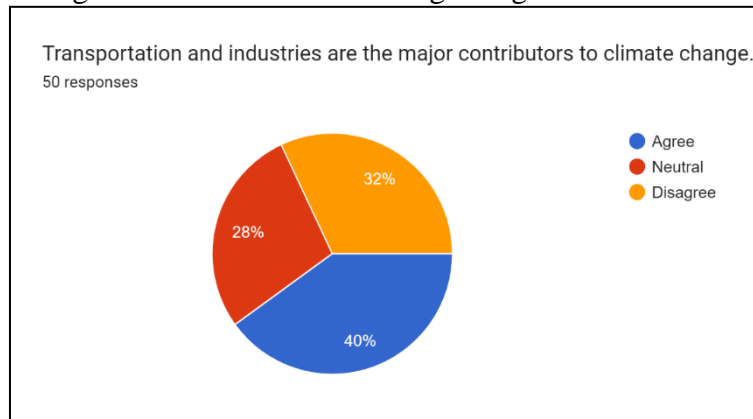


Volcanic eruption is a rare phenomena, so the amount of carbon di oxide emitted from the volcanoes is supposed to be less and such that the nature is able to balance the carbon di oxide it release by effectively recycling it. However, it is a technical fact, so not many people would know about it and therefore, maximum respondents are neutral about it and others agree or disagree almost equally.



While China, as the most populous and industrially advanced nation, is often singled out as the primary contributor to global warming, the reality is different. Both developed and developing countries, including India, contribute almost equally to global warming. Many respondents are aware of this fact and, consequently, reject the misconception. However, a significant percentage both agree and remain

neutral, indicating a lack of awareness regarding technical details among this portion of the



respondents.

It is undeniable that transportation and industries significantly contribute to climate change through the release of substantial amounts of pollutants. This impact is clearly observed on a daily basis by residents, particularly in urban areas. Consequently, a majority of respondents acknowledge this reality, while a noteworthy portion disagrees, suggesting a lack of awareness among some individuals.

H1= All people feel that climate change and global warming are related

H1o= All people do not feel that climate change and global warming are related

The value of Spearman's Rank correlation(r) is -0.28 and the value of p at 99% confidence for 49 degrees of freedom is 0.04 which suggests that the value of r is lesser than the p value. This implies that the null hypothesis is accepted with 99% confidence. This further indicates that all people do not feel that climate change and global warming are related.

H2= All people have several myths about climate change that need to be busted

H2= All people do not have several myths about climate change that need to be busted

The value of Spearman's Rank correlation(r) is 0.12 and the value of p at 99% confidence for 49 degrees of freedom is 0.04 which suggests that the value of r is greater than the p value. This implies that the null hypothesis is rejected with 99% confidence. This further indicates that all people have several myths about climate change that need to be busted.

Recommendations

- Increasing awareness about climate change among the people of all age groups will help everyone know facts about climate change and several myths will be busted
- The awareness can be spread through social media as well as other electronic media for faster and wider reachability
- Micro level initiatives to solve and talk about climate change and ways to deal with it would help the people overcome the challenges and realise the root causes
- Marathons, talk shows, community activities and street plays can be organised to make people aware of what is their role in changing climate

Conclusion

The study concludes that in the era of maximum literacy where people are exposed to all forms of digital media and sources of information, there are several myths about climate change among the people. This is the main reason due to which they are not able to play a significant role in the control of climate change as they are unaware of certain technical facts that should have been known to them. Thus, lack of awareness is a major barrier in overcoming climate change due to which the process is slow and is showing minimum results. The study has helped in understanding the aspects where more and more awareness needs to be spread. Such areas include technical facts like global warming, volcanic eruption, population dynamics and greenhouse effects. These facts can best be delivered through formal education which is not possible for all age groups, thus, social media is the best medium for the same.

Bibliography

- Arikan, G. and Gunay, D. 2020. Public attitudes towards climate change: A cross-country analysis. The British Journal of Politics and International Relations. Volume 23, Issue 1. <https://doi.org/10.1177/1369148120951013>
- Kabir, M. et.al. 2016. Knowledge and perception about climate change and human health: findings from a baseline survey among vulnerable communities in Bangladesh. BMC Public Health volume 16, Article number: 266 (2016). Retrieved at: <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-016-2930-3>
- Yaston, L. 2018. Homesick: Finding Our Way Back to a Healthy Planet. Hamilton Books. ISBN: 9780761870517, 0761870512. Retrieved at: <https://www.google.co.in/books/edition/Homesick/GUdvDwAAQBAJ?hl=en&gbpv=0>