Field of Study: Environmental Science and Climate Change

Title: Climate Change Mitigation through the Lens of Environmental Science and Public Awareness

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Abstract:

This research explores the intersection of environmental science and public perception, highlighting their combined role in effective climate action. Environmental science provides the empirical foundation for understanding climate change, its impacts, and mitigation strategies, such as renewable energy adoption, reforestation, and carbon reduction technologies. For this work, data were collected highlighting how public awareness shaped by various demographic and professional groups, significantly influences the implementation of these measures. This dataset was analyzed using SPSS software, descriptive statistics, cross-tabulation, and Chi-Square tests to identify relationships between demographic variables like age, gender, and occupation and their attitudes towards the mitigation of climate change. The study reveals that students are more active in addressing climate change, with most making significant or minor changes, whereas teachers and other professionals show lower levels of involvement. The vast majority of respondents were between the ages of 21–30, prioritizing Greenhouse Gas and Loss of Biodiversity as key concerns. Across all age groups, the majority believe that investing in new technology is important. Gender differences also play a role in perceptions: males are more likely to attribute climate change to human activities or natural processes individually, while females tend to believe that both factors are related. This study highlights the importance of combining science with public action. It highlights the need to improve the connection between environmental science and public awareness to ensure effective and inclusive climate change solutions. Improving this interconnection is essential for creating sustainable ways to tackle climate change.

<u>Keywords</u>: Climate change, environmental science, public perception, sustainability, reforestation.

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