International Journal of Multidisciplinary Approach and Studies

ISSN NO:: 2348 – 537X

Awareness and Attitude towards Climate Change of Motorela Drivers in Central Mindanao University

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ABSTRACT

The study generally aimed to determine the significant relationship of the motorela drivers' awareness and attitude towards climate change. It utilized a structured survey questionnaire in gathering quantitative data among the motorela drivers in Central Mindanao University who were selected as research participants through convenience sampling technique. The researchers employed a descriptive-correlational research design and analyzed the data gathered using descriptive statistics and Pearson correlation coefficient (r).

Results of the study revealed that the motorela drivers have a moderate level of climate change awareness. Furthermore, the attitude of the motorela drivers was found to be positive. In connection to this, there is a strong and positive relationship between the motorela drivers' level of awareness and attitude towards climate change.

Based on the findings of the data, it is recommended that non-governmental organizations may involve motorela drivers in their climate change campaigns and the local government may give easily accessible information on climate change to raise public awareness as well as encourage motorela drivers to undergo emission tests on their vehicles.

KEYWORDS: *awareness, attitude, climate change, motorela drivers*

INTRODUCTION

The drastic changes in climatic conditions has become one of the most pressing issues which needs to be taken seriously. These alterations are brought upon by what is referred to as climate change which include deadly heat, heavy floods, frequent storms, and thawing permafrost. With the changing conditions of climate - whether it's becoming warmer, colder, wetter, or drier, humans and animals living across the planet face these harsh conditions in one way or another. For years, humans have been thought to be the main drivers for climate change. Even the simple act of burning plastics at home leads to the accumulation of greenhouse gasses which traps the Earth's heat from escaping into space which not only causes extreme weather events but also destroys the balance of our ecosystem. The dramatic effects of this phenomenon are real and urgent as it is not only detrimental to the natural environment but also to the economy and society.

For a certain group of people whose work relies on the daily weather conditions, like the motorela drivers, a good weather condition means more people are most likely going somewhere outside thus, more passengers. As part of the motorela drivers' livelihood, these workers intensively depend on driving motorelas throughout the entire day. However, due to their busy day-to-day activities, only a few would care enough to give time and thought as to notice that the carbon footprint produced from the vehicular gas emissions of this mode of transportation is one of the potential contributors to the ever-growing global concern on climate change.

Furthermore, it cannot be denied that this form of livelihood supports many families and provides transportation for the local people. As the motorela drivers continually use this type of vehicles, there is a need to ensure that these drivers are aware of their carbon emissions and able to provide appropriate support and climate change intervention. In fact, learning and understanding the climate change crisis is not only for those who are most vulnerable to its consequences. The awareness of people, especially those whose livelihoods produce harmful effects that contributed to the rising levels of greenhouse gasses, with regards to the dramatic effects of climate change drives them to adapt, mitigate, and change their behavior towards a global emergency.

Long before humans were around, our planet has already gone through intensive warming and cooling phases through natural processes. These activities will continue to change the atmospheric composition and the Earth's surface which overtime affects the Earth's energy balance which causes climate change. In addition, anthropogenic activities such as mining, burning of fossil fuel, and releasing of industrial waste are considered as the primary contributors of climate change (Fakana, 2020).

In connection to this, awareness about climate change is essential for making informed and responsible actions and decisions that will become a part of making solutions in the reduction of the increase of greenhouse gasses (Agboola & Emmanuel, 2016). Having a positive attitude towards climate change also gives support towards the development of technologies and mitigation activities in order to lessen the effects of climate change brought mainly by humans (Hermans & Korhonen, 2017). Actually, several governmental and organizational efforts such as the United Nations Framework Convention of Climate Change (UNFCCC) was established to urge cooperation and to provide everyone with knowledge, values, attitudes, and skills that helps in creating a change for the betterment of our planet.

Therefore, the researchers felt the need to conduct this study in order to determine the significant relationship between the awareness and attitude towards climate change of the motorela drivers in Central Mindanao University.

STATEMENT OF THE PROBLEM

The main purpose of the study is to determine if there is a significant relationship between the motorela drivers' awareness and attitude towards climate change. Specifically, the study sought to answer the following questions:

1. What is the level of the motorela drivers' awareness towards climate change?
2. What is the level of the motorela drivers' attitude towards climate change?

3. Is there a significant relationship between the motorela drivers' awareness and attitude towards climate change?

HYPOTHESIS OF THE STUDY

In order to achieve the aforementioned objectives, the following hypothesis has been formulated and tested at 0.05 level of significance.

Ho1: There is no significant relationship between motorela driver's awareness and attitude towards climate change.

METHODOLOGY

This study employed a descriptive-correlational design to investigate the awareness and attitudes towards climate change among motorela drivers in Central Mindanao University. The respondents were selected through convenience sampling wherein the motorela drivers have been chosen based on their availability around the areas near the institution's waiting shed and the university's market within the period of data gathering starting from July 10 up to July 11 in the year 2023. Quantitative data was collected among the motorela drivers using structured survey questionnaires. These questionnaires included the motorela driver's profile, climate change awareness, and climate change attitude adopted from the study of Lopez and Malay (2019).

The data acquired from the research instruments were determined, evaluated, and examined by the study using descriptive statistics and was analyzed through the use of descriptive statistics through Statistical Package for Social Sciences Computer Version (SPSSx/PC). Specifically, descriptive statistics like mean was utilized to describe the level of awareness and attitudes towards climate change of motorela drivers at Central Mindanao University. Additionally, Pearson's correlation coefficient was employed to ascertain the relationship between the awareness and attitudes towards climate change of motorela drivers in Central Mindanao University.

RESULTS AND DISCUSSIONS

Motorela Drivers' Climate Change Awareness

Table 1. Level of the motorela drivers' awareness towards climate change

INDICATORS	MEAN	DESCRIPTIVE DESCRIPTION	QUALITATIVE INTERPRETATION
1.Climate is dynamic and is always changing through time.	2.73	Agree	Moderately Aware
2.Climate in weather condition over an extended period is climate change.	2.60	Agree	Moderately Aware
3.Climate does not mean the same thing as weather.	2.65	Agree	Moderately Aware
4.Climate change comes with rise in sea levels.	2.63	Agree	Moderately Aware
5.Climate changed for millions of years.	2.63	Agree	Moderately Aware
6.Cutting down trees causes climate change.	2.80	Agree	Moderately Aware
7.Acid rain causes climate change.	2.45	Disagree	Moderately Unaware
8.More garbage/waste causes climate change.	3.03	Agree	Moderately Aware

9.Burning fossil fuels causes climate change.	2.83	Agree	Moderately Aware
10.Damage to the ozone layer causes climate change.	2.88	Agree	Moderately Aware
11.Climate change can cause more floods and drought.	2.93	Agree	Moderately Aware
12.Climate change can cause polar ice caps and glaciers to melt.	2.98	Agree	Moderately Aware
13.People can help stop climate change by using more renewable resources of energy.	2.90	Agree	Moderately Aware
14.People can help stop climate change by planting more trees.	3.18	Agree	Moderately Aware
15.People can help stop climate change by using more electricity.**	2.43	Disagree	Moderately Unware
OVERALL MEAN	2.78	Agree	Moderately Aware

**Negative Indicators (scoring is reversed)

Legend:

Range	Qualitative Description	Interpretation
1.00-1.75	Strongly Disagree	Extremely Unaware
1.75-2.50	Disagree	Moderately Unaware
2.50-3.25	Agree	Moderately Aware
3.25-4.00	Strongly Agree	Extremely Aware

Table Projected in Table 1 is the motorela driver's level of climate change awareness with a mean score of 2.78 indicating "Moderately Aware". The study found moderate awareness among motorela drivers on various indicators such as understanding the impact of human activities, recognizing the importance of tree planting and utilizing renewable energy resources in mitigating climate change. These results were similar to the findings of Lopez & Malay (2019) suggesting that the term 'climate change' is not new to the motorela drivers and that they already have a prior background on what climate change is and its drastic effects. However, notable gaps in understanding were also found. Particularly regarding the connection between acid rain and climate change, as well as misconceptions about the role of electricity consumption in mitigation efforts.

These findings highlight the need for targeted educational initiatives to address these gaps in awareness. Moreover, it is suggested by the study of Eneji (2021) that exposure to environmental activities significantly influences people's understanding of climate change and its effects. Therefore, increasing engagement in such activities and initiatives would enable motorela drivers to gain valuable knowledge about causes and effects of climate change.

Motorela Driver's Climate Change Attitude

Table 2 below presents the level of motorela drivers' attitude towards climate change. As can be gleaned in Table 2, the highest mean score of 2.95, indicated a positive attitude towards climate change. The results indicated that they recognized climate change as a significant issue that demands immediate action, with the highest mean scores associated with beliefs in the seriousness of climate change and active preparation for its effects. On the other hand, there is a slight discrepancy between attitude and action, with a relatively lower mean score for willingness to participate in climate change-related activities. Nevertheless, motorela drivers actively seek and share information about climate change, indicating a proactive stance despite hesitancy towards direct involvement in activities. These findings are aligned with the research findings conducted by Fielding et al. (2014), that positive attitudes towards climate change often translate into proactive attitudes towards climate change, while also emphasizing the importance of knowledge in driving action and mitigating negative attitudes.

The results emphasize the importance of bridging the gap between attitude and action regarding climate change. While there is a positive attitude among motorela drivers, there appears to be a need for further engagement to encourage more direct involvement in addressing the issue. This aligned with broader challenges identified in previous studies, indicating the gap between awareness and action in climate change mitigation and adaptation efforts. To effectively address these challenges, interventions should focus not only on raising awareness but also on providing tangible solutions and encouraging active participation in climate-related activities. Fostering a better understanding of adaptation measures and promoting actionable strategies, can empower individuals and communities to translate positive attitudes into meaningful actions towards combating climate change (Mateo-Babiano, 2013). Such efforts are essential in achieving sustainable outcomes in the face of climate change impacts.

Table 2. Level of the motorela drivers' attitude towards climate change

INDICATORS	MEAN	DESCRIPTIVE DESCRIPTION	QUALITATIVE INTERPRETATION
1. I believe climate change is a very big problem.	2.95	Agree	Positive
2. I believe climate change is true.	2.85	Agree	Positive
3. There is still time to prepare for climate change problems.	2.90	Agree	Positive
4. I believe that immediate actions should be done about climate change.	2.90	Agree	Positive
5. I am preparing myself for the effects of climate change.	2.95	Agree	Positive
6. I always ask questions about climate change.	2.65	Agree	Positive
7. I read news and updates about climate change.	2.68	Agree	Positive
8. I am spreading information about climate change.	2.65	Agree	Positive
9. I am seriously concerned with climate change.	2.90	Agree	Positive
10. I will participate in climate change related activities.	2.58	Agree	Positive
OVERALL MEAN	2.81	Agree	Positive

Legend:		
Range	Qualitative Description	Interpretation
1.00-1.75	Strongly Disagree	Highly Negative
1.75-2.50	Disagree	Negative
2.50-3.25	Agree	Positive
3.25-4.00	Strongly Agree	Highly Positive

Relationship of Climate Change Awareness and Attitude

To assess the relationship between the independent and dependent variable of this study, the Pearson Product Moment Correlation Coefficient was used.

Table 3. Correlation Analysis of Motorela Driver's Climate Change Awareness and Climate Change Attitude

INDEPENDENT VARIABLE	CORRELATION COEFFICIENT (r)	PROBABILITY (p)
Awareness	0.78**	.00001**

Legend:
** Correlation is significant at the 0.01 and 0.05 level (2-tailed)
NS- not significant

Projected in Table 3 is the correlation analysis of climate change awareness and attitude among motorela drivers' of Central Mindanao University. The climate change awareness and attitude with r=0.78 and p-value=0.00001 was found to be significant at 0.05 level on a 2-tailed test. This statistically implies a strong and significantly positive correlation existed between the drivers' awareness and attitude towards climate change. Thus, the null hypothesis stating that there is no significant relationship on the motorela drivers' awareness and attitude towards climate change is rejected.

This finding aligns the study of Magulod (2018) indicating that raising awareness about climate change fosters a positive attitude. This suggests that educating communities through seminars and involving locals, like motorela drivers, in tree planting initiatives by the barangay cultivates environmental care, reflecting a positive attitude towards climate change.

Moreover, it is suggested by the study of Luthfia & Alkhajar (2018) to participate in community initiatives like waste clean-up to enhance climate change awareness and prompt carbon footprint reduction. Similarly, Lopez & Malay (2019) find that a positive outlook on climate change stems from recognizing one's role in mitigation efforts, leading individuals to contribute to solutions.

CONCLUSIONS AND RECOMMENDATIONS

A moderate level of awareness towards climate change was found to be practiced by the motorela drivers of Central Mindanao University and the motorela driver's attitude towards climate change was found to be positive. This signifies that there is a strong and positive

relationship that exists between the motorela driver's awareness and attitude towards climate change. Thus, the null hypothesis was rejected.

The study recommends that the local community may provide easily accessible news and information about climate change that would cultivate strong public awareness among motorela drivers through newspapers, radio, flyers, television, and other sources. Although information about climate change has been actively shared on the internet, not everyone actively uses the internet as their source of information, thus, providing awareness that widely reaches the public without the use of the internet enables the local people to be more informed about the matter. If the local people are more informed, they are more likely to make pro-environmental decisions.

On the other hand, the environmental groups such as those belonging in the non-governmental organizations may involve the motorela drivers in activities that promote proper waste management, environmental protection, conservation programs and campaigns in order to be more involved in taking part in formulating and promoting solutions in order to solve the drastic effects of climate change. These activities may also include promoting and encouraging motorela drivers and other public transportation drivers the conduct of smoke emission tests campaigns and realize its importance. This will enable them to determine whether their vehicle is releasing air pollutants that contribute to the increase of greenhouse gasses.

For the local government and environmental groups, they need to consider the significant relationship between awareness and attitude towards climate change in creating programs, seminars, workshops and other environmental activities. Inclusion of motorela drivers' are highly encouraged to raise their awareness and attitude about the persisting problem of climate change.

For future studies, they may use other factors that may affect awareness and attitudes towards climate change for their studies.

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