

# Mass Media and Climate Change Awareness Among Women of Reproductive Age in Ekiti State

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## Abstract:

The study examined mass media and climate change awareness among women of reproductive age in Ekiti State. The research employed descriptive survey design. The research sample consisted of 250 women drawn from 10 towns in Ekiti State, using a multistage sampling procedure. An instrument tagged Mass Media, and the Climate Change Awareness Questionnaire (MMCCAQ) was administered to provide valuable data for this study. The validity of the instruments were ensured by experts of Sociology and Test, and Measurements. The internal consistency of the instrument was ascertained through Cronbach Alpha, which yielded coefficient values of 0.91. The responses obtained were analyzed using descriptive and inferential statistics. Findings revealed that the level of climate change awareness among women of reproductive age in Ekiti State was low. It also revealed that mass media would go a long way to create climate change awareness among women of reproductive age since print media, broadcast media, and social media influenced climate change awareness. From the findings, it was recommended that print media such as newspapers, magazines, and billboards should place more emphasis on climate change as it affects the livelihood of women and all the activities they engage in to adapt to climate change.

**Keywords:** Mass Media, Climate Change, Awareness, Women, Reproductive Age,

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## Introduction

Climate is the main factor monitoring the global patterns of vegetation structure as it implies the average weather in a place over many years. While the weather could change in just a few hours, the climate takes years to change. Ezeudu, Ezeudu, and Sampson (2015) defined climate change as the average increase in the temperature of the earth and changes observed in the temperature of the air and ocean, melting ice caps in the Arctic and Antarctic regions (polar ice caps) and increase in the average sea level. Climate change, according to Oruonye (2011) is a long-term modification in global weather patterns, especially a rise in temperature and storm activity, regarded as a possible consequence of the greenhouse effect (gases present in the atmosphere which absorb the radiation and emit them within the thermal infrared range).

Walsh (2014) stated that climate change refers to the air and ocean steadily heating up to the point that disturbs the balance in human and natural resources. It implies that the earth's temperature is increasing, leading to disturbance of the earth's ecosystem. Climate change seems to be one of the major encounters for humanity. There is evidence that swift climate change is taking place due to human activities and lack of awareness. Although there are natural causes but most of the causes of climate change could be a result of low awareness. It is largely caused by human activities such as industrial pollution, the combustion of fossil fuel, deforestation, and land use (Weart, 2010). All humans, regardless of opinion, feel the negative effect of climate change.

The researcher observed that it requires individuals who are aware of environmental problems needed to rectify climate change. It seems that women contribute more to climate change because of their day to day activities. Besides, women process information using their previous beliefs, which are mostly formed by cultural values (Wolf & Moser 2011). This implies that when they get information, it is analysed through this lens and other personal considerations, and this affects how climate change and other issues are perceived.

Women have been dependably shown to have a higher environmentally conscious attitude than men. The common reason advanced for gender differences regarding environmental consciousness is the social pattern of responsibilities between boys and girls (Raudsepp, 2011). The girls are assigned all the domestic activities (sweeping and cleaning), and they gradually get used to the welfare of the environment, unlike their male counterparts. The researcher also observed that women seem to account for carbon-dioxide emissions, the bulk of energy use, and air pollution. This implies that women need to be fully aware of climate change and its effects on humans.

Oruonye (2011) remarked that awareness implies an understanding of specific facts, terminologies, conventions, ways, and means of dealing with specific trends. Two clauses are important in the definition of awareness: "an understanding of specific facts and means of dealing with specific trends." Ezeudu, Ezeudu, and Sampson (2016) defined awareness as a state of mental and emotional readiness to respond to previously conditioned or associated stimuli.

Awareness is vital in reducing the impacts of climate change. Media can play a vivacious role in creating awareness about climate change. Mass media could go a long way to create awareness and educate people about the causes and effects of climate change. Duggan (2015)

stated that the mass media play a significant role in educating the citizenry about climate change. The mass media can inform those who have no access to education how they can deal with climate change to reduce the extent of earth warming. Mass media coverage of climate change can give reliable information and raise the alarm of environmental issues like global warming, acid rain.

Taylor (2011) stated that the possession of an accurate and complete understanding of climate change could increase the level of awareness. He points out that the mass media can play an important role in reducing the effects of climate change. This happens because reports through any form of mass media have a relationship on the way people reason and behave. The mass media help to close the information gap by educating people on issues associated with the environment. Mass media could also assist people, especially women, with basic or average education in simplifying the technical languages associated with climate.

Umejei (2010) observes that the media in Nigeria seems to be relatively unfriendly on issues of creating awareness on climate change. In his assessment, the Nigerian media seem to lag in awareness campaigns on climate change and tend to leave it for individuals. He concluded that this had made Nigeria more at risk of the global challenges posed by climate change. The mass media is majorly classified as print media (Newspapers, Journals, billboards, among others), broadcast media (Television, Radio, town crier, etc.) and Internet (Social Media).

Billet (2010) stated that print media, which is still dominant and most influential compared to broadcast media (internet, radio, television, blogs, etc.) has so far played a leading role in informing and educating the public on impacts of environmental deterioration, climate change, and related human impacts. Boykoff (2009) revealed that there is less coverage of climate change by print and broadcast media.

Boykoff (2009) argues that most broadcast media are more of repeater of occurrences or a parrot as they were usually unable to provide additional information, interpretation, and contexts to complex issues such as climate change. This is important because the agenda that is not clearly articulated by the presenters may likely not receive appropriate interpretation and action. Billet (2010) suggested that the quality of reportage from print and broadcast media is low, and this could be a result of the low understanding of the climate change issue. He concluded that print and broadcast media could create a high level of awareness of climate change if clinically done.

Aside from print and broadcast media, one of the best ways of creating awareness about climate change among the people is the advanced features of the internet, which is social media and communication technologies (Ogunjinmi, Sunday, Ogunjinmi & Adekoya, 2016). Social media is one of the fascinating occurrences of our times. Social media such as Facebook, Whatsapp, Twitter, MySpace, LinkedIn, or Instagram provide ways for users to communicate online. If social media is well used, it could be the fastest means of creating awareness about climate change. Features available through social media include chat, messaging, video chat, voice chat, file sharing, blogging, discussion groups, among others. With awareness through social media, public understanding, and actions towards climate change could be positively protected. Nalewajek and Macik (2013) confirmed that social

media allows ideas to spread faster than print media or broadcast media because the main mechanism working in social media is viral.

In view of the above, the study investigated mass media and climate change awareness among women of reproductive age in Ekiti State.

### **Purpose of the Study**

This study examined mass media and climate change awareness among women of reproductive age in Ekiti State. Specifically, the study examined the level of climate change awareness among women of reproductive age in Ekiti State; relationship between mass media and climate change awareness among women of reproductive age; and the influence of print media, broadcast media and social media (internet) on climate change awareness among women of reproductive age.

### **Research Question**

One research question was formulated to guide the study:

What is the level of climate change awareness among women of reproductive age in Ekiti State?

### **Research Hypotheses**

The following hypotheses were proposed and tested to guide the study:

There is no significant relationship between mass media and climate change awareness among women of reproductive age

There is no significant influence of print media on climate change awareness among women of reproductive age.

There is no significant influence of broadcast media on climate change awareness among women of reproductive age

There is no significant influence of social media (internet) on climate change awareness among women of reproductive age

### **Methodology**

This research adopted a descriptive research design of the survey type. The population for this study consisted of women of reproductive age in Ekiti State. Two hundred and fifty (250) women were drawn from ten (10) towns in Ekiti State as the sample for this research using a multistage sampling procedure. In stage one, one senatorial district was selected from the three senatorial districts in Ekiti State using a simple random sampling technique. In stage two, three local government areas were selected from the senatorial district using simple random sampling technique. In stage three, ten towns were selected from the three local government areas through a proportionate random sampling technique. In stage four, 25 women of reproductive age were purposely selected from each town using a purposive sampling technique.

An instrument tagged Mass Media, and the Climate Change Awareness Questionnaire (MMCCAQ) was used to collect relevant data for the study. The MMCCAQ was administered on the sampled women of reproductive age. The instrument consisted of three sections, namely Section A, B, and C. Section A sought for bio-data information of the respondents while Section B consisted of 15 items to elicit information on three variables of mass media

(print media, broadcast media, and social media) as they create climate change awareness. Section B was worded on Likert 4-point rating scale as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. Section C consisted of 10 items on climate change awareness and worded with a Yes or No option.

Mass Media and Climate Change Awareness Questionnaire (MMCCAQ) was validated by experts of Sociology and Tests and Measurement. The experts determined its face and content to ensure the appropriateness of the instruments in measuring what they are supposed to measure. The reliability of the instrument was determined by finding the internal consistency of the instrument. Cronbach Alpha was used to establish a reliability coefficient of 0.91.

The researcher personally visited each of the towns sampled to administer the instrument with the help of two research assistants. The data collected through the instruments were analyzed using descriptive and inferential statistics. The research question was answered using descriptive statistics of frequency count, percentage, mean and standard deviation. All hypotheses were tested using Pearson's Product Moment Correlation (PPMC) and Univariate Analysis of Variance (two-way ANOVA) at 0.05 level of significance.

## Results

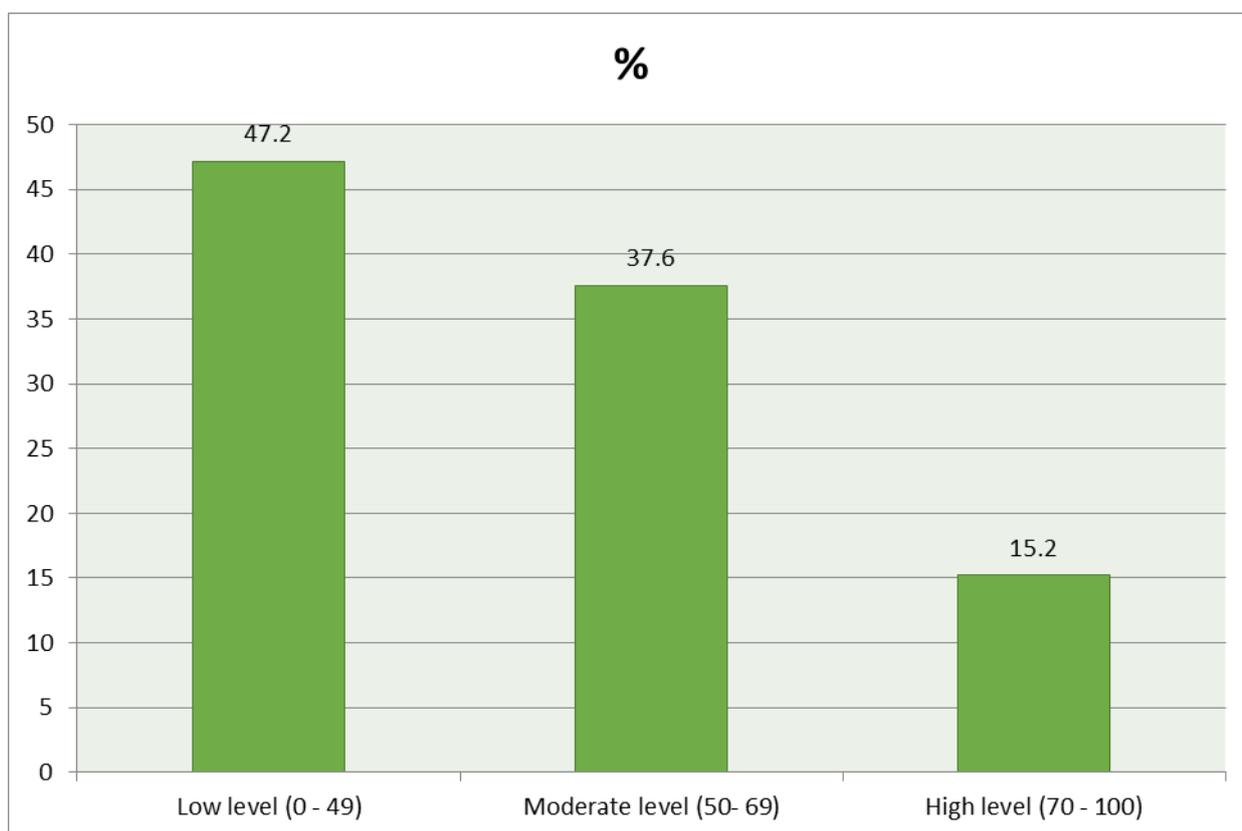
**Research Question 1:** What is the level of climate change awareness among women of reproductive age in Ekiti State?

To determine the level of climate change awareness, the score was converted to percentage, and women of reproductive age who scored below 50% were classified as low level of climate change awareness. Women who scored between 50% and 70% were classified as those with a moderate level of climate change awareness, while those who scored above 70% were classified as those with a high level of climate change awareness. The level of climate change awareness among women of reproductive age is presented in Table 1.

**Table 1: Level of climate change awareness**

Levels of climate change awareness	Frequency	Percentage
Low (0 - 49)	118	47.2
Moderate (50 - 69)	94	37.6
High (70 - 100)	38	15.2
<b>Total</b>	<b>250</b>	<b>100</b>

Table 1 revealed the levels of climate change awareness. The result showed that out of 250 women of reproductive age, 118 women representing 47.2 percent had a low level of climate change awareness while 94 women representing 37.6 percent had a moderate level of climate change awareness and 38 women representing 15.2 percent had a high level of climate change awareness. This showed that the level of climate change awareness among women of reproductive age was low. Figure (i) further revealed the level of climate change awareness.



**Figure i:** Level of climate change awareness

### Testing of Hypotheses

**Hypothesis 1:** There is no significant relationship between of mass media and climate change awareness among women of reproductive age

In testing this hypothesis, data on mass media were collected from the responses of the respondents to items under Section B of MMCCAQ (item 1 – 15) in the questionnaire. Data on climate change awareness were collected from Section C of MMCCAQ (item 1 – 10). Both were compared for statistical significance using the Pearson Product Moment Correlation at 0.05 level of significance. The result is presented in Table 2

**Table 2: Relationship between mass media and climate change awareness**

Variables	N	Mean	Stand Dev	r-cal	P
Mass Media	250	40.24	1.53	0.480*	0.000
Climate Change Awareness	250	56.68	13.09		

\*P<0.05

Table 2 showed that the r-cal value of 0.480 is significant because the p-value (0.000) is less than 0.05 level of significance, i.e.,  $0.000 < 0.05$ . The null hypothesis is rejected. This implies that there is a significant relationship between mass media and climate change awareness among women of reproductive age. Hence, mass media is moderately related to climate change awareness among women of reproductive age.

Hypothesis 2: There is no significant influence of print media on climate change awareness among women of reproductive age.

**Table 3: Two-way ANOVA of influence of print media on climate change awareness**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	38086.847 <sup>a</sup>	10	3808.685	284.292	.000
Intercept	510673.628	1	510673.628	38118.192	.000
Print Media	449.325	3	149.775	11.180	.000
Climate Change Awareness	26552.070	2	13276.035	990.963	.000
Print Media * Climate Change Awareness	1212.791	5	242.558	18.105	.000
Error	3201.909	239	13.397		
<b>Total</b>	<b>844331.000</b>	<b>250</b>			
<b>Corrected Total</b>	<b>41288.756</b>	<b>249</b>			

a. R Squared = .922 (Adjusted R Squared = .919) \*p<0.05

From Table 3, the F-cal value of 18.105 is because the p-value of 0.000 is less than 0.05 level of significant, i.e., P (0.000) <0.05. This led to the rejection of the null hypothesis. This implies that there is a significant influence of print media on climate change awareness among women of reproductive age. Print media influenced climate change awareness among women of reproductive age in Ekiti State.

**Hypothesis 3:** There is no significant influence of broadcast media on climate change awareness among women of reproductive age

**Table 4: Two-way ANOVA of influence of broadcast media on climate change awareness**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	38141.835 <sup>a</sup>	11	3467.440	262.241	.000
Intercept	283870.418	1	283870.418	21468.974	.000
Broadcast Media	883.537	5	176.707	13.364	.000
Climate Change Awareness	13353.825	2	6676.912	504.971	.000
Broadcast Media * Climate Change Awareness	744.864	4	186.216	14.083	.000
Error	3146.921	238	13.222		
<b>Total</b>	<b>844331.000</b>	<b>250</b>			
<b>Corrected Total</b>	<b>41288.756</b>	<b>249</b>			

a. R Squared = .924 (Adjusted R Squared = .920) \*p<0.05

From Table 4, the F-cal value of 14.083 is significant because the p-value of 0.000 is less than 0.05 level of significance, i.e., P (0.000) <0.05. This resulted into the rejection of the null

hypothesis. This implies that there is a significant influence of broadcast media on climate change awareness among women of reproductive age. Broadcast media influenced climate change awareness among women of reproductive age in Ekiti State.

**Hypothesis 4:** There is no significant influence of social media (internet) on climate change awareness among women of reproductive age

**Table 5: Two-way ANOVA of influence of social media (internet) on climate change awareness**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	37514.743 <sup>a</sup>	9	4168.305	265.074	.000
Intercept	587428.130	1	587428.130	37356.194	.000
Social Media (Internet)	425.193	3	141.731	9.013	.000
Climate Change Awareness	23801.583	2	11900.791	756.805	.000
Social Media * Climate Change Awareness	608.755	4	152.189	9.678	.000
Error	3774.013	240	15.725		
<b>Total</b>	<b>844331.000</b>	<b>250</b>			
<b>Corrected Total</b>	<b>41288.756</b>	<b>249</b>			

a. R Squared = .909 (Adjusted R Squared = .905) \* $p < 0.05$

From Table 5, the F-cal value of 9.678 is significant because the p-value of 0.000 is less than 0.05 level of significant, i.e.,  $P(0.000) < 0.05$ . This led to the rejection of the null hypothesis. This implies that there is a significant influence of social media (internet) on climate change awareness among women of reproductive age. Social media (internet) influenced climate change awareness among women of reproductive age in Ekiti State.

### Discussion

The study revealed that the level of climate change awareness among women of reproductive age in Ekiti State was low. The presumed reason for this finding might be because of the ineffectiveness of mass media in disseminating adequate information about climate change. This finding is in consonance with the finding of Pew Research Center (2015), who found that large majorities of respondents, especially women from developing countries such as Pakistan, Indonesia, Nigeria, and Egypt have low awareness of climate change.

The study also reported that there was a significant relationship between mass media and climate change awareness among women of reproductive age. This implies that if mass media is well utilized, it could create climate change awareness among the populace, which included women. It was further revealed that there was a significant influence of print media on climate change awareness among women of reproductive age. This implies that print media will influence climate change awareness among the women. This finding aligned with the findings of Duggan (2015) and Boykoff (2009), who concluded the print media is very effective in propagating climate change awareness.

The study revealed that there was a significant influence of broadcast media on climate change awareness among women of reproductive age. The broadcast media had been in existence since the creation of man and it has proved in this study to be a good medium of creating awareness. Boykoff (2009) reported that there is less coverage of climate change by broadcast media but concluded that broadcast media is very effective in broadcasting climate change issues as it will go a long way to influence climate change awareness among the people.

Conclusively, it was revealed that there was a significant influence of social media (internet) on climate change awareness among women of reproductive age. Grasso (2016) and Weingart (2010) opined that social media had become a primary source of information. Confirming the potency of social media, Nalewajek and Macik (2013) confirmed that social media allows ideas to spread faster than print media or broadcast media. Ogunjinmi, Sunday, Ogunjinmi and Adekoya (2016) concluded that social media influences climate change awareness among the citizenry than other forms of mass media. However, the finding of this study on social media was contradicted by Piccolo and Alani (2015), who reported that social media is not yet considered as a strong channel of information on climate change.

### **Conclusion**

Sequel to the findings of this study, it was concluded that the level of climate change awareness among women of reproductive age in Ekiti State was low. The study concluded that mass media would go a long way to create climate change awareness among women of reproductive ages since print media, broadcast media, and social media influenced climate change awareness.

### **Recommendations**

Based on the findings of this study, the following recommendations were made.

Print media such as newspapers and magazines should place more emphasis on climate change as it affects the livelihood of women and all the activities they should engage in to adapt to climate change.

Broadcast media should regularly run adverts that could create climate change awareness. These adverts could give women more say, deeper involvement, and greater participation in climate change issues.

Agencies of government on environmental issues should put relevant information about climate change on social media platforms like Facebook, Twitter, WhatsApp, among others. Since most women of reproductive age are on social media platforms, such frequent information on climate change will positively increase their awareness.

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