

Attitude of Peri-Urban Households towards Environmental Protection in Rivers State, Nigeria

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Abstract

The study focused on the Attitude of peri-urban households towards environmental protection in Rivers State. Specifically, the study described the socio-economic characteristics of the respondents, identified areas of environmental issues, identified the peri-urban households' sources of information on environmental issues, ascertained the strategies adopted by peri-urban households for environmental protection, examined attitude of peri-urban households towards environmental protection strategies and identified the factors affecting the peri-urban household's attitude towards environmental protection strategies in the study area. Multi-stage sampling was used to select a sample of 200 respondents. Data were collected with the use of questionnaire and analyzed using frequency, percentage and mean. The hypotheses were tested using Regression Analysis and t-test and results obtained were 6.60 and 0.33 which implied that there was significant relationship between peri-urban households' sources of information on environmental issues in the study area, and there is no significant difference between peri-urban households' attitude towards environmental protection in the three senatorial district, respectively. The result revealed that 61.51% of the respondents were male, 63.0% of them were married with mean age of 47 years old. Air, water, soil and other forms of pollution ($\bar{x} = 3.57$), increased threat on public health ($\bar{x} = 3.44$), loss of biodiversity ($\bar{x} = 3.38$), ocean becoming more acidic ($\bar{x} = 3.17$), rapid and steady depletion of atmospheric ozone layer ($\bar{x} = 3.15$), increase cases of deforestation ($\bar{x} = 2.98$), etc were agreed by the respondents to be environmental degradation issues in the study area. The respondents agreed that their sources of information on environmental issues were mostly radio programmes ($\bar{x} = 3.67$), print media ($\bar{x} = 2.65$), television programmes ($\bar{x} = 3.13$), friends and neighbours ($\bar{x} = 2.89$). The strategies adopted by the respondents for environmental protection include reuse of nylon and other carry bags, protect and use natural resources in an appropriate and cost effective manner. The factors affecting respondents attitude towards environmental protection were media and family influence. It was recommended that Peri-urban, urban and rural dwellers should adopt the various environmental protection strategies to ensure the safety of the environment.

Key words: Attitude, Peri-urban households, Environmental Protection.

Introduction

The rate at which the human environment is deteriorating on daily basis is unarguably worrisome. It is totally disappointing that in spite of the several important role played by the environment in sustaining and beautifying human existence, man have continued to display varying dispositions towards actions aimed at protecting the living environment (Akintunde, 2017). Environmental protection efforts have continued to suffer heavy setbacks. This is because human attitude towards it have received limited attention. Pressure on the environment from the impact of billions of people has become a global concern. Living systems across the globe is steadily falling; earth's biota is witnessing unprecedented challenges ranging from direct depletion of human and non-human life, to indirect depletion caused by altering earth's chemical and physical environment. The current trend of environmental degradation events have never been on records (Sinisa, 2018).

Brunner and Baccini (1992) in their work, concluded that for the past decades, environment protection has always been practiced by man, in one form or the other. Historically, international, federal, state and local governments have enacted laws and regulations to enforce environmental protection. Environmental protection are human efforts geared towards environmental conservation, the control and prevention of harmful impacts on the environment, the mitigation of environmental pollution, improvement, remediation and degradation; the response to environmental emergencies, adequate extraction and use of natural resources aimed at maintaining a healthy environment (Standford and Worsfold, 2005).

Attitudes are acquired tendencies to react to subject or object. Attitudes function to offer path to successive engagements (Hausbeck, Milbrath and Enright, (1992). Hence, from this perspective, environmental attitude is acquired disposition or tendencies to respond consistently favourable or unfavourable towards the environment or environmental issues. Although attitude is a personal tendencies, studies (Adedapo, Sawant, Kobbat and Bhise 2014; Fabiyi, Obaniyi, Olukosi and Oyawoye, 2015) have shown that variety of variables are responsible for influencing the attitude of people towards a given subject or objects.

In Nigeria, there is holistic misconception that people hold concerning environmental protection, in which they view the act as government's responsibility. Peri-urban households in Rivers State generally show varying tendencies towards environmental protection. This can be seen in their different actions to issues relating to maintaining a healthy environment (Fabiyyi, Obaniyi, Olukosi and Oyawoye, 2015). According to Akintunde (2017), more of the negligence on environmental protection can be seen in the activities of small and medium scale businesses as well as individuals in peri-urban centers of Rivers State. This calls for greater actions aimed at salvaging the ecosystem.

1.1 Objective of the Study

The main objective of this study was to assess attitude of peri-urban households toward environmental protection in Rivers State, Nigeria.

The specific objectives were to:

- i. describe the socio-economic characteristics of peri-urban households in Rivers State;
- ii. identify areas of environmental issues;
- iii. identify the peri-urban households' sources of information on environmental issues;
- iv. ascertain the strategies adopted by peri-urban households towards environmental protection;
- v. examine the attitude of peri-urban households towards environmental protection strategies; and
- vi. identify the factors affecting peri-urban households' attitude towards environmental protection strategies in the study area.

Research Methodology

The research was conducted in Rivers State. Rivers State is primarily coastal pluvial state in Southern Nigeria. The state is located at the eastern part of the Delta region. It was created in 1967 out of the formerly known Eastern region. The state is made up of over 6 million people cut across its 23 Local Government Areas (LGAs) making it the sixth most populous state in Nigeria (National Population Commission, 2006). Rivers State has two major topographical divisions of riverine (coastal) and upland areas.

The population of this study comprised all household representatives in Rivers State. The 2006 population census documented a total population of 5,198,716 for Rivers State (National Population Commission, NPC, 2006). The study employed a multi-stage sampling procedure to select sample for the study. In the first stage, one LGA was purposively selected from each of the 3 senatorial zones of the state, making a total of 3 LGAs for the sample. This was done based on the peri-urban nature of the LGAs selected. The selected LGAs for the study according to their senatorial district are Rivers East, (Ikwerre), Rivers South-East (Oyigbo) and Rivers South (Degema). In the second stage, 4 communities were also selected using purposive sampling technique based on peri-urban features/characteristics from each of the selected LGAs giving a total of 12 communities for the study. Finally, households' representatives were proportionately selected from the selected communities to make a total of 200 participants for the study. The instrument for this study was structured questionnaire. Data were collected by administering the questionnaire to heads of households. The instrument was divided into six (6) sections with each section eliciting information based on the study objectives. Data for the study were analyzed using descriptive statistics such as frequency, percentage, mean and Inferential statistics such as simple regression, Analysis of Variance (ANOVA) and t-test.

Results and Discussion

Socio-Economic Characteristics of Peri-Urban Households in Rivers State

Table 1 reveals that majority (61.5%) of the peri-urban households in Rivers State were male and 38.5% were female. The table also shows that 34.5% of the respondents were within the age bracket of 36-45 years with the mean age of 47 years. This is in line with the findings of Oluwatayo et al (2012); and Anyawo and Agwu (2015), who documented the same average age among families in Nigeria. This implies that peri-urban household were in their active year of interaction with the environment. Man, according to Okoli et al (2003), interact with the environment in a number of ways, the result of such interaction is seen in the cultural landscape of the geographical locations. The table also revealed that majority (63.0%) of the

respondents were married, this implies that greater number of peri-urban households live as husband and wife for raising families.

The household size revealed that more than half of the respondents (59.0%) had a family size of about 4-6 persons and average household size was 7 persons. This is an indication that peri-urban areas in Rivers State had relatively high household size. The finding is similar to that of Akinusi, Sodiya and Adamu (2018) who said that large households could exert greater impact on the environment. Usman, Salihu and Musa (2016) opined that large household size is a human capital available for environmental transformation. The table also revealed that 38.5% of the respondents attained secondary and 38.5% had tertiary education, this implies that more of the peri-urban households had attained higher levels of education. It has been reported that higher education attainment is tantamount to increased knowledge and better environmental interaction attitude (Akinnusi and Sodiya, 2013). The table further revealed that 25.5% of peri-urban households were civil servants, 20% were into trading as occupation, this indicates that majority of peri-urban households in Rivers State are engaged in environmental interactions for productive ventures (Udoh et al 2005), the table also revealed that 20.5% of the respondents' monthly income ranged between N30,000 – N50,000 and N50,000 – N70,000, respectively, with an average monthly income of N40,000. This implies that the poor monthly income of peri-urban households accounts to the high rate of poverty that is witnessed across the state. Studies by (Ucha (2010) and Asadu, Ozioko and Dimelu (2018) have shown that over 70% of Nigeria's population lives in less than one dollar per day. Further, the table revealed that majority (62.5%) of the respondents has lived in the area for over seven years. This implies that most of the respondents have had greater interaction with the environment owing to the length of stay in the location.

Table 1: Socio-economic characteristics of the respondents

| Sex | Frequency (n =200) | Percentage | Mean |
|--------------------------|-------------------------------|-------------------|-------------|
| Male | 123 | 61.5 | |
| Female | 77 | 38.5 | |
| Age | | | |
| 16-25 | 17 | 8.5 | |
| 26-35 | 39 | 19.5 | |
| 36-45 | 69 | 34.5 | 47 |
| 46-55 | 48 | 24.0 | |
| 56- and above | 27 | 13.5 | |
| Marital Status | | | |
| Single | 48 | 24.0 | |
| Married | 126 | 63.0 | |
| Divorced | 9 | 4.5 | |
| Widow/Widower | 17 | 8.5 | |
| Household Size | | | |
| 1-3 | 26 | 13.0 | 7 |
| 4-6 | 118 | 59.0 | |
| 7-9 | 52 | 26.0 | |
| 10- and above | 4 | 2.0 | |
| Educational Level | | | |

| | | | |
|-----------------------------------|-----|------|---------------|
| Non-Formal | 30 | 15.0 | |
| Primary | 16 | 8.0 | |
| Secondary | 77 | 38.5 | |
| Tertiary | 77 | 38.5 | |
| Occupation | | | |
| Student | 14 | 7.0 | |
| Farming | 28 | 14.0 | |
| Fishing | 27 | 13.5 | |
| Civil/Public Service | 51 | 25.5 | |
| Trading | 40 | 20.0 | |
| Artisan | 30 | 15.0 | |
| Unemployed | 10 | 5.0 | |
| Income Per Month(₦) | | | |
| Less than 10,000 | 19 | 9.5 | |
| 10,000-30,000 | 63 | 31.5 | |
| 30,000-50,000 | 40 | 20.0 | 40,000 |
| 50,000-70,000 | 41 | 20.5 | |
| 70,000-90,000 | 29 | 14.5 | |
| 90,000 – and above | 8 | 4.0 | |
| Length of Stay in Location | | | |
| >1 year | 6 | 3.0 | |
| 1-3 years | 21 | 10.5 | |
| 4-6 years | 48 | 24.0 | |
| 7- and above | 125 | 62.5 | |

Source: Field Survey, 2021.

Areas of Environmental Issues in Peri-Urban Locations in Rivers State

Table 2 shows the distribution of the respondents according to areas of environmental issues in peri-urban areas of Rivers State. The table revealed that environmental pollutions ($\bar{x} = 3.57$), release of acid rain as rainfall ($\bar{x} = 3.56$), increased threat on public health ($\bar{x} = 3.44$), loss of biodiversity ($\bar{x} = 3.38$), ocean becoming more acidic ($\bar{x} = 3.17$), rapid and steady depletion of atmospheric ozone layer ($\bar{x} = 3.15$), increased cases of deforestation ($\bar{x} = 2.98$), increased level of drought and desert encroachment ($\bar{x} = 2.95$), and cases of rising sea level and flooding ($\bar{x} = 2.93$) were environmental issues. This implies that the peri-urban areas in Rivers State are faced with several environmental issues such as stated above. Maurya, Ali, Ahmad, Zhou, Castro, Khan and Ali (2020) observed that loss of biodiversity has remained one of the major environmental issues in recent times. The authors stressed that loss of biodiversity has continued to witness decline in a number of component of the biodiversity.

Air pollution is a common environmental issue in Rivers State. The environmental atmosphere is heavily polluted with harmful particulate matter and gases which pose serious threat to the people living in the area. Maurya et al (2020) noted that the unfavourable environmental condition is occasioned by series of human activities. The presence of black soot in the Rivers State is a wide spread and known environmental issue. Godwin (2022) reported that following recent increase in activities of illegal oil refineries and bunkerers, there is fear in Rivers State that this may cause a surge of deadly black soot in the

atmosphere. The report noted that since the prevalence of pollution and the inhalation of carcinogens due to black soot, public health is in danger. Ahaman (1997) noted that floods as environmental issue occurred almost every year in certain parts of Nigeria. The author stressed that the situation is usually annually in Port Harcourt metropolis and her peri-urban centres, causing devastating effect on lives and properties. The study revealed a grand mean score of 3.18 which shows that the respondents agreed that these were the major areas of environmental issues in their various locations.

Table 2: Areas of Environmental Issues

| Environmental Issues | Strongly Agreed (4) | Agreed (3) | Disagreed (2) | Strongly Disagreed (1) | Total Score (n=200) | Mean (\bar{x}) | Remark |
|---|---------------------|------------|---------------|------------------------|---------------------|--------------------|--------|
| Environmental pollution are issues of environmental degradation. | 134 | 52 | 8 | 6 | 714 | 3.57 | Agreed |
| Desertification and drought is springing up due to environmental degradation. | 53 | 91 | 49 | 7 | 590 | 2.95 | Agreed |
| Cases of rising sea level and flooding. | 70 | 62 | 51 | 17 | 585 | 2.93 | Agreed |
| Feeling of increase in temperature is disturbing. | 55 | 49 | 63 | 3.3 | 526 | 2.63 | Agreed |
| Ocean is becoming more acidic | 102 | 51 | 27 | 20 | 635 | 3.17 | Agreed |
| Case of deforestation is on the increase | 68 | 75 | 42 | 15 | 596 | 2.98 | Agreed |
| The ozone layer is experiencing rapid depletion. | 71 | 94 | 28 | 7 | 629 | 3.15 | Agreed |
| The environment is steadily losing its biodiversity. | 94 | 92 | 10 | 4 | 676 | 3.38 | Agreed |
| Acidic rain | 129 | 59 | 7 | 5 | 712 | 3.56 | Agreed |
| Public health is being threatened. | 117 | 63 | 10 | 10 | 687 | 3.44 | Agreed |
| Mean | | | | | | 3.18 | |

Source: Field Survey Data, 2021.

Sources of Information on Environmental Issues

Table 3 shows that Information on environmental issues were mostly from radio programmes ($\bar{x} = 3.67$), print media (newspaper, posters, magazines and others, ($\bar{x} = 2.65$), television (3.63) community leaders (2.54), friends and neighbour ($\bar{x} = 2.89$). WhatsApp, facebook and other social media platforms ($\bar{x} = 2.45$), environmental agents ($\bar{x} = 2.13$),

churches, mosques, and other religious organizations ($\bar{x} = 2.36$), meteorological agency were minor sources of information for peri-urban household in Rivers State.

The findings contradicts the claim that meteorological agency, environmental agents and higher institutions played significant role in disseminating environmental information. Bhagooli and Kaullysing (2019). Conventionally, meteorological agency, higher institutions and environmental agents are expected to provide the public with adequate and timely information on environmental issues. This suggests that these establishments and bodies are not living up to their expectations. This is in line with the report of Singh et al (2018), that meteorological service in Nigeria and other countries are similar to that of United States which is primarily to generate and disseminate environmental information for the benefit of public safety and national commerce. The study revealed a grand mean score of 2.67 which shows that the respondents got information from different source.

Table 3: Sources of Information on Environmental Issues

| Information Sources | Strongly Agreed (4) | Agreed (3) | Disagreed (2) | Strongly Disagreed (1) | Total Score (n=200) | Mean (\bar{x}) | Remark |
|--|---------------------|------------|---------------|------------------------|---------------------|--------------------|-----------|
| Metrological agency. | 10 | 34 | 84 | 72 | 382 | 1.91 | Disagreed |
| Friends, neighbours, family members and relatives | 26 | 137 | 26 | 11 | 578 | 2.89 | Agreed |
| Higher institution | 32 | 55 | 88 | 25 | 494 | 2.47 | Disagreed |
| Newspapers, posters, magazines and other print media | 57 | 60 | 56 | 33 | 553 | 2.65 | Agreed |
| Television. | 147 | 36 | 12 | 5 | 725 | 3.63 | Agreed |
| Religious organizations | 21 | 66 | 77 | 36 | 472 | 2.36 | Disagreed |
| Radio programmes. | 153 | 35 | 4 | 8 | 733 | 3.67 | Agreed |
| Community leaders. | 30 | 86 | 46 | 38 | 508 | 2.54 | Agreed |
| Social media | 26 | 69 | 75 | 30 | 491 | 2.45 | Disagreed |
| Environmental taskforce | 18 | 59 | 53 | 70 | 425 | 2.13 | Disagreed |
| Mean | | | | | | 2.67 | |

Source: Field Survey Data, 2021.

Strategies for Environmental Protection

Table 4 shows the distribution of the respondents according to the strategies they employed for environmental protection. The table revealed that majority (70.0%) of the respondents did not reuse nylon and other carry bags often, 57.0% did not use compost heap/bin to recycle waste food and other biodegradable materials, 68.5% of the respondents does not educate, and mobilize people to participate in environmental protection practices, keep the environment clean and protect natural landscapes and biodiversity, 76.0% of the respondents did not put left-over chemicals or used condemn oil into the drain, toilet or the water body and majority (84.5%) of the respondents protect and use natural resources in an appropriate and cost-effective manner.

About 72.5%, 63.0% and 54.5% of the respondents only disposed wastes after separating them into biodegradable and non-biodegradable waste materials, avoid and discourage burning of waste especially plastics to avoid polluting gases escaping into the atmosphere, and practice and encourage planting of trees occasionally, respectively. This is in harmony with the findings of Ajani, Mgbenka and Okeke (2013); Albert, and Isife (2013) who reported that agro-forestry and other environmental friendly practices are adopted by households to moderate soil temperature, conserve soil moisture and protect the environment from harmful occurrences.

Table 4: Strategies for Environmental Protection

| Environmental Protection Strategies | Frequency (n = 200) | Percentage % |
|--|------------------------|-----------------|
| Reuse of nylon and other carry bags often | 60 | 30.00 |
| Use of compost heap/bin to recycle waste food and other biodegradable materials | 86 | 43.00 |
| Avoid of wasteful and unnecessary packing of products | 176 | 88.00 |
| Practice and encouraging planting of trees | 109 | 54.50 |
| Dispose of waste after separating them into biodegradable and non-degradable waste materials | 145 | 72.50 |
| Avoid and burning of waste, especially plastics to avoid polluting gases escaping into the atmosphere | 126 | 63.00 |
| Putting of left-over chemicals or used condemn oil into the drain, toilet, or the water body | 48 | 24.00 |
| Communicate, educate and mobilizing of people to participate in environmental protection practices, keep the environment clean, and protect natural landscapes and biodiversity. | 63 | 31.50 |
| Protecting and uses of natural resources in appropriate and cost-effective manner | 31 | 15.50 |
| Contribute financially and intellectually to environmental protection activities. | 42 | 21.00 |

Source: Field Survey data, 2021.

Attitude of the respondents towards Environmental Protection

Table 5 shows the respondents' distribution according to their attitude towards environmental protection. The table revealed that the Peri-urban households enjoyed participating in environmental protection activities ($\bar{x} = 3.14$) and are interested in protecting the environment ($\bar{x} = 3.32$). Also, they indicated that conserving water is an important and healthy lifestyle ($\bar{x} = 2.63$). The table also revealed that the respondents agreed that watching and listening to environmental protection talk shows on television and radio as well as other platforms is exciting, $\bar{x} = 2.77$ and $\bar{x} = 2.72$, respectively.

The findings indicate that peri-urban households in Rivers State show a positive attitude towards environmental protection. The respondents enjoyed participating in environmental protection activities probably because they see it as a means of safeguarding their natural dwelling place. Yousuf and Bhutta (2012) have shown that humans have channeled their efforts and resources towards ensuring a safe and clean environment. Having interest in environmental protection is a strong indication that they have positive attitude towards protecting the environment. Interest is a strong motivational factor that influences man to either carry out an action or not. According to Mutisya and Barker (2011), interest is an attitudinal objective for actively participating in environmental protection and improvement.

The table further revealed that the respondents agreed that attending seminars and other educative and informative programs on environmental safety is worthwhile ($\bar{x} = 2.70$). This implies that peri-urban households in the study area are usually satisfied with effort and other investments they make toward acquiring the necessary information that can lead to protecting their environment. The study revealed a grand mean score of 2.60 which shows that the respondents adopted a positive attitude towards environmental protection in the study area.

Table 5: Respondents' Attitude towards Environmental Protection

| Environmental Protection Attitudes | To a very great extent (4) | To a great extent (3) | To a little extent (2) | To a no extent (1) | Total Score (n=200) | Mean (\bar{x}) | Remark |
|--|-----------------------------------|------------------------------|-------------------------------|---------------------------|----------------------------|------------------------------------|---------------|
| Participating in environmental protection activities is enjoyable | 61 | 109 | 27 | 1 | 626 | 3.14 | Agreed |
| Interested in protecting the environment | 77 | 109 | 14 | 0 | 663 | 3.32 | Agreed |
| Conserving water is important | 39 | 70 | 68 | 23 | 525 | 2.63 | Agreed |
| There are enough laws to protect the environment | 41 | 57 | 53 | 49 | 490 | 2.45 | Disagreed |
| Opposing any governmental regulation on environmental protection that would restrict way of life | 9 | 26 | 19 | 146 | 298 | 1.49 | Disagreed |
| Enjoying watching TV program related to environmental protection | 38 | 86 | 67 | 9 | 553 | 2.77 | Agreed |
| It makes no difference to | 27 | 25 | 75 | 72 | 405 | 2.03 | Disagreed |

| | | | | | | | | |
|---|-----|-----|----|----|-----|-------------|-----------|--|
| participate in environmental protection practices | | | | | | | | |
| Reading pamphlets, magazines, posters and other print media on environmental protection is enjoyable | 33 | 80 | 63 | 24 | 522 | 2.61 | Agreed | |
| Caring much about the wellbeing of the environment | 70 | 100 | 20 | 10 | 630 | 3.15 | Agreed | |
| Thinking of land pollution is unnecessary | 28 | 25 | 68 | 79 | 402 | 2.01 | Disagreed | |
| Destroying of all insects because they do harm to human and crops | 129 | 41 | 17 | 13 | 686 | 3.43 | Agreed | |
| Environmental wellbeing does not have to do with human actions | 15 | 54 | 61 | 70 | 414 | 2.07 | Disagreed | |
| Listening to environmental agent's talk on environmental wellbeing is exciting | 29 | 97 | 62 | 11 | 542 | 2.72 | Agreed | |
| Attending seminars and other educative and informative programs on environmental safety is worthwhile | 31 | 93 | 60 | 16 | 539 | 2.70 | Agreed | |
| Mean | | | | | | 2.60 | | |

Source: Field Survey Data, 2021

Factors Affecting Peri-urban households' Attitude towards Environmental Protection

Table 6 shows respondents' distribution according to the factors affecting their attitude towards environmental protection. The table reveals that group influence as a factor did not affect the majority (83.5%) of the respondents attitude towards environmental protection. This contradicts the report of Windapo and Afolayan (2011) who opined that one important characteristics of group is their ability to pressurize individual. This implies that peri-urban households attitude towards environmental protection is independent of external forces from their group. Also, the table revealed that opinion leaders did not affect attitude of majority (76.0%) of the respondents towards environmental protection. This indicates that actions of peri-urban households in the study area towards environmental protection were not affected by the presence of opinion leaders. Conventionally, opinion leaders are known to influence the attitude of individuals in certain areas of life (Nwachukwu, 2010). Also religion did not affect the attitude of the respondents towards environmental protection, this support the above claim that group influence does not affect their attitude towards environmental protection. This may imply that religious groups do not do much in shaping members attitude towards environmental protection. On the other hand, media and family affected 81.5% and 55.0% of the respondents, respectively. Fabiyi et al (2015) noted that family is a medium for nurturing the individual's attitude. According to Mohammad and Zili (2011), family acts as the most powerful base through which attitudes are formed and these attitudes formed from the family base are very difficult to change. Trivedi, Patel and Acharya (2018) reported that media are also used for shaping household's attitude towards environmental well- being the authors maintained that media as a means of communication has a major influence in altering people's attitude.

Table 6: Factors Affecting Peri-urban households' Attitude towards Environmental Protection

| Factors | Frequency (n = 200) | Percentage % |
|--|------------------------|-----------------|
| Group influence | 33 | 16.50 |
| Opinion leaders | 48 | 24.00 |
| Level of education | 37 | 18.50 |
| Religion | 138 | 69.00 |
| Personal experience | 42 | 21.00 |
| Families | 110 | 55.00 |
| Media | 162 | 81.00 |
| Physical health and vitality | 55 | 27.50 |
| Occupation and economic status | 32 | 16.00 |
| Direct instruction from friends and neighbours | 96 | 48.00 |

Source: field survey data. 2021

However, occupation and economic factor does not affect the attitude of 84.0% of the respondents towards environmental protection in the study area. This contradicts the report of Mohammad and Zili (2011) who stated that households' economic and occupational position

also contributes to attitude formation, stressing that they influence individual's attitude towards environmental protection laws, policies while Isife et al (2016) and Elenwa et al (2019) observed that income, household and education influences ones attitude.

Hypothesis

The following hypothesis was tested :

There is no significant relationship between the socio-economic characteristics of peri-urban households and their attitude towards environmental protection in Rivers State

Table 7 shows regression result on the test of significant relationship between the socio-economic characteristics of peri-urban households' and their attitude towards environmental protection in the study area. The table revealed that rural households' age and educational level were significantly related to the attitude towards environmental protection, with P-values of 0.031 and 0.000 respectively at alpha level of 0.05 whereas, the respondents' sex, occupation and marital status, income per month, household size and length of stay in present location not significantly related to their attitude with respective P- values of 0.931, 0.473, 0.352, 0.593, 0.336, and 0.450, the R-square value of 0.154 confirm this. This result is in line with the work of Zarrintaj, Sharifah and Ab- dul (2011) and Elenwa and Emodi (2019) who reported that age and level of education are statistically significant in relationship to attitude towards environment.

Table 7 Test of Relationship between Socio-Economic Characteristics of Peri-Urban Households and Their Attitudes towards Environmental Protection in Rivers State.

| Model and Fitness | Summary Parameters | Linear regression (OLS) |
|-----------------------------|-----------------------------|-------------------------|
| | R | 0.393 |
| | R-square | 0.154 |
| | Adjusted R- square | 0.119 |
| | F-ratio | 4.356 |
| | P. value of F-ratio | 0.000 |
| Coefficient estimate | Variables | |
| X ₁ | Sex | -0.005 (0.931) |
| X ₂ | Age | -0.066 (0.031)* |
| X ₃ | Education | 0.116 (0.000)* |
| X ₄ | Occupation | -0.011 (0.473) |
| X ₇ | Household size | 0.040 (0.336) |
| X ₈ | Length of stay in community | 0.025 (0.450) |

Source: Field Survey data, 2021 *P ≤0.05 = Significant, P > 0.05 = Not Significant

Conclusion and Recommendation

The major environmental degradation issues in the study area were air, water, soil and other forms of pollution, cases of rising sea level and flooding, depletion of atmospheric ozone

layer leading to feeling of increase in atmospheric temperature, loss of biodiversity and worst of it all, threat on public health. Sources of information on environmental issues were agreed to include newspaper, posters, magazine and other print media, television and radio programmes, WhatsApp, facebook, and other social media platforms. Environmental protection strategies adopted in the study area were dispose of waste after separating into biodegradable and non-degradable waste materials, the respondents protects and use natural resources in appropriate and cost effective way or manner. Majority of the respondents shows positive attitude towards environmental protection, factors identified to affect households attitude towards environmental protection by the majority of the respondents include; family, media, physical health and vitality. Based on the findings from this study, the following recommendations were made. Government and NGOs as well as individuals in their respective capacities should address the issues of environmental degradation appropriately to ensure safe environment. Since information is needed to make informed decision on environment, adequate information on environmental protection should be adequately supplied to peri-urban households'. Peri-urban households' and residence of other areas should adopt the various environmental protection strategies to safeguard the environment. People should have and maintain positive attitude towards the environment, to protect the environment from total collapse.

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