

**PUBLIC VIEWS ON CLIMATE CHANGE IMPACT AND THE ENJOYMENT OF
HUMAN RIGHTS**

A CASE STUDY IN PORT LOKO CITY

NORTH-WEST REGION SIERRA LEONE

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Abstract

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The study aimed to examine the public views on climate change impacts and the enjoyment of human rights in Port Loko City, North West region Sierra Leone. The world's climatic conditions have led to many unforeseen occurrences globally. The world is witnessing one of the perils of climate change impacts in diverse places. The rise in sea level, surface temperature, ocean acidity and the effects of the green house gases have led to serious threatened impacts leading to loss of lives, natural resources, ecosystems, physical infrastructures and environmental degradation thereby posing serious threat to the enjoyment of human rights in-terms of accessing to food, clean water and other key resources to support human life. The quantitative method of inquiry was used. Overall fifty (50) participants were chosen to represent in this study through the use of convenience sampling. Structured interviews surveys were used to collect data from participants of the study. The descriptive analysis method was employed to give meaning to the data collected through the representation of tables and pie chart. The empirical findings shows that climate change impacts posed threat in the areas of accessing to water, increase temperatures, declining food and fish production and causing flooding that leads to

displacements. For solutions, the finding shows that, embarking on planting trees, discouraging charcoal burning, increasing the participation of community members through sensitization and using renewable source of energy instead of fossil fuels are better ways of mitigating and adapting to climate change impacts.

In conclusion, the author calls on all governmental and non-governmental sectors and departments to consider climate change as key area of deliberations.

Key words: *climate change, impacts, threats, human rights, enjoyments*

Introduction

Shifts in the world's climatic conditions have led to many unforeseen occurrences globally. The world is witnessing one of the perils of climate change impacts in diverse places. The rise in sea level, surface temperature, ocean acidity and the effects of the green house gases have led to serious threatened impacts and loss of lives in many parts of the world. These observed changes in the climate are as a result of climate forcings caused by volcanic activities, solar variability and changes in the carbon cycle. As the trend continues, many negotiations have been made by world leaders in order to promote policies for both mitigation and adaptation of climate change impacts. Among these negotiations are: the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement respectively. Despite the efforts made through different negotiations in trying to curtailing climate change impacts, reports made by the Intergovernmental Panel on Climate Change (IPCC) pointed out that unless urgent actions are made in order to curb the emission of green house gases, without that, irreplaceable damages will be done on the earth ecosystems with major implications having on human rights (Wewerinke, 2015). Also, the report stated that, developing nations suffered the most of these impacts rather than developed nations who reap the most benefits from the green house gas producing activities((Wewerinke, 2015). Climate change has enormous threat to the lives and wellbeing of people and communities across the world (UNEP report, 2015). According to the Intergovernmental Panel on Climate change (IPCC)'s fifth Assessment Report (AR5) it clearly predicted climatic changes that will adversely affect millions of people, natural resources, ecosystems and physical infrastructures; these harmful threats including environmental degradation and sudden-onset events that pose a direct threat to human lives and safety that will

undermine access to food, clean water and other key resources that support human life (IPCC, report 2014). In consequent of this, climate change will have profound effect on the enjoyment of human rights for billions of people (UNEP report, 2015). Also, according to the Oxfam report in (2015), the report presented that climate change is already contributing to drought, food shortages and ecosystem degradation across the world. In addition, Anthony Oliver Smith in his study in 2009 also pointed out that some of the regions are hit harder than others, with more clearly attributed to climate change, like sea level rise causing flooding that has adverse effect on people's safety and livelihood of many coastal inhabitants.

Sierra Leone is located in the West Coast of Africa, with a land area of 72,300km². The current population of the country is approximately 8,349, 189 (Worldometer report, 2022). Sierra Leone is one of the poorest countries in the world, and has faced multiple risks from climate change that threaten the economic sectors and increase the potential for wider environmental degradation (CRM Fact sheet, 2016). The increased high level of precipitation of rain fall in the country has exacerbated serious impacts. Floods accounts 85% of disaster-related mortality in the country, followed by landslide and storms (CRM Fact sheet, 2016). Flooding during the rainy season mostly affect the urban parts of the country, which has lead to loss of lives and properties. Also, the recurrent flooding increases exposure to waterborne diseases, more intense dry season with increased temperatures in the north and west have linked to reduced water quality and disease outbreak(CRM Fact sheet, 2016). Cholera and malaria are mostly some of the frequent diseases that pose threat to the lives of people in the country. The mudslide of 2017 and subsequent disasters happening within Freetown the capital city are some of the negative impacts of climate change in the country. Having got a background of this study, the study therefore **aimed** to examine the public views on climate change impacts on the enjoyment of human rights in Port Loko City, North West region Sierra Leone.

The author chose the following research questions in order to guide the conduct of this study:

- i. What are the impacts of climate change on the enjoyment of human rights?
- ii. What are the measures to minimize or reduces the impacts of climate change on human rights?

Methodology

The study used a quantitative research design. This was because of the nature of the results gathered. The data collected was purely involving statistical representations, and using a quantitative research design was the best option.

Description of the study area, Port Loko City is a capital to Port Loko District, a district in the north-west region of Sierra Leone. Port Loko district is the most populous among the districts in the north-west region, according to the 2015 statistics, the district has a population of 614, 063 people residing within the district, with eleven (11) chiefdoms (Pratt, 2016). The largest population of the district is found in Port Loko City, the headquarter town of the district. The district border Freetown the western area to the west, whereas for Kambia to the north, while for Bombali District in the east and finally, Tonkolili in the south (Pratt, 2016). The district as a whole occupies a total area of 5,719 km² (Pratt, 2016). On the climatic conditions of Port Loko district, overall the district has a yearly temperature of 28.01⁰C (82.42⁰F) and it is 0.4% higher than Sierra Leone's averages; also Port Loko typically receives about 259.96 millimeters(10.23 inches) of precipitation and has 201.45 rainy days(55.19% of the time) annually (Port Loko, North Western Sierra Leone Climate report, 2023).

Overall, fifty (50) participants were chosen for this study. Among these population, 25 were men and the other 25 were women. This was done in order to prevent biasness in the representation of participants in the study. The convenience sampling design was used in this study to select participants. The author decided to choose this sampling design, because of the fact that participants of the study were chosen only based on how convenient and ready they were to participate in the study. Questionnaires were distributed to these 50 participants of this study. The questions in those questionnaires were framed in the form of closed ended questions, where the participants were at their liberty to tick the options applicable to them. The questionnaires distributed some were self- administered by the participants and others were administered by the author to the participants. The author follow-up on those questionnaires sent out to some participants after a week from the time the participants received the questionnaires.

After the collection of the data, the author used the descriptive data analysis in order to represent the responses of the participants using pie charts and tables. These pie charts and tables were

followed with descriptions directly connected to the responses contained in those tables and pie charts. This is in line with the work of Allen & Barbie, (2007), where they described descriptive analysis a process where the researcher describes or summarize the characteristics of a sample data or form a collection of information.

For the issues of reliability and validity of the study, the author also followed the consistency of measurement in the study. For instance, the author made sure that the aim and the research questions were consistently the same, and also the questionnaires used were also in line with the aim and research questions. Then, also the author acknowledged that the results were reliable and any other study can replicate the results. On the area of validity, the author indeed made sure that, the study measured what it supposed to measure. To testify this, the results of the study prove to the fact that, the author really measured the phenomenon been studied.

In addition to this, the author kept the issues of ethics so strongly in this study. The participants were duly informed about their participations to this study. The author pointed out clearly to them about voluntary participation through informed consent, upholding confidentiality, keeping their identity anonymous and proper handling of the information they provided.

Finally, the author met with some challenges during the course of conducting this study. First and foremost, the author did not receive any funding support, but instead used his personal money for transportation, printing of questionnaires and final copies. Also, as an NYSC Corp member, the author faced the challenge of working at the same time conducting the study.

Results

The following shows the empirical results from 50 participants interviewed and analyzed. Section A of the questionnaire contained the profiling of the participants, while section B was made up of questions relating to the aim and research questions

Profile of participants

Table 1. Gender

| Gender | Frequency | Percentages |
|---------------|------------------|--------------------|
| Male | 25 | 50 |

| | | |
|--------|----|----|
| Female | 25 | 50 |
|--------|----|----|

The table above showcased the participants used in this study. 25 men and 25 women showed the equality of participation in the study.

Table 2. Marital status

| Marital status | Frequency | Percentages |
|----------------|-----------|-------------|
| Married | 25 | 50 |
| Single | 25 | 50 |
| Divorce | - | - |
| Separated | - | - |

As indicated above, there was a shared population between the married and singles among participants in the study. There were 25 married and 25 singles men and women represented in the study.

Table 3. Occupation

| Occupation | Frequency | Percentages |
|---------------------------|-----------|-------------|
| Teacher | 7 | 14 |
| Businessmen and women | 12 | 24 |
| Student | 15 | 30 |
| Government servant | 6 | 12 |
| NGO worker | - | - |
| Volunteer | 9 | 18 |
| Religious leader(pastor) | 1 | 2 |

The study used different participants from different fields or professions during the collection of data. In analyzing the table above, the students population has the highest representation of 15 participants making up 30%, next to them were the business men and women, who had a representation of 12 participants also making up 24%. Also, volunteers amounted to 9 participants with 18% representation, along the line also, the teachers had 7 participants with 14% of representation. Also important still there were 6 government servants representing 12% of the total number of participants. Finally, the least representation were religious leaders, that had 1 participants constituting 2%.

Section B is made up of empirical results in connection to the aim and research question of this study.

Table 4: Impacts of climate change on human rights

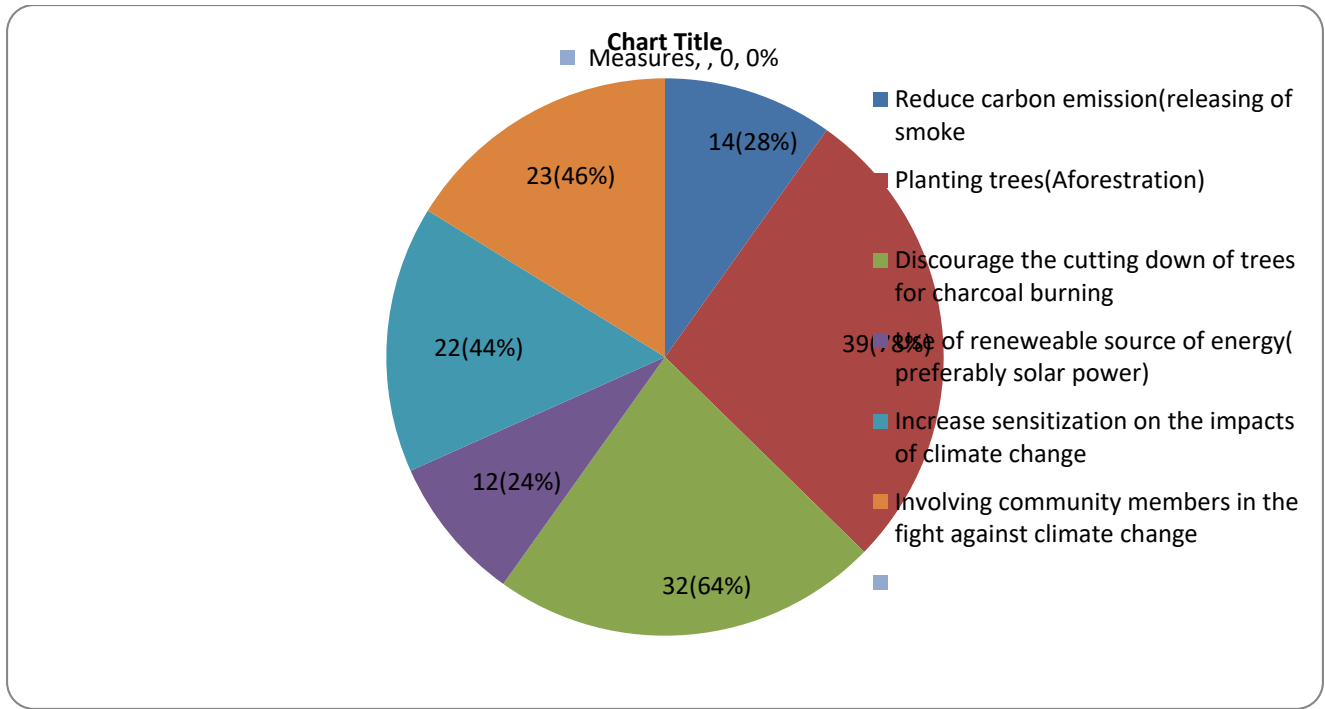
| Impacts | Strongly agreed | Agreed | Disagree | Strongly disagree |
|-------------------------------------|------------------------|---------------|-----------------|--------------------------|
| Reduced rain fall | 25(50%) | 17(34%) | 5(10%) | 3(6%) |
| High temperature(global warming) | 35(70%) | 9(18%) | 5(10%) | 1(2%) |
| Sea level rise(flooding) | 10(20%) | 14(28%) | 12(24%) | 14(28%) |
| Fishery production decline | 32(64%) | 12(24%) | 6(12%) | - |
| Reduce production(food insecurity) | 26(52%) | 12(24%) | 7(14%) | 5(10%) |
| Affect water supply | 29(58%) | 14(28%) | 7(14%) | - |
| Displacement due to disasters | 13(26%) | 16(32%) | 8(16%) | 13(26%) |
| Increase precipitation(rainfall) | 14(28%) | 15(30%) | 16(32%) | 5(10%) |

Survey conducted, 2023

The author chose few of the climatic impacts that have direct implication to the right to life, right to health, right to food, right to water and sanitation, right to adequate standard of living, right to property, right to housing. Therefore in analyzing these impacts, table 4 has clearly positioned their impacts corresponding to participants responses. **On the area** of reduced rainfall as an impact of climate change on human rights, 25(50%) of participants strongly agreed that climate change has reduced and change the course of rain coming in comparing to those days. Also 17(34%) of participants agreed to the option that climate change reduced rain fall, whilst 5(10%) of participants and 3(6%) of participant disagree and strongly disagree that, climate change has no impact to rainfall outcomes. **Secondly**, on the area of high temperature (global warming) as an impacts, over 35(70%) of participants strongly agreed that global warming is on the increase and it's greatly affecting them, buttressing to this, 9(18%) of participants also agreed that its indeed an impact to their survival, whereas; 5(10%) of participants and 1(2%) of participants both disagreed and strongly disagreed that global warming is never an impact to their human rights. **Moreover**, the rise of sea level (flooding) as an impact of climate change, 10(20%) of participants strongly agreed that it pose impact to their human rights, in supporting them, 14(28%) of the participants in the study also choose the option agree, in order to indicate the

impact of rise of sea level (flooding) has on their wellbeing; nevertheless 12(24%) and 14(28%) of the participants both disagree and strongly disagree that it is never an impact to their human rights, as it was hardly for flooding to happen in their places of resident. **Also**, fish production decline also as an impact, 32(64%) of participants strongly agreed that climate change has seriously decline fish production in the district, in supporting this also, 12(24%) of participants agreed to the fact that climate change has an impact to fish production and finally, only 6(12%) of participants disagree that climate change has no impact to fish production. **Furthermore**, reduce production (food security) as an impact, 26(52%) of participants attested that climate change has also constituted great reduction to food production there by creating food insecurity, 12(24%) of participants also agreed to this option, finally only 7(14%) and 5(10%) of participant both disagree and strongly disagree that climate change has no impact to food insecurity. **Also in connection** to the effect of water supply as an impact of climate change, 29(58%) of participants strongly believed that indeed climate change during the dry seasons constitute great problems to people residing in the town, in support of this also, 14(28%) of participants also supported this option, and finally only 7(14%) of the participants do not believed that climate change affect water supply in the district. **In addition to this**, displacement due to disasters was also another impact mentioned in the study, 13(26%) of the participants also strongly agreed that climate change has made most of them homeless due to the occurrence of disasters such as strong wind blowing, flooding etc Also, 16(32%) choose and also supported that indeed displacement normally happens due to disasters, while only 8(16%) and 13(26%) of the participants who did not believe that such is happening in the town. Finally, on increase precipitation (rainfall) as an impact of climate change, 14(28%) and 15(30%) both strongly agreed and agree that climate change seriously increase the rain fall volume in the district, while 16(32%) and 5(10%) strongly disagree that climate change reduced rain fall in the district as compared to previous years.

Figure 5: **Measures to be taken to reduce the impacts of climate change on human rights**



The measures to minimize or reduce the impacts of climate change on human rights enjoyment are one of the targeted areas in this study. In this section, the author gave participant six options to chose, among these options participants were given the liberty to chose as many options rather than just choosing one option. However, the analysis from Figure 5 is shown below taking into consideration the responses from participants. To start with, overall 39(78%) of the participants believed that planting trees to replace the already cutting down trees is one of the solution of minimizing climate change impacts on human rights. Secondly, 32(64%) from the total number of the participants in the study also chose the option that deals with discouraging the cutting down of trees for charcoal burning as another antidote for minimizing climate change impacts on human rights. Moreover, 23(46%) of the participants also attested to the fact, that involving community members in the fight against climate change is another possible measures to minimize or reduce the impacts of climate change. Also, 22(44%) of the participants were fully supporting that, there should be increased sensitizations in communities so as people will get the awareness and desist from every activities leading to environmental degradation. Furthermore, 14(28%) of the participants suggested that, if at all they will reduce the indiscriminate releasing of smoke in the atmosphere can also help to safe guard our planet from adverse climatic conditions. Finally, 12(24%) of the participants believed that, if conscious effort is made to move

from the use of fossil fuels to renewable energy such as solar energy it will greatly help to reduce the impacts of climate change on the enjoyment of human rights.

Discussions

The aimed of this study was to get the public views on human rights implications of climate change within Port Loko City North- West region. The responses from participants in the study have clearly noted the fact that climate change has enormous threat to the lives and wellbeing of people and communities across the world (UNEP report, 2015). Climate change threats are visible in communities with high potentials of disturbing the full enjoyment of human rights for billions of people across the globe (UNEP report, 2015). Also, according to the IPCC(2018), climate change related risks to food security, health, livelihood, water supply, economic and human security will increases under the projected 1.5⁰ C global warming with a further increase expected at 2⁰ C(IPCC, 2018). With responses from participants it has clearly indicated the various impacts and threats posed by climate change to the enjoyment of their human rights. From the results of this study, affecting water supply has been one of the greatest impact climate change has posed to people within the study area. During the dry seasons many streams, hand-made wells etc where people get fresh water for drinking and other domestics' uses became dried-up, and some travel long distances to fetch water, the most vulnerable people are children who have to travel these places in search of fresh water. This impact is in line with the study conducted by Wewerinke (2015), which finds out that, climate change resulted to water scarcity which in turn reduced agricultural productivity and affect the wellbeing of individuals. Also, according to the IPCC projections, it shows that climate change will significantly reduce surface water and ground water resources in most dry subtropical regions thereby intensifying competition for water among, industries, community settlements, energy production, agriculture(UNEP report, 2015). These impacts therefore affects the right to water and sanitation, right to food, right to adequate standard of living, right to health and finally right to life. Following this, high temperature (global warming) is highlighted by participants within the study area as other impacts of climate change to the enjoyment of their human rights. The hot burning sun during the dry seasons normally makes life uncomfortable for residents within the study area. In support of this, the United Nation Environmental Programme report in (2015) states that climate change has potentials of increasing the rise in temperatures and extreme weather events

with corresponding impacts on human health and wellbeing. In consequent of this, Wewerinke (2015) in her study indicates that there are risks of mortality, morbidity and other physical harm during periods of extreme heat most especially on vulnerable populations in urban areas and those working outdoors. Therefore the right to life, safety, health and adequately standard of living is comprised. Moreover, other participants believed that, climate change has caused problems in fish production there are lot of challenges they normally faced during the raining and dry seasons. The scarcity is more intense during the raining seasons as fish men find it difficult to go out fishing due to rough weather events caused by sea level rise. The findings from Wewerinke (2015) empirical study shows that climate change has drastic effects on marine ecosystems and consequent coastal livelihoods, especially for fishing communities. Therefore food security especially access to dietary production is increasingly being threatened by the predicted effects of climate change (Kandu, 2017). According to FAO (2020) reports states that global production from capture fisheries has stagnated or declined in some years over the past few decades. Furthermore, other participants believed that climate change has serious challenge to food production. In support of this, climate change is now considered a global risk to food production and a major threat to the quality and quantity of production (Beach and Viator, 2008, Hamdan et al. 2015; Myers et al, 2017). Other impacts mentioned in the study by participants were, climate change reduce rain fall, sea level rise (flooding), displacement due to disasters and increase precipitation (rainfall).

However, amidst these impacts of climate change, other participants believed that take into consideration certain measures to either mitigate or adapt to climate change would be sustainable to increase the enjoyment of their humans rights within the study area. Participants selected the planting of trees to replace the already cut down trees to be a possible solution to reduce the climate change impacts on their welfare. In supporting their views, according to the study conducted by Osman et al (2023), the results shows that afforestation and reforestation are strategies for mitigating the impacts of climate change, where the trees capture carbon dioxide(CO₂) from the atmosphere and store carbon in living biomass. In fact growing trees help to create carbon sink for green houses gases thereby protecting the environment from climatic hazards. Following this, other participants believed that by discouraging charcoal burning would help to protect trees from indiscriminate cutting down of these trees for charcoal burning. Also some other participants pointed out that community participation or involving community

members towards the fight against climate change would help to protect the environment. In order to show the necessity of involving community members in the fight against climate change, Nasruddin et al (2020) in their study indicated that community participation is an important aspect of the success of the fight against climate change. Their study also shows that community participation can also play vital role in the mitigation and adaptation of climate change. Backed up with sensitization about climate change, participants attested that it's a better way of helping the promotion of human rights enjoyment. Finally, participants also pointed out that by cutting down the release of smoke into the atmosphere, industries, individuals and communities should embark on using renewable form of energy (solar power) instead of still using on fossil fuels as the main source of energy.

Conclusion

Climate change has been a trending concern globally; its impacts have affected the enjoyment of human rights of many citizens in communities and societies. This study through the empirical results has shown the impacts climate change has on individuals, communities and societies at large. Therefore is now a need for government and non-governmental bodies to see and intervene so as to protect our communities and planet as a whole.

Recommendations

From the findings of this study, the author is now recommending for government and non-governmental sector and departments to first of all include climate change issues within their operations and domains. And to also assist Community Based Organization and other Civil Societies Organizations with funds to embark on massive sensitization on climate change at national, regional and local level so as to increase the awareness of climate change, thereby limiting the activities that compromise the environment.

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INTERVIEW QUESTIONS

SECTION A

Sex: Male Female Other (specify)

Marital Status: Married Single Divorce Separated

SECTION B

What are some of the impacts of climate change on human rights?

1. To what extent have the following climate change impacts affect your right to life, right to health, right to food, right to water and sanitation, right to adequate standard of living, right to property, right to housing? Rate your responses on the following climate change impacts visible in your community

| | | | | |
|------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Reduced rainfall | <input type="checkbox"/> Highly | <input type="checkbox"/> Medium | <input type="checkbox"/> Lower | <input type="checkbox"/> Not at all |
|------------------|------------------------------------|------------------------------------|-----------------------------------|--|

| | | | | |
|--|--|-----------------------------------|--------------------------------------|---|
| High temperatures (Global warming) | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Sea level rise (flooding) | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Fishery production decline | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Reduce production (food insecurity) | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Affect water supply | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Displacement due to disasters | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |
| Increase precipitation (rainfall) | <input type="checkbox"/> Strongly agree | <input type="checkbox"/> Agree | <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly disagree |

What measures to be taken to reduce the impacts of climate change on human rights?

2. Which of the following measures do you think can help to reduce the impacts of climate change on human rights? Choose from the following measure

i. Reduce carbon emission(Releasing of smoke and other gases)

ii. Planting trees(a forestation)

- iii. Discourage the cutting down of trees for charcoal burning
- iv. Use of renewable source of energy(preferably solar power)
- v. Increase sensitization on the impacts of climate change
- vi. Involving community members in the fight against climate change
- vii. Other (specify).....

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