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Awareness of Climate Change by Rural Women in the Niger Delta Region: Implication for Empowering Women on Climate Change Adaptation and Disaster Risk Reduction Initiatives

By

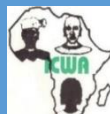
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PROJECT PROFILE

Title: “Empowering women as key leaders in promoting community-based climate change adaptation and disaster risks reduction initiatives in Niger Delta region”

Funding: International Development Research Centre (IDRC)

Implementing Partners: Centre for Population and Environmental Development (CPED), Intervention Council for Women in Africa (ICWA) & Delta State Ministry of Environment (DMoE)



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INTRODUCTION

Climate change is one of the most urgent concerns of our time with widespread implications for the earth’s ecosystems and human development across sectors. Nigeria, like many other African countries, is highly vulnerable to the impacts of climate change, particularly as it relates to agriculture and rural livelihoods. For many decades now, the coastal and wetland zones of Niger Delta, which harbour some of the most strategic industries on which the economic development of Nigeria is built has been experiencing the problem of coastal erosion caused by sea-level rise, leading to problems of floods, intrusion of sea-water into fresh water sources affecting agriculture, fisheries, settlements and general livelihoods. Agriculture in the Niger Delta region is highly dependent on rainfall because the people in the region rarely practice irrigation. The changes in the rainfall pattern have greatly affected vegetation and agriculture.

On the other hand, empowering women to play key roles in climate change adaptation (CCA) and Disaster Risk Reduction (DRR) at the rural level is very critical as they are most at risk to climate change impacts due to their heavy reliance on climate-vulnerable natural resources, limited asset base, and reduced access to adaptive measures. Similarly, while disasters pose threats to everyone, they often have disparately harsher impacts on women and girls. This can be attributed to their gender differences in the capacity to cope with such events and insufficient access to information and early warnings. Any intervention activities geared towards building the capacity of women must first seek to understand their knowledge and awareness levels of climate change and its associated impacts. This policy brief, therefore, explores women’s knowledge and awareness of climate change in Delta state of the Niger Delta

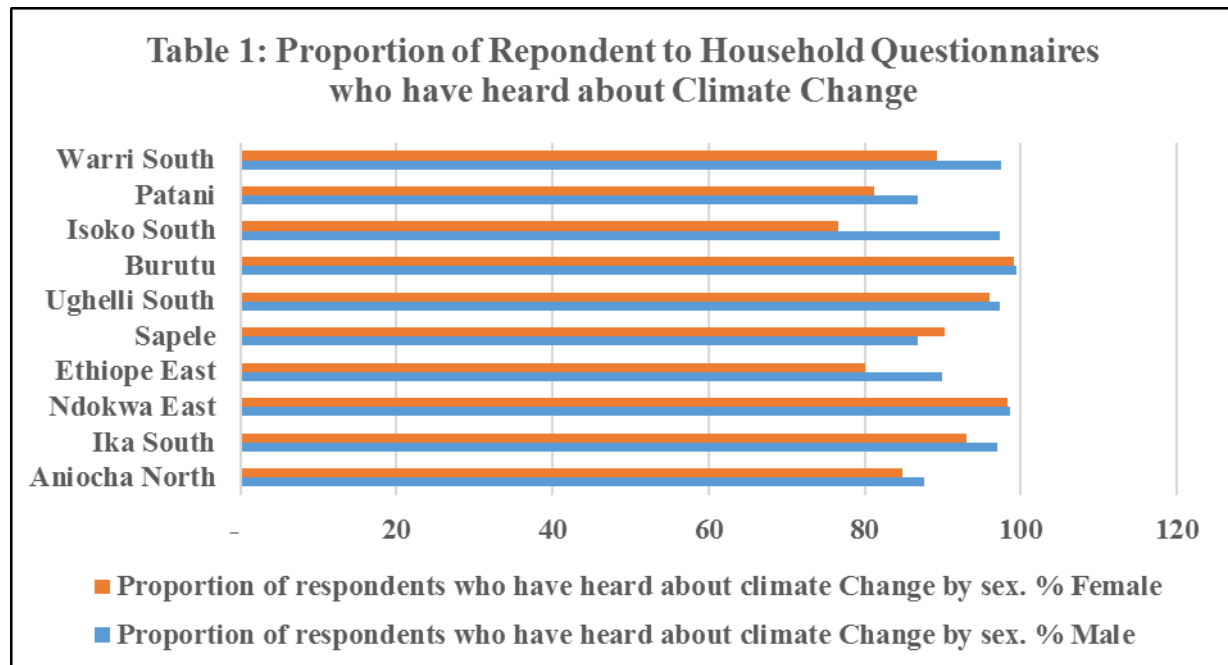
region and makes actionable recommendations with respect to strategies for empowering women to play leadership roles in CCA and DRR based on their knowledge and awareness level.

METHODOLOGY

A combination of both quantitative and qualitative data collection techniques were deployed in 10 LGAs namely Aniocha North, Ika South, Ethiope East, Ndokwa East, Isoko South, Sapele, Warri South, Burutu, Patani and Ughelli South. 400 household questionnaires were administered in each LGA making it a total of 4,000 questionnaires administered for the project. A total of 107 key informants, with at least ten (10) identified in each LGA were interviewed. Also, three categories of focus group discussions were organised in each LGA comprising “all males”, “all females” and a “mix of males and females”, respectively.

KEY FINDINGS OF AWARENESS AND KNOWLEDGE OF CLIMATE CHANGE BY RURAL WOMEN IN DELTA STATE.

Table 1 below shows that majority of the respondents in the household survey have heard about climate change. As high as 93% for males and 89% for females, respectively, have heard about climate. While on the average no fewer than 70% of the respondents in each LGA were the survey was carried out have heard about climate change.



Source: CPED's Field Survey, 2019

A very high proportion of female key informants who were interviewed (51) out of the (55) as shown in Table 2 below

agreed that they have heard of climate change and its related impacts in the communities

LGA / Gender	Aniocha North	Ika South	Ndokwa East	Ethiope East	Sapele	Patani	Ugheli South	Warri South	Burutu	Isoko South	Total
Male	4	8	5	3	6	9	4	5	4	4	52
Female	6	5	8	7	4	1	7	5	6	6	55
Total	10	13	13	10	10	10	11	10	10	10	107

Table 2: Gender Composition and Age Distribution of KII Respondents

Regarding the duration that respondents have heard about climate change, on the average, about 46% of the female respondents have heard for less than 10 years, 35% for 10-30 years and 10% for more than 30 years, respectively.

Knowledge of the respondents about increase in amount of rainfall, increase in temperature, increase in deforestation activities, early onset of rain and increase in sunshine intensity were among the highest attributes of climate change by the respondents, especially the women. Majority of the women interviewed accepted that they had contributed to deforestation in their search of fire wood which led to the disappearance of many plant and animal species. As to what they have heard about climate change, below is a chat of what some of the respondents said:

"I understand that the weather is no longer the way it used to be. Now, erosion spoils the road and people's houses. Those are the things we experience" Aniocha North LGA

"They are different from what we see before. We cannot predict the rain anymore (rain anytime, any day). Erosion is a major problem in some community, but not too pronounce in my own community. We hardly see those

things, those days. Vegetation has been affected, forest has been deforested, and harmathan is not really stable again" ... Ethiope East LGA

"Our climate is undergoing radical changes, the room temperature is on the rise and it's affecting the ecosystem such that over time there could be threat to life within this earth because of global warming. The ice in the coast are melting and one day the sea will overflow and the earth will be flooded. The rise in temperature too has a way of imparting on the living things and consequently some species of life, animal and plant extinct and somehow is going to affect the way man leaves". Ethiope East

"The climate change introduced so many things, our crops no longer yield good produce. Personally, I engage in cassava farming, fish farming and trading, due to climate change, flood came and destroyed my farm, I lost so many fishes because of flooding. If you visit our farms now, you will see that water is lodged everywhere and has destroyed our cassava. Another thing I understand about the climate change is that nowadays, rain water appears dark and sooty unlike the colorless appearance it

had years back. When you drink rainwater now, it causes problems for example, my children are now infected by disease called 'sweetie' (rashes) and this is costing me so much money in treatment and I think changes in climate and wind are responsible for these ill effects. Our river is now dirty the water (river) use to be clear and clean but now it looks muddy and cloudy. These changes (in rain water and the river) and the occurrences of flood made me notice that indeed there is climate change”
**Ughelli South LGA**

Climate change concerns the weather, like in those days during dry season we don't normally experience rainfalls, but now due to climate change effects even the dry season it does rain. Sometimes, in rainy seasons there is now intensive sun/heat due to changes that have occurred. The issue of flood is very strong and has cost many lives. Flood damages our homes, communities, crops, properties and lots to counts. This gas flaring and burning fossil fuel has caused lots of sickness because it is damaging our lands, waters are contaminated so to drink the river water which is the main source of water is now a big problem”
**Burutu LGA**

“When the rain is supposed to fall it does not fall, or when the sun season is supposed to come it does not come, we then discover that the climate is changing” **Isoko South LG**

Majority of the respondents pointed out that there has been increase in rainfall and frequency and intensity which has resulted to flooding causing serious damage to infrastructures, such as damage to access road leading to communities, markets and farmlands. Damage to corrugated roof as a result of corrosion due to acid rain has been reported to be on the increase as well. In fact, some female farmers who were interviewed in the community took the data collection field staff to their farm to show them the damage they have experienced as a result of excessive rainfall due to climate change as shown below.



Photo: Field Staff with some Female interview respondents as they Visit farmland damaged by flood

Focus group discussions and key informant interviews with female respondents across the three ecological zones provide some insight into the nature of the impact of climate change on the farmers and fishing folks.

The respondents also said that with the changes in the pattern of rainfall in the past 10 years, they have designed various adaptation methods among others including changing the planting season. Unlike in the past when the planting period was well known, currently the planting depends on when the rains come. For example, farmers indicated changes in planting crops such as yam, cassava, and maize

DISCUSSION AND ACTIONABLE RECOMMENDATIONS

Respondents in the coastal communities are more vulnerable to sea level rise. Respondents consider that these hazards may continue in the communities in the future. They also consider that mudslides and landslides could occur in their communities in the light of current climate change. In all the communities surveyed in the three ecological zones in Delta State, small scale farmers and fisher folks live in perilous conditions and are inherently vulnerable to any shocks that affect their agricultural systems. Most of the rural farmers live in rustic houses, lack electricity and running water, own few assets and rely on natural ecosystems for drinking water, firewood, wild foods and materials for household construction. Agriculture is the mainstay of farmer livelihoods, serving both as the primary source of household food and

principal means of income generation. Consequently, the fate of these smallholders is closely interwoven with that of their environment.

Those factors that are considered as very important, and that make households vulnerable to the climate hazards are: low agricultural output and income, non-availability of irrigation facilities, insufficient farm labour and lack of storage facilities. Inadequate means of transportation is a very important factor that makes households in the fishing communities vulnerable to the impact of climate change. Most households lack technical capacity to adapt to climate change and variability. There is high level of dependence on agriculture, and households are located in areas susceptible to the impact of climate hazards and are thus vulnerable to climate change impacts.



A Typical Housing Unit in Coaster Communities of Niger Delta Region

Photo Credit: CPED Field Assistants in Burutu LGA

Although these resilient communities have put various adaptation measures in place, they are not strong enough to reducing the impact of climate change. Women and girls in most of the communities are already practicing a number of coping strategies and are requesting for assistance to strengthen them. To be able to play key roles in climate change adaptation and disaster risk reduction initiatives, the women in this study area, specifically, requested for funding, awareness campaigns and capacity building. Awareness campaigns would also need to address traditional beliefs and cultures which delineate women as weaker folks in responding to climate change issues.

There is also a need of having consistent strategies and improved institutional capacity and planning within different ministries and other stakeholders to address different challenges farmers in Delta state face due to climate change.



Photo: CPED Research Assistants Visit Household in Ethiope East LGA