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Effect of climate change on social development programmes in Kosofe Local Government Area, Lagos State, Nigeria

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ABSTRACT

Climate change is a significant global threat to humanity and its effect cannot be over emphasized. It requires social development solutions and action. The ability of local communities to adapt to the numerous and varied effects of climate change is a pressing concern on the global agenda. Thus, this study assessed the climate change effect and social development programmes in Kosofe Local Government Area, Lagos State, Nigeria. The study adopted a descriptive survey research design while a proportional simple random sample was used to select the 250 respondents. A standardized questionnaire was used for data collection with a reliability coefficient of .86. Analysis of data was done using descriptive statistics, and regression analysis fixed at the 0.05 level of significance. The findings of the study revealed a significant influence of climate change effect on social development programmes, economic support programmes, and self-help project support. It is therefore concluded that the challenges of climate have equally paved ways to various economic and social development programmes in order to alleviate the problem created as a result of climate change. There is the need to prevent the effects of climate change in our community through conscientious efforts and serious adaptation measures.

KEY TERMS: climate change effect, economic support, self-help project support, social development programme

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INTRODUCTION

Climate change has been one of the most engaging environmental subjects of debate in recent times all over the world. Indeed, the environmental problems associated with the potential impact of expected climate change may prove to be among the major environmental problems facing many communities. In Nigeria, it has been realized that serious environmental problems arise in association with global warming resulting from emissions from greenhouse gases into the atmosphere. Also, human become increasingly susceptible to climate-related disease and death, as a result. Nigeria is experiencing adverse climate conditions with negative impacts on the welfare of millions of people. Persistence droughts and flooding, off season rains and dry spells have sent growing seasons out of orbit, on a country dependent on a rain fed agriculture. Alarm bells are ringing with lakes drying up and a reduction in river flow in the arid and semi-arid region. The result is fewer water supplies for use in agriculture, hydro power generation and other users. The main suspect for all this havoc is climate change.

BACKGROUND

Climate change poses great challenges to community development such as flooding, dew, humidity. Haze and cloud, to mention few. Climate change is a global challenge affecting every segment of the society. It appears people in the rural areas are better off because they live closer to nature. Climate change has affected virtually every human life in contemporary society and has also brought daunting challenges to virtually all facets of life in contemporary society, including, of course, economic development (Fatile, 2013). Climate change results in fundamental transformation of physical and social life of people. Nigeria government has not able to be tackle the challenges of new adaptation to altered climate conditions in coastal communities and changes in lifestyles resulting from destruction of existing social structure and infrastructures. These challenges become more obvious in a developing economy like Nigeria (Yusuf, 2012).

Climate change may worsen existence social, economic and political challenges, particular for those societies that are dependent on resources that are sensitive to climate change (Buhari, 2015). Nigeria's climate is also likely to see growing shifts in temperature, rainfall, storms and sea levels throughout the twenty-first century. These climate challenges could throw already stressed resources such as land and water into even shorter supply. Moreover, poor responses to resource shortages could have serious negative secondary effects, including more sickness and hunger, fewer jobs and poor economic growth which in turn could open the door to more violence, in either rural or urban center (BNRCC, 2014).

According to the Center for Disease Control and Prevention (2015), climate changes have led to increasing amount of heart-related illnesses, injuries, mental health issues and deaths due to extreme weather, as well as increasing asthma and cardiovascular disease due to air pollution. Extreme weather events result in increasing infectious disease outbreaks as "*microbes*", vectors and reservoir animal hosts exploit the disrupted social and environmental conditions of extreme weather events. These outbreaks affect the air, land and water which, in turn, affect the food supply.

Nigeria as a developing nation is particularly sensitive to the effects of climate change. The economy of the country depends on natural resources, which are particularly vulnerable to climate change. Disease, loss of livelihood and settlements can force entire communities into relocation or complete extinction and even refugees status, as critical as the effects of climate change is, Nigerians are not aware of what climate change is or its effects. Perhaps the biggest obstacle is the lack of awareness and knowledge (Adeniji, 2010). Nigerians need to be educated and informed about climate change and how it can affect their lives drastically.

According to Fatile (2013), the most devastation adverse effects of climate change in environmental damage, increased infestation of crop by pests and diseases, depletion of household assets, increased rural urban migration, increased biodiversity loss, depletion of wildlife and other natural resource bases, changes in the vegetation type, decline in forest resources, decline in soil conditions (soil moisture and nutrients, increased health risks and the spread of infectious diseases and changing livelihood systems) (Ozor, 2009). Climate change has been attracting serious interest among the globe due to its impact on the weather and natural resources as well as Agriculture. From decade to decade, change in the climate has continued to be evident. Since the start of the 21st century, the world has been witnessing the warmest in the instrumental weather record. Normally, climate change can be described as part of the Earth's natural variability. It is a subject of the connections among the atmosphere, ocean and land, as well as changes in the amount of solar radiation reaching the Earth. From country to country, community to community, challenges mounted by change in climate cannot be underestimated (Kasali, 2011).

In Nigeria as in many part of the Africa, climate change could include greater and more rapid sea level rise than previously projected and more frequent coastal storms, threatening the lives and livelihoods of coastal communities, the increased incidence of extreme weather events; substantial reductions in surface water resources leading to accelerated desertification in sensitive and zones; and greater threats to health (such as malaria), biodiversity (including bleaching of coral species on the African tropical reef systems) and Agricultural production a predicted decline of 12 percent in production in Nigeria by 2020 (Jimoh, 2008).

Development is a human process, in the sense that human beings, not material factors, drive development (Onyekwere, 2014). The energy and aspiration of people who seek development forms the motive force that drives development. People's awareness may decide the direction of development. Their efficiency, productivity, creativity and organizational capacities determine the level of people's accomplishment and enjoyment. Development is the outer realization of latent inner potentials. The level of people's education, intensity of their aspiration and energies, quality of their attitudes and values, skills and information all affect the extent and pace of development. These factors come into play whether it is the development of the individual, family community, nation or the whole world (Jacob, Garry and Asokan, 1999).

Social development is about putting people at the center of development for people to benefit in the development by participating in the development programme. Social development is a people's centered development process where people take the wheel of their own developmental strides, the process will be weak in the face of the enormous challenges of climate change. According to United Nations Research Institute for Social Development (UNRISD, 2011), social development is a form of development that is concerned with the processes of change that leads to improvement in human well-being, social relations and social institutions that are equitable, sustainable and compatible with principles of democratic governance and social justice. This implies that social development is an embodiment of material achievements such as good health, education and access to good and services necessary for decent living; social, cultural and political achievement such as a sense of security, dignity, ability to be part of a community.

Social development occurs when the people are capable of harnessing the environment using the available human and material resources to their own benefits and that of the society at large. Nigeria is naturally endowed with human and material resources that can enable her to develop on her own without external assistance (Jones, 2013). There is need for Nigeria to look inward and discover all the hidden talents and utilize them to the fullest. The time has come for all Nigerians irrespective of their tribes of origin, religion or ideology, to come together to see what they can do for the development of the country. Development occurs when the subconscious preparedness of society leads to the generation of new ideas and conscious initiatives by individuals. The accumulated surplus energy of society releases the initiative of pioneers who apply new ideas, acquire new skills and introduce new types of activities. Imitation of successful pioneers eventually attracts the attention and overcomes the new activity (Ibrahim & Onoriode, 2015). The actual achievements of society depend on the measure that it is ready to actively respond to new opportunities and challenges (Jacob & Onwughalu, 2015).

However, adaptation to climate change cannot be addressed through a single economic sector as it has effects across all aspects of social and economic development. Development without consideration of the risks and effects of climate change sometimes increase the vulnerability. Government policies, coordination and leadership on the issue of climate change in Nigeria lacks authority, capability and political will (Adefolalu, 2010). This explains the growing interest of the international community to support capacity building initiatives in the area of climate change. An institutional structure is needed to provide meaningful coordination of these supports from national and international organizations. The traditional bush burning in preparing land for farming; absence of environmental education on climate change in the rural areas with particular reference to use of wood as major source of energy for domestic purposes; inadequate provision in environmental laws on the control of industrial air pollution; institutional structure and poor capacity on climate change in Federal and State Ministries of environment; and discordant national policy on climate change (Andah, 2016).

Environmental social work: a Nigerian or African perspective

Nigeria just like many nations has been witnessing a change in the climate, which is evident in the two seasons - dry and rainy seasons in the country. The variability in rainfall and temperature; rise in sea level and flooding; drought and desertification; land degradation; loss of biodiversity and the likes have great effect on the humanity and her environment (Elisha et al., 2017; Ebele & Emodi, 2016). Crops and vegetation could be damaged by excessive heat while widespread flooding and forced relocation could be as a result of heavy downpour (Amanchukwu et al., 2015). Amanchukwu et al., (2015) reported that changes in weather conditions will continue to have a major impact on human life and ecosystems, and that all sectors of the country's socio-economic development are vulnerable to climate change. Nigeria as a nation has witnessed and still witnessing climate change in the following areas increases in temperature; variable rainfall; sea level rise, land degradation; thunderstorms, lightning, landslides, floods, droughts, bush fires; affected freshwater resources and loss of biodiversity.

When individual citizens or community members are made weak by the disastrous effect of climate change it becomes more difficult to get people together and the task of social development becomes more difficult for the social work practice. Furthermore, climate change is compounding the work of social development programmes. The major elements or components of environmental social work in Nigeria or Africa could be contextualized based on Nel (2015)'s integration of the livelihoods and asset-based community development approaches. These are:

1. The Participation: this suggest that affected community should be involved in the design, management and intervention of the disaster. To accomplish this, communities must know what disaster management and risk reduction stand for, what their own responsibilities are, how they can help prevent disasters, how they must react during a disaster (and why) and what they can do to support themselves and relief workers, when necessary.
2. The inside-out approach: this approach suggests the full participation of the community in order to make the change effect a lasting one. In this case, there should be a full collaboration between the social work professionals and the community members as well as other various government disaster structures.
3. The self-reliance and ownership: It is believed that proper disaster intervention in order to combat or prevent other forms of natural disasters must be self-initiated by the community members themselves. This will make the community members to be responsible and responsive. In the words of Nel (2015), community members act responsibly when they care for and support what they create; this creates self-reliance and ownership.
4. The relationship-driven: The emphasis here is that the affected community and every stakeholder in the community disaster intervention must collectively and positively work together to rebuild their communities and properties.
5. The local leadership: This reveals the openness of the community leaders to change and able to accept the change. In this regard, the local leadership could involve people in the community who are familiar with community indigenous disaster practices which are drawn from their culture and customs that can assist the communities to withstand the effects of disasters.
6. Local assets: This is grounded in the idea that “communities are built on resources, assets, strengths, capabilities, capacities and aspirations, and not by dwelling on the deficiencies, needs and problems of residents” (Nel, 2015).

Therefore, this study assessed the climate change effect and social development programmes in Kosofe Local Government Area, Lagos State, Nigeria.

Environmental social work: an international perspective

The need to for the connection between human-nature and well-being to create a sustainable environment is entrenched in environmental social work (ESW). ESW is an eco-social approach in social work focusing on ecological and environmental sustainability and justice within the context of sustainable development. All over the world today, studies have shown that working towards environmental and community sustainability has been posited as one of the four priority areas in the ‘Global Agenda for Social Work and Social Development’ (Rambaree et al., 2019; The International Association of Schools of Social Work (IASSW), International Federation of Social Workers (IFSW), and International Council on Social Welfare (ICSW), 2012).

Globally, ESW was found to be central in emerging social work approaches. And these are eco-social work, green social work, and ecological Social Work (Matthies et al., 2001; Dominelli, 2012; McKinnon & Alston, 2016). The eco-social work focusses on social work approach in enhancing positive human relations and social justice within the communities (Matthies et al., 2001). McKinnon and Alston (2016) see the ecological social work approach to enlightening every member of the community on the interaction between the human and the nature of their environments. This is to guarantee the sustainability of natural resources for the long term. On the other hand, “green social work aims to coproduce “transformative social change that creates a living, viable earth with equitable shared and distributed resources and opportunities” (Dominelli, 2018).

The meta-analysis study of Ramsay and Boddy (2016) affirmed that the eco-social work, green social work, and ecological social work approaches connect to the social, economic and ecological dimensions to each other, which make it a holistic foundation in social work education and practice. In the words of Rambaree (2020), environmental change/climate emergency, and their associated societal impacts such as poverty, migration/displacement and famine make it an obligation for social work to consider environmental sustainability within its education and practice.

Research hypotheses

1. There is no significant influence of climate change effect on social development programme experienced among Kosofe LGA.
2. There is no significant influence of climate change effect on economic support programme experienced among the residents of Kosofe LGA.
3. There is no significant influence of climate change effect on Self-help project support experienced among the residents of Kosofe LGA

METHODOLOGY

Research design and population

This study adopted a descriptive survey design to assess the climate change effect and social development programmes in Kosofe Local Government Area, Lagos State, Nigeria. The accessible population in this study included all the residents of Kosofe Local Government Area of Lagos State, Nigeria. This includes male and female, educated and illiterates, as well as those from high/average socio-economic class and low socio-economic class.

Sampling technique

Probability sampling was used because it increased the likelihood that all the elements in the population would have an equal chance of being included in the sample. Firstly, a simple random sampling was employed in selecting five political wards out of the seven wards in Kosofe LGA, Lagos State. Secondly, the respondents were stratified based on the five selected wards or political area while their professions (e.g. trading or agriculture) were put into consideration. After stratification, a proportional simple random sample was obtained by selecting participants randomly from the sampling frame until the intended sample size was attained. The sample includes a total of two hundred and fifty respondents, 50 each from each stratum.

Measures

The instrument used for the study was a self-constructed questionnaire tagged "Climate Change and Social Development Programmes Questionnaire (CCSDPQ)." It was a 40-item questionnaire was self-developed by the researchers. This instrument measures an individual's ability to assess the extent to which social development programme, economic support programme and on Self-help project support received within their community in combating the effect climate change. The scale reflected all the variables in the study. The items were with four options ranging from "Strongly Agree" (1) to "Strongly Disagree" (4). It was found that the total item correlations of the scale changed between .71 and .89. The internal consistency coefficient of the scale is .80. The consistency coefficient attained by the test-retest technique is .86.

Data analysis

Data were edited, cleaned, coded, entered and analysed using the Statistical Package for Social Sciences (SPSS) version 23 software program. Data were summarised by means of descriptive statistics including the frequency table. Also, hypotheses were tested at 0.05 alpha level using Multiple Regression Analysis statistical tool.

RESULTS AND DISCUSSION

Table 1: Summary of the multiple regression on the influence of climate change effect on social development programme experienced among Kosofe LGA

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	43.939	2.578		17.045	.000
Social development programmes	1.473	.612	.207	2.406	.007
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	243.441	1	243.441	40.527	.000
Residual	1483.695	247	6.007		
Total	1727.136	248			

R = .379; R² = .144, R² (Adjusted) = .141, Stand error estimate = 12.87

a. Dependent Variable: Social development programmes

b. Predictors: (Constant), climate change effect

The results on Table 1 revealed a significant influence of climate change effect on social development programmes experienced among the residents of Kosofe LGA [R = .379, R² = .144, Adj. R² = .141, Stand error estimate =

12.87, $f_{(1,247)} = 40.527$, $p = .000$]. This shows that 14.1% of the total variance in the social development programmes experienced in Kosofe LGA is accounted for by the climate change effect. However, social development programmes have a beta value of .207 and t-value of 2.406 significant at less than .05 (.000) alpha level. Thus, climate change effect significantly influences social development programmes in Kosofe LGA. The implication of this study is that climate change has the potential to affect all natural systems thereby becoming a threat to human development and survival socially, politically and economically. This study lends credence from the report of FAO (2016) that climate change has cascading impact chains from physical features to people, with social and economic consequences affecting livelihoods and food and nutrition security. Also, Moser et al., (2010) affirmed that while much attention is given to extreme weather events, the less dramatic, slow and incremental impacts of climate change are equally important in their cumulative impact on human well-being.

Table 2: Summary of the multiple regression on the influence of climate change effect on economic support programme

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	38.009	2.431		20.018	.000
Economic support programme	1.315	.323	.313	4.070	.000
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	557.500	1	557.500	30.543	.000 ^b
Residual	4509.032	247	18.255		
Total	5066.532	249			

R = .273; R² = .075, R² (Adjusted) = .064, Stand error estimate = 20.36

a. Dependent Variable: Climate change effect

b. Predictors: (Constant), Economic support programme

The results on Table 2 revealed a significant influence of climate change effect on economic support programmes experienced among the residents of Kosofe LGA [$R = .273$, $R^2 = .075$, $Adj. R^2 = .064$, Stand error estimate = 20.360, $f_{(1,247)} = 30.543$, $p = .000$]. This shows that 6.4% of the total variance in the economic support programme is accounted for by the climate change effect. However, the relatively contributed to the economic support programme experienced among the residents of Kosofe LGA due to climate change effect. Economic support programme has a beta value of .323 and t-value of 4.070 significant at less than .05 (.000) alpha level. Thus, climate change effect significantly influences the economic support programme experienced among the residents of Kosofe LGA.

The result corroborates with the study of Adefolalu, (2010) that development without consideration of the risks and effects of climate change sometimes increase the vulnerability. Government policies, coordination and leadership on the issue of climate change in Nigeria lacks authority, capability and political will. This explains the growing interest of the international community to support capacity building initiatives in the area of climate change. An institutional structure is needed to provide meaningful coordination of these supports from national and international organizations. The findings is also support by the work of Andah (2016) who started that traditional bush burning in preparing land for farming; absence of environmental education on climate change in the rural areas with particular reference to use of wood as major source of energy for domestic purposes; inadequate provision in environmental laws on the control of industrial air pollution; institutional structure and poor capacity on climate change in Federal and State Ministries of environment; and discordant national policy on climate change.

Table 3: Summary of the multiple regression on the influence of climate change effect on Self-help project support

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	29.856	2.621		13.855	.000
Self-help project support	1.308	.749	.152	2.041	.012
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	517.828	1	517.828	42.445	.000 ^b
Residual	1849.536	247	7.488		
Total	2367.364	248			

R = .366; R² = .134, R² (Adjusted) = .129, Std.Error Estimate = 17.171

a. Dependent Variable: Climate change effect
b. Predictors: (Constant), Self-help project support

The results on Table 3 revealed a significant influence of climate change effect on self-help project support experienced among the residents of Kosofe LGA [$R = .366$, $R^2 = .134$, $Adj. R^2 = .129$, Standard error estimate = 17.171, $f_{(1,247)} = 42.445$, $p = .000$]. This shows that 12.9% of the total variance in the self-help project support is accounted for by the climate change effect. However, the relatively contributed to the self-help project support experienced among the residents of Kosofe LGA due to climate change effect. Self-help project support has a beta value of .152 and t-value of 2.041 significant at less than .05 (.000) alpha level. Thus, climate change effect significantly influences the self-help project support experienced among the residents of Kosofe LGA. The outcome of this study revealed the importance of self-help project support within the community as a leverage to the effect of climate change. According to The United Nations Development Programme (2011) several factors, such as having a lower adaptive capacity to cope with climate change-driven disasters and relying directly on climate-sensitive natural resources for food, shelter and livelihoods, poor communities are in the front-line of climate change impacts. UNDP recognizes adaptation as one of the four strategic priority areas to address climate change. Because different regions and communities suffer from different impacts, effective adaptation strategies need to be contextualized to local needs and conditions.

RECOMMENDATIONS

The following recommendations were made:

1. There is the need to prevent the effects of climate change in our community through conscientious efforts and serious adaptation measures such as social development programme, economic support programme, and self-help project support. This will enhance indigenous knowledge, which will give value for the management of the environment and its sustainability.
2. There should be educational awareness programmes are not concentrated in city centers only but taken to the rural areas. When this is done, it facilitates the generation and transfer of knowledge and technologies for adequate management of climate change risks and control.
3. A proper alliance must be formed among all sectors and disciplines of the economy in the face of the climate change in order to achieve sustainable productivity in all areas of her economy.
4. More importantly, adaptive measures that are indigenous to the needs of the communities must be ensured. This means that social workers, the media, community heads, religious institutions, researchers and civil society groups have something to do with their community survival.

CONCLUSION

Climate change is not just about the land, weather, drought or flood but it is fundamentally a socio-economic development issue. Its existence may worsen the existence of social, economic and political challenges of the communities that are dependent on resources that are sensitive to climate change. However, this study assessed the climate change effect and social development programmes in Kosofe Local Government Area, Lagos State, Nigeria. It was established by this study that climate change effect significantly influenced social development programme, economic support programme, and self-help project support experienced among the residents of Kosofe LGA. It is therefore concluded that the challenges of climate have equally paved ways to various economic and social development programmes in order to alleviate the problem created as a result of climate change.

REFERENCES

- Adefolalu, D. O. (2010). Climate change, impact and adaptation: role of seasonal climate change. developmental issues. *Nigerian Meteorological Society*, 26, 53-87.
- Adeniji, A. (2010). Climate change and its impact on political and socio-economic development in Africa. *International Journal of Social and Policy Issues*, 7(2), 41-68.
- Amanchukwu, R. N. et al. (2015). Climate change education in Nigeria: The role of curriculum review. *Education*, 5(3), 71-79.
- Buhari, M. (2015). The effect of climate change globally. Speech Delivered in Paris, France. November 30
- Center for Disease Control and Prevention (2015). *Climate Effects on Health*. Retrieved from <https://www.cdc.gov> on 8 August 2021.
- Dominelli, L. (2012). *Green Social Work. From Environmental Crises to Environmental Justice*. Cambridge: Polity Press.
- Dominelli, L. (2018), "Green social work in theory and practice", in Dominelli, L. (Ed.) *The Routledge Handbook of Green Social Work*, pp. 9-20. New York: Routledge.
- Ebele, N. E. and Emodi, N. V. (2016). Climate change and its impact in Nigerian economy. *Journal of Scientific Research & Reports*, 10(6), 1-13.
- Elisha, I. et al. (2017). Evidence of climate change and adaptation strategies among grain farmers in Sokoto State, Nigeria. *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 11(3), 1-7.
- Fatile, J.O. (2013). Climate change and public service delivery in Nigeria. *Journal of Business and Social Science*. 7(1), 101-112.
- Fatile, J. O. and Adejobi, O. S. (2012). Climate Change, Environment and Conflicts in Nigeria. *British Journal of Arts and Social Sciences*, 6(1), 95-112.
- Jacob, J. & Onwughalu, V. C. (2015). Illusions to poverty reduction in Nigeria. *International Journal of Innovative Research and Development*, 4(10), 150-163.
- Jacob, S. Garry, H. A. and Asokan, N. (1999). Towards a comprehensive theory of social development". In Human Choice and World Academy of Art & Science.
- Jones, P., 2013. Transforming the curriculum. Social work education and ecological consciousness. In: Gray, M., Coates, J., & Hetherington, T. (eds). *Environmental social work*. New York, NY: Routledge
- Kasali, M. A. (2013). Climate and intercultural crisis: climate change as a source of inter-religious violence in Kano, Nigeria. *Journal of Sustainable Development in Africa*, 13(4), 111-231.
- Matthies, A. L., Nahri, K. & Ward, D. (Eds) (2001). *The Eco-Social Approach in Social Work*, Sophi, Jyvaskyla
- McKinnon, J. and Alston, M. (Eds) (2016). *Ecological Social Work: Towards Sustainability*. London: Palgrave Macmillan.
- Nel, H. (2015). An integration of the livelihoods and asset-based community development approaches: A South African case study. *Development Southern Africa*, 32(4), 511-525.
- Onyekwere, L. A. (2016). Enriching the Role/Importance of Social Workers in Promoting Peaceful and Inclusive for Sustainable Development. *International Journal of Scientific in Education*, 9(4), 212-220.
- Onyenechere, E. I. (2010). Climate change and spatial planning concerns in Nigeria: Remedial measures for more effective response. *Journal of Human Ecology*, 32(3), 137-148.
- Ozor, N. (2009). Understanding climate change: Implications for Nigerian Agriculture, policy and extension. Paper presented at the National conference on climate change and the Nigeria environment. Organized by the Department of Geography, University of Nsukka, Nigeria.
- Rambaree, K. (2020). Environmental social work Implications for accelerating the implementation of sustainable development in social work curricula. *International Journal of Sustainability in Higher Education*, 21(3), 557-574.
- Rambaree, K., Powers, M. & Smith, R. (2019). Ecosocial work and social change in community practice. *Journal of Community Practice*, 27(3/4), 205-212.
- Ramsay, S. & Boddy, J. (2016), "Environmental social work: a concept analysis. *The British Journal of Social Work*, 47(1), 68-86.
- The International Association of Schools of Social Work (IASSW), International Federation of Social Workers (IFSW), and International Council on Social Welfare (ICSW) (2012). "The global agenda 2012", available at: www.eassw.org/wp-content
- United Nations Development Programme (UNDP) (2011). *Community-based adaptation to climate change and gender*. New York: UNDP.
- United Nations Research Institute for Social Development (UNRISD 2011). *Social development in an uncertain world*. Retrieved from www.unrisd.org on 2 July 2021.
- Yusuf, N., (2012). Climate Change, Social Transition and Nigeria's Economical Development. *International Non-Governmental Organization Journal*, 7(2): 35-47.