

Patriarchy and Women Vulnerability to Adverse Climate Change in Nigeria

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Abstract

The article explored the linkages between patriarchy and the high rate of women's vulnerability to climate change. It examined how traditional beliefs, which underpin cultural division of roles between men and women, also increase the vulnerability of women to the adverse impacts of climate change. The article argued that the centralization of activities of women to occupations such as small-scale and rain-fed agriculture makes them more vulnerable to climate-related problems than the men. The article relied on desk review of secondary data. Data were analyzed using thematic content analysis. Using Nigeria as a case study, the article showed how patriarchy paves way for high rate of exposure of women to adverse impacts of climate change. Patriarchy equips men with stronger adaptive capability, especially in the area of vocational flexibility and mobility. The study concludes that efforts made to avert undue exposure of women to climate change disasters must seek to address patriarchy and the structural issues arising from the confinement of women to livelihoods, which are vulnerable to climate change disasters.

Keywords

climate change, patriarchy, rain-fed agriculture, women vulnerability and Nigeria

Introduction

Extant literature has shown that climate change is a major threat to all humanity. Indeed, it is a serious source of global concern (Cunniah, 2010; Titus, 2011), especially on account of its livelihood and security threats. However, very few studies have given attention to the relationship between patriarchy and the rate of women vulnerability to climate change. The threat posed by climate change is gendered disproportionately, and studies have shown that women are more vulnerable than men (Egbue, 2010; Nigerian Environmental Study Team, 2011). A report by the Nigerian Environmental Study Team (2011) showed that the way women experience and/or react to climate change is different from the way men do. In many cases, women react faster than men by adapting to diverse coping mechanisms regardless of how effective such adaptation approaches may be. To some extent, women are more vulnerable than men because a large number of them are poor. Again, their main source of livelihood is highly exposed to the adverse impacts of climate change. A large number of women are engaged in the agricultural sector and the sector is highly exposed to climate crises. In developing countries, where technology application to agriculture is significantly low, majority of the women struggle hard to survive due to low adaptation capability to climate change. The situation is worse in many African countries such as Nigeria, where the agricultural sector remains highly underdeveloped, excessively

dependent on rainfall, and plagued with the near-absence of mechanized agricultural development (Ake, 1996). Overall, the mix of poverty and high level dependence on climate-sensitive livelihoods makes women more vulnerable to climate change than men.

To a large extent, the underlying factor responsible for the disparate effect of climate change on men and women revolves around societal behaviors built around division of roles on the basis of gender. Within the context of this study, therefore, the problem of women vulnerability to climate-related problems in Nigeria finds expression in the manner in which patriarchy has, over the years, shaped societal behaviors with regard to gender relations. The study considers patriarchy as the bedrock on which power differentials between men and women are based. Patriarchy reinforces gender imbalance against women by preserving certain benefits in favor of men. This imbalance is the basis for unequal use of power between men and women and also a major factor for the disproportionate effect of climate change on them.

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Climate change acts as a threat multiplier on already existing issues associated with gender inequality to increase the problem of marginalization faced by women.

Contributing to the discourse on the impact of climate change, the article interrogates the disparity of climate change impacts on men and women as well as how patriarchy-induced vulnerability to climate change is furthermore increasing the problem of women marginalization. The next section sheds light on the meaning of gender discrimination, patriarchy, and women vulnerability to climate change. The article adopts feminism as a framework to further explain the impact of patriarchy on the status of women. Furthermore, it examines the linkages that overlap climate change, patriarchy, and rain-fed agriculture in Nigeria. The article also explores the intersections between climate change and women vulnerability to climate change. Effort was made to evaluate ways in which patriarchy aggravates women's vulnerability to adverse impacts of climate change. The last section concludes by stressing the need to address the numerous societal and cultural impediments created by patriarchy.

Conceptual Review of Gender Discrimination, Patriarchy, and Women Vulnerability to Climate Change

Gender discrimination describes a condition of unfavorable attitude, behavior, and treatment meted out either on the males or the females as occasioned by culture and tradition of a group of people. It is about behavioral patterns, which reflect peoples' belief and opinion concerning what should be the mode of political, social, economic, cultural, and religious relations between men and women. Reeve and Baden (2000) consider it as the systematic and unfavorable treatment of individuals on the basis of gender, which denies them rights, opportunities, or resources. All forms of discriminatory behavior anchored on biological and physiological differences that are founded on sociocultural evaluations of males and females constitute gender discrimination (Onwutuebe, 2015). To a large extent, it is a manifestation of belief systems and cultural practices rooted on patriarchy.

However, patriarchy embodies normative values and judgments, which, on the basis of biological differences between the males and females, provide for division of labor, privileges, and opportunities between men and women. Patriarchy reinforces male supremacy as it does not recognize any form of equality between men and women. For example, in a patriarchal society, descent and traditional methods of sustaining ancestry or lineage are traceable through the males without any due consideration or recognition to the females. The eldest male is usually accorded absolute powers over every other individual (Appadorai, 2006). The result is that women are treated like minors under the tutelage of men (Lipigne & Lebbeau, 2005) and made to be subservient to male supremacy.

Patriarchal beliefs are in most cases transmitted and sustained through diverse forms of cultural and religious fundamentalism, which rigidly define what is acceptable and what is offensive to a society in relation to gender beliefs and roles. By this means, violence against women is indirect and structural in nature because it is not perceptible. Religion is often used as a social instrument through which patriarchy and its cultural beliefs about men's supremacy over the women are transmitted to the public domain (Ogbuagu, 1997). In a bid to provide justification for the sustenance of patriarchy, religion could be politicized through various forms of religious interpretations. Religious texts are often (re)interpreted to canvass for total submission of women to the authority of men. This trend is prevalent in many Nigerian communities. Studies have shown that structural disadvantages suffered by most Nigerian women also limit their potentials and, in turn, provide higher levels of power, prestige, and reward to the men (Anifowose & Enemuo, 2005; Udegbe, 2010).

Vulnerability to climate change describes the degree of exposure of people, geophysical and socioeconomic systems to adverse climate change as well as the extent to which people can respond to problems associated with climate change (Amusan, Abegunde, & Akinyemi, 2017). Women vulnerability to climate change has much to do with their level of susceptibility to adverse impacts of climate change. In considering women vulnerability to climate change, attention is given to their exposure to the risks and human security challenges arising from climate disasters. Ordinarily, vulnerability to climate change comprises three fundamental areas which include the rate of exposure, the degree of sensitive capability, and degree of adaptive capacity. By extension, women vulnerability to climate change refers to their degree of exposure, sensitivity, as well as their adaptive capacity to climate-related problems (Tanny & Rahman, 2016). Women are vulnerable because of earlier deprivations and exclusions, which are primarily based on patriarchy and which often result to increased poverty and unequal relations with men. Furthermore, women vulnerability to climate change manifests in higher mortality rate among them during times of disasters. Higher record of deaths among the women during times of climate disasters is also partly linked to patriarchy-induced vulnerability of the women (Arora-Jonsson, 2011).

Theoretical Framework

The article adopts feminism as a framework to broaden knowledge of the study. Feminism emerged from women's unique experiences with regard to oppression and injustice under men. It concerns itself particularly with problems arising from the historical exclusion and negative characterization of women (Nehere, 2016). Since the 19th century, feminists have been involved in a struggle of emancipation geared toward liberating societies from every form of gender

prejudice and limitations. From the era of liberal feminism of the 19th century to the period of contemporary women liberation movements of postmodern feminism, investing in legal and educational reforms has been a huge concern among feminists (Motta, Fominaya, Eschle, & Cox, 2011). Generally, feminism provides perspectives for a deeper assessment, (re)interpretation, and understanding of social relations between men and women, by focusing on issues women face in contemporary societies and raising questions bordering on their rights (Lay & Daley, 2007). They question the rationale behind the division of roles based on sex, the confinement of women to the domestic sphere, and the dominance of men in the public space (Thompson, 2001). Regardless of areas of divergences inherent in various forms of feminism (whether Radical, Liberal, Marxist, Socialist or Black feminism), effort to redress systematic injustices experienced by women due to patriarchal segregations is the main task of feminism.

Of paramount importance to feminism is the effort to overcome challenges posed by patriarchy, which is believed to promote male dominance (Iruonagbe, 2009; Mackinnon, 1983). Patriarchy is seen as the cradle, harbinger, and foremost institution for power imbalance against women, and the base from which all other forms of gender disparity are constructed and reproduced. Feminism blames patriarchy for gendered roles, which undermine women's potentials for productivity, increase their poverty levels, and make them appear inferior to men (Turner & Maschi, 2015). As a way to redress gender imbalance, feminism promotes public awareness on the marginalization of women and shows different ways in which gratuitous preferences and benefits enjoyed by men over women are essentially the function of patriarchy. Patriarchy does not place any significant value on works performed by women and girls in the private domain.

Placing much value on men and their activities in the public space sets the stage for the devaluation of the status of women in the domestic space because there is hardly any system of check and measure of value for women's work and worth in the home. Lack of commensurate recognition and inadequate system of reward for works undertaken by women inadvertently reduce their worth in the political, economic, and social realms of power. It also depreciates their capacity to resist, adapt, and overcome some societal challenges including the adverse impacts of climate change. In some ways, male supremacy implies that, compared with women, men are richer, more resilient, stronger, and more flexible to withstand societal challenges.

Climate Change, Women, and Rain-Fed Agriculture in Nigeria

Among all sectors of the economy, agriculture is highly vulnerable to the adverse impacts of climate change and constitutes the major source of livelihood in Nigeria (Kandji, Verchot, & Mackensen, 2006; Ngigi, 2009; Titus, 2011).

In Nigeria, agriculture contributes about 42% to the GDP and employs about 70% of the active population—the youth (Federal Ministry of Environment, 2014). Agriculture plays such a significant role, given its contribution to food security, employment, and contribution to national GDP.

Studies show that the adverse impacts of climate change will be more visible among communities and nations where people are poor and highly dependent on environment-based livelihoods, such as agriculture (Barnett & Adger, 2007; Lisk, 2009; Nabalamba & Mubila, 2011). It is mainly on account of this that many African countries including Nigeria are considered as hot spots for climate change. It is mainly on account of the above factors that women are more vulnerable to climate change than men. Climate change affects more women because a large percentage of them are poor farmers who rely much on rain-fed agriculture. There are indications that the gender gap will further widen because of adverse impacts of climate change, which is more on women (Tanny & Rahman, 2016).

To depend on rain-fed agriculture entails a high level of exposure, vulnerability, and livelihood risks associated with increase in climate-related disasters. For communities that depend on rain-fed agriculture, there is no guarantee that rainfall or sunshine could be accessed within a given period of time presumed to be appropriate in a cropping season. In such communities, climate change-induced droughts could affect negatively rainy and dry seasons as well as seasons for cultivation and harvesting of crops. It could also affect or alter conventional times for both onset and cessation of farming seasons. Traditional cropping arrangements such as bush clearing, tilling of the soil, gardening, seed planting, and weeding are increasingly being altered by climate change. These alterations that are occasioned by the growing intensity of climate change (Tyndall, 2008) affect negatively the psychology of women involved in agricultural activities, especially in the area of planning and commencement of farming operations. Climate change also undermines farmers' access to, and the quality of agricultural resources available for use (Barnett & Adger, 2007). Effects of climate change, such as prolonged droughts and resource depletion, can reduce the availability of water and land (Fasona, 2016). These challenges bring additional difficulties to existing problems faced by vulnerable groups such as women who are already grappling with issues of patriarchy and marginalization. Implicitly, women's low adaptive capacity to climate change has much to do with hitherto existing societal and/or structural issues traceable to patriarchy and gender disparity (Laczko & Aghazarm, 2009).

Climate change aggravates already existing societal threats to gender security. As a threat multiplier, it catalyzes and makes worse the problem of marginalization of women. When climate change disrupts agricultural activities and undermines the livelihood of women involved in farming, the problem of dependency on men for sustenance increases. However, we must stress that patriarchy-induced

vulnerability to climate change affects more negatively women than men primarily due to unequal distribution of power (economic, political, cultural, religious, and social power) between both males and females.

Patriarchy, Climate Change, and the Marginalization of Nigerian Women

Climate change refers to a sustained variation in atmospheric conditions. It usually leads to major alterations in the amount and patterns of precipitation and increase in average temperature (Baba, 2011; Hendrix, 2014). Indeed, climate change is not a recent environmental phenomenon but its surge and impacts in recent times are alarming (Baba, 2011). The causes of the current wave of climate change hinge mainly on anthropogenic factors, which result to increase in the accumulation of heat-trapping “greenhouse” gases in the atmosphere. In recent times, the impacts of climate change manifests in the form of general increase in the temperature of global climate—global warming (Bello et al., 2012). Global warming itself affects negatively agriculture production by generating severe environmental conditions such as desertification, prolonged droughts, sand dunes, and soil infertility. It also induces random shifts in precipitation patterns and makes methodical engagement in agriculture unstable, especially with regard to planning and development.

However, it is important to note that the nexus between climate change and women vulnerability is not one of a linear relationship or one with a direct causal linkage. Often, climate impacts are remote and usually detached from any direct relationship with their long-term effects. For instance, through prolonged droughts, depletion of agricultural resources, and increased inability to predict the commencement and cessation of farming seasons, climate change undermines the motivation for sustained agricultural productivity.

Resource depletion leads to drop in farm yields and food insecurity (Obioha, 2009). Undeniably, when agricultural outputs are low, revenue generation from the sector equally reduces, and this makes it unattractive to remain in the agricultural business. Shortfall in agricultural revenue is a huge disincentive and naturally reduces motivation for serious agricultural activity. A typical response to low productivity and sustained decrease in income is vocational mobility or even migration. In few cases where women found themselves arrogating positions previously occupied by men were either times of the man’s death or absence arising from migration (Madzingria, 2017; Rao, Lawson, Raditloang, Solomon, & Angula, 2017).

In communities where women are deprived the right, privilege, and opportunity to participate in other economic or public activities like the men, they are confronted with much greater risk in the face of growing threats of climate change. Men whose privileged power status (in terms of financial, economic, social, and political strength) depends largely on

concessions provided by patriarchy invariably possess stronger adaptive capability to cope with adverse impacts of climate change. More important is the fact that the privileges enjoyed by men also provide them a high level of flexibility when considered on grounds of capacity and flexibility for vocational mobility or change. Division of roles, in which women are conditioned to carry out activities within the domestic space while allowing men the liberty to easily determine their choice of occupation, means that threats arising from climate change can only, at the worst scenario, compel men who are engaged in the agricultural sector to seek alternative sources of livelihoods. Women do not exercise this level of liberty because their attachments to the domestic sphere undermines their flexibility for occupational mobility or change. Climate change undermines women’s potentials for optimal agricultural productivity; yet, problems arising from patriarchy limit their drive for upward mobility.

The campaign for women empowerment is, therefore, confronted with the challenge of dealing with climate-related problems that are deeply rooted on patriarchy. Men have a higher adaptive capacity to cope with the adverse impacts of climate change than women because of patriarchal privileges. As noted by Meza (2010), men and women are not equally equipped to adapt to disasters due to social contexts marked by unequal power relations. This means that natural catastrophes do not affect men and women in the same way. Past experiences and present circumstances would determine the rate of vulnerability.

Patriarchy and the tradition of preserving certain privileges in favor of men is widespread in Nigeria. The situation is worse in “rural areas where negative attitude and beliefs about women’s participation in socio-economic developments are culturally entrenched” (Abdullahi, Adekeye, & Shehu, 2011, p. 240). In many Nigerian families, men are perceived as the beacon and symbol of hope and continuity in terms of descent. At the level of ownership and access to land, many Nigerian women are also marginalized (Ajala, 2017; Iruonagbe, 2009). Land tenure system in Nigeria overtly discriminates against women as land ownership is based on the logic of inheritance and male children are the legatees to family lands.

In fact, the patterns and dynamics of land deprivation in which Nigerian women are either not fairly recognized or completely excluded provide another dimension to reexamine and widen the scope of land grabbing. The usual narrative on land grabbing focuses on global capitalism and the greed associated with it, which often propels a massive rush to capture lands belonging to the native people (Cotula, 2013). There are also narratives in which national governments, ruling elites, and patrimonial networks built around them are buttressed as the agency through which local populations are removed from their homelands. But the various ways in which patriarchy and male-dominated societies play significant roles in the same business of land grabbing,

whereby women are marginalized or excluded, are often ignored. In southeastern Nigeria, for example, land deprivation against women is a major issue. There is a public outcry among Igbo women (in southeastern Nigeria), particularly from among the widows who suffer untold hardship as a result of dispossession of lands legally and traditionally belonging to their late husbands. Among the Igbos, generally, men are recognized as having rightful claims to lands. This also implies that when a man dies, his belongings, especially landed properties are appropriated or redistributed among the kinsmen in the family. In some cases, the notion raised is that “all substantial property, including the land, belongs to the husbands; and the woman herself is virtually considered a form of property” (Aluko, 2015, p. 57).

Land deprivation makes women more vulnerable to climate-related problems (Nigerian Environmental Study Team, 2011); yet, a large number of them have little or no choice of occupation besides their small-scale farming. The persistence of land deprivation in Nigeria weakens efforts geared toward women empowerment. As Betsy Hartmann remarks, many of the current land redistribution and community-based natural resource-management schemes contribute in widening the gender gap, by ignoring power differences within the household, community, and larger political structures (Hartmann, 2001). Furthermore, within the domestic sphere, it is generally considered the duty of a woman to carry out virtually all the homework, which includes preparation of family meals, housekeeping works, nurturing and training the children, and also working on the farm to provide food.

According to a UN WomenWatch (2009) report, although men and women in developing countries are vulnerable to climate change, those who are charged with the responsibility to secure water, food, and fuel for cooking are confronted with the greatest challenges. The task of providing the water needs of the home is, in most cases, the sole responsibility of the women. In both southern and northern Nigeria, water shortage appears to be one of the major challenges facing women, especially in view of the fact that streams that once provided their water needs are beginning to dry up due to climate change and prolonged drought. Other major duties saddled on the women include the task of collecting firewood needed at home (Fabiya & Yesuf, 2013; Titus, 2011; Zabbey, 2011). These and other forms of role division, rather than empower, deprive women of important opportunities and make them more vulnerable to climate disasters. Indeed, the dependence of women on natural resources for their sustenance, their traditional gender roles that discriminate against them, and their lack of autonomy place them at a disadvantage when it comes to dealing with the effects of climate change (Meza, 2010).

Conclusion

To redress the problem of undue vulnerability of women to adverse impacts of climate change, the numerous societal

constraints engendered by patriarchal discrimination must be challenged. Structural problems associated with patriarchy undermine the advocacy for gender fairness. Patriarchy reinforces structural violence against women by projecting discriminatory gender roles that often place limitations on how far they can go. Excluding women from collective resources paves way for male domination. Male domination means that a level of power superiority is instituted against women. It is, therefore, the view of the study that the exclusion of women from equitable resource (particularly land) distribution contributes immensely in reducing their capacity to adjust effectively to climate change-related problems. Redressing this imbalance will require interventions from different strata of the society including government agencies, private individuals, and civil society organizations.

Governments at various levels, individuals, and civil society groups seeking to forestall the problem of high level vulnerability of women to adverse impacts of climate change should give attention to the underlying philosophies on which patriarchy is premised. Gender prejudices embedded in cultures and traditional practices that appropriate undue privileges, recognition, resources, and power to men should be redressed. Legislations must be made to halt discrimination between men and women both within the domestic and public domains to ensure gender fairness. Public institutions and structures that are gender biased should be reconstituted with a view to detaching them from patriarchal prejudices.

Government policies need to factor in the peculiar concerns and complaints of women with regard to how climate-related problems could be addressed. Climate change does not affect men and women in the same way and women are more vulnerable. The experiences and responses of women are equally different. Again, a large number of women are engaged in the agriculture sector. Consequently, the voices and responses of women should be heard and considered important while drawing up strategies for adaptation to climate change. Such a step will furthermore promote the idea of ecological democracy and environmental justice.

In Nigeria, efforts should be made to address peculiar gender problems that characterize specific communities or regions. Among Igbo communities in the southeastern part of Nigeria, abusive widowhood practices are a major concern. Land grabbing is noticeable in the various ways in which lands belonging to women whose husbands are dead are forcefully taken away from them. This type of deprivation reduces the prospect for effective engagement of women in agriculture. The study considers these forms of exclusion as patriarchy induced, and concludes that they increase the vulnerability of women to adverse impacts of climate change.

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References

- Abdullahi, A. A., Adekeye, S. D., & Shehu, R. A. (2011). Towards improving gender relations in Nigeria: Implications for sustainable development. *Journal of Sustainable Development in Africa, 13*, 239-253.
- Ajala, T. (2017). Gender discrimination in land ownership and the alleviation of women's poverty in Nigeria: A call for new equities. *International Journal of Discrimination and the Law, 17*, 51-66.
- Ake, C. (1996). *Democracy and development in Africa*. Ibadan, Nigeria: Spectrum Books.
- Aluko, Y. (2015). Patriarchy and property rights among Yoruba women in Nigeria. *Feminist Economics, 21*, 56-81. doi:10.1080/13545701.2015.1015591
- Amusan, L., Abegunde, O., & Akinyemi, T. E. (2017). Climate change, pastoral migration, resource governance and security: The Grazing Bill solution to farmer-herder conflict in Nigeria. *Environmental Economics, 8*, 35-45.
- Anifowose, R., & Enemu, F. (2005). *Elements of politics*. Lagos, Nigeria: Sam Iroanusi Publications.
- Appadorai, A. (2006). *The substance of politics*. New Delhi, India: Oxford University Press.
- Arora-Jonsson, S. (2011). Virtue and vulnerability: Discourses on women, gender and climate change. *Global Environmental Change, 21*, 744-751.
- Baba, A. (2011). Climate change mitigation with renewable energy geothermal. In A. Baba, G. Tayfur, O. Gunduz, K. W. F. Howard, M. J. Friedel, & A. Chambel (Eds.), *Climate change and its effects on water resources issues of national and global security* (pp. 25-33). Dordrecht, the Netherlands: Springer.
- Barnett, J., & Adger, N. W. (2007). Climate change, human security and violent conflict. *Political Geography, 26*, 639-655.
- Bello, O. B., Ganiyu, O. T., Wahab, M. K. A., Afolabi, M. S., Oluleye, F., Ig, S. A., . . . Abdulmalik, S. Y. (2012). Evidence of climate change impacts on agriculture and food security in Nigeria. *International Journal of Agriculture and Forestry, 2*, 49-55. doi:10.5923/j.ijaf.20120202.08
- Cotula, L. (2013). *The great African land grab? Agricultural investment and the global food system*. London, England: Zed Books.
- Cunniah, D. (2010). Preface climate change and labor: The need for a "just transition." *International Journal of Labor Research, 2*, 121-123.
- Egbue, N. G. (2010). Gender division of domestic roles: Imperatives for social equality in Nigeria. *The Nigerian Journal of Sociology and Anthropology, 8*, 13-26.
- Fabiyi, O. O., & Yesuf, G. U. (2013). Dynamics and characterization of coastal flooding in Nigeria: Implication for local community management strategies. *Ifè Research Publications in Geography, 12*, 45-61.
- Fasona, M. (2016). Some dimensions of farmers'-pastoralists' conflicts in the Nigerian savanna. *Journal of Global Initiatives, 10*, 87-108.
- Federal Ministry of Environment. (2014, February). *Nigeria's Second National Communication under the United Nations Framework Convention on Climate Change*. Abuja, Nigeria: Federal Republic of Nigeria. Retrieved from <https://unfccc.int/resource/docs/natc/nganc2.pdf>
- Hartmann, B. (2001). Will the circle be unbroken? A critique of the project on environment, population, and security. In N. L. Peluso & M. Watts (Eds.), *Violent environments* (pp. 39-64). Ithaca, NY: Cornell University Press.
- Hendrix, C. (2014). Trends and triggers redux: Climate change, rainfall, and interstate conflict. *Political Geography, 43*, 27-39.
- Iruonagbe, T. C. (2009). Patriarchy and women's agricultural production in rural Nigeria. *Bassey Andah Journal, 2*, 221-238.
- Kandji, S., Verchot, L., & Mackensen, J. (2006). *Climate change and variability in the Sahel region: Impacts and adaptation strategies in the agricultural sector*. Nairobi, Kenya: World Agroforestry Centre.
- Laczko, F., & Aghazarm, C. (2009). Introduction and overview enhancing the knowledge base. In F. Laczko & C. Aghazarm (Eds.), *Migration, environment and climate change: Assessing the evidence*. Geneva, Switzerland: Research and Publications Division, International Organization for Migration. Retrieved from https://publications.iom.int/system/files/pdf/migration_and_environment.pdf.
- Lay, K., & Daley, J. G. (2007). A critique of feminist theory. *Advances in Social Work, 8*, 49-61.
- Lipigne, E., & Lebbeau, D. (2005). *Beyond inequalities, women in Namibia*. Windhoek: University of Namibia. Available from <http://www.worldcat.org>
- Lisk, F. (2009). Overview: The current climate change situation in Africa. In H. Besada & N. Sewankambo (Eds.), *Climate change in Africa: Adaptation, mitigation and governance challenges* (pp. 8-15). Canada: The Center for International Governance Innovation. Retrieved from https://www.unicef.org/esaro/Climate_Change_in_Africa.pdf
- Mackinnon, C. A. (1983). Feminism, Marxism, method, and the state: Toward feminist jurisprudence. *Journal of Women in Culture and Society, 8*, 635-658. Retrieved from <http://www.jstor.org/stable/3173687>
- Madzingria, C. (2017). Being a wife of a climatic migrant: The expanding effects of climate change on rural women left behind. *The International Journal of Humanities and Social Studies, 5*, 14-19.
- Meza, L. E. R. (2010). Climate change, poverty and migration processes in Chiapas, Mexico. *International Journal of Labor Research, 2*, 188-210.
- Motta, S., Fominaya, C. F., Eschle, C., & Cox, L. (2011). Feminism, women's movements and women empowerment. *A Journal for and about Social Movements, 3*, 1-32.
- Nabalamba, A., & Mubila, M. (2011, November). *Climate change, gender and development in Africa*. African Development Bank. Retrieved from <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Climate%20Change%20Gender%20and%20Development%20in%20Africa.pdf>
- Neher, K. (2016). The feminist views: A review. *Feminist Research, 1*, 3-20.
- Ngigi, S. (2009). *Climate change adaptation strategies: Water resources management options for smallholder farming systems in sub-Saharan Africa*. New York, NY: The MDG Centre for East and Southern Africa, The Earth Institute at Columbia

- University. Retrieved from <http://www.foresightfordevelopment.org/sobipro/55/197>
- Nigerian Environmental Study Team. (2011). *Reports of research projects on impacts and adaptation*. Building Nigeria's Response to Climate Change (BNRCC). Ibadan, Nigeria: Nigerian Environmental Study/Action Team (NEST).
- Obioha, E. E. (2009). Climate variability, environment change and food security nexus in Nigeria. *Journal of Human Ecology*, 26, 107-121.
- Ogbuagu, S. (1997). Religion of the people of Nigeria. In A. M. Uzoma, G. Nwizu, & D. Njoku (Eds.), *Readings in social science: ABSU freshmen's course in citizenship education* (pp. 66-89). Okigwe, Nigeria: Whytem Publishers.
- Onwutuebe, C. J. (2015). Gender justice and the nationalist discourse: A critique of neoliberal conditionalities in Nigeria. In Y. K. Salami, J. O. Famakinwa, & G. Fasiku (Eds.), *Nationalism and economic justice in Nigeria* (pp. 114-132). Ile-Ife, Nigeria: Obafemi Awolowo University Press.
- Rao, N., Lawson, E. T., Raditloaneng, W. N., Solomon, D., & Angula, M. N. (2017). *Gendered vulnerabilities to climate change: Insights from the semi-arid regions of Africa and Asia, climate and development*. doi:10.1080/17565529.2017.1372266
- Reeves, H., & Baden, S. (2000). *Gender and development: Concepts and definitions*. Report prepared for the Department for International Development (DFID) for its gender mainstreaming intranet resource, Institute of Development Studies, BRIDGE Report Number 55, Brighton. Retrieved from <https://www.bridge.ids.ac.uk/reports/re55>
- Tanny, N. Z., & Rahman, M. W. (2016). Climate change vulnerabilities of women in Bangladesh. *The Agriculturists, A Scientific Journal of Krishi Foundation*, 14, 113-123.
- Thompson, D. (2001). *Radical feminism today*. London, England: Sage.
- Titus, G. S. (2011). Climate change and food security in Nigeria: Regression analysis. *Journal of Research and Contemporary Issues*, 6.
- Turner, S. G., & Maschi, T. M. (2015). Feminist and empowerment theory and social work practice. *Journal of Social Work Practice*, 29, 151-152.
- Tyndall, J. (2008). A warmer world. In J. Garvey (Ed.), *The ethics of climate change: Right and wrong in a warming world*. London, England: Continuum International Publishing.
- Udegbe, B. (2010). Women, community leadership and conflict transformation in Nigeria. *The Nigerian Journal of Sociology and Anthropology*, 8, 1-12.
- UN WomenWatch. (2009). *Women, gender equality and climate change*. Retrieved from http://www.un.org/womenwatch/feature/climate_change/
- Zabbey, N. (2011, March 8). *Mainstreaming climate change mitigation and adaptation in Niger Delta communities: The role of women*. Paper delivered at a workshop organised by Kabetkache Women Development and Resource Centre for Erema Women to mark the International Women's Day, Rivers State, Nigeria.

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