

The Potential Role of Zambian Public Libraries in Actualizing the Global Climate Change Agenda

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Abstract

Globally, public libraries are considered key partners in the fight against climate change. Yet, little is known about the explicit contribution of Zambian public libraries in actualizing the global climate change agenda. To address this gap, the authors investigated the role of public libraries in the climate change agenda. The objective was to establish the role of public libraries in combating climate change and its impacts. Using a survey method, a purposive sample of 100 participants was targeted. Quantitative data were analyzed using the Statistical Package for Social Sciences while qualitative data were coded and analyzed thematically. The results revealed that majority (80%) of the participating libraries had no plans on how to combat climate change and its impacts and only 1 (1.6%) library was actively involved in climate change awareness campaigns. From this result it can be deduced that public libraries in Zambia were passive in the fight against climate change. Implicitly, the role of public libraries vis-à-vis the climate action agenda was insignificant. These findings would inform policy direction on how best to leverage public libraries in the actualization of SDG # 13.

Keywords: Climate change, climate action plan, Sustainable Development Goal #13, public libraries, Zambia



1. Introduction

Climate change is a crosscutting development issue that affects every aspect of sustainable development and the entire 2030 Agenda. The Paris Agreement on Climate Change, along with the 2030 Agenda, including the Sustainable Development Goals, forms the most comprehensive blueprint to date for eliminating extreme poverty, reducing inequality, and protecting the planet (United Nations, 2020).

Climate change is increasing the frequency and intensity of extreme weather events such as heat waves, droughts, floods and tropical cyclones, aggravating water management problems, reducing agricultural production and food security, increasing health risks, damaging critical infrastructure and interrupting the provision of basic services such water and sanitation, education, energy and transport. As a result, humanity needs to take urgent action to tackle climate change and its impacts.

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as “A change in the state of the climate that can be identified by changes in mean and/or the variability of its properties and that persists for an extended period, typically, decades or longer. The UNFCCC also defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over time periods.”

Andrić, Koc and Al-Ghamdi (2019) have observed that the consequences on developing countries like Zambia with limited resources and weak health systems will be more severe if actions are not taken to limit its magnitude and adapt to its impacts.

Sustainable Development Goal 13 (SDG 13 or Goal 13) is about climate action and is one of 17 Sustainable Development Goals established by the United Nations in 2015. The official wording is to take urgent action to combat climate change and its impacts. SDG 13 has targets which are to be achieved by 2030.

In this study, the potential role of public libraries in the climate action plan is examined. This is in cognizant of the fact that as gateways to knowledge and culture, they play a fundamental role in society. The resources and services they offer create opportunities for learning, support literacy and education, and help shape the new ideas and perspectives that are central to a creative and innovative society. They also help ensure an authentic record of knowledge created and accumulated by past generations. In a world without libraries, it would be difficult to advance research and human knowledge or preserve the world's cumulative knowledge and heritage for future generations. Therefore, as public spaces, public libraries are better placed within their communities to be hubs for climate change discourses and empowerment.

2. Statement of the problem

Though public libraries globally are largely perceived as one of the most important institutions contributing to the building and education of society, there is a dearth of research on this subject in Zambia. Owing to the gap in knowledge, little is known about how public libraries are contributing to the fight against climate change and its impacts. Thus, this study attempts to explore the potential role of public libraries across Zambia in terms of their contribution to the actualization of the climate action agenda.

3. Objectives of the Study

This paper aims at investigating the potential role of public libraries in Zambia in the global climate action plan and further examines librarians' awareness level of climate change, which

is a prerequisite for any substantive action by raising the following specific research objectives:

- I. To determine awareness and knowledge of climate change and its impact among librarians,
- II. To examine the potential role of public libraries in combating climate change and its impact and
- III. To investigate challenges faced by public libraries in their quest to provide climate action information.

4. Literature review

Current studies on the climate change agenda and the role of public libraries show many different ways in which these institutions can support and contribute to the climate action agenda. Examples of best practice of how public libraries are contributing to this fight through provision of resources and education, creating programs that center on respectful dialogue and deliberation, and serving as resiliency hubs for disaster response are presented.

A study done by Ejechi (2018) on the awareness and perception of sustainable development goals among library personnel in Edo state, Nigeria revealed that although many librarians were aware of climate change and its impacts, they were however not fully acquainted with the details and modalities for combating this phenomenon. Furthermore, in a study done by Abiolu and Okere (2011) on environmental literacy in the developing economies and how librarians can reposition themselves to create a much improved impact in environmental conservation issues recommends revitalization of public libraries and getting training in Information Communication Technology (ICT) skills.

Studies on the role of public libraries in the climate change agenda show that some libraries have already developed and implemented green operation policies within their activities, others have fostered environment considerations in buildings, while others work with other environmental aspects in terms of creating awareness and in communication (Niegaard, 2015). Charney and Hauke (2020) noted that the Chinese University of Hong Kong (CUHK) spotlights socially responsibility as it plays a leadership role within the CUHK's Green

Governance Framework. The CUHK Library formulated, developed, and implemented a green strategy in the context of the university's approach to sustainability. In addition, one of the library's successful initiatives raises awareness of sustainability issues among library staff through a rooftop organic vegetable garden installed on the new library extension roof.

Hawco (2019) discussed the role of the Toronto Public Library in the fight against climate change. Findings show that as one of the leading public library systems in the world, the Toronto Public Library has the capacity to become a prime example of developing their branches successfully to be hubs of the community providing refuge and resiliency during climate crisis.

Regarding the causes of climate change, studies have shown that this phenomenon is caused by both human and natural factors. For instance, the Intergovernmental Panel on Climate Change (IPCC) in Onu and Ikehi (2017), hypothesizes that the causes of climate change can be linked basically to factors such as emission of several gases like carbon dioxide into the atmosphere which over time affects the composition of greenhouse gases leading to altered climate; Burning of fossil fuels by oil producing companies and refineries which emit greenhouse gases into the atmosphere and other human activities all of which are anthropological influencers of climate change.

Concerning the effects of climate change, Idoma and Mamman (2016) reported major adverse effects of climate change in the area they studied as flooding of farm land, crop failure and poor harvest, poor performance and high mortality rate of livestock, wilting and decaying of farm produce, poor fish harvest and unusual pests/diseases of crop and animal.

Studies have further examined the challenges impeding integration of the climate change activities into library service delivery. A case in point is Oyemike (2016) who investigated areas of priorities and challenges of actualizing sustainable development goals (SDGs) in Imo State, Nigeria. Findings show that constraints to effective contribution of librarians towards realization of SDGs include lack of reliable and accurate data, negligence of libraries

by governments, poor perceptions of the library profession, poor lobbying and advocacy skills amongst librarians.

Accordingly, Chauhan (2015) points out that some of the major challenges facing public libraries, in going green campaign, include; stringent budget cuts which makes it very hard for libraries to meet some obligations, lack of awareness in green technology and among LIS professionals recruited with traditional knowledge and skills, resistance to change arising from lack of awareness of the green technologies and environment conserving strategies by administrators.

5. Methodology

The study is a mixed methods research approach and was found suitable to guide the study in data collection, presentation, and analysis. The total population of the study involved 354 librarians drawn from across the country. All participants were members of the Library and Information Association of Zambia (LIAZ) and with a minimum qualification of a bachelor's degree in Library and Information Science (LIS). The selection of this sample was premised on the fact that this cadre of librarians would easily understand and articulate issues of climate change and its impacts.

Purposive sampling was used to select a sample of one hundred (100) respondents. Data was collected through an online questionnaire and in-depth semi-structured telephone interview guide as data collection instruments. 100 respondents participated in the questionnaire survey while 5 chief librarians selected via convenient sampling from the sample of 100 respondents participated in the telephone interview. These five were chosen owing to their vast experience in the field of LIS. Through previous interactions they all demonstrated a wealth of practical experience and knowledge. As chief librarians they all regularly attend professional meetings. These included Zambia Library Service (ZLS), Lusaka City Council Library. The telephone interview was used because of its cost effectiveness and time efficiency.

The results of the study were analyzed using the Statistical Package for Social Sciences (SPSS) to generate meaningful statistical inferences. The data was then presented in form of

charts, and tables, with frequencies and rational representations in form of percentages. Qualitative data from the telephone interviews were analysed using a thematic approach.

6. Findings and Discussion

Demographic characteristics of respondents

The gender distribution of the participants was 53.3% male and 46.7% female. This gender allotment probably reveals that there is a growing male dominance in the library profession. With regard to age distribution, 30 (29.4%) were aged below 30 years, 43 (50.5%) were between 31 and 45 years, 15 (17.6%) were 46 years and above. Those aged between 31 and 45 years were the majority. Concerning educational level, 51 (85%) had a bachelor's degree in Library and information studies (LIS), 8 (13.3%) were holders of a Masters degree while 1 person (1.6%) had a doctoral degree (PhD).

In respect of demographic characteristics of interviewees, 80% were male and 20% female. Regarding work experience, 80% had worked between 11 and 20 years while 20% had worked for 31 years. All the participants had a Masters degree in LIS.

6.1 Awareness and knowledge of climate change and its impact

All respondents were found to be aware of climate change. However, when asked further whether they knew what climate change was all about, 12% responded in the affirmative, 49% responded to the contrary while 39% were not sure of what climate change entailed. Equally, interviews revealed that all the respondents were aware of climate change.

However, when asked on how knowledgeable they were about the global climate change agenda, 4 respondents were not knowledgeable and only one was knowledgeable about the issues of climate change. This finding is in agreement with that of Okunlola, Oluwaniyi and Oyedapo (2018) who opines that though many library personnel were aware of the Sustainable Development Goals, they were not conversant with the details and modalities for their attainment.

Climate change knowledge is a necessary ingredient for a successful fight against climate change. The low level of knowledge about climate change has a lot of implications on efforts aimed at adaptation and mitigation in Zambia. These results suggest that librarians might not be well informed about what climate change really is. It is therefore necessary that LIAZ champions the initiative of promoting professional development programs to its members.

6.2 Sources of awareness of climate change

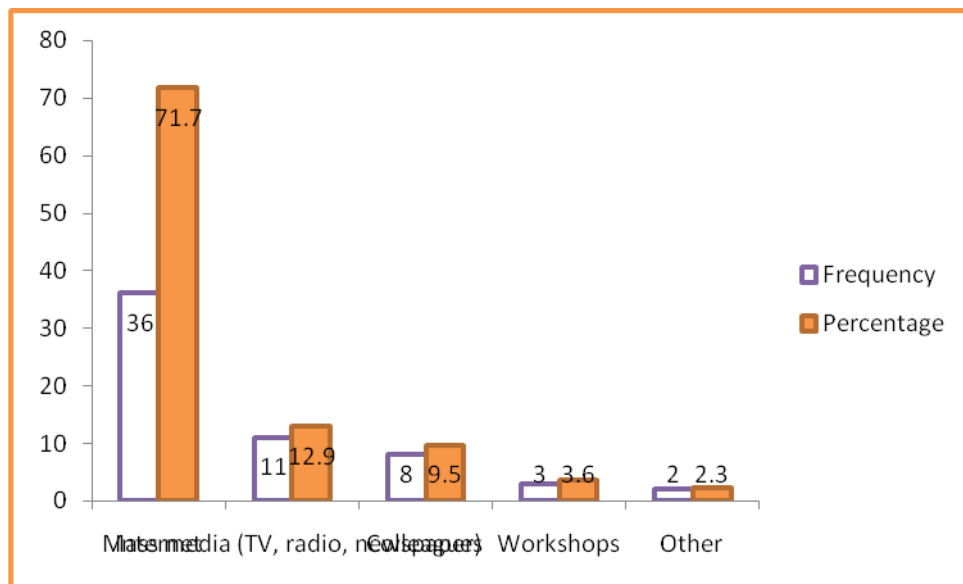


Figure 1: Librarians' sources of awareness of climate change

Various sources of information dissemination abound. Nowadays, the advent of Internet and the World Wide Web has provided another powerful means of information dissemination. Table 1 above shows that majority (71.7%) became aware through Internet. The Internet is therefore the main source of climate change information for librarians. This finding was in conformity with Chauhan (2015) who posits that self knowledge and Internet searching were the major sources of awareness about climate change information among librarians. It is quite surprising that the professional community (workshops and seminars) are so underrepresented probably due to the fact that climate change has not been understood by majority Zambians.

6.3 Causes of climate change

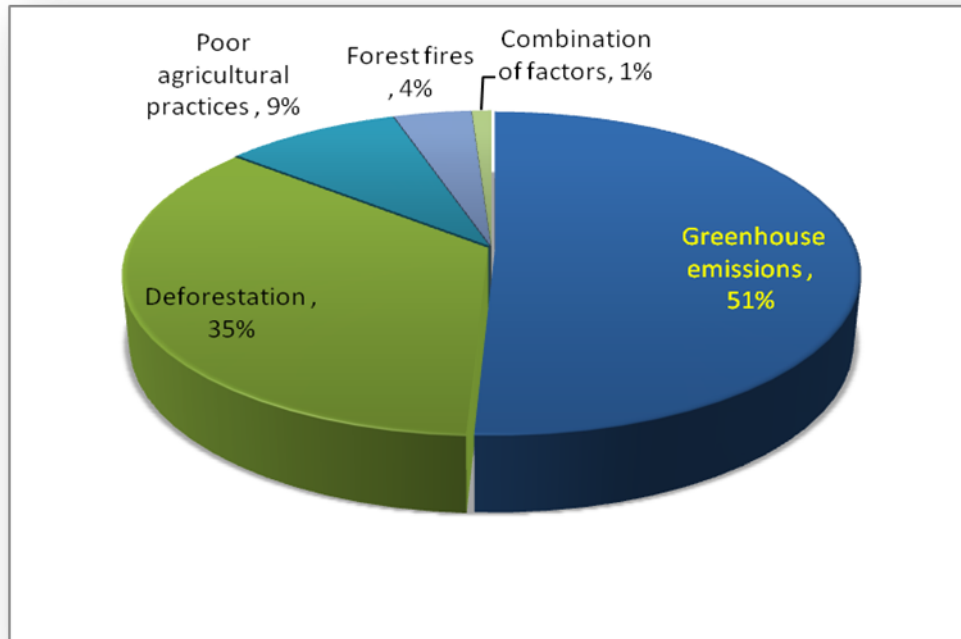


Fig 1: Factors contributing to climate change

With regard to the cause(s) of climate change, majority (51%) attributed it to greenhouse emissions, deforestation (35%) and poor agricultural practices (9%) while forest fires accounted for 4%. These results show that human activities were having marked impacts on climate change. Onu and Ikehi (2016), proposed that the causes of climate change can be linked basically to both natural and human factors such as emission of several gases like carbon dioxide. It should be noted that ignorance of climate change affects how people would deal with its effects. It is therefore expected that librarians should be provided with climate change literacy if they are to meaningfully support its fight.

6.4 Impact of climate change

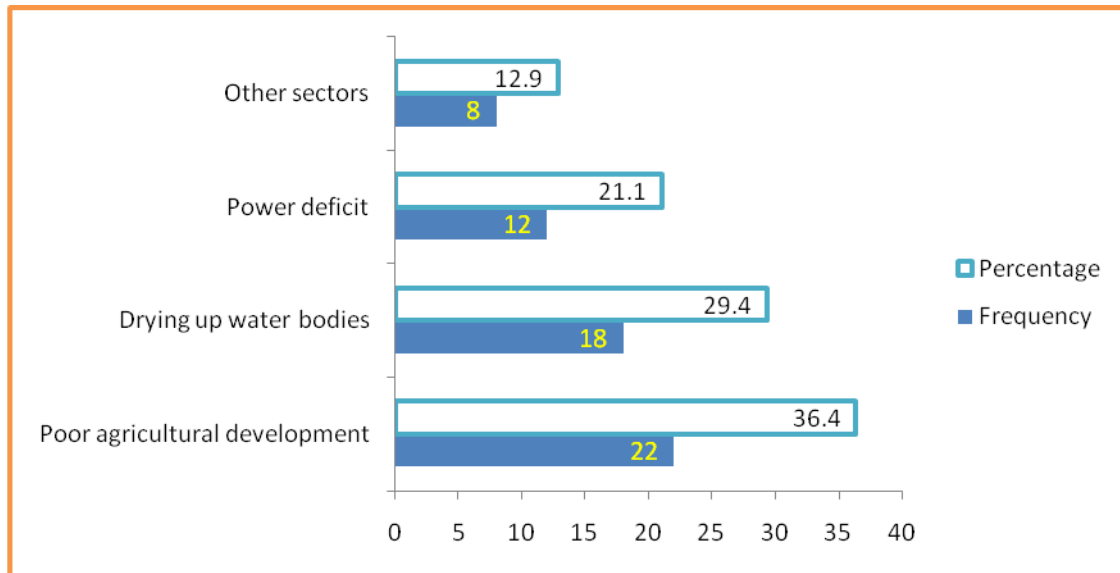


Figure 2: Impact of climate change

With regard to the potential impact of climate change, 36.4% of the respondents indicated poor agricultural development, 29.4% mentioned drying up of water bodies and 21.1% noted the problem of power deficit while other sectors of the economy accounted for 12.9%. This result agrees with a report compiled by Bernstein et al. (2008) which shows that human influences on the climate system have had widespread impacts on human and natural systems.

Climate change has had many impacts all over the world and evidence of it is very apparent. Therefore, if action is not taken to curb global carbon emissions, climate change could have devastating effects on people's livelihood. With respect to agricultural production, this economic activity is highly sensitive to climate variability and weather extremes, such as droughts, floods and severe storms. This is because higher temperatures eventually reduce yields of desirable crops while encouraging weed and pest proliferation.

6.5 Role of public libraries in the climate change agenda

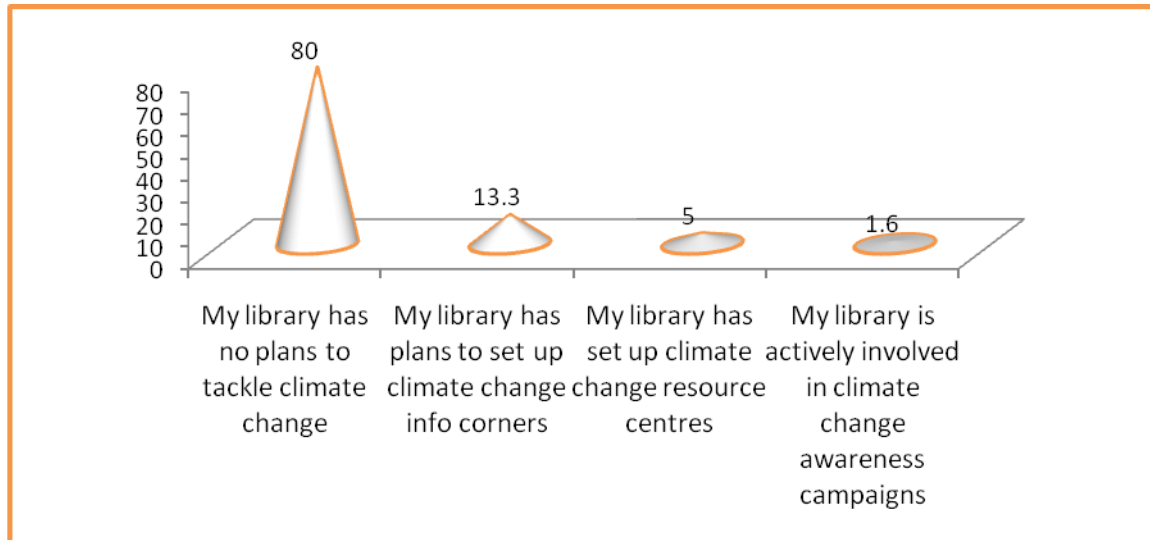


Figure 3: Role of public libraries

The pivotal role of public libraries to the climate action agenda cannot be overemphasised. Results show that majority (80%) of the libraries had no plans on how to tackle climate change, 13.3% had plans to establish climate change information corners, 5% had dedicated corners for information resources and 1.6% was actively involved in climate change awareness campaigns. From this result it can be deduced that public libraries in Zambia were passive in the fight against climate change.

In regard to the telephone interviews, respondents were asked on how libraries were supporting the community in addressing climate change. Overall results revealed that libraries can contribute immensely to the climate change agenda by providing awareness raising programmes. Three participants noted that:

Libraries can facilitate public dialogue on climate change as this is critical to raising awareness which in turn enable informed decision-making. They further noted that libraries can be hosting local forum from time to time where people can talk through problems brought about by climate change. Two participants were of the view that

librarians needed to be proactive in the way they market information resources related to climate change activities.

This result is corroborated by Ejechi (2018) who posits that though many librarians were aware of climate change, they were not fully acquainted with the details and modalities for combating it. Similarly, Hawco (2019) found that libraries have the potential and obligation to transform their roles to become a true place of refuge and resiliency for their communities. Accordingly public libraries need to be appropriately supported financially and policy wise if they are to be effectual in the actualisation of SDG number 13- a call for urgent action to combat climate change and its impacts.

6.6 Challenges faced by public libraries

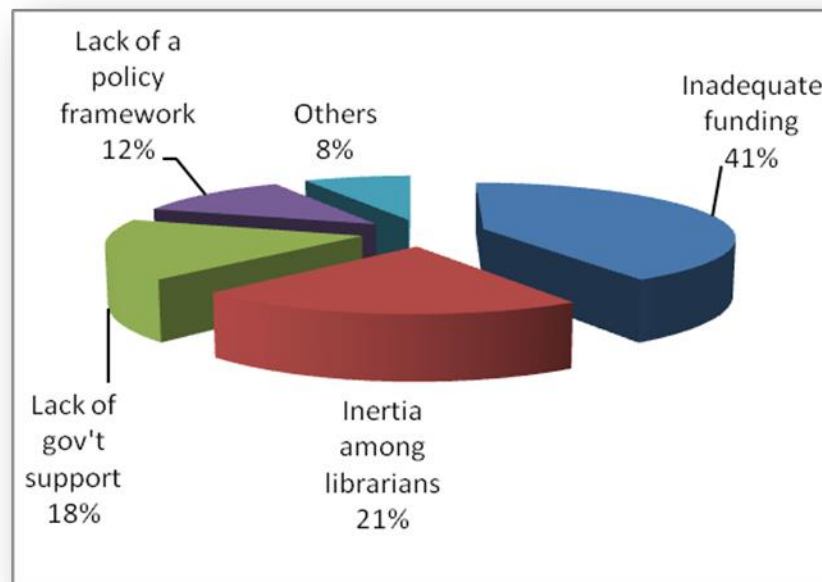


Fig. 3: Challenges faced by libraries

Effective fight against climate change and its impact faces a myriad challenges such as social-economic, legal or political. The key challenges identified include inadequate funding (41%); inertia among librarians (21.1%), lack of government support (17.6%), lack of a policy framework (12%) and other factors accounted for 8%.

Interviews also revealed related challenges to those already mentioned under questionnaire results. Notable ones include inadequate funding, poor infrastructure, inadequate facilities and inadequate staffing. It was noted that owing to these challenges, libraries cannot effectively combat climate change and its impact.

The outcome of this study agrees with the findings of Oyemike et al (2016) who identified negligence of libraries by governments and low level of private sector interest in library services. These findings could point to a pressing need for all stakeholders in Zambia to work collectively in order to address some of these challenges.

6.7 How public libraries can mitigate climate change and its impact

The study revealed that a majority 83% of the respondents suggested increasing climate change public awareness campaigns. This followed by 7% who stated public displays and discussion forums to promote climate change activities. The urgent need for climate change literacy and public awareness campaigns was unanimously echoed by all the interview respondents.

Awareness-raising is a vital initiative that plays a crucial role in increasing adaptation and mitigation capacities of communities, and empower people to adopt sustainable lifestyles. As such, public libraries need to take full advantage of these initiatives. This result aligns with the findings of Ejechi (2018) who posits that although many librarians were aware of climate change and its impacts, they were however not fully acquainted with the details and modalities for combating this phenomenon. Similarly, Charney and Hauke (2020) posits that Green and sustainable libraries in Croatia have motivated the National and University Library to educate their users regarding climate change and related topics.

The implication for this result is that since librarians are key players in the information industry, there is need to adequately sensitise and empower them first with knowledge if they are to be effective ‘ambassadors’ in the fight against climate change and its impact in their respective communities.

7. Conclusion and recommendations

The present survey reflects that public libraries have the potential to contribute positively to the fight against climate change and its impacts in Zambia. However, this potential can only be realised through the provision of relevant information services and organising relevant events which support this agenda. Regrettably, this survey has discovered that an overwhelming majority of public libraries in Zambia are ineffective in playing this role. Therefore, they have little impact on addressing climate change owing to the numerous barriers such as the passive attitude of librarians towards national and global issues.

Thus, if well supported, public libraries can boost a country's capacity to mitigate the effects of climate change because they are better placed to provide platforms for discourse on climate change leading to the development of facilitative legal and policy frameworks. Therefore, in line with these findings, it is recommended that public libraries:

- Be adequately supported financially and through specific legislation if they are to be relevant in the climate action agenda,
- Should endeavor to acquire information materials on climate change and bring the resources to the awareness of both users and potential users.
- Should try to collaborate with Non-governmental organisations (NGOs), providing forum for discussions on the topic and workshops for school children and so on.
- Should accustom themselves with climate change and its impact as well as the various approaches available to circulate information about climate action plan.
- Should enhance climate change awareness campaigns and measures to combat to it be introduced for better preparedness.

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References

- Abiolu, O. A., & Okere, O. O. (2011). Environmental literacy and the emerging roles of information professionals in developing economies. In Sustainable innovation and green information for all—Environmental Sustainability and Libraries Special Interest Group. San Juan: *International Federation of Library Associations and Institutions* (IFLA). <http://doi.org/10.1099/mic.0.052621-0>
- Andrić, I., Koc, M., & Al-Ghamdi, S. G. (2019). A review of climate change implications for built environment: Impacts, mitigation measures and associated challenges in developed and developing countries. *Journal of Cleaner Production*, 211, 83-102.
- Bernstein, L. et al. (2008). Climate Change 2007 Synthesis Report. *Intergovernmental Panel on Climate Change*. <https://research.monash.edu/en/publications/climate-change-2007-synthesis-report>
- Charney, M., & Hauke, P. (2020). Global action on the urgency of climate change: Academic and research libraries' contributions. *College & Research Libraries News*, 81(3), 114.
- Chauhan, K. (2015). Green initiatives for libraries: an environment for next generation. *International Journal of Tropical Agriculture Serials Publications*, 33(2), 1893–1898
- Ejechi, V. (2018). Awareness and Perception of Sustainable Development Goals (SDGs), among, Library Personnel in Edo state University Library. https://www.academia.edu/download/55900619/Ejechi_2017_Edu1302739_Awareness_and_Perception_of_SDGs.pdf.pdf
- Galán-Martín, A. (2018). Time for global action: an optimised cooperative approach towards effective climate change mitigation. *Energy & Environmental Science*, 11(3), 572-581.
- Hawco, C. (2019). Transforming Public Libraries as Spaces of Refuge & Resiliency during Climate Crisis: Toronto Public Library Youth and Staff Perspectives.
- Idoma, K. and Mamman, M. (2016). Access and Utilization of Climate Change Information and Support Services among Vulnerable Communities in Agatu L.G.A., Benue State, Nigeria. *International Journal of Science for Global Sustainability*, 2 (2), 46-63
- Niegaard, H. (2013). "Environmental awareness is on the rise": Sustainability in Danish public libraries. In P. Hauke, K. Latimer, K.U. Werner (Eds.), *The Green Library: The challenge of environmental sustainability* (IFLA publications, 161, pp. 279–293). Berlin/Boston: De Gruyter Saur.

- Okunlola, A., Oluwaniyi, T. and Oyedapo, R. (2018). A survey of the awareness of the 2030 agenda: A case of libraries and librarians in Osun State, Nigeria. *International Journal of Library and Information Science*, 10(2), 28-34. <https://academicjournals.org/journal/IJLIS/article-abstract/DA23FC656165>
- Onu, F. M. and Ikehi, M. E. (2017). Mitigation and Adaptation Strategies to the Effects of Climate Change on the Environment and Agriculture in Nigeria. Available online at: http://www.unn.edu.ng/publications/files/12305_mitigation_and_adaptati.
- Oyemike, V.B. (2016). Priorities and Challenges of Actualizing Sustainable Development Goals: Perspectives of Library and Information Professionals in Owerri, Nigeria. Available from: <https://www.researchgate.net/publication/344755248>
- Solheim, E. (2010). Climate, conflict and capital: Critical issues for the MDGs and beyond 2015. *IDS Bulletin*, 41(1), 100–103. <http://doi.org/10.1111/j.1759-5436.2010.00110.x>
- Weber, E. U. (2010). What shapes perceptions of climate change? *Wiley Interdisciplinary Reviews: Climate Change*, 1(3), 332-342. <https://doi.org/10.1002/wcc.41>

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