

African Journal of Education and Practice (AJEP)

AWARENESS AND USE OF INFORMATION RESOURCES TO PROMOTE ENVIRONMENTAL PROTECTION AND CONSERVATION AT KENYA NATIONAL LIBRARY SERVICE, NAIROBI

Kuruga Irene Wangeci and Dr. Rose W. Njoroge

**AWARENESS AND USE OF INFORMATION RESOURCES TO PROMOTE
ENVIRONMENTAL PROTECTION AND CONSERVATION AT KENYA
NATIONAL LIBRARY SERVICE, NAIROBI**

^{1*} Kuruga Irene Wangeci

¹Post Graduate Student: Kenyatta University: Department of Library and Information Science

*Corresponding Author's E-mail: rwange173@gmail.com

² Dr. Rose W. Njoroge

Lecturer: Kenyatta University: Department of Library and Information Science

njoroge.rose@ku.ac.ke

Abstract

Purpose: This study sought to assess Awareness and use of environmental information resources to promote environmental protection & conservation at Kenya National Library Service

Methodology: The study adopted descriptive research design. Simple random sampling was used to select a sample size of 105 respondents from a total target population of 550 staff members. In addition the five heads of department were interviewed. Data was collected and later analyzed both quantitatively and qualitatively. Frequency count and percentages were used to analyze the data collected.

Results: Findings revealed that the level of awareness on environmental information resources is low since the KNLS library staff has not implemented methods of awareness creation to users. The environmental information resources in Kenya National Library Service are not located at a specific place but integrated with the rest of the library collection thus hard to locate with ease. The challenges faced by Kenya National Library Services staff in disseminating environmental information resources to the users.

Unique contribution to theory, practice and policy: Libraries and relevant environmental institutions need to create awareness on environmental information resources, conduct staff training, and evaluation of environmental information resources so as to access the level of quality and value to the library users.

Keywords: *Awareness, Environmental Information, Environmental Protection Kenya National Library Service*

1.0 INTRODUCTION

Environmental Information generally refers to data held by public Authorities that is generated by environmental legislation and measures at all levels of government. It covers any information in written, visual, aural, electronic or any other material form on the state of the elements of the environment such as air and atmosphere, water, soil, land, natural sites. (UN/ECE, 1998). According to Jeffers and DeGaetano (2011), it the factors such as substances, energy, noise and radiation, and activities or measures, including administrative measures, environmental agreements, policies, legislation, plans and programmes, affecting or likely to affect the elements of the environment. Other issues falling under environmental information include, the state of human health and safety, conditions of human life, cultural sites and built structures, in as much as they are or may be affected by the state of the elements of the environment Information relating to the environment' shall mean any available information in written, visual, aural or data-base form on the state of water, air, soil, fauna, flora, land and natural sites, and on activities (including those which give rise to nuisances such as noise) or measures adversely affecting, or likely so to affect these, and on activities or measures designed to protect these, including administrative measures and environmental management programmes (Kresse, and Danko, 2012).

Environmental information play an important role not only in formulating environmental management policies but also in the decision-making process aiming at environmental protection and conservation of environment for sustaining good quality of life for the living beings. Education plays a vital role in the development of a country. It is one of the fundamental rights of every individual. It not only enhances knowledge but also develops overall personality of a person where library has become “a place entrusted with the acquisition, organization, preservation, storage, retrieval and dissemination of information in whatever format it might appear” (Jeffers and DeGaetano, 2011).

Environmental issues are best handled with the participation of all concerned people, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making process (Jeffers and DeGaetano, 2011). States shall facilitate and encourage public awareness and participation by making information widely available. The principle of public access to environmental information is also reinforced by the Aarhus Convention and by national legislation in dozens of countries as necessary for sustainable development. A lot of environmental information is being generated and collected as a result of environmental law and regulations or in connection with applications for environmental licenses.

One way of knowing the strength and weakness of any type of Library is to evaluate its collection and usage. Library resources are the raw materials that provide important services like learning process. Accessibility of library resources creates an enabling environment for the utilization of library resources. Environmental information plays an important role not only in formulating environmental management policies but also in the decision-making process aiming at environment protection and conservation. The level of global environmental challenges is now seen as a serious issue which needs to be addressed. In knowledge of the role of an informed and educated people in making appropriate environmental decisions and adopting behavioral approach in addressing environmental challenges, the concept of Environmental Education (EE) came up (Crompton and Kasser, 2009). The importance of Environmental Education (EE) is recognized and emphasized as one of the most effective

ways, if not the only way, to meet the complicated issues of the environment. A sustainable strategy must be able to transition through different environmental conservation needs without losing relevance to the users of the environment. Thus, the agencies planning such services would need to know the relevant training required for employees as well as the implementation strategies involved. Further, agencies must also align their policies to the needs of the environmental resources and the populations. Exposing management within agencies to the data and findings of this study may help them prepare delivery strategies within the periods during and following implementation. More studies and investigations can be carried out to fill the gap stated on special collection of environmental resources.

Kenya National Library Service (KNLS) is a state corporation that promotes, establish and offer access to library services in Kenya. Currently there are 60 branches distributed across the country and have a wide customer base that access the library premises in pursuit of knowledge. KNLS plays a role which aims to enable access to information for knowledge and transformation of livelihood for the public. People from all walks of life use the library thus the need to have information resources in all areas of human endeavor. Environmental information resources are important in libraries as they intended to enhance environmental education and public awareness on the need for environmental protection and conservation. It is assumed that if environmental information resources are accessible to patrons of KNLS, it could be used to enhance environmental protection and conservation in Kenya. Information sources are efficient if they provide relevant, useful and accurate information that can help solve problems(KNLS,2020)..

Libraries are service points where information is preserved, processed and disseminated to users. Since libraries changed from being cultural monuments to acquisitions of knowledge and centers of information communication usage of library and information resources and services has been of concern .The library users expectation when they visit the library is very high and the confidence they have make most of the users not tolerate failure thus it is important for the libraries to struggle to ensure that their collection is relevant, empowered and up to date to handle both simple and complex requests in all areas from their users positively and comprehensively. By doing this the users become satisfied and their visit to the library become constant. In some cases the collection may be relevant and available, but may not serve the purpose as expected which may be as a result of the library staff not being able to deliver the needed materials to the users in the right way which turns to be a challenge in usage of information resources by potential users(Abiolu and Okere, 2011).

So as to determine the level of usage of information resources available in Kenya National Library Services for promotion of environment protection and conservation and their relevancy to the users, evaluation of library collection becomes necessary and very important exercise to be carried out. This will show / help determine the actual holdings of the library. It is important for the library to maximize the exposure of the user to the resources thus there is need for it to be organized in a way that minimizes the effort required to obtain access to needed bibliographic materials, and to supply such materials as soon as possible when the need arises (Abiolu and Okere, 2011). However, for library staff and users to meaningfully participate in enhancing environmental protection and conservation, they require knowledge and skills gained through EE which will enable them be able to disseminate and use environmental information resources available.

Statement of Problem

Access and usage of Environmental Information Resources can help to promote the environment in various aspects. Availability of environmental information resources in

libraries has been identified as one of the most powerful instruments for bringing about the changes required to achieve a conducive environment. However, for the people to meaningfully participate in environmental protection and conservation, they require awareness, knowledge and skills.

As efforts to intensify usage of environmental information resources has continued to increase over the years, varied feedback has been received regarding people level of awareness on the available resources and also dissemination in order to enhance environmental protection and conservation. The community relies on libraries for information resources. This thus places the library in an exceptional position to become community leader and model of environmental responsibility. Libraries are supposed to nurture behaviors change regarding environmental concern and responsibility by inspiring the community in environmental protection and conservation. Libraries and information professionals ought to re-think about their roles and responsibility on the issues affecting the environment. Information professionals are placed to impact on the behavior of the community at all levels. This can be achieved through information provision, awareness creation and education to build and sustain an environmentally literate community (Abiolu and Okere, 2011). The mission of Libraries extends beyond simply being custodians of information resources and requires information professionals who are responsive to the deteriorating state of the environment to take necessary action in creating awareness and making environmental information resources available for usage by patrons of the Library.

Purpose of the study

The purpose was to assess the awareness and use of environmental information resources by patrons of KNLS to enhance environmental protection and conservation.

Objective

- I. Establish the level of awareness created by the library staff on environment information resources in Kenya National Library Services.
- II. Assess the Awareness creation methods used by the library staff on environment information resources in Kenya National Library Services.
- III. Explore challenges faced in dissemination of environmental information resources by KNLS staff.

2.0 LITERATURE REVIEW

Environmental information is available from various sources both print and electronic. Sources such as Oregon State University Libraries have created this wonderful collection of 1,000 different images taken between 1934 and 1945 that document 390 streams in the Columbia River Basin. The photographs were taken by U.S. Bureau of Fisheries researchers who were interested in the spawning and rearing habitats for spring Chinook salmon. Visitors can use the clickable map on the homepage to move around through the images, which cover areas like the Puget Sound, the Clearwater region of Idaho, and the Willamette River Valley in Oregon. Each of these separate maps has a finer level of detail, and visitors can even click on various tributaries to look for detailed images. Visitors can use the keyword search, or the geographic search, which allows them to scroll around via major river basins. The site also contains technical reports on the salmon's spawning patterns created as part of this long term project (Dooley and Luce 2013)..

The importance of public libraries to usage of information resources lies in the fact that they provide necessary information to people from all walks of life. Materials from special

Collections are used as primary sources or as research materials. In contrast to materials found in general collections, special collections materials cannot be borrowed and have restricted access (Dooley and Luce 2013). A review of the relevant literature with respect to usage of environmental information resources to enhance environmental protection and conservation will be carried out in this chapter in line with the following research objectives:

Access to relevant environmental information can help to improve the ecology of industry. there are several reasons to step up the aggregation and dissemination of environmental information such as increasing pressure to deliver public services more economically and effectively, making environmental issues public and engaging them in decision making, Public-interest groups demanding aggregated environmental information to monitor company performance and influence public policy, demand for facility-based environmental information is increasing and access to environmental information, such as the Toxics Release Inventory (TRI) (Dooley and Luce 2013).

It is also important to evaluate the user's perspective in terms of usage of the collection available in the library. This will help find out whether the library collection is really serving the information requests and needs of the users. As Brophy (2006) states "Satisfaction is usually recognized as an important criteria for determining quality and with that a lot of time and effort is spent on measuring it across all industries and services." It is unfortunate that some people do not give importance to user evaluation in finding out their level of satisfaction, with the collection and services.

There has been a study that has examined special collections from the library staff perspective. Priddle (2015) found outreach within the library was largely inadequate as special collections were often perceived as being inaccessible 'treasure rooms' guarded by 'gatekeepers.' this has resulted in an internal gap, especially between special collections and library departments focused on providing services to users. A huge knowledge gap in awareness of special collections activities by library staff was present. With this it does show why it is important, relevant and very informative to evaluate the views of the users for the continuation, changes and development of a collection and services. Poll (2007) continues to say that, "for all types of out of the ordinary collections, it is important to assess users' needs and wishes as well as users' satisfaction with the collections and services offered.

Libraries serving a defined clientele, user surveys will be more effective instrument for evaluation. As the importance of any kind of library is to render information services to a defined community of user thus appropriate for a library to evaluate the users to find out their feelings and views on the collection or stock of the library they use. The results from the evaluation will lead to the library effecting some changes brought about by the views and perceptions of the users and also make the users to keep checking, waiting to see an enhanced collection and service (Priddle, 2015).

The evaluation view of the user is important because users have different ways of approaching the library collection and as such they tend to have different experiences. The problems encountered in the usage of materials may very much be attributed to the different approaches, understanding and individual differences. The evaluation exercise results will in a big way assist the librarian in assessing the relevancy and quality of the collection which is available and organized on the perceived information needs of the users. The evaluation guidelines must be very relevant to the subject matter, flexible and easy to handle with clarity and organization (Nicholas, 2007).

It is very important for libraries to be conducting evaluative study often looking into the collection and users this is because the library users play a huge role in the library. Quality,

relevance and currency of the library materials can only be determined significantly through the perceptions of the users; because they are the users of the collection thus can contribute a lot towards any issue (Nicholas, 2007).

Information professionals in developing countries experience various challenges in their effort to promote environmental sustainability. According to Abiolu and Okere (2011:4-5) these factors include low literacy levels, inadequate political good will to support policy issues. Also another challenging issue that emerged from research conducted by Dooley et al (2013) was lack of alignment of special collections with the institutional missions and priorities of the library. This is supported by circumstantial evidence which has found there exists a lack of special collections, despite special collections forming a part of the library. This lack of integration can result in failures to address the needs of special collections in long term planning and budgeting, failures to include special collections in general collection development policies, and a lack of understanding and shared values between special collections staff and other library staff (Hewitt and Panitch, 2003). The authors also continue to note that imparting information literacy is a traditional role for information professionals. Information literacy refers to the set of skills required to find, retrieve, analyze and use information. Informational literacy enables individuals to cope with information explosion and disinformation and enhances their ability to make informed decisions (Hancock, 2003). Environmental literacy therefore is a component of Information literacy. Miller (2010) explains that, environmental literacy is the ability to realize that one's choices and actions impact on the environment discover the most sustainable solution to a problem and be able to act in the environmental friendly way. This clearly implies that information professional have a great role to enhance environmental literacy skills to library users and this will consequently boost the usage of environmental information resources to promote environmental protection and conservation.

Libraries are in a good position to be role models in the community and to the public at large in promoting environmental protection and conservation. They have the opportunity to influence library users by creating awareness on environmental information resources because they have the advantage of their huge public footprint to positively influence and develop a culture of protecting and conserving the environment. Libraries can therefore take advantage of their huge public footprint to positively influence and develop a community and institution culture of protecting and conserving the environment by increasing access to environmental information resources, putting up displays focusing on environmental issues in the library and its environs, and holding awareness/dissemination/training events for the library staff and users (Miller, 2010).

The library has a chance to assist in forming environmentally literate community through environmental education which highlights on environmental literacy and is alike to information literacy (Miller, 2010:4). Since environmental education is a particular for of literacy, it is attached to the informative role of libraries which is environmental literacy, Environmental literacy is the ability to recognize and understand the wellbeing of ecosystems and take proper action to improve, preserve or restore the physical condition of the systems. (Miller, 2010:3). A community which is environmentally literate comprises of environmentally informed people working together to influence the way the society perceives and exploits the environment. Libraries therefore can be an important place to introduce usage of environmental information resources to the users thus creating an environmental literate society. An environmental literate individual has the ability to work independently and mobilize the community to embrace environmentally sound activities that protect, preserve and conserve the environment for the present and future generations. (Cunningham & Cunningham, 2010). Although environmental education is necessary in assisting individuals

to know how to manage the environment, Stark (2011) argues that library staff and other information professionals have not entirely embraced their role in creating awareness to available environmental information resources. This area is a huge opportunity for libraries and environmental institutions to engage individuals conduct trainings and workshops and direct their thoughts more towards environmental protection and conservation activities.

3.0 METHODOLOGY

Descriptive research design was applied to the study. Descriptive survey is concerned with the present phenomena in terms of relationships, conditions, processes, practices or trends invariably (Salaria, 2012). Salaria further explains that this type of research is dedicated to the collection of information about existing conditions or situations for the purpose of description and interpretation. In order to meet the objectives of this study, and based on the above argument, the researcher applied mixed method research approach that comprises of both qualitative and quantitative approaches. The target total population for this study therefore was 550 people (KNLS, 2019). The sample size for the study was 105. 105 questionnaires was administered and 65 was returned reflecting 62% of response rate for the study. Frequency count and percentages were used to analyze the data collected. This is because of the descriptive nature of the study.

4.0 RESULTS

4.1 Background Information of the Respondents

The study sought to find the background information of the respondents based on sections, designation and gender. The demographic profile questions helped the researcher to establish the general characteristics of the respondents. Results indicate that all the sections were well represented with majority of the respondents (36) being from the Library (Largest department) as indicated in Table 1 by 5 respondents from ICT. The results also indicate that some departments are bigger than others in terms of number of staff especially the technical staff. The technical staff are well palced to provide informtion on environmental information resources due to their nature of work and would contribute constructively to the study. In addition, this information was also very useful for the purpose of follow-up during interview with some members of the department to clarify some issues.

Table 1: Questionnaire Response Rate

Respondents Departments	Distributed	Returned	Percentage
Library	68	36	33
Finance	1	1	1
Human resource	1	1	1
Procurement	1	1	1
Legal	1	1	1
ICT	5	5	5
ISBN	3	3	3
Internal Audit	2	2	2
Accounts	1	1	1
Corporate Communication	4	4	4
Research and development	5	3	3
Implementation committee	4	2	2
Monitoring and evaluation	5	2	2
Resource Mobilization	1	1	1
Distribution	3	2	2
Total	105	65	62%

The results consideration in terms of gender established that the number of respondents were almost equal with only a small margin difference between males and females as shown in Figure 1, with females leading at 56% and the males at 44%. This shows an imbalance in the ratio between female and male at Kenya National Library service. Gender has become a matter of concern in the professional cycles in Kenya. It was therefore of great concern to this study that the information gathered included views and opinions from both males and females. Additionally, men and women have diverse roles, which have different impact on the environment (Leduc, 2010). Leduc also argues that the power relationship among men and women can extensively influence the way men and women view /handle environmental issues. This therefore implies that, a gender sensitive research embraces the distinctions and similarities between men and women in terms of opinions and knowledge, and gives equal value to both of them.

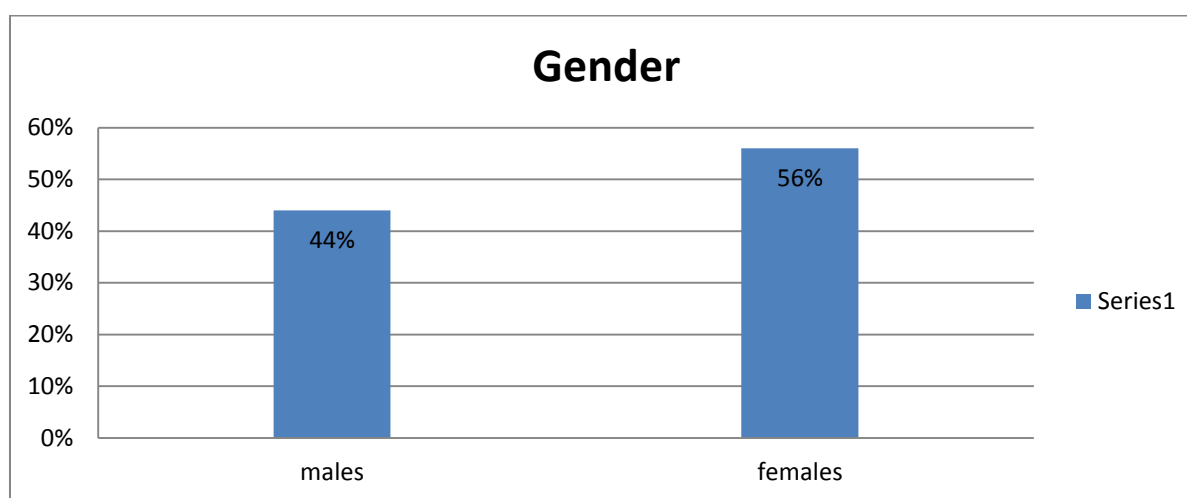


Figure 1: Gender

The results consideration in terms of designation showed that most of the respondents (51%) were technical officers followed by the managers who formed (20%) of the respondents while the least were clerks forming 12% of the respondents as shown in Table 2. This implies that the technical staff and managers in various fields formed the biggest percentage of the operational staff at the Kenya National Library Services. An interview was conducted on five members of staff from four departments namely; Library, Corporate Communication, Research and development and ICT. This information is illustrated in Table 2. From the interviews, 57% of the interviewees were male while 43% were females. The above named technical officers work with the public to enable access to environmental information resources for knowledge and transformation of livelihood. (KNLS, 2019) This being in line with the mission of Kenya National Library Services.

Table 2: Designation

Respondents	Frequency	Percentage
Technical officers	33	51
Managers	13	20
Administrators	11	17
Clerks	8	12
Total	65	100

4.2 Level of Awareness Creation

This particular objective was developed to establish the level of awareness created on environmental information resources in Kenya National Library Services. The specific areas of concern was to establish whether the library users were aware of any environmental information resources in the library, awareness created by the library staff on the available environmental information resources and the library users level of knowledge and understanding about environmental information resources to promote environmental protection and conservation.

4.2.1 Awareness Creation on Environmental Information Resources in the Library.

The study sought to assess whether library users were aware of any environmental information resources available in the library. This was considered to be important in this study as it would assist to establish the environmental literacy levels of the respondents and this would consequently affect the role of information professionals. This will either be a Yes or No response question where 42% of the respondents indicated of being aware of environmental information resources in the library while 58% were not aware. Similarly, respondents we also asked to rate their understanding and knowledge of environmental information resources. Results are as indicated in Table 3. The findings showed that 43% of the respondents indicated that they had low understanding of environmental information resources, 21% indicated average while 19% very low. Only 7% of the respondents indicated high understanding. It can therefore be concluded that, most of the respondents were not aware of environmental information resources in the library while their understanding and knowledge of the same was low.

During the interview, respondents who participated were asked to rate their level of awareness creation on environmental information resources in the library and had this to say. A Technical staff said, *“No one sensitizes library users about environmental information resources in the library. It is hard to locate them. The library staff is not keen on making users aware of the environmental information resources available.”*

The above results confirms what Chen, Qian, and Zhang (2015) found out that, lack of environmental information resources awareness creation resulted to a society that usually demonstrate little or no concern to environmental protection and conservation since there is no sense of responsibility. Imparting knowledge and understanding of environmental information resources and the benefits it brings to library users by conducting environmental literacy will eventually impact positively on the attitude of the society towards environment protection and conservation.

Instilling environmental literacy skills to library users is a very important task that must be carried out seriously by information professionals. This assignment must also be monitored often using the right tools to ensure implementation and confirm benefits. Sensitization on environmental information resources plays a huge role in order to promote environmental protection and conservation through reinforcing public commitment and engagement.

Table 3: Level of Understanding on Environmental Information Resources

<u>Level of understanding</u>	<u>Frequency</u>	<u>Percentage</u>
Very High	7	11
High	4	6
Average	14	22
Low	28	43
Very Low	12	18
Total	65	100

4.2.2 Awareness Creation Methods

The study sought to establish the methods used by the library staff to create awareness on environmental information resources. This question was seen important in order to identify the most effective method of sensitization so as to raise the level of awareness on environmental information resources to the library users as illustrated in Table 4.

The results show that, 32% of the respondents indicated that the library staff create awareness on environmental information resources through the institution website. This was confirmed by the researcher by visiting the website and noted that the institutional policy on environmental information resources had been posted. Results of the study also show that, 25% of the respondents indicated that the library staff uses the social media while 15% of the respondents indicated that use of institutional publications.

This result implies that the methods being used by KNLS to create awareness are not effective and that the library staff should intensify and improve on awareness creation methods so that library users is well aware of environmental information resources.

Respondent from communication who were interviewed and asked to provide some of the methods used by the library staff to create awareness on environmental information resources had this to say: *"I am not aware of any methods used."*

The aim of creating awareness to environmental information resources is to encourage library users to utilize them not just for academic purposes but also to be able to understand the environment which will enable environmental protection and conservation. Awareness creation develops appropriate attitude and concern for the environment leading into favorable practices and habits. The above result confirms Godara and Khirwadkar (2017) submission that, major efforts are required for effective awareness creation on environmental information resources across the country, so that citizen is inspired to be actively involved in environmental protection and conservation. Oyelude and Alabi, (2013) recommends some activities and practices that can be used by the library staff to create awareness like; institution website, exhibitions, talk shows, workshops, training/orientation and institution publications to be organized regularly so as to develop environmental literacy and displays . These two researchers further recommend initiating a library blog to increase awareness about library's information resources like environmental information resources.

Table 4: Awareness Creation Methods

Methods	Frequency	Percentage
Institutional website	28	43
Workshops	6	9
Training/Orientation	7	11
Social media	12	19
Institutional publications	8	12
Others	4	6
Total	65	100

4.3 Challenges in Disseminating Environmental Information Resources

The study sought to explore the challenges faced in dissemination of environmental information resources by KNLS staff. According to Abiolu and Okele (2011:4-5) states factors like low literacy levels especially since the library staff don't have environment background study to be able to assist those looking for environmental information, poor infrastructure /technological development and inadequate institutional good will to support policy issues. The authors do note that imparting information literacy is a traditional role for information professionals. Information literacy refers to the set of skills required to find, retrieve, analyze and use information. Information literacy and lifelong learning enables individuals to cope with information explosion and disinformation and enhances their ability to make informed decision (Hancock, 2003). This clearly shows that library staff has a great role to enhance environmental literacy skills in library users and this will boost the usage of environmental information resources. The information environment keeps on changing posing serious threats to information professionals. To that note, they need to invent and adopt innovative ways to survive in this dynamic and competitive environment. Information professionals should equip themselves with adequate professional skills and competencies to remain relevant in the mainstream of information services. Professional training for information personnel is a must in the current information services industry. It is important to provide training for staff in order to improve professional competence to meet the information needs of library users.

5.0 CONCLUSIONS AND RECOMMENDATION

Conclusions

Based on the findings and discussions, the study drew the following conclusion: Library users at KNLS were not aware of environmental information resources available in the library neither did they understand nor possess knowledge on how to locate, access and use them. It also emerged that, the library staff has put some effort to create awareness on environmental information resources through institution publication and institutional website. However, the methods being applied to create awareness are not effective since the library users are not aware of the environmental information resources. Therefore, the study concluded that, the level of awareness creation is low. There is the need for KNLS library to place strategies that promote usage of environmental information resources in the library. These may include developing a formal environmental information resource policy statement for the library which embraces continual improvement in acquiring environmental information resources

which will help in promoting environmental protection and conservation, communicate the environmental information resources to library users, there should be a library staff in charge of environmental information resources who should be well trained and knowledgeable on the subject, the library staff should conduct environmental literacy programmes as a way of promoting the usage of environmental information resources

Recommendation

The following are the recommendations of this study: In order to enhance the usage of environmental information resources, user sensitization and awareness creation is of great significance and should be reinforced. There is need for KNLS to be involved in campaigns and advocacy programmes that will enhance integration of environmental protection and conservation practices in the library operations by use of effective awareness creation of the environmental information resources. This study therefore recommends that policy makers should ensure thorough and effective awareness creation strategies are authorized to promote the usage of environmental information resources. Customer communication should be emphasized since libraries have great opportunities to promote patron environmental awareness through communication and environmental literacy as well as acting as role models. The staff should organize programmes in the library for library users to create awareness and ensure maximum usage of environmental information resources

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