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Abstract

Purpose: This study investigated the role academic libraries play in the achievement of sustainable development goals 2 and 3

Design/Methodology/Approach: An exploratory approach through an extensive review of related literature and case study was adopted for this study. Discussion on the efforts made by academic libraries in Federal University of Technology Library Owerri, Nigeria; Makerere University Library, Uganda, Kampala International University, Uganda and Ghana Institute of Journalism Library made in the achievement of SDGs 2 and 3. The study was guided by three research questions. Research questions 1 and 2 were gotten from the literature reviewed while the answer to research question 3 was based on information provided by the researchers being staff in the universities studied and the result of the interview from the rural host community.

Findings: Major findings revealed that natural disasters (extreme weather, drought, flood,etc); ineffective food distribution, poor packaging, processing and storage, social support networks, untimely delivery of information, physical environment, inappropriate media for information dissemination among others were the problems militating against attainment of food security and good health. The finding also revealed that the community lacked agricultural information such as where to get the best variety of farm inputs, where and how to source agricultural loans, the market where they will get a better bargain for the products among others. Members of the rural host also lacked health information.

Practical Implication: In a hunger crisis society and where health care services are not given the utmost attention, the life of the citizens are endangered. The provision of library and information services to people will empower them to seek and find the solution to these problems.

Originality/Value: It is recommended that academic libraries can achieve SDGs 2 and 3 through repackaging of agricultural and health information in different formats and in the language rural communities will understand and make it accessible to them. Libraries can also partner/collaborate with agricultural and health professionals in the provision of extension services to their host communities.

Key Words: Food Production, Food Security, Good Health, Well-being, Zero Hunger, Academic Libraries, Sustainable Development Goals, Information Service Provision, Community Development.

Introduction

The global community in the 21ST century is becoming increasingly aware that the promotion of healthy living and ensuring food security is a prerequisite for eliminating poverty, illiteracy and

building strong economies and healthy communities. Nunes, Lee, and O'Riordan (2016) are of the view that promoting healthy living is both an essential and effective means to attain all goals under Sustainable Development Goals (SDGs). A healthy mind or body is critically needed in building a nation for development; the sick and hungry person has no interest in his immediate surroundings let alone contributing to the national development. It should be observed that food and health are basic necessities of life and are not supposed to be compromised by any country, which has its citizens at heart. It is on this premise that made the world leaders in September 2000 adopted the United Nations Millennium Declaration. The final reports of the 8 Millennium Development Goals (MDGs) adopted, produced the most successful anti-poverty movement in history, one of which is the reduction of undernourished people in the developing regions by almost half, maternal mortality declined by 45 percent, New HIV infections fell by approximately 40 percent between 2000 and 2013 (United Nations, 2015). But progress was uneven across regions and countries, leaving millions of people behind, especially the poorest and those disadvantaged due to sex, age, disability, ethnicity or geographic location (United Nations, 2015). In a bid to further finish the job of MDGs, these leaders came up with 17 SDGs for another fifteen years' plan.

According to the United Nations (2015), substantial efforts have been made in improving life expectancy, maternal and child mortality and communicable diseases as well as food security. Worldwide, 400 million people have no basic health services, in Africa alone, there is a 24% global burden of disease, 80% of non-communicable diseases, death occurs in low and middle-income countries ((Wagner & Brath, 2012). Kinney et al. (2010) reported that approximately six million children die before their fifth birthday every year and AIDS being the leading cause of death for adolescents in sub-Saharan Africa with an estimation of 75% Morhason-Bello et al. (2013). 795 million people suffer from chronic hunger in the world, of this 98 % live in the developing world (Morhason-Bello et al., 2013). Additionally, 815 million people in developing countries are undernourished Heffernan, Hendrickson, and Arda (2008); Gani and Chand Prasad (2007), 45% deaths of children are due to poor nutrition Rice, Sacco, Hyder, and Black (2000) and 23 million primary children attend classes hungry in Africa (Aid for Orphans Relief Foundation, 2015). On the ground, there are more hungry people in Africa who need intervention for UN SDGs of ending hunger by 2030 (Chikhuri, 2013; Hickel, 2016)

Since the achievement of SDGs is a collective effort, libraries also have a role to play in the provision of a powerful tool known as information. Health and agro-information need to be

provided by the libraries be it academic, research, special, public or any type of library so as to end the menace of hunger and endemic diseases especially in the developing countries.

Statement of the Problem

The SDGs address the needs of people in both developed and developing countries, emphasizing that no one should be left behind (United Nations, 2015). In order words, the achievement of sustainable development goals is a collective responsibility that requires substantial effort by every member of the society for its sustainability. Many studies have shown that efforts have been made to achieve global goals yet statistics on how to attain goals 2 and 3 especially by academic libraries are still on its low ebb. There is still an increase in substance abuse among the youths, an increase in road accidents, a high rate of viral hepatitis infection, postharvest loss due to inadequate preservation, value addition, lack of reliable transport, lack of suitable markets and storage for the farm products. This situation has become so alarming and a sort of worry. The study is, therefore, aimed at finding out how academic libraries in Uganda, Ghana and Nigeria with their expertise in identifying specific information needs, documenting and disseminating information can contribute to the efforts in place to ensure zero hunger, good health and well-being of their communities and even beyond.

Research Questions

The general purpose of this study was to explore the contributions of academic libraries in achieving sustainable development goals 2 and 3. The research questions include the following:

- What are the challenges faced in the realization of goals 2 and 3?
- What is the academic libraries' contribution to achieving sustainable development goals 2 and 3?
- What efforts have academic libraries in Ghana, Nigeria and Uganda played in the realization of goals 2 and 3?

Literature Review

Information service provision is a horizontal intervention that cuts across many hunger and disease-based interventions, like HIV/AIDS, TB, malaria, and neglected tropical diseases, infant and maternal mortality, injuries, road traffic accidents, substance abuse, poisonings, waterborne diseases, disasters, violence, food security, food production, and post-harvest loss. According

to the World Health Organization (2015), in order to promote and protect community health and ensure a hunger-free zone, the people must have access to the information and services pertaining to a certain issue in question. The Lyon Declaration on Access to Information and Development 2014, calls upon the United Nations member countries to ensure that everyone has access to, and is able to understand, use and share the information that is necessary to promote sustainable development (Bradley, 2016). Libraries provide access to information that enables users to understand their health and make related decisions for themselves or their families (Bidwell & Oliver, 2001).

Library users report that health information found through libraries is valuable and affects their health care decisions (Chobot, 2002). A community with sufficient information literacy can use information as a vital tool for development (Oduwole & Okorie, 2010). Haggstrom (2004), remarks that libraries have the responsibility to facilitate and promote public access to quality information and communication. Therefore, libraries can contribute to actualizing SDGs by making information available towards health and hunger reduction (Abosede, Alabi, & Oluyemisi, 2014).

Academic libraries in Uganda, Ghana, and Nigeria have a very important role in this regard to support the SDGs and work towards helping to reach the identified targets by 2030. These libraries are in a unique position to contribute to SDGs success because of their special roles in the academic community and the environs, that is, providing relevant information to support students, researchers, projects within and outside the universities, the space they provide and more importantly the skills of the librarians as information specialists. Odunewu and Omagbemi (2008) observe that information plays an indispensable role in achieving goals and that libraries can play an important role in realizing the SDGs (International Federation of Library Associations and Institutions, 2003). Librarians now appreciate the use of their particular skills in the provision of these services. However, it is a bit doubtful whether good health and wellbeing, food sustainability and security can be realized considering some of the following challenges that threaten massive food production and attainment of good health.

Challenges Facing the Realization of SDGs 2 and 3

Low education levels are linked with poor health, more stress and lower self-confidence (World Health Organization, 2015). Previous research has established that through education people are able to learn more about health and are in a better position of protecting themselves and

their household against diseases (Althabe et al., 2008; Rosenthal & Fox, 2000). Deboosere, Gadeyne, and Van Oyen (2008) observe that a highly educated person lives longer and has a higher life expectancy.

Timely delivery of information to a targeted community is crucial otherwise the information may be stale by the time the beneficiary receives it. However, the absence of a systematic structure that ensures proper gathering of information, appropriate avenues of dissemination of information and easy access to information does cause delays or sometimes a total lack of information in the area. According to Oluwaseun and Olaronke (2015), the information manual process is time-consuming and lack of transportation hinder movement and delays in decision making.

There are various media like word-of-mouth, mobile phone calls, extension workers, SMS, internet, radio and email mainly used by service providers in a certain community that can hamper the flow of information due to the low level of education of most rural dwellers. Musa, Githeko, and El-Siddig (2013) observe that the most popular information dissemination media among farmers is the radio and the text-based media is less popular because of their limited reading and writing skills. They further state that it is important to match the method of dissemination with the community's preference to attain a more effective transfer of knowledge and skills. The use of multiple dissemination media helps to increase the usefulness, satisfaction and further dissemination of information (Mueller, Burke, Luke, & Harris, 2008).

Higher-income and social status are linked to better health; persons with higher incomes are most likely to have better health outcomes (Hyde, 2017). Rural people have limited access to roads and transportation a situation that impacts their access to resources and services (Hyde, 2017). The greater the gap between the richest and the poorest people, the greater the differences in health. Therefore, there is a need to improve on the economic position of the community especially at the family level (Chikhuri, 2013; Haggstrom, 2004; Hyde, 2017).

Access and use of health services that prevent and treat disease influence health. Limited access to health care services can also be a barrier to reducing food production. According to Park, Turnbull, and Turnbull (2002), family members' health is affected if one has no ability to afford health services from the medical team.

There is usually no progress in an atmosphere of chaos and anarchy as this dampens the region's prospects for improving food security and health. Instability has a negative impact on economic growth and health systems Bianchi (2015); and that areas that experience conflicts never benefited from the MDG gains (Asi & Williams, 2018).

Physical environmental factors can affect the health of the community (Bircher & Kuruvilla, 2014). Safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health. Places we live and work clearly affect our health (Srinivasan, O'fallon, & Dearry, 2003).

Social support networks involve the provision of social support, social influence, social engagement and attachment and access to resources and materials (Berkman & Glass, 2000). Greater support from families, friends, and communities is linked to better health that is lower blood pressure during everyday life (Uchino, 2006). A person suffering from HIV and stigmatized will not heal quickly unless he has support from family, as there are greater benefits from interacting with peers (Naslund, Aschbrenner, Marsch, & Bartels, 2016). A number of people who are mentally ill are kept at prayer camps and the aged with Alzheimer's are branded as witches and wizards. Oppedal and Idsoe (2015) observe that discrimination based on culture has a serious relationship with poor mental outcomes.

Extreme weather, drought, flooding, and other disasters have an adverse effect on agricultural production. World Health Organization (2015) observes that climate change has increased consequences for health, ranging from the immediate impact on extreme weather events to the longer-term impacts of drought and deforestation on food production and malnutrition and increased the spread of infectious disease vectors for malaria and dengue. Hence, the net effects of climate change on either crops or livestock production will influence efforts to achieve a nation's health, food security, and productivity.

Insufficient food production, ineffective food distribution could also result in food not reaching the consumers. Mârza, Angelescu, and Tindeche (2015) stated that almost half a third of the food produced globally for human consumption is lost or is degrading as a result of the poor transportation system, inefficient distribution chain, poor packing, processing, and storage. The uneven distribution of food results in undernutrition, which in turn reduces society's productivity and long term growth. Therefore, there is need for efforts such as ensuring food security while

reducing post-harvest loss, gender sensitivity within food chain and empowering poor communities so as to eliminate hunger and ensuring sustainable development in the world (Mwaniki & Makokha, 2013; Olinto, Beegle, Sobrado, & Uematsu, 2013; Yeudall et al., 2007; Yu & You, 2013).

What can Libraries do to Achieve SDGs 2 and 3?

One key thing that fosters sustainable development in the local communities is services provided by libraries in collaboration with different organizations that are within the locality (Duhon & Jameson, 2013). The findings of a research conducted by Dadzie, Martin-Yeboah, and Tachie-Donkor (2016) show that librarians have been working in partnership with health and other related institutions to solve some health needs of the communities they are embedded in, however, it has been subtle. Libraries need to collaborate with health and agricultural professionals, ministries, NGOs, and communities to promote educational campaigns as well as identify and address health and food security needs in their communities. Igbinovia (2016), suggests that increased library collaboration with researchers from other sectors like health and agriculture will enhance sustainable development and provide accurate access to research results.

Library associations in various countries should be involved in training its members consistently on forming collaborations and developing advocacy skills for the achievement of these goals. Through training and workshops, librarians can establish networks with officials at the ministries, NGOs and other government programs that are related to health and agriculture and this will make it easier to get resource persons for all campaigns that will be organized by libraries. According to Bradley (2016), global action must be supported by local advocacy with the support of libraries and librarians at all levels. Collaboration enables access to resource materials needed for awareness creation. These can be done through the personnel space, mobile technologies, social media and various platforms available in libraries.

Promoting sustainable development depends on access to information (Arko-Cobbah, 2010). Health and agricultural researchers need to research and provide new vaccines, crop varieties, drought-resistant yields by getting access to relevant and reliable information. Libraries attached to health and agricultural institutions like universities and research organizations have been providing research support services to relieve researchers of the burden of looking for information on new researches. Through building a solid and relevant library collection, and

selective dissemination of information, all relevant sources of information are made available to researchers to facilitate their work. More so, information literacy sessions are held by libraries for health and agricultural researchers and students on the appropriate means of searching and use of information resources to assist research and practice. Igbinovia (2016), suggests that librarians must collaborate in research with scholars from various study fields by providing a major gateway to all knowledge available.

For users who have English as a second language, it becomes difficult for them to access the desired information. The majority of these people reside in rural areas and therefore, have limited access to information for their day to day running activities and this affects their performance in food production and health. Rural populace suffers from acute low productivity, social and economic retrogression as a result of ignorance, the inadequate or total absence of information dissemination (Harande, 2009; Issa, Omopupa, & Salman, 2011; Momodu, 2012; Nwokocha & Chimah, 2017). To save these situations librarians should source agricultural and health information, indigenous knowledge from communities on agricultural practices, orthodox medicine, etc process and repackage them in different local languages and make them available to their communities and those in need of such information for future generations (Igbinovia, 2016). An example is that the African communities have their local or indigenous food that is nutritious that adapt to local conditions, such information can be documented by libraries thus improve food access and availability (Oniang'o, Allotey, & Malaba, 2004).

Attracting research grants or educating or linking people up to grant funding agencies is another role libraries play in helping to achieve sustainable development. Libraries can either win the grant for themselves and involve the persons or teach and guide them on how to write and win grants. Winning grants makes it possible for libraries to effectively organize conferences and workshops at a subsidized rate for farmers in their localities to educate them on how to tackle different challenges associated with practicing primary health care. This can help in the massive production of food and boosting community health.

Libraries can sensitize their communities by providing information on all sorts of issues and act as a central point for the community by holding forums where the community can meet and talk through problems associated with a particular issue. The library staff in collaboration with a radio station manager and public health/ agricultural officials can organize a radio talk on how a particular issue affects the community, how it occurs and be prevented. This can be done

through sponsoring agriculture programs in the media e.g. radio or television periodically and also drawing the attention of government agencies on the need to mobilize farmers in the rural areas to boost food production.

Libraries can empower their local communities through establishing ICT centers and digital consumer libraries primarily to help people in their locality. The digital consumer library will carry evidence-based information that is well repackaged to suit the specific information needs of the community. ICTs can be used as tools to empower the rural community with the technological information and skills necessary for sustainable health and food production and security. According to Kumar and Zahn (2003) and Brown (2003), Africa has registered an increase in mobile Internet subscribers and smartphone users; therefore, librarians can take advantage of this and use social media platforms to disseminate information and also collaborate with telecommunication companies to disseminate information to those outside social networks using programmed calls and short messages (Igbinovia, 2016). Community members must be taught how to use and access information through ICTs; universal literacy helps to increase access to information and knowledge (Bradley, 2016).

Libraries (universities) can establish adult education centers/community libraries in their locality to cater to the information needs of the community at the grassroots such as farmers, patients, and other community groups as part of the library users. The information needs of the community are enormous and the best way to respond to them is by providing the necessary information fast and continuously by focusing on the interest and involving community participation of the service in question. Once this is in place, access, dissemination of information and mobilization of the community will be made easier and makes any intervention sustainable. These information centers can also be used as avenues for the community forwarding their concerns to the Central government and other authorities through channeling the information to the District forum. With the education center, farmers would be taught to read and write and acquire skills to source information for their agricultural and health information needs. Furthermore, information centers can offer bibliotherapy services.

Libraries can directly or indirectly play a role as Liaison Officers. They can partner with agricultural and health research fellows in their institutions and link them up with their communities. One of the main strategies developed by the University of Development Studies Library in Ghana is to partner with the Faculty of Agriculture, Ministry of Food and Agriculture

and Savanna Agricultural Research Institute to provide farmers especially those within northern Ghana with current agricultural research results (Akeriwe, 2017). A study carried out by Nwaoguala et al (2015) at the University of Benin at their Teaching and Research Farm, Faculty of Agriculture is an example.

Methodology

This study employed both exploratory approach and case study. Specifically, the libraries used in this study were Federal University of Technology Library Owerri, Nigeria; Makerere University Library, Uganda, Kampala International University Library, Uganda and Ghana Institute of Journalism Library. The content analysis approach and oral interview were the instruments adopted by the researchers. These documents included: scholarly databases, for example, AGORA, TEEAL, Science direct, DOAJ, Emerald Publishing, Sage, and Google Scholar. Findings from these documents enabled the researcher sought information on research questions 1, 2 while the answer to research question 3 was based on information gathered by the researchers from their respective institutions and from the oral interview from the rural host community and other respondents. Data obtained were analyzed and conclusions are drawn and from there, recommendations were proffered.

Findings and discussion

Efforts of the Academic Libraries in Uganda, Nigeria, and Ghana in the Achievement of Sustainable Development Goals 2 and 3

This part x-rayed the efforts made by the academic library in the Federal University of Technology, Owerri; Makerere University Library and Kampala International University, Uganda and Ghana Institute of Journalism Library.

Federal University of Technology, Library, Owerri (FUTO), Nigeria

The Federal University of Technology, Library Owerri has made a substantial effort in promoting SDG 2 in the area of subscription to online and offline databases on agriculture such as AGORA (Access to Global Online Research in Agriculture) and TEEAL (The Essentials of Electronic Agricultural Library). These resources are made available to the university community to facilitate teaching, learning, and research. Other multidisciplinary databases that have information on agriculture and related fields are also subscribed to. In 2015, ITOCA (Information Technology Outreach Center for Africa) representative in Nigeria conducted training workshops to the selected members of academic staff from each faculty in FUTO including the librarians.

The training was on how to access the Research4Life Programs including TEEAL. After this workshop, the Library continued to train all the lecturers and students of the institution on the use and access to the subscribed resources. Information provided by the Library through these resources enabled students mainly from the Department of Agricultural Extension to carry out their extension services to the rural host community.

Prior to this research FUTO Library only catered for the information needs of the students, faculty and non-teaching staff in the areas of teaching, learning, and research but not the rural host community. This study, therefore, opened the window of extending library services to the FUTO host community in Eziobodo.

The journey towards the extension of library services to the host community started in the last quarter of 2016 when Eziobodo, one of the rural communities was visited.   Rural farmers at Eziobodo through the help of their traditional ruler and women leaders were gathered for sensitization by FUTO Library. It was established that farmers lacked basic agricultural information on where to get the best variety of farm inputs; need for fertilizer, how to apply and where to purchase it at a reduced price; where and how to source agricultural loans; government agricultural programs; market to sell their products; how to preserve their products after harvest and various uses of farm products. After this interview FUTO Library decided to introduce a new improved cassava variety popularly known as "Yellow Cassava or Vitamin A cassava"; that is high yielding, drought and disease resistance(Nassar & Ortiz, 2007).

The Library collaborated with Agricultural experts from FUTO, Imo State Ministry of Agriculture and FUTO student volunteers in the realization of this laudable project. Expert opinions on agriculture were sought which contributed to the success of the project.

In the first quarter of 2017, seven bundles of new improved cassava variety cuttings were purchased by the FUTO library and distributed to the farmers. Seven out of the thirty participants benefitted because the quantity purchased could not go round to all the farmers. The beneficiaries were asked to plant, cut the stem during the next planting season and share with others that did not get. The University Library embarked upon training program (contents of which were packaged, repackaged and delivered in local language) on how to plant the cuttings to get better yield, health benefits of this variety of cassava and its uses. Information on where and how to source agricultural loans; the need to apply fertilizer on how and where to purchase

fertilizer at the cheaper rate were also communicated. The farm was visited by the project team to see the progress made so far.

In 2018 during the next planting season, the participants were visited and reminded to share the cassava stems to others who did not get and also extend a hand of fellowship to their neighboring communities if possible. In 2019 during the harvesting time, another seminar was conducted by the Library in conjunction with its partners/collaborators. The contents of the training this time centered on different ways of processing the cassava tuber, companies and best markets where they can sell their products to and on the best way to preserve their products for sustainability.

This project yielded a positive result. This new improved cassava variety has spread not only to the Eziobodo where it initially started but to other neighboring communities surrounding FUTO. Farmers who benefitted testified not only of its high yield but were also enthusiastic about its health benefits. This project has helped to strengthen the relationship between FUTO and the host community who have been rivals. The Library, through its blog page, has also blogged a lot on agricultural information which the Library users read. Again, their institutional repository (IR) has uploaded some work on agriculture.

Makerere University Library, Uganda

Uganda joined in the SDGs drive and has put in place a number of actions that ensure the attainment of good health and well-being for all. A roadmap was launched by the office of the prime minister to oversee all SDG projects in Uganda, Health Sector Strategic Plan III was developed to operationalize the National Health Policy and the health sector component of the National Development Plan (Ministry of Health, 2014); and a referral healthcare system that is used to provide healthcare services right from the grassroots to the national level (Ministry of Health, 2010). In terms of information service provision, a knowledge bank has been put in place by the Ministry of Health that houses most of the research projects and freely available to the public.

Makerere University Uganda, research is taken as a core activity and a solution to most of the problems pertaining to society. A number of projects are conducted by the different departments in the college of health sciences that help to improve the health of the population. In the health sector, the librarians have teamed up with the medical staff and students to carry out research.

For example, the African Center for Systematic Reviews and Knowledge Translations College of Health Sciences and Makerere University Library have teamed up to carry out evidence-based research and using librarian skills in information searching and retrieval to beef up the research process. As the access to information is key to an information society and library patrons at Makerere University, in particular, the library started subscribing to a number of databases. These databases contain over 22,893 journal titles and 35,219 online books all aimed at increasing access to information. To ensure utilization of these resources, e-resources training is done and all students, staff and external users are encouraged to attend. They are taught advanced search and retrieval skills so as to be able to make use of available information provided by the Library. A number of training sessions are conducted within the academic calendar that includes Information Competence and Management (ICM) cross-cutting course for graduate students, Learning and Teaching in the Digital World (LATINA) for librarians within the Makerere University and the region, E-resources training for librarians under the Consortium of Uganda University Libraries (CUUL), User education for all patrons of the library among other courses. These have enhanced the users' capacity in finding, accessing and using the information to meet their information needs as well as guidance in scientific writing, referencing, plagiarism and intellectual property.

One of the Library's priority areas is the outreach program that aims at improving the development of the country. Staff is supposed to go out and share the knowledge and information with the rest of Uganda. According to one of the respondents, in 2011 the Library in collaboration with Elsevier foundation started a project that aimed at improving the rural Ugandan clinic's access to information. The project team collected information from all the accessible points, repackaged according to the needs of a particular community. One of the results of this project was the digest book that was produced periodically. Also, information literacy sessions for librarians, the academic community, healthcare professionals and health policymakers was conducted in 2015-2016 under the Network of African Medical Librarians project (Ajuwon, Kamau, Kinyengyere, & Muziringa, 2017).

The Library has a fitness program that runs every Tuesday and Thursday. Initially, only the Library staff were involved but as the program gained momentum and popularity other staff members joined.

Ghana Institute of Journalism

SDGs have been consistent with Ghana's development aspirations and about 70% of the SDGs targets were reflected in policies and strategies of the Medium-Term National Development Policy Framework (2014-2017), which preceded the 2030 Agenda (Ministry of Finance, 2018). According to the Minister of Finance, the goal of the government is to ensure that the SDGs become part of the 'DNA' of all Ghanaians (Ministry of Finance, 2018:3). Therefore, all institutions and libraries are being encouraged to promote SDGs. Specifically, the Richard McMillan Library (RML) of GIJ has created SDGs corners where general information is provided for users to be abreast with information on SDGs. The RML collaborated with the Advertising Department and students were assigned to design posters that reflect all the SDGs. The designing of the posters was considered as a class project which attracts marks. The posters are then pasted at the Library and some vantage areas on campus. Information literacy sessions are also held for health researchers and students on the appropriate means of searching and use of information resources to assist research and practice.

The Library collaborated with the public health officials at the La General Hospital to educate the inmates at the Senior Correctional Centre in Accra on the dangers of substance abuse. The Senior Correctional Centre houses inmates who are below age 18 but have committed a crime and are going through reformation training. This project was very successful and hence, the prison wardens have requested that the project should continue since about 80% of the inmates were victims of substance abuse.

One major concern of the RML is the safety of school children on the road, so the focus on educating primary school children had been on how to use the road safely. So far, the Library with the assistance of a road safety volunteer from the National Road Safety Commission has been able to organize a road safety education for the Covenant Presbyterian Basic School in Dzorwulu, Accra. Some of the road safety measures the children were taught were: how to cross road safely when walking in groups, how to properly hold the hands (Capping) of toddlers when crossing, using pavements instead of the road, always obeying instructions such as "see and be seen before you cross" "always facing traffic" "use footbridges where provided" "walk quickly but do not run" "use traffic light wherever available". After the demonstration, colorful posters donated by the National Road Safety Commission were pasted at the school as well as in the school's library to reinforce the message.

Viral hepatitis is of the killer diseases in Ghana. The RML in collaboration with the GIJ radio station manager and public health officials from La General Hospital organized a radio talk show on Radio GIJ 97.7 Mhz on how hepatitis B spreads, the need for voluntary counseling and testing, treatment and all myths surrounding the disease.

Kampala International University (KIU), Uganda

Government of Uganda, Ministry of Agriculture, NARO, Agriculture Research and Training Institutions, Agriculture Extension Workers, NGOs like Hunger Project and Development Partners have invested over the years to reduce postharvest loss but the problem has persisted (United States Embassy Uganda, 2018). The KIU library joined hands in helping to assist in solving this challenge by conducting research. The Kampala University Library collected data through the structured interview from 15 key informants to find out how farmers in Uganda prefer to obtain post-harvest information. Through the structured interview, the key informers among the farmers ascertained that in Uganda at least every household has access to a mobile phone which means specific post-harvest information can be disseminated through mobile technology. Again, the research conducted showed that 90% of the key informers from research and community libraries said their libraries serve researchers and staff members, only (2 key informers) 10% said farmers are part of their stakeholders.

Another project that the KIU embarked upon as a way to create awareness of SDG 2 was to participate in the U.N. organized inter-university quiz challenge, dubbed U.N. Sustainable Development Goals – SDG Inter-University quiz challenge where KIU emerged the winner. The University also creates awareness to the community of the need to work hard to achieve SDGs 2 and 3 through seminars, workshops and participating in United Nation campaigns. It has also ensured quality information is available in the library to support SDGs research as it subscribes to a number of electronic databases like Research for Life (AGORA and HINARI), PubMed and TEEAL.

Recommendations

Users give feedback about the information (timeliness, quality etc) thereby giving room for improvement of the system

Librarians collect information from various sources. This is then repackaged/ translated in native languages

Partners

users

Information Service Provision

Source of information

Librarians disseminate the repackaged information to different users.

Librarians look for a dissemination media that best suits the users
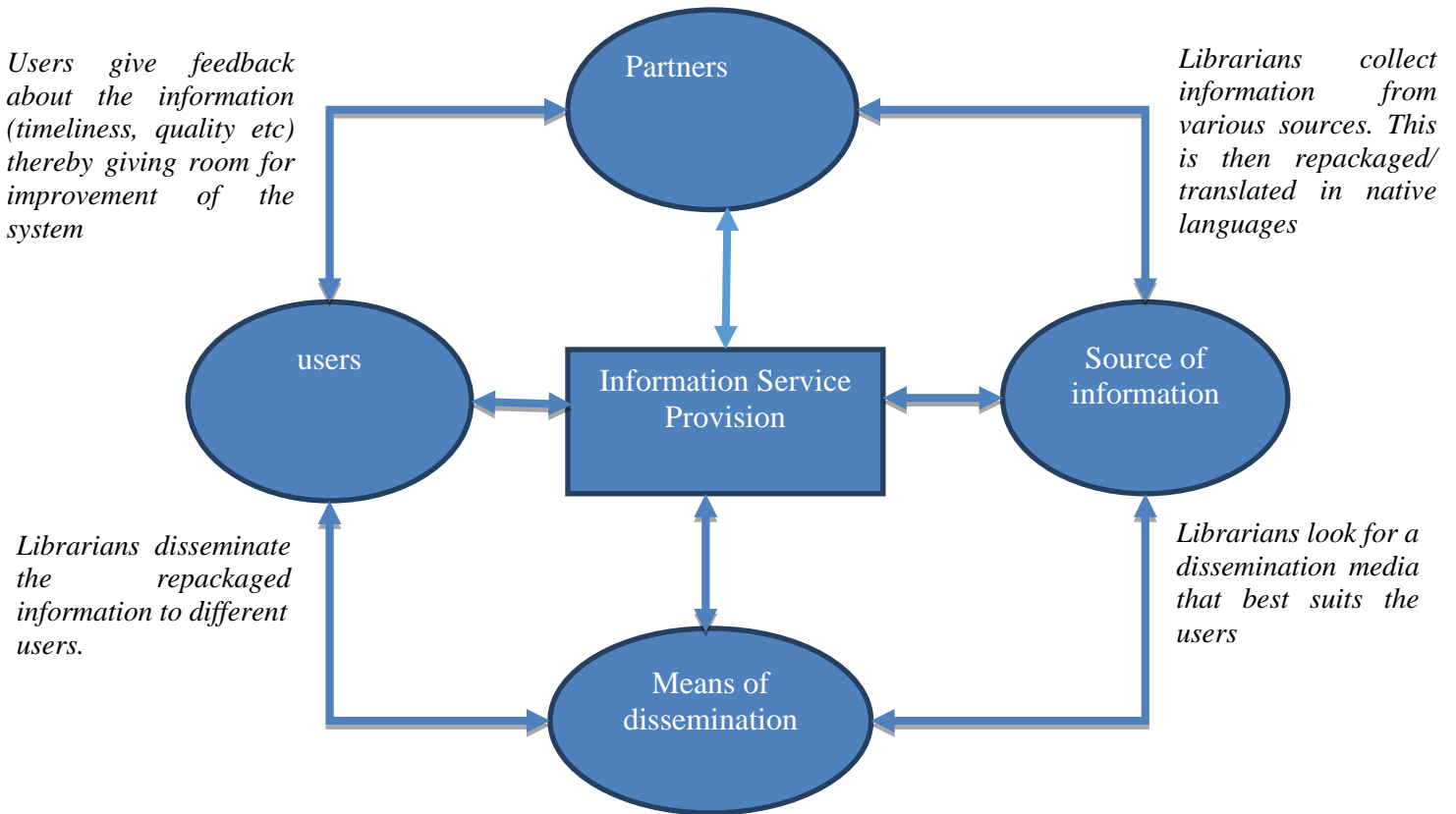
Means of dissemination

Fig. 1: Diagrammatical Representation of what the library can do to realize SDGs 2 and 3

Figure 1 on what the library can do to realize SDGs 2 and 3 summarises the central role librarians play in information service provision. It shows connecting activities of all stakeholders, thereby, achieving faster flow of information, increased access to information, harness key stakeholders, community activities and create a sustainable system that will stand the test of time.

- Librarians are involved in collecting reliable inside information from their community search and collaborate with experts from both the agriculture and health sector to enable them to contribute their quota in sustainable health and agriculture.
- Once the collection of reliable information is completed, librarians then embark on analyzing and processing the information. The output from this stage would be brief and simplified information reports and in languages that people understand.
- Librarians can then disseminate the well analyzed and processed information to various partners including; users (the public), farmer groups or associations, patients,

information service providers, extension workers among others. The information can be disseminated through written reports, information boards, radio, among others.

To achieve the realization of SDGs 2&3, in this figure we propose linkages between the various stakeholders and the community right from the grassroots whereby the community's capacity is built to enhance their participation in information processes. Academic libraries should provide all the necessary information required for the sustainability of SDGs 2 and 3. When all these are done libraries can immensely help in achieving sustainable health development and hunger eradication by 2030.

Conclusion

In conclusion, there is a high burden of diseases and food insecurity in Sub-Saharan Africa. Solving this will require an approach that involves information provision institutions like libraries. Through the partnership with stakeholder institutions, designing effective health and agricultural information messages, using mobile technologies, campus radio stations, students' clubs coupled with skills in researching, searching and providing all kinds of information, libraries can immensely help in achieving sustainable health development and hunger zero society by 2030. These are feasible and low cost since they are not very different from the roles libraries play in their communities and the fact that libraries already have the audience. The communities in which the various types of libraries are embedded cut across all categories of people, even if all types of libraries decide to concentrate only on their users, SDGs would be achieved by 2030. There is an urgent need for libraries to prioritize the health and agricultural information needs of our communities as we have successfully done in reading and information literacy.

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