Role of State University Libraries to SDGs via Training, Innovation and Infrastructure in Kamrup

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Abstract

Libraries, as crucial tools for accomplishing sustainable development objectives, ought to give the public, easily available access to sufficient and pertinent information. In the present digital era, the role and applications of libraries change drastically all over the world. The Sustainable Development Goals (SDGs) are a global set of objectives that were approved by the United Nations in 2015 as part of its 2030 agenda for sustainable development. The global agenda has 17 distinct goals that include a range of social, economic, and environmental domains, all geared towards tackling the most critical global issues. Libraries facilitate access to high-quality information, data, and research infrastructure, thereby promoting innovation and competitiveness. It is a depth analysis which will focus on the contribution and the obstacles faced by University libraries towards achieving SDGs through training, innovation and infrastructure. University libraries can better perform their function as active hubs of learning, research, and community involvement by implementing the SDGs into their operations.

Keywords: State University Libraries, Sustainable Development Goals (SDG), Training, Innovation, Infrastructure, Kamrup

1.   Introduction

Library plays a crucial role in dynamic advancement towards Sustainable Development Goals (SDGs) by actively contributing to training, innovation, and infrastructure development.

The Sustainable Development Goals (SDGs) are 17 global objectives established by the United Nations General Assembly in 2015 under the 2030 Agenda for Sustainable Development. These goals encompass a wide array of interlinked issues spanning social, economic, and environmental sustainability, with the aim of tackling the world's most critical challenges by 2030.

Each Sustainable development goal comes with individual targets and indicators meant for gauging progress towards their achievement. These goals are designed to promote a well-formed and sustainable approach to improvement across economic, social, and environmental aspects. This paper will focus on the involvement of State University libraries towards achieving SDGs through training, innovation and infrastructure. This

study also outlined a number of obstacles that prevent libraries from fulfilling their mandates in support of the SDGs. Libraries are vital hubs for education and skill enrichment, allowing people to contribute significantly to sustainable development. They suggest a collection of resources such as training programs, workshops, and access to online courses that progress literacy, digital skills, and professional expertise. Libraries promote gender equality by offering training programs that empower women and girls with necessary skills such as computer literacy, financial literacy, and entrepreneurship. Libraries propose health-related training, such as workshops on intellectual health awareness, healthy lifestyle choices, and disease prevention. Training in libraries also includes access to trustworthy health information, promoting informed decision-making about healthcare. Training programs in libraries contribute to sustainable development by increasing awareness about environmental issues, advocating for recycling and conservation efforts, and cultivating sustainable practices. Libraries offer training in essential job-seeking skills, resume crafting, and entrepreneurship for promoting decent work and fostering economic growth. These initiatives empower individuals by equipping them with the ability and capabilities, basic to join the workforce or launch their industrial ventures. Libraries provide educational programs on climate change mitigation, adaptation strategies, environmental conservation and sustainable energy practices. These initiatives intend to raise consciousness of climate challenges and support individuals and communities to take steps in reducing their carbon footprints. Library training programs facilitate partnerships and collaboration across various stakeholders, such as government agencies, NGOs, academia, and the private sector. These collaborations support the effectiveness of training initiatives and contribute significantly to collective endeavors aimed at achieving the Sustainable Development Goals (SDGs). Initiatives like the IFLA's Global Vision Report emphasize the worth of libraries in offering constant learning chances to maintain Sustainable Development Goals (SDGs). Libraries serve as vibrant centers for creativity and innovation, cultivating an environment of investigation and advancement. Libraries provide access to information and advance literacy through innovative programs such as digital literacy workshops and online learning platforms. Libraries help communities that are underprivileged by providing free internet connection, training in digital skills, and access to e-resources. They empower entrepreneurship by providing resources such as market research, patent databases, and tools for business planning. The American Library Association (ALA) underscores libraries' fundamental function in fostering innovation and entrepreneurship, which in turn fuels economic expansion and promotes sustainable practices. Libraries serve as necessary community infrastructure, especially in underserved areas, by providing access to information and technology. Libraries designed with eco-friendly infrastructure advance sustainable practices and create sustainable cities and communities. Moreover, these green libraries encourage climate action by adopting energy-efficient technologies and fostering environmental consciousness.

The 17 goals of SDGs are –

1) Zero Poverty: Put an end to all forms of poverty worldwide.

2) No hunger: It aims to eradicate hunger, increase food security & nutrition, and support & environmentally friendly farming practices.

3) Good Health & Well-being: Ensuring good health and well-being for all people at all ages is important.

4) Provide Quality Education: Ensuring inclusive and equitable quality education and promoting opportunities for life-long learning for all are key components of quality education.

5) Gender equality: It ensures that all women and girls have equal rights and opportunity.

6) Clean water & sanitation: Universal access to clean water and sanitation means managing resources sustainability and providing clean water to all.

7) Cost-effective and Sustainable energy: Guarantee that everyone has access to modern, dependable, sustainable, and inexpensive energy.

8) Decent work and economic growth: Encourage long-term, equitable, and sustainable economic growth as well as full and productive employment and decent work for all.

9) Infrastructure, Industry and Innovation: Develop innovative ideas, encourage inclusive and sustainable industrialization, and construct robust infrastructure.

10) Decrease inequality: By educating people, libraries can take the world in such a way that all the inequalities are gone from society.

11) Sustainable Cities and communities: Objective is to develop human settlements and cities that are safe, inclusive, and sustainable. Together, libraries can guarantee that information is available in every nation.

12) Responsible Consumption: Sustainable patterns of consumption and production are imperative for responsible consumption and production.

13) Climate action: Act quickly to mitigate the effects of climate change.

14) Life beneath the seas: Preserve and responsibly utilize the oceans, seas, and marine resources to promote sustainable growth.

15) Life on land: Preserve, repair, and encourage the sustainable use of terrestrial ecosystems; manage forests sustainably, fend off desertification etc.

16) Peace, Justice and Robust Institution: Foster inclusive, peaceful communities for long-term growth.

17) Partnership for the Goals: It mainly focuses on the activities of government, businesses, civil society and other stakeholders to achieve sustainable development.

2. Objective of the Study

1) To know the contributions of State University libraries towards SDG in Kamrup district.

2) To identify the various ways that State university libraries can   promote the achievement of SDGs in Kamrup district.

3) To identify the challenges faced by the State university libraries in the attainment of SDGs in Kamrup district.

4) To analyze whether the University Libraries are able to fulfill the SDGs.

3. Literature Review

Onwubiko (n.d.) in the article "Role of librarians and libraries in the realization of the United Nations Sustainable Development Goals: An empirical study" highlighted the crucial role of librarians and libraries in achieving the UN's Sustainable Development Goals (SDGs). Recommendations include adequate funding, innovative approaches to fundraising, transparent management, ongoing capacity building for librarians, community engagement, advocacy programs, and creative information packaging, particularly in areas like health, heritage, agriculture, education, and economics.

Abata-Ebire and Adetayo (2018) in their paper, "Achieving Sustainable Development Goals: The Roles of Libraries" emphasizes libraries' crucial role in achieving the Sustainable Development Goals (SDGs) by providing accessible information. It suggests solutions such as regular seminars, integrating libraries into national activities, and financial support. Libraries facilitate informed citizenship vital for sustaining SDGs, necessitating attention to information provision.

Okuonghae, Omorodion & Igbinovia, Magnus (2019) studied about the" The Role of Academic Libraries towards the Attainment of Sustainable Development Goals: The Nigerian Perspective" how academic libraries in Nigeria support the UN's development goals, finding they aid through resources and collaboration, yet face challenges like networking and staff training. It emphasizes the crucial role libraries play in national development and urges their integration into planning and implementation processes.

Olatoye (2021) studied "An Evaluation of the Impact of Libraries towards the Realization of the Sustainable Development Goals (SDGs)" that examines how libraries contribute to achieving SDGs, highlighting the evolving role of librarians in providing advanced initiatives. It stresses the importance of community engagement and capacity building while addressing challenges like inadequate infrastructure and funding. Overall, it emphasizes the crucial role of libraries in delivering information and knowledge for sustainable development.

4. Scope and Limitation of the Study

The main aim of the present study is to make a comprehensive and intensive study on the present scenario of State University Libraries in Kamrup district. The study mainly focused on the contribution of university libraries towards achieving the SDGs through training, innovation, and infrastructure and recognized the various ways that the state university libraries can promote the achievement of the SDGs in Kamrup district. Users are not included in the survey; it is restricted to Library staff only.

There are many universities in Kamrup district, but in this paper, we have taken the libraries of State universities.

5. Methodology

The methodology and techniques that apply to making this paper are the survey method. In order to collect the necessary information under the respective heading, a questionnaire is prepared and distributed among the selected university libraries.

6. Data Analysis and Interpretation

In this paper we have studied on five state universities in the Kamrup District. The study of the different university libraries help in understanding the implications of SDGs in libraries. Those five universities are –

1)   Assam Science and Technology University(ASTU)

2)   Krishna Kanta Handiqui State Open University(KKHSOU)

3)   Cotton University(CU)

4)   Gauhati University(GU)

5)   National Law University and Judicial Academy(NLUJA)

Some tables and figures are presented which provide information about different activities in these libraries.

Table 1: Familiarity with SDGs

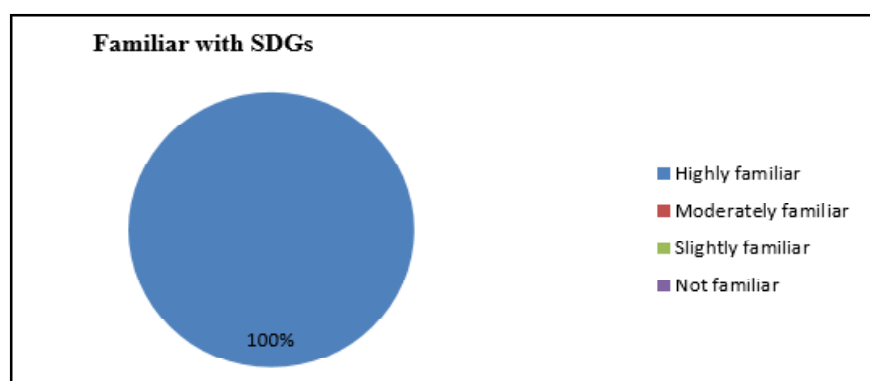| Extent of familiarity	Frequency	Percentage
Highly familiar	5	100%
Moderately Familiar	0	0%
Slightly Familiar	0	0%
Not Familiar	0	0%

Fig 1: University Libraries are Familiar with SDGs

In figure 1, we can see that all university libraries (i.e. 100%) are highly familiar with SDGs.
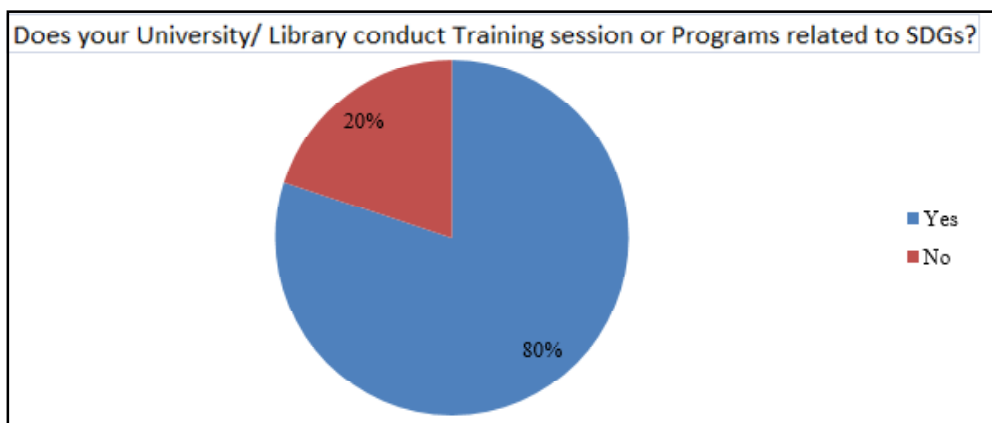
Fig 2: Graphical representation of the university / library based on training programs towards SDGs

From figure 2, it is shown that out of five university libraries four university libraries(i.e. 80%) conduct training sessions and programs for SDG. Only ASTU does not conduct any sessions /programs.

Table 2: Frequency of Conducting Training session in different University Libraries.

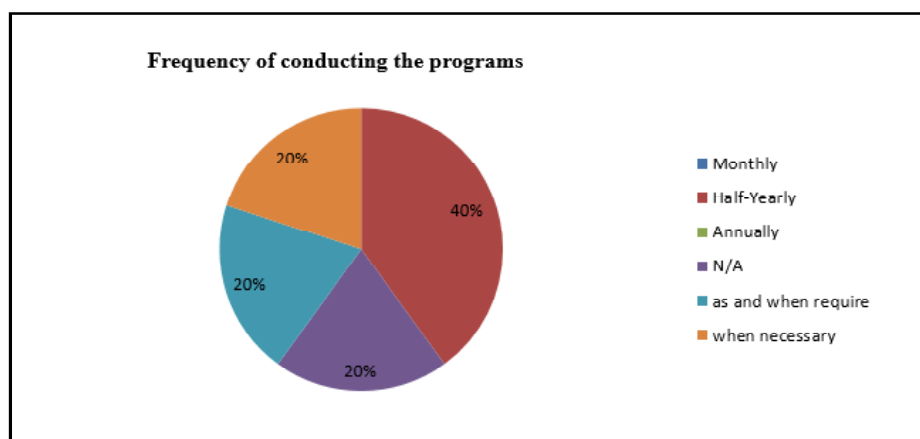| Sl no.	Frequency	Percentage
i	Monthly	0%
ii	Half-yearly	40%
iii	When Necessary	20%
iv	Annually	0%
v	As and when required	20%

**Fig 3: Graphical representation of the frequency of Conducting Training session
in different University Libraries**

From the figure 3, we can observe that the frequency of conducting training programs varies among different university libraries. 40% of the respondents (GU & KKHSOU) conduct such types of training or programs half-yearly while two respondents (NLUJA & CU) conduct such programs according to their requirements. And among these, ASTU does not conduct such programs.

Table 3: Analysis of Training session/ programs conducted by different University Library to achieve SDGs

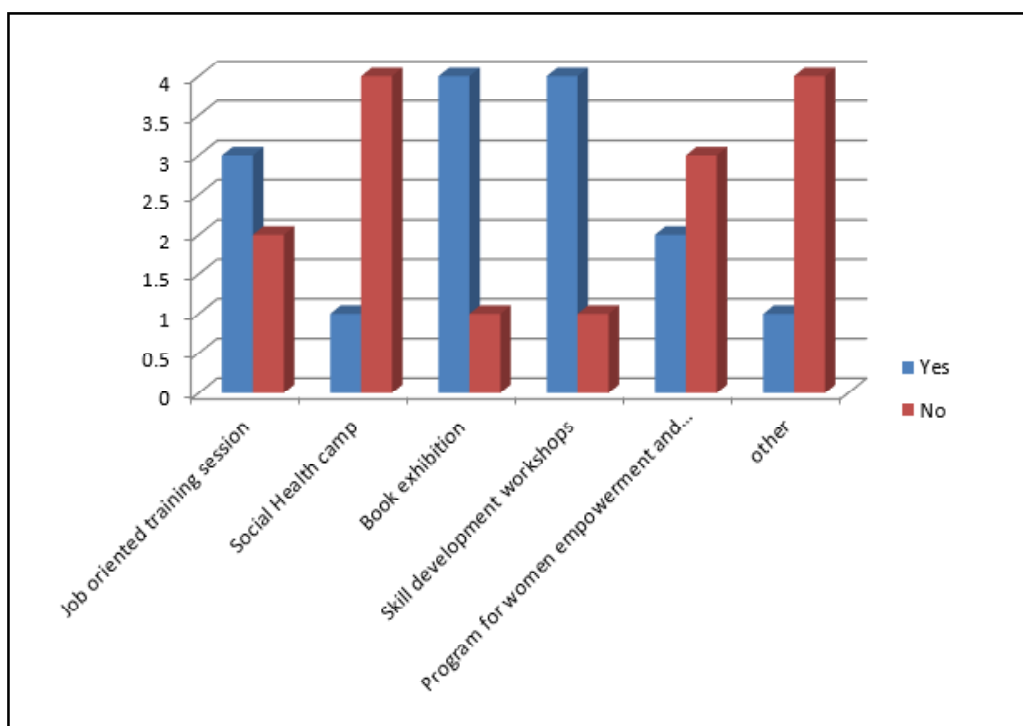| Types of training session/programs	Yes	No
Job oriented training session	3	2
Social Health camp	1	4
Book exhibition	4	1
Skill development workshops	4	1
Program for women empowerment and Gender equality	2	3
Other	1	4

Fig 4: Graphical representation of the different training session & programs conducted by the university libraries to achieve SDGs

From figure 4, we can see that most of the respondents conduct mainly book exhibitions & skill exhibition workshops, job-oriented training session is also conducted by 3 respondents while only one respondent conducts social health camp.
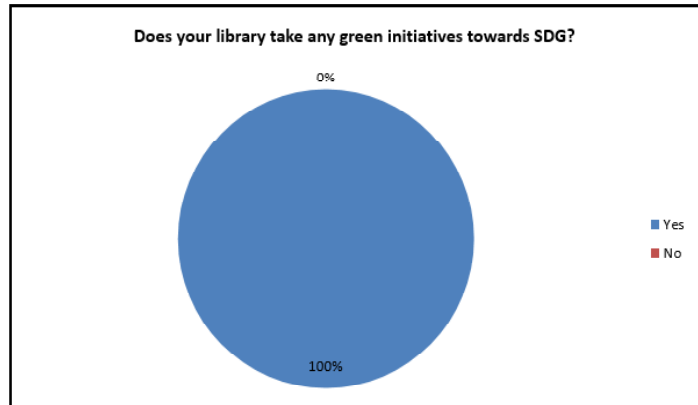

Fig 5: Graphical representation of the green initiatives taken by University Library to fulfill SDGs

From figure 5, it is clear that all the state universities take green initiatives towards SDGs.

Table 4: Type of Green initiatives taken by the Libraries

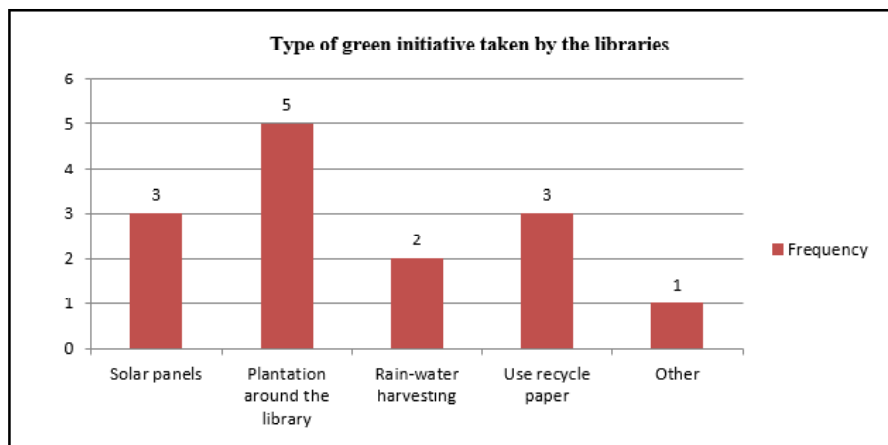| Green Initiative	Frequency	Percentage
Solar panels	3	60%
Plantation around the library	5	100%
Rain-water harvesting	2	40%
Use recycle paper	3	60%
Other	1	20%

Fig 6: Graphical Representation of green initiative taken by the libraries

From the figure 6, it has been cleared that all the respondents take initiative by planting around the library. However, 60% of the respondents have solar panels & use recycled papers. Rain water harvesting system is also available for two respondents.

Table 5: Type of ICT services available in Library

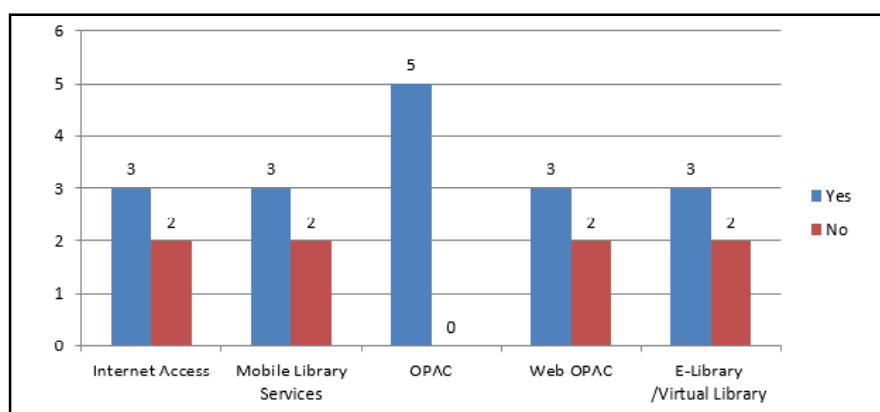| ICT Services	Yes	No
Internet Access	3	2
Mobile Library Services	3	2
OPAC	5	0
Web OPAC	3	2
E-Library/Virtual Library	3	2

Fig 7: Graphical representation of ICT services available in the libraries

It is clear from figure 7 that all the respondents have the facility of OPAC services**.** However, out of five, 3 respondents provide internet access, mobile library services, and web OPAC and E-library services to their users.

Table 6: Type of equipments for specially-abled users in Library

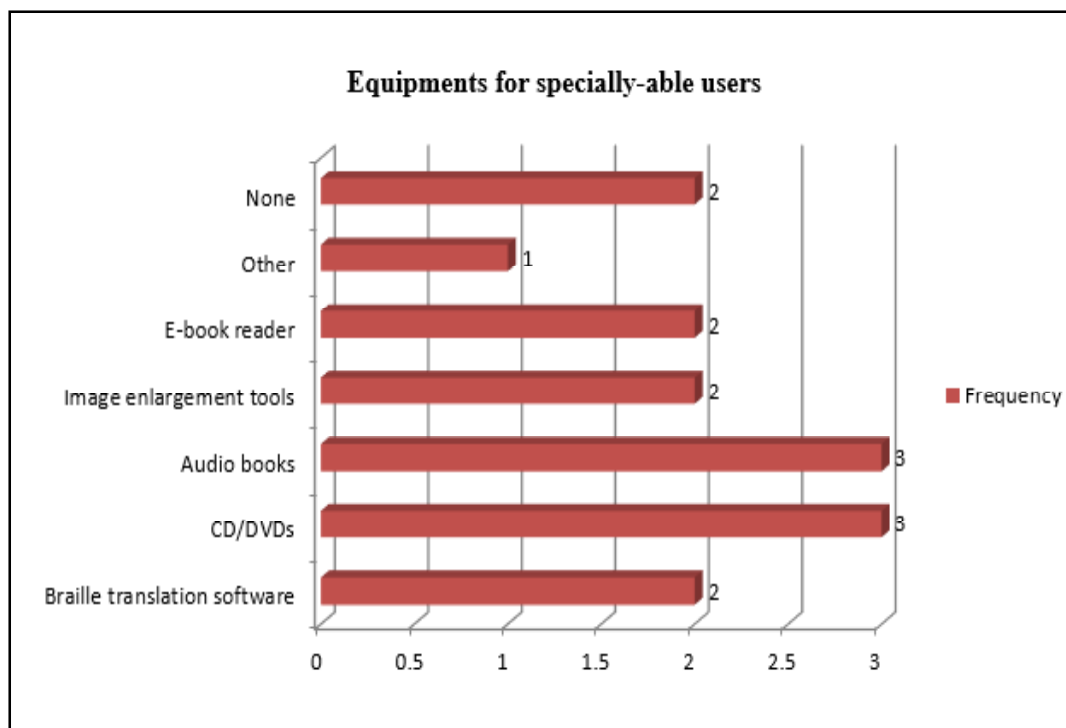| Type of the equipments	Frequency	Percentage
Braille translation software	2	40%
CD/DVDs	3	60%
Audio books	3	60%
Image enlargement tools	2	20%
E-book reader	2	20%
Other	1	20%
None	2	40%

Fig 8: Graphical representation of equipments for specially-abled users in libraries

From figure 8, it is clear that out of five, three respondent's i.e. 60% have the facilities of audio books and CD/DVD's. And two respondents (40%) do not have any facility for specially-abled users.

Table 7: Physical facilities available in the libraries

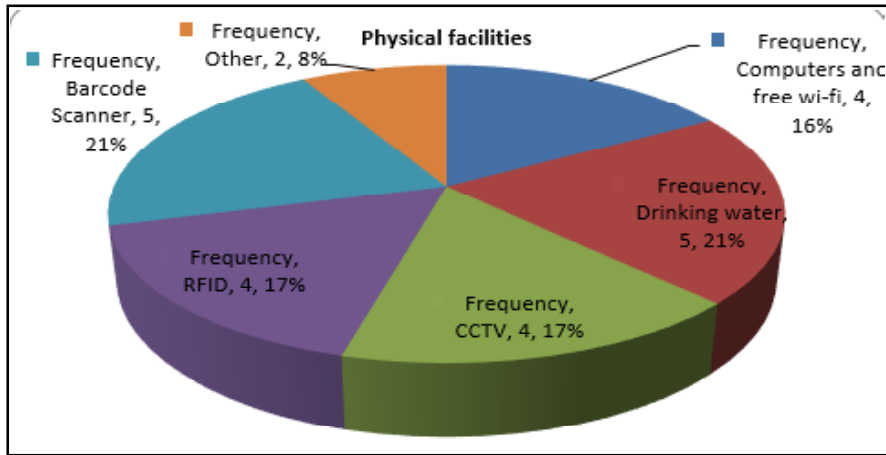| Sl no.	Facilities	Frequency	Rank
i	Computers & free Wi-Fi	4	2nd
ii	Drinking water	5	1st
iii	CCTV	4	2nd
iv	RFID	4	2nd
v	Barcode Scanner	5	1st
vi	Other	2	3rd

Fig 9: Graphical representation of physical facilities available in the libraries

The data in fig 9 showed that drinking water facility and barcode scanner is available in all the libraries. RFID, CCTV and computers and free Wi-Fi are available at all the libraries except ASTU.

Table 8: Challenges faced by the libraries to promote SDGs

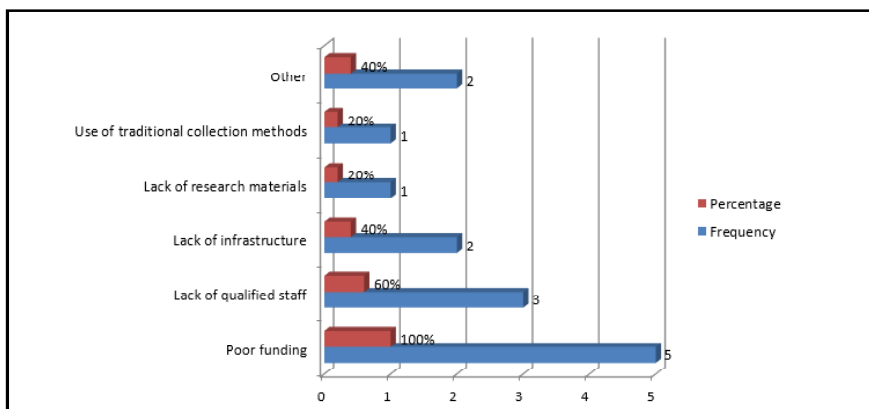| Challenges	Frequency	Percentage
Poor Funding	5	100%
Lack of qualified staff	3	60%
Lack of infrastructure	2	40%
Lack of research materials	1	20%
Use of traditional collection method	1	20%
Others	2	40%

Fig 10: Graphical representation of the challenges faced by the libraries to promote SDGs

From the figure 10, it is clear that poor funding is the main challenge faced by all the respondents (i.e. 100%). However, lack of qualified staff among the libraries is also a great challenge (i.e. 60%).

4.   Findings & Recommendations

4.1 Objective wise Findings

After the analysis of data collected from the respective respondents of the selected university libraries of Kamrup district, the outcomes of the study are listed below:

Objective 1: To know the contributions of State University libraries towards SDG in Kamrup district.

Findings- It is found from Fig 1 that all the 5 respondents are highly familiar with SDGs. They are completely aware of SDGs. And four out of five university libraries (i.e. 80%) conduct training sessions or programs for SDGs. The only exception is Assam Science and Technology University (ASTU) which has not taken any initiative yet (Fig 4). Two of them hold these programs half-yearly, while other two respondents conduct such programs on an as-need basis (Fig 3).

Objective 2: To identify the various ways that State University libraries can promote the achievement of SDGs in Kamrup district.

Findings-From Fig 4, it is clear that all the respondents take various initiatives for achieving SDGs in their libraries. CU and GU conducts three programs as a job oriented training session, book exhibition and skill development workshop for their users. ASTU conducts only one program that is for women empowerment and gender equality. KKHSOU conducts all the programs mentioned in our questionnaire while NLUJA conducts two programs that are book exhibition and skill development.

Moreover, it is found from Fig 5 and Fig 6 that sustainability is a priority across all state university campuses. They are actively contributing to the global effort for a greener future. They all are involved in planting around the library. And 60% of the respondents utilize solar panels and recycle papers. Solar panels are utilized by CU, GU and NLUJA; rain water harvesting systems are implemented by GU and NLUJA while recycle papers are utilized by CU, GU and KKHSOU.

Based on the data provided from Fig 7, it is also evident that all respondents offer OPAC services to their users. Among them, 3 out of 5 also extend internet services, mobile library services, Web OPAC and E-library services to their users. GU, CU and NLUJA have all the ICT services mentioned in our questionnaire. KKHSOU and ASTU provide only OPAC services. And other services for specially-abled users, 60% of respondents have audio books and CD/DVD's, while 40% do not have any type of services for specially-abled users. All the facilities mentioned in our paper, provided by CU. GU provides only 3 facilities such as Braille translation software, CD/DVD's and audio books, NLUJA provides CD/DVD's, audio books, image enlargement tools and e-book reader while ASTU and KKHSOU does not have any facilities for specially-abled users in their library (Fig 8).

According to the data from Fig 9, the drinking water facility and barcode scanner ranked highest due to their availability in all libraries surveyed (i.e.21%). Following closely in 2nd and 3rd place are computers with free Wi-Fi, as well as CCTV and RFID systems (i.e. 17%). CU, GU, KKHSOU and NLUJA have all the physical facilities in their library which we mentioned but ASTU has only drinking water facility and barcode scanner system in their libraries.

Objective 3: To identify the challenges faced by the State university libraries in attainment of SDGs in Kamrup district

Findings: It is clear from Fig.10 study that all the respondents (100%) face challenges due to inadequate funding systems. Lack of qualified staff among the libraries is also a greater challenge occurring 60%. Moreover, due to the poor infrastructure (40%) libraries are facing huge challenges to promote SDGs in the library.

Objective 4: To analyze whether university libraries are capable of achieving the SDGs.

Findings: According to the study, university libraries are not entirely capable of achieving the SDGs, although GU and CU are able to do so in their respective libraries in a variety of ways. The remaining three universities are making every effort to meet the SDGs, but they are unable to do so because of certain issues as indicated in Fig 10.

4.2 Recommendations

It is recommended from the above study that:

1. Government should take major initiative to ensure that each and every library is fully integrated at both local and national level by providing sufficient funding to the libraries.

2. Libraries should arrange different types of training programs, workshops, conferences, seminars to create awareness among the users & society about sustainable development.

3. Library and Information Science centres should be made in such a way that it is inclusive for every user besides age, race, gender and physical abilities.

4. It is necessary to provide a sufficient number of professionals with professional qualifications so that they can make quality contributions to the development of the country in all areas of life.

5. Libraries should provide the sufficient ICT and other learning resources for better services.

5. Conclusion

A library is a place of knowledge and exploration with countless opportunities. Libraries play a crucial role in advancing Sustainable Development Goals (SDGs) through training, innovation and infrastructure development. By offering educational programs, fostering creativity, and providing access to information, libraries contribute significantly to building resilient communities, promoting life-long learning and achieving sustainable development worldwide.

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