Contribution of academic libraries towards sustainable development goals

M M Mashroofa

Senior Assistant Librarian, South Eastern University of Sri Lanka, Oluvil#32360, Sri Lanka, E-mail: mashroof@seu.ac.lk

This paper is an exploratory investigation about the contribution of libraries in achieving the United Nation's Sustainable Development Goals (SDGs). The study focusses on how libraries could formulate plans to integrate the SDGs into all its programmes and projects. The study identifies nine SDGs that require the direct involvement of libraries as well as some successful activities carried out by certain libraries for this purpose. The paper, after exploring the situation of academic libraries in Sri Lanka, found that eight universities in Sri Lanka have included 'sustainable development' in their strategic plans and academic libraries integrate them in library resources, services and programmes. However, these libraries are lacking in mapping of their activities with SDGs. The study recommends that academic libraries should map SDGs to the libraries' programmes, services, and resources.

Introduction

The United Nations (UN) formulated the Millennium Development Goals (MDGs) with the aim of implementing it during the period 2000 to 2015[1]. The MDGs were a long-term plan with eight goals, many of which were implemented by 2015 with remarkable improvements being achieved in certain areas, especially health and education. However, there were some shortcomings as all the goals were not achieved satisfactorily. The UN, in September 2015, proposed 17 Sustainable Development Goals (SDGs) and 169 targets. The list is available at https://sdgs.un.org/goals

The countries that participated in seventieth anniversary meeting held at the United Nations Headquarters in New York from 25-27 September 2015 declared the sustainable development goals. The nations that took part at the meeting are engaged in various types of policymaking, planning and related activities.

Universities worldwide must include sustainable development as part of their mission statements and should formulate appropriate strategic plans, to support their national plans in transforming the respective countries. The academic libraries as supporting units of the teaching, learning, research and developmental activities at universities and higher learning institutions should outline their role in working towards the SDGs.

Igbinovia (2016)[2] stated that "libraries must perform functions beyond conventional practices to achieve greater effectiveness in moving towards the SDGs. Collaboration with other organisations, institutions and professional bodies is essential. By 2030, libraries will truly be acknowledged as a major vehicle contributing to the success of meeting the SDGs."

Leal Filho et al. (2017)[3] have identified a few constraints in implementing sustainable development goals; one of which relates to the dissemination of information and the other relating to the acquisition of knowledge. Limited access to information may result in negative consequences, as free access to information is one of the basic requirements for implementing SDGs. The authors highlight the importance of information for attaining sustainability, especially on environmental issues. As such, they emphasise that to promote sustainability there should be clear university policies.

The Council of Australian University Librarians (2019)[4] has proclaimed that "Academic libraries play an essential role in addressing and advancing the UN 2030 global sustainability challenges as they strengthen the impact of education and research and continue to disseminate knowledge to empower the world."

The International Federation of Library Associations and Institutions (IFLA)has proposed a few advocacy programmes that include three major services, as follows (IFLA 2020;2021)[5,6].

"1. Provide support to libraries at the regional, national, and local levels to engage with national SDG

implementation processes, build new contacts and secure new recognition in national strategies and plans.

2. Engage directly at the global level to secure recommendations and support for national-level advocacy, as well as to influence the government.

3. Set up tools, and materials to help libraries use the SDGs as a framework for thinking through and developing their own plans and communicating them to the decision-makers effectively. Crucially, this can help in the librarians' advocacy across the board, not just as it applies to the SDGs."

IFLA offers guidelines and advice to libraries across the globe through these three services and if any library wishes to plan and work towards SDGs, it can make use of these facilities.

As an additional service, IFLA's Library Map of the World (IFLA, 2019)[7] is an exemplary effort to show case the SDG activities of libraries across the world. This map presents country-level data and a worldwide comparison chart of various useful library performance metrics by region. Countries and their libraries can easily check the important aspects of their status.

Academic libraries are described as the "heart of the universities" and the raison d'être of these libraries is to support the academic and research activities of universities. While universities are presently planning and gradually implementing strategic activities targeting SDGs, how can the libraries contribute to the performance of their parent institutions? While academic libraries play multiple roles as catalysts in the teaching, learning, research, and development activities of the universities, concerned authorities should also acknowledge the contribution made by libraries in attaining SDGs.

The goals of academic libraries must align with the goals of universities. It is important to evaluate their contributions and services to date to assess their strengths and identify their weaknesses. Furthermore, a mapping of each library is crucial to emphasise its standing in respect of SDGs and formulate necessary strategies for the future by including a few additional targets to attain specific goals. Therefore, it is important to map how our universities' strategic goals and objectives fare in meeting the SDGs.

Objectives of the study
- To explore all 17 SDGs and 169 targets for the inclusion of 'information', 'resources', cultural heritage, 'online platform', and 'lifelong learning'

as the terminologies necessary for information services;
- To find out the evidence how library and information services map to SDGs; and
- To assess the integration of SDGs within strategies, policies & plans of universities in Sri Lanka

Role of academic libraries in attaining SDGs

The UN publication titled "Transforming our World: The 2030 Agenda for Sustainable Development"[8] has observed that "Our world today requires widespread adoption of ICT and global interconnectedness as these have the potential to accelerate human progress by bridging the digital divide and developing knowledge societies to stimulate scientific and technological innovation." This profound observation underscores how libraries could contribute towards these goals by assisting scholars and technical personnel to address the key terms mentioned here, like 'spreading ICT', 'global interconnectedness', 'digital divide', 'knowledge society' and 'technological innovation'. This statement based on the five keywords shows to what extent libraries will be able to contribute to attain the much-longed-for SDGs.

Furthermore, while analysing the whole document of the UN (2015)[8] for the inclusion of the terms ''information', 'resources', cultural heritage, 'online platform', and 'lifelong learning', it shows that out of the 17 goals and 169 targets, nine goals have included at least one of these terms. Therefore, the contribution of libraries may prove essential to realise at least nine goals. The following policy statements by the UN (UN, 2015)[8] lay emphasis on the contribution of libraries.

Goal 1: No poverty

Statement 1.4 exhorts that countries should "by 2030, ensure that all men and women, in particular the poor and vulnerable, have equal rights to economic resources…."Libraries are committed to providing inclusive, equitable and quality education that will facilitate access to lifelong opportunities. Libraries have no reservations in offering knowledge resources and services related to economic development. Libraries provide support for the lifelong learning of their patrons by teaching information literacy, educating them with various soft skills, and enriching their other skills and knowledge.

Goal 3: Good Health

Target 3.7 demands that countries should "by 2030, ensure universal access to sexual and reproductive

healthcare services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes." To achieve these, libraries offer the required and relevant information, instantly. In addition, libraries conduct health literacy programmes to provide ready access to health information.

Goal 4: Quality Education

This goal emphasises the need to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." Academic libraries serve as supporting units for all academic activities in the universities, through various programmes, services, and resources. Equitable education is the main concern, and a library canen sure this by making available all its resources by lending books and providing open access to other educational repositories[9]. Revising and updating the resources to meet the modern needs is another measure adopted in this regard.

Goal 5: Gender Equality

Target 5b proposes the need to "Encourage the use of enabling technology, in particular information and communications technology, to promote the empowerment of women."Achievement of gender equality and empowerment of all women and girls could be realised by the higher educational institutions (HEIs) by means of various activities like teaching, learning, research, policymaking, formulating and adopting by-laws, conducting women empowerment programmes, and implementing other activities. However, the support of libraries is essential to perform all these activities. Yap and Kamilova (2019)[10] have stated that libraries could conduct programmes in support of SDGs, particularly those focusing on gender equality. The paper highlights the important role played by libraries in eliminating gender disparity.

Goal 9: Innovation and Infrastructure

Statement 9c reads, "Significantly increase access to information and communication technology and strive to provide universal and affordable access to the Internet in the least developed countries by 2020." Universal and affordable access to information is facilitated by libraries, which serve as places for innovation. Generally, libraries are the places that disseminate information about technological advances and innovations to the younger generation. Open scholarship is encouraged to support this goal.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Statement 11.4 indicates as "Strengthen efforts to protect and safeguard the world's cultural and natural heritage". Academic libraries play an important role to archive and protect knowledge; hence, they are considered as repositories of indigenous knowledge and cultural heritages. Institutional repositories archive folklores, folksongs, and knowledge created by the ancestors in various formats, in addition to the current information. Furthermore, libraries provide resources that foster intercultural understanding, mutual respect and ethnic cohesion. Therefore, respecting indigenous knowledge and safeguarding cultural heritage are essential enablers for sustainable development.

Goal 12: Responsible Consumption and Protection

This goal has included sustainability information and relevant information in target 12.6 and target 12.8, respectively. Target 12.6 exhorts as follows – "Encourage companies, especially large and transnational companies, to adopt sustainable practices and integrate sustainability information into their reporting cycle." Target 12.8 emphasises that, "By 2030, ensure that people everywhere have the relevant information and awareness for them to pursue sustainable development and lifestyles that are in harmony with nature." Libraries are responsible for providing access to information about responsible consumption and nature protection through their resources, services, and programmes.

Goal 16: Peace, Justice and Strong Institutions

Target 16.10 calls upon libraries to "Ensure public access to information and protect fundamental freedoms in accordance with national legislation and international agreements."Libraries have legal deposit collections, institutional repository collections and other sources related to legacy, law, conflict resolution, acts, by-laws, and legislative enactments that offer the necessary information to promote peace, justice, and strong institutions. They educate their members on how to make good use of these collections and services in carrying forward their programmes. Balôck (2020)[11] noted that public libraries in Cameroon work hard to achieve SDG 16.

Goal 17: Partnerships to Achieve the Goal

The implementation of SDG 17, which involves multi-stakeholder collaboration, requires adherence to the following.

"The online platform will be used to establish a comprehensive mapping of and serve as a gateway for information on existing science, technology, and innovation initiatives, mechanisms, and programmes, within and beyond the United Nations. The online platform will facilitate access to information, knowledge, and experience as well as best practices and lessons learned on science, technology and innovation facilitation initiatives and policies. The online platform will also facilitate the dissemination of relevant open access, scientific publications generated worldwide. The online platform will be developed based on an independent technical assessment, which will consider best practices and lessons learned from other initiatives within and beyond the United Nations. To do that, it will complement, facilitate access to and provide adequate information on existing Science, Technology, and Innovation platforms, thereby avoiding duplication and enhancing synergies."

Public and private partnerships (3Ps) and good governance require convergence and collaboration with other stakeholders. Academic libraries can contribute to this goal by collaborating with other universities, National and Public libraries, Professional Associations, civic societies, and private partnerships, ensuring social cohesion.

Even though the above nine goals use the terms 'information', 'lifelong learning' and 'online platform', which are closely associated with library collections and services, 'access to information' is crucial to achieve all 17 SDGs. Moreover, these 17 SDGs are interrelated with one other. For instance, SDG 1 on 'no poverty', SDG 2 on 'zero hunger' and SDG6 on 'decent work and economic growth' are three distinct goals, but they are interrelated. There are similarities between other goals, too. Higher learning institutions also include goal numbers 6, 7, 8, 11, 13, 14 and 15, under education for sustainability initiatives. By providing the necessary resources and services, libraries facilitate 'access to information'. Furthermore, the green library concept that many libraries plan and implement at present would be very effective and supportive towards achieving a sustainable environment with minimal climate change.

Universities as higher learning institutions are responsible for providing courses on sustainable development. Academic libraries serve by enriching their collections and services so that universities can perform this task successfully. A recognised professional association/institution for librarians can lead and coordinate SDG advocacy in all countries by serving as an umbrella organisation for all academic, special, and public libraries.

Mapping of library services with SDGs

Mapping of academic library activities, services, collections, and programmes with SDGs is crucial for anyone to acknowledge the contributions of libraries towards attaining the SDGs proposed by the United Nations. Among the 169 listed targets of SDGs, the necessity of having information services is stated directly only in a few places. However, "access to information" is one of the key provisions required to plan, implement, and achieve progress in all 17 goals.

The contribution of libraries is vital for the practice of education, social inclusion, and open government. According to IFLA's advocacy guide, libraries must focus on several activities, such as understanding the landscape, coordinating works, mobilising the field, gathering evidence, communicating, building relations with decision-makers, building advocacy partnerships, and evaluating advocacy. According to the reviewed literature as well as the author's expertise and 25-year experience in the academic library sector, the outputs of mapping are highlighted as follows.

Supporting the institution's mission

Each university's mission, as per its mission statement, together with its long-term commitment to sustainable development will be the key to success. University administrations are required to adopt more proactive roles in emphasising the SDGs incorporated in their overall mission. Academic libraries in Sri Lanka need to adhere and support these goals and targets and that requires the unstinted support of their respective universities, the University Grants Commission (UGC), and the Education Ministry.

All academic librarians should be conscious of the contributions that the library sector must make in the context of SDGs. Whether we perform the various activities needed to further the SDGs purposefully or desultorily, the mapping will help us to identify the strengths and gaps. Moreover, we need to arrange some additional activities and draw up agendas to make sure we can attain all the SDGs by 2030.

Many universities around the world have formulated their own strategic plans, including some with sustainable development as the focal area. Brazil, Greece, Portugal, South Africa and USA were assessed

for sustainability policies and procedures and these countries are reported to have well-formulated policies[3]. Among the 17 SDGs, SDG 4 is about "equitable quality education and promotion of lifelong learning," which is a goal that could be achieved directly through educational institutions.

Increasing literacy

Academic libraries should teach Information Literacy (IL) to their patrons as well as to the public through community outreach. The major outcome of IL teaching will be to create lifelong learners with the capacity for critical and analytical thinking. Mapping will help to improve and transform the existing programmes, services and the type of resources that would better cater to the requirements of present and future generations.

Transforming nations through knowledge

Missingham (2020)[12] stated,"Aggregated activities of libraries increase knowledge and promotes the development of all individuals in countries around the world. The yem body the aspiration of theory of change to create a systematic uplift of community." The paper emphasises that transmission of knowledge is linked closely with SDGs in terms of economic development, equitable participation in politics, advances in all disciplines through the democratic distribution of knowledge, and development of institutional capabilities. This is possible through digitization and open access to information. Therefore, transforming individuals, developing a knowledge society, and empowering communities and nations will be considered as essential outputs for the mapping of SDGs.

Promoting peace, social harmony, and social cohesion

Another important outcome can be realised through excellent mapping, implementing cultural programmes, engaging in teamwork, and conducting community outreach services by volunteering. Academic libraries take responsibility for community outreach programmes dealing with various matters such as implementing green environment drive, solid waste management, social activities, and entrepreneurial information services.

Bridging the digital divide

Rural citizens, especially farmers, small and medium size entrepreneurs, students, and teachers often struggle to acquire the crucial information required for their projects. Developing knowledge hubs and extending e-information services, e-resources/ digital libraries and repositories to the surrounding villages could bridge the existing digital divide. This type of service can be provided formally or informally to the university libraries located in rural areas. These academic libraries should plan, prepare, and implement programmes that could ultimately bridge the digital divide. Chakraborty and Chaudhuri (2018)[13] discussed the need for information hubs for integrating the diverse knowledge bases required to empower the rural farmers in India.

Reducing social and gender inequalities

There are social stigmas and the glass ceiling that militate against women empowerment. If academic libraries could enrich their collections of gender-based titles, provide research material on such issues, and conduct empowerment programmes, that will help to reduce inequalities.

Assessing academic libraries

Academic libraries have been evaluated based on their collections and transactions, rather than on their knowledge and capabilities. At present, libraries are assessed based on their economic and social value[6]. Value assessment of libraries considers several aspects based on their ability to fulfil the needs of students, academics, and administrators. That means providing improved services and resources to students to support their academic work, assisting academics engaged in research and publication of scholarly papers, and supporting administrators so they can be more effective at decision-making.

Economic and social value are assessed based on 'Financial Return on Investment' and 'Social Return on Investment'[14], respectively. Indicators of these assessments may be students' learning, publications, and citations of academia, as well as improved administrative activities. However, the academic library services are expected to be evaluated by using innovative methods, theories and in the context of SDGs.

Contributing to University Rankings

A special university ranking called "Impact Ranking" was introduced in 2019 by the Times Higher Education (THE)[15]. The purpose of this ranking is to assess the performance of universities against the UN's SDGs. This is a ranking based entirely on SDG activities and is not the same as the

World University Rankings (WUR), which is an assessment of the excellence of universities. To obtain their score for "Impact Ranking," universities must submit data for a minimum of four SDGs, including SDG 17. Research-intensive institutions with ample resources could initiate activities by incorporating all other institutions under SDG 17. During this assessment, THE gives weightage to significant investment of time, staff resources, and coordination by the different departments/faculties of the institution.

Goal No. 4 is of paramount importance, and this refers to the submission of data. In addition, universities can submit data based on SDG 3, SDG5 or any other related goals. In the latest impact ranking released on 21 April 2021, evaluations of 1239 institutions across 98 countries were made, based on their submission of data. In future, more universities are expected to take part, which they can do by submitting data related to SDG activities. As the academic library is described as the 'heart' of the university, it must support all activities of the institution by enhancing its score in the THE.

Therefore, academic libraries have to do mapping of existing activities and services that could outline with SDGs.

Library initiatives towards SDGs

A society should be developed as a knowledge society if we want to empower it. Such a society would have some specific characteristics like knowledge creation, dissemination, and deployment. Knowledge sharing is also very important in this regard. Libraries should establish knowledge hubs, knowledge clusters and knowledge architecture to contribute to a knowledge society, which in turn would pave the path to achieve certain important goals of sustainable development.

The facilities and services provided to the local citizens must be innovative in nature and be able to cater to the needs of the present generation. Especially, outreach programmes should be conducted to improve the quality of life of the local citizens. American libraries provide maker space services that include innovative technologies like 3D printing, filmmaking, video editing, handcrafts, etc. Makers paces are emerging at present in other countries, too. Free hub of health information will be helpful to communities during this pandemic as fake news and rumours abound. By establishing and operating a health information hub, libraries can contribute to achieve SDG 3.

It is stated that smart libraries will enhance sustainable development practices[16]. The authors defined smart libraries as "libraries equipped with smart systems that provide effective and efficient library services to clients while reducing use of natural resources and energy to enhance sustainable development and environmental conservation practices." These libraries must have a computerised information system, a sound ICT infrastructure, and smart control system to manage the library's resources and services.

Gani, Allamegani, and Kasa (2019)[17] identified a few activities through which libraries can support SDGs. These are, supporting research processes, ensuring research visibility, and advocating and encouraging novelty in research activities. The authors suggested that libraries should formulate policies, conduct advocacy programmes, collaborate with other stakeholders, provide trainings, promote open access, improve information literacy of citizens, and adopt a few other strategies. However, there may be challenges in implementing such strategies,[18].

The Australian Library Association[4] has listed24 targets that must be achieved to meet 12 SDGs. Australian university libraries have also adopted this plan and are working on it. They are focusing mainly on establishing open scholarship for SDG9–innovation and infrastructure, while enabling a modern curriculum for SD4–quality education and respect for indigenous knowledge, and for SDG10– reducing inequalities and inspiring sustainability for all goals.

Initiatives taken by Sri Lanka for At taining SDG

Sri Lanka align edit self with the SDG initiatives as declared by UN Convention in 2015 and developed the requisite policies and strategies. 'Vision 2025: A Country Enriched' is a policy that aims to transform the country into a sustainable nation, in terms of all core activities. "Vision 2025 envisions the transformation of Sri Lanka into a knowledge-based, competitive, social market economy that identifies the environment as a development priority under the theme of agriculture and sustainable development"[19].

Sri Lanka has already enacted the Sustainable Development Act No. 19 of 2017 to provide the legal framework for implementing the SDGs. Through this Act, Sri Lanka endeavours to formulate and implement a national policy and the appropriate strategy to ensure sustainable development. In addition, Sri Lanka has established a 'Sustainable Development Council' and a ministry called the 'Ministry of Sustainable Development and Wildlife'

in 2015, both of which will be responsible for sustainable development. Consequently, SDG is considered as an essential concept by the higher-level political and educational establishments. The Voluntary National Review held in 2017 also conducted a discussion on 'Transformation towards sustainable and resilient societies.'

Strategic Plan of the University Grants Commission of Sri Lanka focuses on many key areas of the UN's SDGs, including equitable access to HE, which is Goal no. 1, while research innovations and lifelong learning form Goal 3, and sustainable green concepts constitute Goal 4. Even a few state universities in Sri Lanka have independently formulated strategic plans based on the UGC's strategic goals. However, while doing a search in all the latest strategic plans/ corporate plans of universities using the terms "sustainable development", "sustainable change", and "sustainability", it was found that only 08 out of 17 state universities included these keywords in their strategic plans.

The academic libraries can, in addition to the activities stated above, plan and implement specific services and programmes related to their parent bodies' statement of intent on SDGs. Even though many of the universities conduct various programmes and offer services related to the SDGs, they do not seem to be based on a formulated strategic plan or mapping. The University of Kelaniya and University of Sri Jayewardenepura have each established their own "Centre for Sustainability Solutions" (CSS) to formulate policies and to plan, co-ordinate and manage sustainable issues within the university. This trend constitutes convincing evidence of the universities' determination to improve the activities related to SDGs.

As SDG4 is directly related to academic institutions, this in turn requires the participation of academic libraries. Assessing the progress by specifying performance indicators is rather difficult in the case of programmes conducted by the libraries. However, a few indicators, such as the number of programmes conducted, number of participants, research productivity in terms of citations, publications, and usage statistics can serve as a measure of effectiveness.

Researchers, practitioners and librarians are at present seeking the ways and means of formulating activities for implementing education for sustainable development[20,2122]. This area of research has attracted some librarians in the recent past[23]. Universities in Sri Lanka should also align with this venture.

Recommendations

The universities that have still not included sustainable development in their strategic plans may consider incorporating this while revising their current plans or in formulating the future strategic activities. The most important duty of academic libraries is to evaluate the existing programmes, services, and resources to check whether they map with SDGs. The librarian must estimate the capabilities of his/her team members and share the responsibilities. This will enhance the performance of employees and enable them to meet specific targets. Evaluating the progress periodically is also necessary for successfully conducting the planned activities. However, future studies should analyse the challenges that libraries could encounter by embracing SDGs and implementing programmes to achieve them.

In Sri Lanka, adopting strategic activities towards SDG is possible by academic libraries through two pathways. One is the National Library & Documentation Services Board, and the other is the Sri Lanka Library Association, either of which can lead and coordinate SDG advocacy throughout the country. Under this umbrella, we could train academic librarians to develop strategies for realising SDGs. Leading public libraries, special libraries and university libraries could apply to send their members to serve on the steering committee of this venture. The second path that individual academic libraries could follow is by thinking how they could support the SDGs that also align with the strategic goals of the parent body and the UGC. The goals may target education, employment and entrepreneurship, peace, access to justice, support for refugees, gender equality, open government, and so on. Both pathways should include provision for systematic and periodic assessments.

Conclusions

While nine SDGs have directly included the necessity of library resources and services, this study emphasizes that 'access to information' is a basic requirement to achieve all 17 goals. Among the fifteen universities in Sri Lanka, only eight have included sustainable development in their strategic plans. Several activities, day-to-dayroutines, programmes, and other services of academic libraries contribute to the universities' strategies, helping them to align with the SDGs. Other improvements are possible through planning and many libraries in Sri Lanka do include sustainable development in their

strategic plans that are on par with their parent institutions. Academic libraries in Sri Lanka seems lacking in mapping the current activities with SDGs as a foundation for better strategize.

References

1 Millenium Development Goals and beyond (2015). Available at https://www.un.org/millenniumgoals/

2 Igbinovia M, Libraries as vehicle to sustainable developmental goals (SDGs): Nigeria's current status and outlook, *Library Hi Tech News* 5(2016) 16-17.

3 Leal Filho W, Brandli LL, Becker D, Skanavis C, Kounani A, Sardi C, Papaioannidou D, Paço A, Azeiteiro U, Olim de Sousa L, Raath S, Pretorius R W, Shiel C, Vargas V, Trencher G and Marans R W, Sustainable development policies as indicators and pre-conditions for sustainability efforts at universities Fact or fiction, *International Journal of Sustainability in Higher Education*, 19 (1) (2017) 85-113

4 Council of Australian University Librarians CAUL report: United Nations Sustainable Development Goals (2019). Available at: https://apo.org.au/node/246466 (accessed 20 August 2021).

5 IFLA Libraries, Development and the United Nations 2030 Agenda (2020). Available at https://www.ifla.org/libraries-development

6 IFLA, IFLA Toolkit: Libraries, Development and the United Nations 2030 Agenda (Revised version - March 2021) (2021). Available at https://www.ifla.org/publications/node/10156

7 IFLA, Ed. IFLA Map of the World: SDG Stories Map, (2019). Available at https://librarymap.ifla.org/stories

8 United Nations (UN) Transforming our world: the 2030 agenda for sustainable development (2015). Available at https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

9 Mamtora J and Pandey P. Identifying the role of open access information in attaining the UN Sustainable Development Goals. *In* Proceedings of IFLA WLIC 2018, Kuala Lumpur, Malaysia(2018). Available at: http://library.ifla.org/id/eprint/2110

10 Yap J M and Kamilova Y, Toward becoming an inclusive library Integrating Sustainable Development Goal 5 in the library agenda, *Library Management*, 41 (2/3) (2020) 53-66,

11 Balôck LLNK, Public libraries and goal 16 of the SDGS in Cameroon: which actors for a national policy? *Global Knowledge, Memory and Communication*, 69 (4/5) (2020) 341-362.

12 Missing ham R, Sustainable development goals: Insights from research libraries. *International Journal of Librarianship*, 5(2) (2020) 13-25.

13 https://doi.org/10.23974/ijol.2020.vol5.2.167

14 Chakraborty S and Chaudhuri SK, Integrating diverse knowledge bases for empowering local farmers in India, *Annals of Library and Information Studies*, 65(3) (2018)147-165 http://nopr.niscair.res.in/handle/123456789/45395

15 Missing ham R, IARU libraries supporting universities during COVID-19. Canberra,

16 Australian National University (2020). Available at http://library-admin.anu.edu.au/intranet/iarulibraries/support-during-covid-19/

17 Calderon A, Why SDG-focused impact rankings need to be contextualised, University World News; the global window of higher education (2021). Available at https://www.universityworldnews.com/ post.php?story=2021042815055074

18 Mohamed M A, Azees O S and Thabit T H, The impact of smart libraries in enhancing the sustainable development practices, *In proceedings of the Fifth International Conference on E-Publishing (ICEPUB2019)*, University of Jordan / Amman – Jordan 24 September 2019, p.1-6

19 Gani E, Allamegani K. and Kasa MG, Roles of library in supporting sustainable development goals, In *Proceedings of the 3rd Conference of Certified Librarians in Nigeria,* National Space Research and Development Agency, 8 November 2015, p.1-14

20 Mori Junior R, Fien J and Horne R, Implementing the UN SDGs in universities: challenges, opportunities, and lessons learned, *Sustainability*, 12(2) 2019 129-133.

21 Voluntary National Review on the status of developing sustainable development goals, Government of Democratic Socialist Republic of Sri Lanka, Ministry of Sustainable Development, Wildlife and Regional Development (2018). Available at https://sustainabledevelopment.un.org/content/documents/19677FINAL_SriLankaVNR_Report_30Jun2018.pdf

22 Leal Filho W, Skanavis C, KounaniA, Brandli LL, Shiel C and Paço AD, The role of planning in implementing sustainable development in a higher education context. *Journal of Cleaner Production*, 235 (2019) 678–687.

23 Paletta A and Bonoli A, Governing the university in the perspective of the United Nations 2030 Agenda: The case of the University of Bologna, *International Journal of Sustainability in Higher Education*, 20(3) (2019) 500–514.

24 Purcell, WM, Henriksen H, and Spengler JD, Universities as the engine of transformational sustainability toward delivering the sustainable development goals: "Living labs" for sustainability, *International Journal of Sustainability in Higher Education*, 20(8) (2019) 1343–1357.

25 Ochôa P and Pinto LG, Gathering evidence for Sustainable Development Goals: An alignment perspective, *Evidence Based Library and Information Practice*, 15(1) (2019) 164-169.