Title

Designing a Green Library in Alignment with the UN's Sustainable Development Goal: a Case Study of Rajagiri Business School Library, Kerala, India

Permalink

https://escholarship.org/uc/item/9gj5f4wr

Authors

Vijesh, P.V.

Chopade, Varsha

Joy, Varghese

et al.

Peer reviewed

Designing a Green Library in Alignment with the UN's Sustainable Development Goal: a Case Study of Rajagiri Business School Library, Kerala, India

Vijesh P V, Varsha Chopade, Varghese Joy, and Joseph M K
Rajagiri College of Social Sciences, Kochi, Kerala, India

Abstract

Libraries play an essential role in fostering sustainable development by providing equal access to information. Since the beginning of the 1990s, libraries have engaged in various activities designed to reduce their environmental impact; these libraries are referred to as "green libraries. During the Covid Pandemic, authors are discussing establishing a green library in the Rajagiri Business School (RBS). This is a novel concept in a business school setting, because not much has been published in this area yet and will contribute to our commitment to achieving the United Nations Sustainable Development Goal initiative. In this paper, an attempt has been made to discuss the proposal and model for designing a green library with respect to the UN's Sustainable Development Goal. RBS should pioneer in implementing green initiatives in business school libraries and serve as a model for other libraries in India and abroad. Researchers believe that this model will be an insightful document for decision-makers in setting a greener and more aesthetic library for the academic community.

Introduction

Global warming and climate change present a significant global challenge, as it carries detrimental implications for the well-being and survival of human populations. The imperative to adopt environmentally sustainable practices across all domains of human activity has significant ramifications (Asim & Ahmad, 2022). According to (Binks et al, 2014), the word "green" is synonymous with the term "sustainability". Sustainability is defined as a development which meets present needs without affecting the ability of future generation's needs to be met (World Commission on Environment and Development, 1987). According to the Online Dictionary of Library and Information Science (ODLIS),

> "Green library or sustainable library is defined as a library designed to minimize negative impact on the natural environment and maximize indoor environmental quality by means of careful site selection, use of natural construction materials and biodegradable products, conservation of sources like water, energy, paper, and responsible waste disposal recycling etc."

According to Stubbings and Riedlinger (2020), green libraries "…serve as a bridge between the community and the environment, providing access to information, fostering sustainability literacy, and promoting responsible practices." A green library is an environment friendly or eco-friendly library by its overall library operations. The

Green Library Movement, a transformative approach to libraries, emerged in the 1990s and gained momentum around 2003. Green libraries are purposefully designed, constructed, renovated, and operated with a deep commitment to environmental concerns. They are pivotal in preserving the natural ecological balance and safeguarding precious resources. Green libraries also enhance daily operations, such as procurement, waste management, and energy efficiency, and advocate for responsible environmental practices within their communities. Their commitment to ecological principles is an exemplary model for libraries and institutions worldwide (Shukla et.al., 2020).

Environment protection has been receiving a great amount of attention for the last two-three decades. Ozone depletion, the greenhouse effect, global climate changes, and global warming are among the rising environmental concerns (Mwanzu et al., 2022). Victor Olgyay's works on designing with climate in 1963 and Ralph Knowles' 1967 article on Form and Stability served as major influences on the green building movement (Uhl & Anderson, 2001). The Go Green Movement is aware that there is only one earth, and it needs to be protected. Scholars contend that going green is achievable anywhere, including the home, business, public spaces, community, and the entire world (Jian et al., 2015). When thinking about climate change, and global warming, generally we disregard the position of libraries, even though they are highly consuming energy while delivering their services. Greening libraries will aid in lowering carbon footprints, which are the total quantity of greenhouse gases produced in support of human activities both directly and indirectly (Mwanzu et al., 2022).

Interestingly, it is also noted in the literature that an individual's reading/learning environment has a significant impact on their reading/learning culture. Perhaps due to nature's consistently uplifting effects on mood, students learn more effectively, enjoy themselves more, and engage in class more when it is outdoors (Takayama et al., 2014). Greener surroundings may promote learning because they are more tranquil and quieter, encourage closer interactions, and the presence of "loose pieces" and a certain amount of liberty encourages play that is especially advantageous to learning (Kuo et al., 2019). When thinking of a library, the image of a library full of books on various subjects comes to mind. Although the primary purpose of a library is to provide a wealth of readable materials to readers, there are also rules regarding the library environment. India has many ancient libraries, and if one visits the archival library of India, one will see that from the writing of the book to the paper of the book, it was completely natural. While those times were different, today, green libraries and nature conservation are the need of the hour. Due to rapid population growth and climate change, various diseases and environmental changes are occurring, significantly impacting the quality of life. Air pollution, water pollution, and soil pollution are also prevalent.

Libraries, considered houses of knowledge in India and likened to temples, are now focusing on making environmentally friendly choices, either by going paperless or by considering nature. The theory of greening libraries emphasizes incorporating sustainable development principles into library management, particularly in business schools. This involves prioritizing environmental friendliness in policies and decisions to protect the library's surroundings and promote the well-being of users. It

recognizes the importance of considering the environment in all professions and calls for responsible management choices to balance libraries and the natural world. Ultimately, the goal is to preserve the Earth's future and promote sustainability (Ephraim, 2003). The idea behind creating green libraries is to avoid the degradation and use of natural resources and provide library services by creating a natural atmosphere in the library. During the COVID-19 epidemic, the authors seriously considered this initiative. Based on the planning, the authors decided to propose a model on how a business school may be part of this venture while keeping the United Nations' sustainable development goals as the essence. The authors aimed to establish a sustainable reading environment from corporate, management, and business standpoint, which would be a unique attempt in a business school setting.

Literature review

Iroeze (2022) investigated green libraries and environmental sustainability in tertiary institution libraries in Imo State, Nigeria. The study also established that the natural environment is significantly related to the environmental sustainability of academic libraries in Imo state. Vyas & Parmar (2021) discusses understanding what green libraries are and how they work for the goal of sustainable development. To understand what librarians, do in green libraries and how to get information in a green way. Singh & Mishra (2021) aims to highlight the background and significance of environmental literacy and clarify how academic libraries can be environmental educators by going green. Also, this study makes several recommendations to enhance library professionals' environmental literacy efforts. Sharma & Sinha (2021) summarizes green or sustainable libraries, including the environment, their effects on society, standards for the betterment, green library features, essential initiatives worldwide, including India, and the role of librarians in making libraries green. S, K. K., & D, V (2021) analyses numerous national and international standards and national initiatives in India to apply green library standards in various academic institutions. In addition, the research seeks to compare the green library practices of different libraries in India. The study's findings give innovative recommendations for implementing a green library. Singh & Dixit (2021) ascertained that the libraries of various institutions are also working to preserve the health of our planet. They are therefore transitioning towards the use of biodegradable and reusable materials. The study also found that library professionals are aware of green libraries and sustainable development and are using their guidelines in the library. Shukla et. al (2020) describes the green library conditions, green library standards, requirements, features, buildings, and green library projects in India. It also provides an overview of current green library activities and courses. Gupta (2020) the study looks at the LEED and GRIHA green-building rating systems, green library projects in India, and the goals of the IFLA Green Library Award. It also says that libraries should use green technology to make a green library. Sarkar (2020) explains how the Green Library Movement can help spread ideas about sustainability and environmental awareness. The study is aware of the 17 goals for sustainable development set by the United Nations and what they mean for society. Premarathne & Bandara (2019) explores the present status of green library projects at public libraries in the Central Province and the degree of librarians' understanding of the green library concept.

This paper is about how libraries and librarians can help their communities become more environmentally friendly. The study also suggested that librarians should significantly consider resource optimization and environmental protection. A set of objectives and plans should be available for individuals in charge of such projects to discuss when it comes time to plan out new libraries.

The objective of the research proposal

The review that has been carried out has assisted significantly the researchers in framing the objectives of this research proposal. The crucial objectives of this proposal are following:

- The primary objective is establishing a green library within a business school environment, aiming to contribute to the United Nations' Sustainable Development Goals.

- To develop a comprehensive model for designing and implementing the green library, considering sustainable practices and environmental impact.

- To delve into the concept of green libraries, analyzing their significance and potential benefits within the specific context of a business school.

- To assess the economic viability and budgetary implications associated with establishing and maintaining green libraries.

- To investigate the effective utilization of natural resources in the day-to-day operations of green libraries, with a focus on resource conservation and efficiency.

- To create an environmentally friendly and health-promoting reading environment for library users, incorporating natural resources in the library's design and services.

- To explore the interplay between green libraries and their readers, to foster a positive and sustainable relationship that aligns with ecological principles.

The Rajagiri Business School

Established in 2008, RBS is part of the Rajagiri Group of Institutions and functions as an autonomous institution. The business school is located in the Rajagiri Valley in Kakkanad, close to the IT hub of Kochi, Infopark and the integrated business township, Smart city Kochi. The campus, where the managers of tomorrow groom their skills, has been well-planned, preserving the natural splendour of the environment to allow for academic development in communion with nature. The curriculum at RBS is kept current with the dynamics of the evolving business environment to provide students with the necessary conceptual basis, analytical abilities, and knowledge application abilities. The emphasis is on experiential learning and comprehensive growth, with social awareness at its centre. The primary educational tools employed at the school are the case method, simulation, and lectures. RBS students are exposed to events and activities that prepare them to face the complicated business environment head-on through our pedagogical innovation. RBS have a specialised learning system which is the Rajagiri Immersive Learning Experience (RILE). The main four dimensions of RILE are conceptual learning, experiential engagement, executive modelling, and corporate competency.

The many activities within these areas contribute to the development of Rajagirians into professionally capable and socially aware individuals.

UN's Sustainable Development Goals and Libraries (UNSDG Goals)

The Sustainable Development Goals are a call to action for all countries, whether low-income, high-income, or middle-income, to foster economic growth while preserving the environment. They acknowledge that putting an end to poverty must go hand in hand with measures that generate economic growth and address various social needs such as education, health, social protection, and job opportunities, all while addressing climate change and protecting the environment. The goals, which provide a crucial foundation for COVID-19 recovery, are more vital now than ever. The Sustainable Development Goals are vital for a recovery that leads to greener, more inclusive economies, and stronger, more resilient societies.

Libraries play an essential role in supporting sustainable development models, particularly in achieving the United Nations Sustainable Development Goals (SDGs). The SDGs are a set of 17 goals adopted by the UN General Assembly in 2015 to end poverty, protect the planet, and ensure prosperity for all by 2030. Libraries contribute to these goals by providing access to information, promoting lifelong learning, and fostering community engagement. The following are some examples of how libraries support sustainable development models with respect to the UN SDGs:

1. Goal 1: No Poverty - Libraries provide free access to information and resources that help people learn new skills, find employment, and start businesses.

2. Goal 2: Zero Hunger - Libraries offer resources and programs that support sustainable agriculture, food security, and nutrition.

3. Goal 3: Good Health and Well-being - Libraries provide access to health information and resources and offer programs that promote physical and mental health.

4. Goal 4: Quality Education - Libraries promote literacy, lifelong learning, and access to education for all.

5. Goal 5: Gender Equality - Libraries promote gender equality by providing access to information and resources that support women's empowerment and education.

6. Goal 6: Clean Water and Sanitation - Libraries promote access to information and resources that support water conservation, sanitation, and sustainable water management.

7. Goal 7: Affordable and Clean Energy - Libraries offer resources and programs that promote energy conservation, renewable energy, and sustainable energy use.

8. Goal 8: Decent Work and Economic Growth - Libraries provide access to information and resources that support job creation, entrepreneurship, and economic development.

9. Goal 9: Industry, Innovation, and Infrastructure - Libraries offer resources and programs that support innovation, technology, and infrastructure development.

10. Goal 10: Reduced Inequalities - Libraries promote social inclusion and provide access to information and resources that support marginalized communities.

11. Goal 11: Sustainable Cities and Communities - Libraries promote community engagement and offer resources and programs that support sustainable urban development.

12. Goal 12: Responsible Consumption and Production - Libraries promote sustainable living and offer resources and programs that support responsible consumption and production.

13. Goal 13: Climate Action - Libraries promote environmental awareness and offer resources and programs that support climate action and sustainability.

14. Goal 14: Life Below Water - Libraries promote ocean conservation and provide access to information and resources that support sustainable marine ecosystems.

15. Goal 15: Life on Land - Libraries promote biodiversity conservation and provide access to information and resources that support sustainable land use.

16. Goal 16: Peace, Justice, and Strong Institutions - Libraries promote access to information and resources that support democracy, human rights, and justice.

17. Goal 17: Partnerships for the Goals - Libraries promote collaboration and partnership-building to support sustainable development goals and initiatives.

In designing a green library at Rajagiri Business School Library in Kerala, India, we unequivocally identify and align our initiatives with several objectives of SDGs.

Principally, our commitment to SDG 4: Quality Education is paramount, as the green library's core objective is to provide access to educational resources while fostering sustainability literacy among our users. Furthermore, we actively contribute to SDG 11: Sustainable Cities and Communities by serving as a center for environmental awareness, offering resources on sustainable urban development, and promoting community engagement in sustainability initiatives. We also embrace SDG 12: Responsible Consumption and Production by advocating eco-friendly choices and sustainable living practices. With our emphasis on environmental awareness and sustainability, we are significantly engaged in addressing SDG 13: Climate Action, providing valuable insights on climate change, energy conservation, and sustainable practices. Our role in promoting biodiversity conservation and sustainable land use aligns harmoniously with SDG 15: Life on Land. Lastly, we foster partnerships through collaborative efforts with academic institutions, local communities, and environmental organizations, aligning with SDG 17: Partnerships for the Goals. Our proposal underscores our commitment to these SDGs, emphasizing our role in promoting sustainable development and addressing pressing global challenges.

Green Libraries: examples of Global and National Initiatives

Name of the Library	Location	Features
Temple University Library	USA	The lighting inside the building has either a combination of photoelectric sensing or occupancy sensing. If it's a nice sunny day, the lights won't turn on. If it's a cloudy day or night, the lights will then turn on based on occupancy or darkness levels.
Austin Central Library	USA	The 198,000-square-foot facility has a six-story atrium at its core that provides daylight to more than 80% of the library's regularly occupied spaces.
Tulsa Library	USA	145,000-square-foot structure as much as possible by keeping the roof, balcony, entryway, and other aesthetic details the same. They added glass study cubes to the balcony to increase daylight, utilizing a space that was once unusable
Tianjin Binhai Library	China	Designed by MVRDV and the Tianjin Urban Planning and Design Institute, the 363,000-square-foot space was commissioned as part of a plan to create a cultural district in the city. The library is surrounded by four other cultural buildings, all connected by a glass-covered public corridor. A public park sits in front of the library.
Fayetteville Public Library	USA	This is the first building in Arkansas to go for LEED and achieved silver 2006.It has adopted many green techniques. They have green roof with alternative roofing material which has made the temperature to be at an optimal level. The reading room and circulation counter are placed in angle to sunlight exposure
Scattle Central Library	USA	As per the standards of Green Concept, the library is situated in a densely populated urban area which is well-connected to public transport. Rain water is collected over the roof and used for irrigation. Triple glazed glass is being used here to reduce heat in the library.
Virgilio Barco Library	Columbia	The Virgilio Barco Public Library was built inside a park designed by Salmona, with pedestrian and bike

		paths, canals, lakes, and native trees. In addition to being a place of learning and community, the project emphasized the issue of water management. The UNESCO World Heritage Centre site makes great use of rainwater by integrating it into the building.
Minneapolis Public Library	USA	The Rooftops were planted with the vegetation to suit the harsh climate of Minnesota. Rooftops have helped in reducing rainwater runoff, heat and cooling load
University of California, Merced Kolligan library	USA	This library was awarded LEED's Certificate in 2007 for its green initiatives like using 37% of recycled content with 66% of ceiling titles with recycled content which include telephone books, newspaper etc. About 30% of the materials used for the construction of the building was manufactured locally.
BIBLIO-Centrum	Helsinki	This Library is built with an elongated shape. Its opening is directed towards the south to get natural heating during winter. It has green roof tops for fresh air and solar panels to reduce the heat. It is designed to be an icon for Helsinki that will serve as the city's central library while anchoring and uniting its prestigious surrounding
Kanazawa Library	Japan	It serves a community centre for the local people. It has around 6000 small circular windows which serves as a smart cooling and heating system. There is a good exposure to sunlight and natural ventilation.
National Library	Singapore	This library has been called the greenest building on the planet. It is designed with Light shelves through which light filter into the library without having any harsh effects
Karnataka University Library	Dharwad, India	A green space, students can sit under the trees, they can take books from the library for study.
Mumbai University Library	Mumbai, India	The library uses wood as stack materials, and a large size of windows adds for ventilation and penetration of sunlight in the reading hall.
Anna Centenary Library	Chennai, India	The library is well equipped with modern technology and proper use of light, air and wood. It is a reputed green library in India which is gold rating by LEED.

Delhi University Library	Delhi, India	The building would be naturally cool and pleasant
Calcutta University Library	Kolkata, India	All readings room is so large and vast open areas, and thick walls.
NIT Library	Silchar, India	The New Library Building under construction is designed according to LEED certification system for developing green libraries (Barak Valley).
Perma Karpo Library	Ladakh, India	Solar panels and green area surrounded by white lotus garden.

Why Green Library for the Rajagiri Business School?

Today, it is crucial to protect the environment and mitigate its damage. Green libraries aim to be connected to and kind to nature. This concept is highly adaptable and environmentally friendly. The libraries in business schools play a crucial role in developing the next generation of managers. It is essential to provide a better reading culture to the upcoming decision-makers of the corporate world. In their journey to make this world a better place to live, every decision that these next-generation managers are supposed to take should consider the future of this planet. Hence it is widely argued that in setting the libraries of business schools should be of a great importance. Apart from the aesthetic attractiveness, the wider politics and the insights that can be transacted through green libraries has to analysed and discussed. Establishing a green library for a business school can have several benefits, such as promoting sustainability and environmental awareness among students and faculty, reducing the library's carbon footprint using eco-friendly materials and practices, and setting an example for other libraries and organizations to follow. It can also enhance the reputation of the business school as a socially responsible institution and help attract environmentally conscious students and faculty. The context suggests that there is a need for libraries to adopt eco-friendly practices and become more environmentally sustainable, which is known as green libraries.

The paper aims to create a model for designing such a library and proposes that the Rajagiri Business School Library (RBSL) should take the lead in implementing green initiatives. Doing so could serve as a model for other libraries in India and abroad. This initiative is significant because libraries are essential community institutions that provide access to information and resources to students, researchers, and the public. However, libraries also consume considerable energy and resources, which can harm the environment. Therefore, it is necessary to adopt sustainable practices and reduce the environmental footprint of libraries. Moreover, the context highlights that many premier management institutions in India currently lack such facilities, which presents an opportunity for the RBSL to take the lead and demonstrate how to implement a green library concept. This initiative aligns with the UN's Sustainable Development Goals, which emphasize the need to promote sustainable practices and reduce the negative impact of human activities on the environment. By implementing a green library model, the RBSL could contribute to this global effort and be a role model for others to follow.

Green protocol of Rajagiri Business School

The RBS has a greening policy which investigates environmental sustainability and growing endemic and endangered. The protocol facilitates building consensus on the need to maintain a clean and green campus among campus leaders at student, faculty, and campus levels and monitor the existing environmental performance of the campus in a participatory and transparent way. The main areas of intervention are: good sanitation and hygiene practices, waste management, water conservation practices, campus greenery, energy conservation.

The RBS conducted a systematic campaign to reduce plastic usage, especially single use plastic. The distribution of single-use plastic items requires the unitization of natural resources and results in the generation of greenhouse gas emissions. RBSL is also following the below practices as part of their tribute to the environment by conserve energy, avoid single-used plastic material, reduce the use of disposable items, promote E copies, print on both sides of the paper, use electronic display board cloth banner, avoid flex material, use bags/files/folders etc. by cloth or jute material, promote vegetable cultivation, plant indoor and outdoor trees, promote the usage of led bulbs, solar energy, and use of natural environment in the library. With the above identifications and strategies, the RBSL is implementing the green library initiative with respect to the UN's SDG goals.

Methodology

The authors methodology takes a holistic approach to developing a green library proposal, considering the unique context of the RBS and its alignment with the UN SDGs. In the planning stages, the authors initiated this project with a comprehensive review of existing literature on green libraries and sustainability in libraries. This step served as the foundation for objectives of the proposal. After recognizing a vital element of stakeholder involvement, the authors have engaged RBS faculty members, library staff, and students in discussions to gather insights and assess support for the green library concept. Crucially, a preliminary discussion with RBS faculty members revealed strong support for the proposal, emphasizing the potential for this initiative to align with the institution's focus on business ethics and corporate social responsibility. By incorporating sustainable development principles into library management, the authors aim to promote environmental awareness and responsible practices, aligning with specific UN SDGs related to sustainable consumption and climate action. The proposal was reviewed by the library advisory committee and the institution's management and administrators. Simultaneously, the authors were exploring funding opportunities, recognizing the need for financial support to realize the green library's vision. The authors ongoing commitment involved constant monitoring of project development, with a focus on alignment with UN SDGs and incorporating stakeholder feedback. This methodology ensures a robust and business-focused approach to creating a green library that serves as a model for academic institutions and contributes to global sustainability goals.

Challenges of Green Libraries

Setting up green libraries can pose several challenges, including:

1. Lack of Awareness: Library staff and users may lack awareness about the importance of green libraries and the benefits of sustainable practices.

2. Limited Funding: Green libraries require investment in sustainable infrastructure and technologies, which can be expensive and may require long-term funding commitments.

3. Lack of Expertise: Libraries may not have staff with expertise in sustainable practices, making it difficult to implement green initiatives and manage sustainable infrastructure.

4. Resistance to Change: Staff and users may resist changes to traditional library practices or may need to see the value in implementing sustainable practices.

5. Limited Space: Green libraries require additional space to accommodate recycling centres, green spaces, and other sustainable infrastructure, which may be challenging in older or smaller library buildings.

6. Limited Resources: Libraries in developing countries or economically disadvantaged areas may need more resources to invest in sustainable infrastructure and technologies.

7. Designing a library policy can be challenging due to multiple regulatory authorities such as USLEED, BREEM, Chicago Illinois Standards, Brown Green Standard, LEED India, IGBC, GRIHA, etc. To ensure compliance, it is essential to understand and review each set of regulations, consult experts if needed, and prioritize the library's and its users' needs and goals.

Proposal and model for green libraries

A green library project should commence by studying existing green libraries in India and abroad, as this can help identify areas for improvement. Budget and cost considerations are crucial for any project, and financial support must be carefully evaluated. A library should be quiet, with proper ventilation and a reader-friendly atmosphere. The library's collection should cater to the interests of diverse readers of different ages, including a mix of printed and non-printed materials. The avoidance of harmful materials like plastic is essential. The provision of internet facilities is also crucial. Indoor and outdoor green plants add to the natural feeling of the library. A library should be user-friendly, with polite, well-trained staff and an eco-friendly infrastructure and decoration, including green walls. Lastly, the collection should include material related to the interests of their users.

Prerequisites for Planning Green Library at RBS

Planning a green library at RBS involves several steps and prerequisites. Here are some possible elaborations on the two prerequisites mentioned in the original question, as well as some additional prerequisites to consider:

1. Finding good models: To plan a successful green library at RBS, it is important to draw on the experiences of other libraries and organizations that have implemented sustainability initiatives. This may involve researching case

studies, attending conferences and workshops, and networking with other sustainability professionals in the field. By learning from successful models, RBS can identify best practices, avoid common pitfalls, and develop a roadmap for implementing sustainable practices that are tailored to its specific needs and context.

2. Natural/eco-friendly resources for the work: A key part of planning a green library at RBS is identifying and sourcing natural and eco-friendly resources to support sustainable operations. This may include using renewable energy sources such as solar or wind power, sourcing materials that are sustainably produced or recycled, and implementing water and energy-saving technologies to reduce the library's environmental footprint. It's also important to consider the lifecycle impacts of materials and resources, including how they are sourced, used, and disposed of, to ensure that they are truly sustainable.

Additional prerequisites for planning a green library at RBS include

3. Needs assessment: Before implementing sustainability initiatives, RBS should conduct a needs assessment to determine the specific sustainability goals and requirements for the library. This may involve analyzing the library's current energy and resource use, conducting surveys of staff and patrons to identify areas for improvement, and developing a clear understanding of the library's sustainability priorities and values.

4. Stakeholder engagement: To ensure buy-in and support for sustainability initiatives, RBS should engage key stakeholders and partners, including library staff, patrons, vendors, and community members. By involving stakeholders in the planning process, RBS can build a sense of ownership and accountability for sustainability initiatives, and identify opportunities for collaboration and knowledge sharing.

5. Sustainability plan: A key prerequisite for planning a green library at RBS is developing a clear and actionable sustainability plan that outlines specific goals, targets, and timelines for implementing sustainability initiatives. The plan should be based on the need's assessment and stakeholder engagement process, and should include metrics for measuring progress and success.

6. Funding and resources: Finally, planning a green library at RBS requires securing appropriate funding and resources to support implementation and ongoing maintenance of green practices. This may involve applying for grants or other funding sources, leveraging existing resources within the library, and identifying partnerships or collaborations with other organizations to share resources and expertise.

Where can it be built?

This can be easily constructed, as the RBSL already has the necessary space in the back, and all that needs to be done is a few minor alterations. The proximity to the river is also the greatest advantage of this.

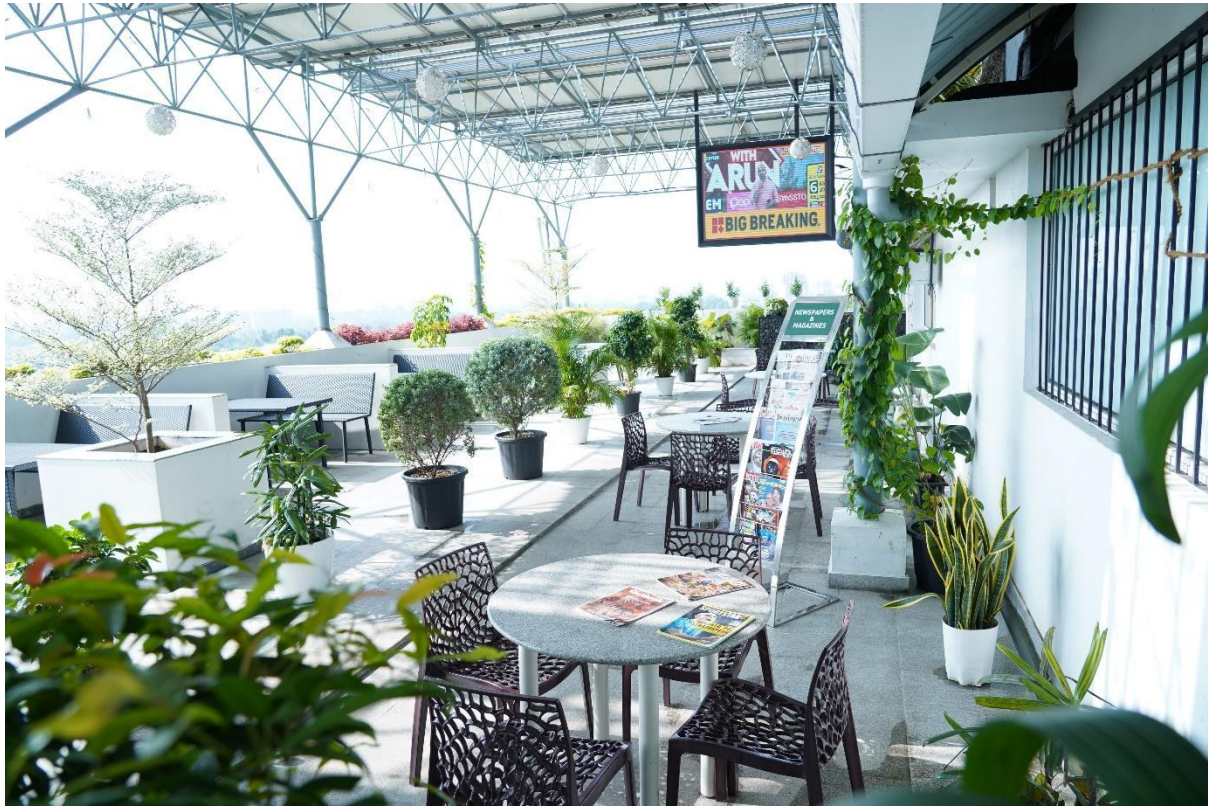## Future goals after implementing a green library at RBS

The establishment of a green library at RBS is a noteworthy achievement because it is the first to be established in a business school in Kerala or India. This accomplishment is commendable as it showcases RBS's commitment to sustainability, environmental responsibility, and the United Nations' Sustainable Development Goals. A green library can serve as a resource for students and staff, enabling them to gain knowledge and skills on reducing their environmental impact and leading a more sustainable lifestyle. In addition, it is possible to seek recognition for this accomplishment by approaching international and national agencies and organizations, such as the Association for the Advancement of Sustainability in Higher Education (AASHE) as a professional association to coordinate and strengthen campus sustainability, International Federation of Library Associations and Institutions of Higher Education (IFLA), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the International Green Building Council (IGBC), and the Green Residential Housing Association (GRHA). These organizations promote sustainable practices and recognize organizations that adopt them, and they can provide valuable feedback, resources, and recognition for the green library at RBS. Furthermore, establishing a green library can assist the school in preparing for and undergoing statutory inspections and accreditations at both Indian and international levels. Many accrediting bodies have sustainability and environmental responsibility standards that educational institutions must adhere to (Jankowska, et al., 2014) and a green library can showcase RBS's commitment to meeting these standards. Overall, establishing a green library at RBS is a remarkable achievement, and seeking recognition and utilizing it to meet accreditation standards can further enhance the school's commitment to sustainability and environmental responsibility.

Conclusion

Education is widely recognized as a crucial driver of sustainability, providing people with the knowledge and skills they need to improve their lives and communities. Libraries are essential in supporting education and can act as a hub for knowledge and information sharing. However, traditional libraries often rely on resources that could be more environmentally friendly, such as paper-based books and high-energy consumption technology. That is why the proposal of green libraries considering environmental, economic, and social components is rather important.

Green libraries are designed to minimize their environmental impact while promoting sustainable practices. They use sustainable materials, such as recycled paper and energy-efficient technology, and promote sustainable practices, such as waste reduction and responsible energy use. By promoting sustainable practices, green libraries can help educate their users about sustainability and inspire them to act in their own lives. Designing (see Photo 1) a green library at RBS is a significant step towards achieving sustainability in the library and information world. By creating a green library in a corporate setting, the proposal recognizes the importance of promoting sustainable practices in all aspects of our lives, including business.

Photo 1. Rooftop coffee bar

Sources: Authors

Vijesh P V, <vijesh@rajagiri.edu>, Rajagiri Business School, Kakkanadu, Kochi, Kerala, India

Varsha Chopade<varshakisanc@gmail.com>, Rajagiri College of Social Sciences, Kalamassery, Kochi, Kerala, India

Varghese Joy<varghesejoy@rajagiri.edu>, Department of Commerce, Rajagiri College of Social Sciences, Kalamassery, Kochi, Kerala, India

Joseph M K<emkay@rajagiri.edu>, Department of Social Work, Rajagiri College of Social Sciences, Kalamassery, Kochi, Kerala, India

References

Asim, M., & Ahmad, P. (2022). Adoption of Green Practices in University Libraries of Pakistan: A Qualitative Study. Library Philosophy and Practice, 1-8.

Binks, L., Braithwaite, E., Hogarth, L., Logan, A., & Wilson, S. (2014). Tomorrow's Green Public Library. The Australian Library Journal, 63(4), 301–312.

Ephraim, P. E. (2003). The greening of libraries. Library management, 24(3), 160-163.

Gupta, S. (2020). Green Library: A Strategic Approach to Environmental Sustainability. International Journal of Information Studies and Libraries, 5(2).

Iroeze, P. C., Nse, J., & Amadi, C. (2022). Green Library and environmental sustainability in tertiary institutions in Imo State, Nigeria. Information Technologist, 19(1), 83-92.

Jankowska, M. A., Smith, B. J., & Buehler, M. A. (2014). Engagement of academic libraries and information science schools in creating curriculum for sustainability: an exploratory study. *The Journal of Academic Librarianship*, *40*(1), 45-54. Retrieved from https://escholarship.org/uc/item/26x4x2sw

Jian, Y., Tian, X., Li, B., Zhou, Z., & Wu, X. (2015). Letter regarding Li JS et al. entitled "ERCC polymorphisms and prognosis of patients with osteosarcoma." Tumor Biology, 36(5), 3195–3196. https://doi.org/10.1007/s13277-015-3345-y

Kuo, M., Barnes, M., & Jordan, C. (2019). Do experiences with nature promote learning? Converging evidence of a cause-and-effect relationship. Frontiers in Psychology, 10(FEB), 1–9. https://doi.org/10.3389/fpsyg.2019.00305

Mwanzu, A., Bosire-Ogechi, E., & Odero, D. (2022). The Emergence of Green Libraries in Kenya: Insights from Academic Libraries. Journal of Academic Librarianship, August, 102601. https://doi.org/10.1016/j.acalib.2022.102601.

Premarathne, B. N. G. S., & Bandara, B. E. S. (2019). Current Status of Green Library Concept in Public Libraries of Central Province in Sri Lanka. Journal of the University Librarians Association of Sri Lanka, 22(2), 119-128.

Sarkar, D. (2020). Sustainable development as a goal: Special reference to the green library. Int. J. Res. Libr. Sci, 6, 182-189.

Sharma, J. & Sinha, S. (2021). Green Library: An Overview. Journal of Library and Information Communication Technology, 10(2), 55-61.

Singh, P., & Mishra, R. (2021). Environmental Literacy through go Green in Academic Libraries. PEARL - A Journal of Library and Information Science, 15(4), 237.

S, K. K., & D, V. 2021. Green Libraries - Road Map to Sustainable Development - a Case Study. International Journal of Research in Library Science, 7(1), 85-91.

Singh, M. P., & Dixit, S. (2021). Sustainable Strategies Towards Green Libraries: A Study of State University Libraries of Lucknow, Uttar Pradesh. Library Philosophy and Practice, 1-19.

Shukla, R., Sharma, A., & Singh, M. (2020). Sustainability development of green libraries and its features, importance, and standards. International Journal of Information Dissemination and Technology, 10(4), 219-226.

Stubbings, R., & Riedlinger, S. (2020). Library sustainability: A call to action. Journal of Librarianship and Information Science, 52(3), 755-767

Takayama, N., Korpela, K., Lee, J., Morikawa, T., Tsunetsugu, Y., Park, B.-J., Li, Q., Tyrväinen, L., Miyazaki, Y., & Kagawa, T. (2014). Emotional, Restorative and Vitalizing Effects of Forest and Urban Environments at Four Sites in Japan. International Journal of Environmental Research and Public Health (Vol. 11, Issue 7, pp. 7207–7230). https://doi.org/10.3390/ijerph110707207

Uhl, C., & Anderson, A. (2001). Green Destiny: Universities Leading the Way to a Sustainable Future. Bioscience, 51(1), 36–42. https://doi.org/10.1641/0006-3568 (2001)051 [0036: GDULTW]2.0.CO;2.

Vyas, P., & Parmar, K. (2021). Towards the Sustainable Development Goal: Concept of Green Library and Green Information Literacy. Towards Excellence, 13(2).

World Commission on Environment and Development. (1987). Brundtland Report.