Original Research Article

Green library: An overview

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ABSTRACT

The term "green library" is a very new view that is still evolving. It is gaining popularity among scholars, academicians, and library professionals all around the world as a growing view. The amount of information about 'Green Library' and 'Sustainability' is limited, but it is increasing. In recent years, the interconnected subjects of green libraries and sustainability have garnered a lot of attention in numerous publications aimed at international librarians. This article defines the term "green library," lists its benefits, and examines the elements of a green library.

1. Introduction

Our life styles are influencing and changing at a faster rate as science and technology improve. Today, demand for anything is rapidly expanding, and we are harnessing this ability to meet our never-ending needs. In this scenario, we are overlooking something critical that must be addressed before we discuss sustainable development in our rapidly changing world. It's just the word 'green,' which is really important for a healthy survival. We've noticed that, over the last few years, interest in the green revolution has grown in practically every sector, including the library. Libraries, which serve as knowledge gateways today, are particularly accountable for not just promoting the view of sustainability, but also for leading by example and thereby functioning as role models. Green features should be incorporated into the operations of today's libraries. There are a number of reasons why libraries should include green characteristics in their structures. It is essential for the health of library patrons as well as the mother earth on which we all live.[1]

2. Related Work

Although the amount of information about green libraries and green library practices is modest, it is growing. The author consulted some literature on 'Green library' or 'Sustainable Library' and 'Green Library Movements' for this study. The following is a list of relevant and important literature that the author has found and reviewed.[2]

(LeRue, James, and Suzanne LeRue, 1991) have detailed ways to be ecologically friendly at home and in the library in their essay. (Smith, Steven, 1991) emphasized the library's and nature's space constraints, as well as the role libraries must play in conserving both. (Brown, Bill, 2003) noted the growing trend of green libraries and declared them to be at the forefront of green design. (Lamis, A. P., 2003) provided an outline of sustainable model building

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design and planning. (Antonelli, Monika, 2008) discussed various web pages and websites linked to green library construction. J. C. Neale (2008) described how libraries can be more environmentally friendly. Green library design and evolution were highlighted by (Tseng, S., 2008). Leadership in Energy and Environmental Design (LEED) accreditation was established by the United States Green Building Council (USGBC) in 2008. (B. Vijayalakshmi, 2010) has provided information about India's and the rest of the world's green library or sustainable library initiatives. Guidelines and insight into library buildings were supplied by (Aulisio, G. J., 2013). The specifics regarding the green library movement and its early beginnings in the 1990s were described by (Hauke, P. and Werner, K. U., 2013). (Purohit, S., 2013) went into great length on the green library as a new type of library. The transition from green libraries to green information literacy was described by (Hacettepe, S. K. & Boustany, J., 2014). Green libraries are needed in academic institutions, according to (Shah, Leena et al. 2015). (Meher, P., and Parabhoi, L., 2017) provided an overview of the view of green libraries, with a focus on Indian libraries. S. S. Nikam (2017) authored an article about the view of a green library. The concept, attributes, and role of the green librarian were discussed in (Sawant, U. S. & Sawant, R. G. 2018). (ALA, 2019) has concentrated on the concept of a green library by emphasizing the link between sustainability and libraries. Green library, according to the Online Dictionary of Library and Information Science (ODLIS), is a library that uses particular methods to limit negative effects on the natural environment while maximizing household environmental quality.[3]

3. Green Library: A View

The term 'Green Library' has no unambiguous definition. When we say 'Green Library,' we're referring to the entire library's activities and structure. As a result, the term appears to be quite broad. Simply put, a "Green Library" is an environmentally friendly or eco-library. 'Green' or 'Sustainable Libraries' are structures that are designed, built, rebuilt, operated, or repurposed in a way that is environmentally and resource efficient. "A library designed to minimize negative impact on the natural environment and maximize household environmental quality by means of careful site selection; use of natural structure materials and biodegradable products; maintenance of resources such as water, energy, and paper, and use of responsible waste disposal recycling system," according to the Online Dictionary of Library and Information Science (ODLIS). A 'Green Library,' also known as a 'Sustainable Library,' is "a library created with environmental issues in mind," according to New World Encyclopedia.[4]

The term "sustainability" is defined as "the capability to meet current demands without jeopardizing future generations' ability to meet their own requirements" in the Online Dictionary of Library and Information Science (ODLIS). It affects the economy, society, and environment. And a sustainable library is one that fulfills its tasks and fulfills its job while being environmentally conscious. Sustainability is increasingly being achieved in new structure and library renovations through LEED certification, a rating system developed and maintained by the United States Green Building Council (USGBC).[5]

Green libraries are, in essence, a subset of the greater green building movement. Green Libraries, also known as 'Sustainable Libraries,' are being created all over the world, with a number of high-profile initiatives bringing the notion into the mainstream. Because of its humanitarian aim, public and instructional nature, and the fact that new libraries are frequently high-profile, community-driven projects, many people believe the library plays a unique role in the green building movement. To summarize, a green library might be described as a "Environment Friendly Library" or a "Sustainable Library."[6]

4. Features of Green Library

Green libraries are described as environmentally friendly or sustainable libraries. And every green library must have particular characteristics, such as:[7]

1. Use of natural, recycled, and locally available materials;
2. Use of reflecting roof and ground;
3. Use of insulating windows Water, energy, and paper maintenance;
4. Use of energy-efficient lighting to reduce consumption;
5. System for optimized cooling;
6. Sppropriate plantation both inside and outside the building;
7. Circulation of fresh and healthy air;
8. Use of environmentally friendly technology

5. Elements of Green Library

In general, the 'Green Library Movement' began in the early 1990s and is slowly gaining prominence in the field of library and information science. Many library experts are working on the concept of a green library, which will use natural and regional building materials, reduce water and power usage, and employ environmentally friendly technology. Though it is still in its infancy, we must recognize that a green or sustainable library is one that is designed, built, rebuilt, operated, or reused in an environmentally and resource-conscious manner. There are numerous ways to promote the concept of a green library, including the use of environmentally friendly or recycled and regionally available materials, optimal use and maintenance of natural resources, virtual

user services and resource-saving copy services, waste separation, elimination of plastic bags, no more paper cups and instead use of recycled/private crockery, fair-trade coffee in the library's coffee shop, green events, and selecting library suppliers with green practices.[8] While the term 'Green Library' is frequently used to refer to a library that has been built in accordance with standards or guidelines such as LLED, it can also refer to a library that is becoming more environmentally sustainable in significant ways, such as by using nontoxic cleaning supplies, reducing energy consumption, or collecting and promoting materials with environmental themes. Green design is essentially an integrated process. Green architecture is not defined by a single feature of a structure. Redundancies can emerge if effective integration is not implemented early in the planning process, and many of the potential benefits of sustainable design are lost. The synergistic linkages that develop between the various design aspects are always taken advantage of in good sustainable design. These elements are divided into five categories by LEED. Buildings can be designed so that one category aids another in achieving its goal of good, sustainable design. These five elements are described below.[9]

1. *Choice of Site:* Any college, institution, university, or department's library is its beating heart. It should be located in a suitable location to encourage people to focus on their reading or study. Accessibility or accessibility via public transit is an important factor that should be considered when looking for a site. Various agencies and organizations, such as LEED, USGBC, and Indian Green Building Council (IGBS), have provided recommendations for developing green libraries, which must be considered.

2. *Maintenance of Water:* It is one of the most important resources necessary in both homes and offices. Because it is rare and valuable, it must be handled with care. A library should practice adequate water management to maintain it clean, sanitary, and environmentally friendly. Rainwater harvesting systems, low-flow fixtures, and waterless urinals are just a few of the ways libraries may conserve and make the best use of water. Furthermore, waste water and rainwater can be reused by the library for plantation and gardening, as well as toilet flushing.

3. *Maintenance of Energy:* Although energy consumption is unavoidable, it should be reduced. It can be saved in a library in a variety of ways. A library can have enough windows, glass windows, natural lighting, energy efficient bulbs and lights, and so on. Even required electricity can be created utilizing direct sunlight by installing solar panels on the library's roof. Additionally, surplus energy can be saved and used when additional energy is required.

4. *Stuff of Structure:* The library building is the first thing that comes to mind when we think of a green library. There are numerous standards and procedures available in India and elsewhere for constructing green buildings using recyclable and environmentally friendly materials. The Indian Green Building Council (IGBC) is a subsidiary of the Confederation of Indian Industry (CII), and it provides services such as green building rating programs, training programs, and certification services. LEED is an internationally recognized Programme for designing environmentally friendly, high-performing green buildings that contribute to a healthy environment. It is vital to choose library materials that produce the least amount of waste and do the least amount of environmental damage.[10]

5. *Attribute of Household Air:* Fresh, healthy, and breathable air is a critical aspect today. A decent air supply is especially important within the library building. Proper plantation is required in the surrounding campus to give clean and fresh air while also keeping the library cool. Basically, trees provide nice air and regulate the functioning of air conditioners during the summer. In a mountainous area, the building should be in a sunny location so that it can get a little warmer and save money on room heaters and blowers during the winter. Furthermore, suitable air circulation and ventilation arrangements should be implemented. It is proposed that a green building be designed in such a way that the air is recycled rather than becoming stagnant.[10]

6. Conclusion

To summarize, a 'Green Library' or 'Sustainable Library' is a modern library that uses environmentally friendly building materials, maximizes the use of natural resources, reduces waste, maximizes the use of renewable resources, and conducts its operations in a more cost effective and efficient manner. Greening the library environment has become significantly more important in recent years. In this environment, library professionals should make some real decisions and take necessary efforts to green their libraries, as well as participate in the green library movement. Many national and international organizations are offering assistance in making libraries more environmentally friendly. However, library users, librarians, and the government should all take action and actively participate in the green library movement to ensure its success. It's worth noting that today's libraries, as knowledge gateways, are especially accountable for not just promoting the concept of sustainability, but also for leading by example. Always remember that taking tiny actions toward turning green might yield enormous rewards over time.

7. Source of Funding

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8. Conflict of Interest

None.

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