

GREEN LIBRARY SUSTAINABILITY: THE ROLE OF WOMEN LIBRARY PROFESSIONALS**M. Prasantha Kumari PhD**

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Abstract

Sustainable development is the way that all organizations should work to safeguard the environment. This encompasses all varieties of libraries, which have the potential to contribute significantly and actively to sustainable development. A library that considers social, economic, and environmental sustainability is considered green and sustainable. It was believed that women in India would excel in the library profession since women are naturally endowed with traits like patience, tenacity, dedication, commitment, sincerity, and responsibility. The "Green Library Movement" greatly values the role that women play in the field of libraries. They should constantly be conscious of the fact that operating a green library involves not just protecting the environment but also the health and welfare of library staff members.

Keywords*Environment,**Green Library,**Women,**Library Professionals,**Green Library Building and Practices.***1. Introduction**

The circumstances in which a person, animal, or plant lives or functions are referred to as the environment. Because environmental degradation will put both humans and animals at risk, protecting the environment is crucial. Sustainable development is the way that all organizations should work to safeguard the environment. Additionally, libraries of all kinds are essential to sustainable development. A library that prioritizes social, economic, and environmental sustainability is considered green and sustainable. The establishment and upkeep of green libraries is becoming more popular these days. It first appeared in the 1990s and gained popularity around 2003. The establishment and upkeep of green libraries is becoming more popular these days. "A library designed to minimize negative impact on the natural environment and maximize indoor environmental quality through careful site selection, use of natural construction materials and biodegradable products, conservation of resources and responsible waste disposal," is how the Online Dictionary of Library and Information Science defines green/sustainable libraries. Libraries that are green and sustainable can be any size, but they need to have a clear sustainability plan.

2. Review of the Literature

According to Thomas (2017), the idea of "green libraries" is progressively gaining the interest of library directors across the globe, and initiatives to create them are intensifying. Though it began in the USA, UK, and Canada—the main nations to accept the concept—this is now sort of a trend that has begun to gather steam in India as well. The author talked about the state of green library development in emerging nations like India. IGBC is an Indian performance standard, whereas LEED is the primary international performance standard. An effort is made to comprehend the idea, the function of different associations and training programs offered by green libraries, the performance standards now in use, and the benefits. An overview of green libraries and the role of contemporary librarians in creating them was provided by Bangar (2018). Environmental issues like climate change and energy reduction will affect the kinds of services and information that libraries offer to their local populations. In India, the trend is not limited to numbers; it is widespread. The author concluded that librarians need to keep up with the latest developments in sustainability in the profession. Noh and Ahn (2018) analysed and evaluated the indoor environment, energy and pollution prevention, and material and resource areas as the most significant assessment areas of green libraries based on the opinions of the library staff. Eleven categories were identified in order to gauge how green the libraries were; the categories with the greatest averages were energy and pollution avoidance, which received 510 points, library resources, which received 415 points, and indoor environment, which received 320 points. In order to assess the degree of greening, the libraries were lastly rated using actual data. Of the total libraries, two received the highest grade—Diamond—which represents 15.39% of all libraries; the remaining libraries received Gold and Silver grades. A library was classified as non-certified if its overall score was lower than 20%. Out of all the libraries, 15.06% of them scored below this threshold. The purpose of this study was to determine the fundamental information needed to guide the growth of green libraries in our nation. Additionally, the study's findings will serve as a guide for library staff members as they build or renovate library spaces, set up service infrastructure, offer information

services, and schedule their work in an environmentally responsible manner.

Sawant and Sawant (2018) introduced the idea of a "green library," enumerated its key components, outlined some justifications for becoming green, and discussed the role that modern librarians play in successfully putting the notion of a "green library" into practice.

Steps and Procedures for Constructing a Green Library

The four main steps of the green initiatives implemented in libraries are as follows:

The Green Library Building's design.

Procedures and Functions at the Green Library.

Programs for Literacy and Collection Development at Green Library.

Technological Innovation and Creativity for Green Libraries

The Green Library Building's Design

The most widely used rating system for environmentally friendly buildings is LEED (Leadership in Energy and Environment Design). In terms of site selection, energy saving, water consumption reduction, proper waste disposal, and the provision of green information literacy, LEED has established clear guidelines and requirements for green buildings. By implementing the following strategies, a green library building and its grounds can be developed with the right architecture and design:

A well-thought-out ventilation system may control humidity and pollutants in the air, lower room temperature, and use less energy.

Window shading lowers heat and keeps the room at the right temperature depending on the season.

Airtight construction limits smoke, dust, and other contaminants while supplying clean air.

Rooftop Gardens lower building temperature, maintain building cooling, and eliminate CO2

Water usage in restrooms is reduced by using dual-flush toilets and sensor taps.

To meet the electrical needs, use wind turbines to turn wind energy into electricity and solar power, this generates power by turning sunlight into electricity.

There are tree plantations surrounding the library, reducing pollutants and improving the customer experience.

Utilizing or recycling waste materials can lower

Recycling or using waste items will lessen their negative effects on the environment. Many trees will be saved by using less wood. Utilizing locally accessible materials will reduce fuel and transportation costs. It also involves avoiding plastic and other similar products and using biodegradable materials instead. New library facilities should incorporate many of the more environmentally friendly building technologies that have evolved in recent years.

Using LED lighting results in reduced energy use, less radiation, increased brightness, and extended lifespan.

Green Library Procedures and Activities

Appropriate rules and practices for recycling books and documents that are damaged or unneeded.

Digitization of printed materials to cut down on paper consumption.

Use library software to automate and digitize library operations and activities, which facilitates information retrieval and updating.

Using used clothing and biodegradable clothing to clean shelves and floors.

Printers that use recycled ink cartridges need to use them because they are less harmful to the environment.

Printing on both sides helps reduce the amount of paper used; this should be promoted.

Reuse and give away outdated and abandoned library materials.

Ensure that dry and moist garbage are properly separated.

Use eco-friendly products and utensils instead of plastics.

Make use of FSC-certified and chlorine-free paper.

When feasible, take the stairs rather than the elevator.

To save energy, running several servers on a single server box.

Development of Green Collections and Literacy Initiative

By promoting green literacy, developing appropriate collections, encouraging behavioural change, and teaching people how to incorporate green practices into their daily lives, library workers can also help and advance green libraries. Libraries must give improved access to a useful selection of online publications and green resources in order to promote the idea of sustainability. To raise awareness among researchers and students about the "green" notion through campaigns, programs, and activities including painting, poetry, photography, videography, presentations, and competitions that will inform and inspire creativity in users.

Smart and Cutting-Edge Technology for Green Libraries

Modern, inventive, and cutting-edge technology have the ability to lower energy usage and forward the goal of a sustainable and green future. Devices with Motion Sensors: Energy can be saved by using a motion sensor

device, which can sense a user's absence automatically and turn off electrical equipment. The Smart Automatic Energy Saving System uses a PIR sensor to detect human presence. It then uses this information to monitor the temperature and brightness of the room and adjusts the fan speed accordingly. When no one is there, the system shuts down completely; this also helps to save energy. Indoor Air Quality Monitoring: By utilizing the Internet of Things, IAQ monitoring systems contribute to the preservation of building energy efficiency and offer superior ventilation, guaranteeing both the user's health and the library's air quality.

India's Initiatives for Green Libraries

Numerous green library initiatives have been launched across the nation; selections are included below.

Chennai's Anna Centenary Library

The library was founded in 2010 and has a Gold LEED rating. It is furnished with contemporary technology and makes good use of light, air, and wood.

Mumbai University Library

The 1880-founded Mumbai University Library was designed with environmentally friendly materials, has adequate lighting, and offers readers open areas. The Madras University Library was constructed in the Indo-British architecture in 1907. The layout of the windows provides adequate lighting for the reading area and allows for the flow of fresh air.

In the Indian Himalayas, in Ladakh, is the Perma Karpo Library: The library uses cutting-edge technologies, solar panels, and a white lotus garden as its surrounds.

Women's Role in Green Library Sustainability

Numerous studies clearly demonstrate that women played a key role in the preservation and conservation of the environment. Women are more closely associated with nature, which contributes to a culture of environmental conservation and preservation. This ensures that future generations will be able to meet their needs from the environment and will learn how to protect it for themselves and their children.

It is believed that women in India would make excellent library professionals because women are naturally endowed with traits like patience, tenacity, dedication, commitment, sincerity, and responsibility. The "Green Library Movement" greatly values the role that women play in the field of libraries. They should constantly be conscious of the fact that operating a green library involves more than just protecting the environment—it also entails protecting the health and wellbeing of those who use and patronize it. Women librarians should always focus on advancing the green library movement as part of their aim to create green libraries by:

Encouraging consumers to adopt electronic books, e- journals, and other similar resources, which can serve as cost- and space-saving aids.

Using various electronic media and online communication tools, such as social media, which offers a number of benefits to both library management and users; • Working under an eco-library system and identifying those people who are willing to work under such an environment, which may strengthen the movement; • Making soft copies, digitizing old and scary books, and weeding out old and outdated books, which help in maximizing utilization of space.

By holding talks, seminars, and conferences, librarians may support each other and work toward a green library. Additionally, by using wood furniture and other biodegradable materials, the space is highly environmentally friendly.

Using solar tiles or panels, or reflecting material, for library roofing to ensure optimal use of renewable energy; replacing burned bricks with wool bricks, which is an environmentally friendly building material.

Using insulation made of recycled paper, which is thought to be the best way to create environmentally friendly buildings.

Using bamboo, fiber, etc. in place of steel; • Conserving energy, water, paper, etc.; these actions not only allow for significant resource and expense savings but also promote sustainability.

Creating appropriate landscaping, such as a lawn, both inside and outside the library to reduce dust and provide a cool atmosphere; this is a smart concept for improving temperature control.

3. Conclusion

Libraries are essential for protecting the environment in addition to promoting education and knowledge exchange. As more people become aware of the value of sustainability, libraries must embrace the green movement. Librarians can encourage patrons to adopt sustainable behaviors and improve the environment by introducing eco-friendly activities.

The broader green construction movement has unique hurdles in the library sector. Extreme temperatures, moisture, sunlight, termites, fungi, and, of course, a few unscrupulous readers require extra attention when it comes to books. It gets increasingly difficult due to the weight of the volumes, the stacks, and the movement of

numerous readers on the floor. Building structure and design become even more complex when considering expandability for future development in terms of books, readers, and technology. The environmental challenge, which is to protect and sustain life on Earth, is currently a major global issue. The library has the potential to inspire individuals to take proactive steps towards environmental protection. The government ought to support the creation of green libraries. A few Indian libraries are taking part in the green library movement and attempting to open green libraries.

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