

IMPLEMENTING GREEN TECHNOLOGY PRACTICES AND CULTURE IN THE LIBRARY

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ABSTRACT: - *Libraries are social organizations and ultimately the responsibility of saving the environment equally lies on the part of libraries also, as they can not only disseminate information on environmental sustainability, but also can create environmental awareness in the society with the implementation of green technology practices in the library. Introducing green culture into library certainly helps in reducing unnecessary waste and conservation of natural resources. Green technology practices and culture involves implementation of environmentally supportive and sustainable activities like construction of green library building, greening existing library facilities and services within the library. Accordingly, with all such greening practices libraries can act as a key factor in the environmental and sustainability movement. This paper gives examples dealing with the ideas of how to go green in the library.*

KEY WORDS – **Green library, green technology, green culture, sustainable library, green building, green collection development, green library initiatives.**

1. INTRODUCTION

The responsibility to save the environment and to keep our surrounding pollution-free is growing these days. We can minimize stress on the environment by doing many of our everyday tasks in a different way. Implementing green culture into our library can certainly help in reducing waste and conserving natural resources. Libraries are

particularly responsible not only for disseminating information on environmental sustainability, but also for creating awareness in the society with their green practices. Therefore Librarians should act as a role model for sustainability by providing suitable services and relevant information related to green issues and concerns.

2. MEANING AND DEFINITION

Green is about sustainability and going green is making efforts to protect, preserve and restock the earth's resources.

“Going green” means to pursue knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions, and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations².

The Online Dictionary of Library and Information Science defines green/sustainable libraries 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 resources (water, energy, paper), and responsible waste disposal (recycling, etc.). In new construction and library renovation, sustainability is increasingly achieved through LEED (Leadership in Energy and Environmental Design) certification, a rating system developed by the U.S. Green Building Council (USGBC)”⁷.

3. WHAT MAKES LIBRARY GREEN?

The diversity of activities covered many facets of environmental sustainability in libraries and librarianship. The concept of sustainable

development advocates a balance between economic growth, social equity, and ecology that meets the needs of the present without compromising the ability of future generations to meet their own needs. Libraries' operations had the basic characteristics of sustainable practices long before the concept of sustainability gained a wider acceptance. The economic model of library operations is characterized by frequent borrowing instead of constant buying of information materials, and by sharing of resources rather than unnecessary duplication. Social equity values have been practiced in libraries by collecting, archiving, preserving, and providing public access to collections for current and future users. Environmental values have been expressed by developing collections focused on environmental topics, teaching environmental literacy, disseminating environmental information, building green libraries, and green practices and sustainable solutions taking place in libraries⁵.

3.1 Constructing a green library building

The green buildings can have tremendous benefits in the form of water saving, biodiversity enhancing, energy saving and waste management effective by designing in a way that maximizes the use of natural and renewable resources.

Constructing a green library building using a performance standard is a way some libraries

are choosing to become green and sustainable. Green buildings are measured according to standards given by following councils.

3.1.1 US Green Building Council (USGBC)

US Green Building Council (USGBC) has developed Leadership in Energy and Environmental Designing Rating System (LEED) in the year 2000. LEED certification is recognized across the globe as the premier mark of achievement in green building. LEED rate on 100 points and certify the buildings on the following criteria:

- 40-49 points as Certified
- 50-59 points as Silver
- 60-79 points as Gold
- 80+ points as Platinum⁶

LEED also uses various categories to judge the buildings sustainability through design elements like site location, water conservation, building materials and resources, indoor air quality, energy efficiency, and innovations in design¹.

3.1.2 Bureau of Energy Efficiency (BEE), Indian Green Building Council (IGBC) and Green Rating for Integrated Habitat Assessment (GRIHA)

The concept of constructing green building, which is environmentally sustainable and resource-efficient, is getting popularized in India. A number of positive steps have been taken to boost energy efficiency in the built environment in India. Most significantly, the Bureau of Energy Efficiency (BEE), Government of India has mandated the Energy Conservation Building Code (ECBC) for buildings having a connected load of 100 kW or 120 kVA. Currently, India has got the BEE's energy star certification for buildings, the green building rating systems like LEED promoted by the Indian Green Building Council (IGBC) and the GRIHA (Green Rating for Integrated Habitat Assessment) rating promoted by Ministry of New & Renewable Energy³.

Indian Green Buildings Council (IGBC) established in the year 2001 to promote and to rate green buildings in India on LEED parameters. IGBC Green New Buildings rating system is a voluntary and consensus based programme. The rating system has been developed based on materials and technologies that are presently available. The objective of IGBC Green New Buildings rating system is to facilitate a holistic approach to create

environmentally friendly buildings, through architectural design, water efficiency, effective handling of waste, energy efficiency, sustainable buildings, and focus on occupant comfort and well-being.

The rating system evaluates certain mandatory requirements & credit points using a prescriptive approach and others on a performance based approach. The rating system is evolved so as to be comprehensive and at the same time user-friendly. The programme is fundamentally designed to address national priorities and quality of life for occupants. IGBC certify the buildings on the following criteria:⁴

Certification Level	Points	Recognition
Certified	50-59	Best Practices
Silver	60-69	Outstanding Performance
Gold	70-79	National Excellence
Platinum	80-100	Global Leadership

India's first LEED Gold rated Anna Centenary Library located in Kotturpuram, Chennai is the largest library in Asia and one of the most sustainable. This prestigious LEED gold rating

is given by IGBC under New Construction rating.

3.2 Green Collection Development

Librarians gather green and environmentally themed information resources for their patrons and display them on a separate shelf. Mostly scholarly information materials are acquired in digital formats, including electronic journal back files, electronic books, digital video, image collections, datasets and a variety of special collections. Collection support is provided for emerging multidisciplinary areas such as environmental, global, and health studies.

3.3 Suggesting different printing options

One average tree is needed to produce about 20000 pages. The greenest paper is no paper and one of the effective ways to be greener in the library is to reduce paper waste. By saving paper, we can save a tree in a year and globally, we can save an entire forest. Keeping this idea in mind librarians should suggest different options of printing for their patrons displaying notices nearby the printing instruments are kept.

- Read articles online and take notes instead of printing the entire article.
- Read article abstracts of the article before printing to make sure the article is really useful.

- Scan the text into a computer instead of making photocopies and then read it online.
- Convert documents to pdf files for paperless document sharing.
- Help the library to reduce paper waste by making two-sided copies whenever possible.
- No prints, share by e-mail.
- Borrow from libraries instead of buying personal books. This saves money and also the paper that goes into printing new books.

3.4 Going Digital

Libraries can prefer e-mails instead of mailing out paper newsletters and notices, use fax modems to send and receive paperless documents, create e-mail campaigns to announce special events and keep in touch. Libraries are these days offering electronic services through messages (SMS's) and e-mails, releasing library metadata to the open web, cutting down on paper notices and making it easier for patrons to keep up with their accounts by making them accessible online. Libraries are being part of eco-environment movement and supporting paperless library by going digital in every aspect.

3.5 Green Email Signature Footers and Taglines

Libraries have started adding green taglines / environmental email signatures to e-mails with aim to keep e-mail paperless that says something like:

- Before printing this e-mail message, ask yourself whether you really need a hard copy
- Printing this message kills trees, printing is a murder.
- Think before printing.
- Save trees, do not print, unless necessary.
- Please consider the environment before printing

3.6 Environmental Awareness and Education Programs

This is the new role of a library in connecting public with the environmental awareness and education on recycling, sustainable living and waste reduction by organizing programs like:

- Organic gardening
- Recycling and up cycling craft competitions
- Eco-essay competition
- Discussion events on environmental topics, book discussions
- Public debates on ecology and sustainability
- Organizing biking days
- Library tree plantation activity

- Celebrating environmental theme weeks and events
- Planning for a community garden
- Organizing lectures on environmental issues

3.7 Energy Saving Practices

Libraries follow some energy saving practices like, preferring Laptops or LCD monitors, switching off the computers and other machines at the end of each working day and at weekends, switching the lights off when not needed, and upgrading computers with thin clients, energy rated CPUs and efficient servers.

4 GREEN LIBRARY INITIATIVES IN INDIA

In India, green library building concept has started growing slowly. Karnataka University, Dharwad, has also launched up a project on green library after Anna Centenary Library, Chennai.

Indian Library Association (ILA) had also taken up keen interest into this required issue and organized its 43rd All India Library Conference on "Sustainable Library and Information Services" at Chandigarh in November 5-8, 1997.

Even National Assessment and Accreditation Council (NAAC) have started assessing the

Universities on environmental benchmarks. As per the draft manual of NAAC, universities are judged on social impact factors of its extension programmes on the community. The institutional initiatives towards energy consciousness like whether it conducts a green campus audit and activities like energy conservation, use of renewable energy, water harvesting, efforts for carbon neutrality and e-waste management have also been incorporated. Libraries are integral part of the University and therefore there has to be green practices implemented in the library in support this NAAC activity.

5 CONCLUSION

Libraries are key factor in the environmental and sustainability movement, as through green library services environmental awareness can easily be created and green values are inculcated in the social community. Green technology practices and culture in the library not only includes constructing a green library building but also includes greening existing library facilities, providing green library services, and implementing environmentally supportive and sustainable activities within the library. There are a wide range of ways to promote the idea of the green library by using eco-friendly and recycled materials, virtual user services and resource saving copy services, reducing waste and organizing green events.

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