

# GREEN LIBRARY: AN OVERVIEW, ISSUES WITH SPECIAL REFERENCE TO INDIAN LIBRARIES

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## Abstract

The green library or sustainable library is a new concept and it is gaining popularity among the library professionals. The paper highlights the conditions of environment, their impacts on society and efforts of leading organizations towards an eco-friendly earth, developed standards for the betterment, green India, green library, role of a librarian, features of green library, Initiatives in India and outside India. The papers also discuss role of initiatives like United Nations Development Programme (UNDP), IGBC (Indian Green Building Council) and LEED (Leadership in Energy and Environmental Design). It is also give an overview of green library and role of modern librarian to make green library. Furthermore the paper focus the importance of green library in ongoing era and green library initiatives in India like Madras University Library, Karnataka university library Dharwad, Mumbai university library and Anna Centenary Library has been trying to make a successful green library.

**Keywords:** Green Library, Sustainable Library, Green librarian, LEED (Leadership in Energy and Environmental Design), IGBC (Indian Green Building Council), Green Library Movement

## Introduction

With the advancement of modern technology, life styles of human being towards development are in a rapid speed. Now the demand and its qualitative supply should reach within a fraction of second. The curiosity and interest in technological innovations are in a running position to fulfil the unending demands. So in between this we are lapse something important which should be recognized before sustainable development and this indefinite productive development can only be possible to make our environment a sustainable one. The word Green has a great importance here for a healthy survives. Over the past few years there are increasing interest towards green revolution in every sector and library is one of them. The climate change issue became heavy on dependants

specially people of around world. So to reduce the problem there are many research and developments are going on, many scientists are work on different projects to overcome these issues.

### **Green library:**

The green library movement emerged in the early 1990s and it is gaining popularity in the field of library and information science profession. The library professional also trying to develop such a kind of library that will be minimize the electricity consumption, energy efficient and environment friendly. Though it is not applied completely in library fields but still we are in a growing position. There is no need to give extra stress in mind to understand green library. Green or sustainable libraries are the structure that is designed, built, renovated, operated, or reused in an ecological and resource efficient manner (Anonymous, 2008). It's a collective effort of all mankind to make green planet by reducing global warming. The Online Dictionary of Library and Information Science (ODLIS) define green library "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 like water, energy, paper, and responsible waste disposal recycling, etc."

### **Literature review:**

For this study we have referred some literature related to Green library or Sustainable Library and Green Library Movements. There are very few numbers of Literature have been found and gone thought literature which was relevant. (Hauke and Werner, 2013) describe the detail about the Green Library Movement and early begin of the movement in 1990s. (Antonelli, 2008) explain about different web page and websites related to Green Library Building. (Vijayalakshmi, 2014.) On his article on "Greening the Library for sustainable development" gives information about the Green Library or Sustainable libraries initiative in India and rest of the world.

### **Objective:**

The following objectives of this paper have given below:

- To contribute little efforts to make a green earth.
- To make use of those products which can be reusable?
- To proper use of technology to reduce library expenses.
- To make library modern techno savvy and give green service to patrons.
- To save energy by making library compound greenery.
- To create an environmental awareness among people.
- To promote green library movement.

### **Green India:**

It is become a hustle and bustle concept now and not only library but also every sector and departments are seriously thinking about it. Because by making a green environment

in our surroundings individually or collectively, by avoiding deforestation, decreasing carbon dioxide level and increasing clean climate we can make a green, clean and healthy India. There are various projects are under taken by various ministry of government of India to redirect the mode of change to a green India and also big companies in private sectors both nationally and internationally like TERI (The Energy and resource institute), Infosys, IKEA, Adobe, Coca-Cola, Google, HPE (Hewlett Packard Enterprise), Microsoft, Nestle, NIKE, Philips, P&G, Tata Motors aims to play a lead role to reduce the carbon economy level and help to decrease the impacts of climate change.

Furthermore some major initiative from ministries like ministry of environment, forest and climate change has started some programs like:

- Compensatory Afforestation Management and Planning Authority (CAMPA)
- Compensatory River Conservation Directorate (NRCD)
- Capacity Building for Industrial Pollution Management (CBIPM)
- National Green Tribunal (NGT)
- National Mission on Himalayan Studies (NMHS)

**United Nations Development Programme (UNDP)** has a great role in international level for the sustainable development. It follows some goals made by UNDP itself to foster the life style of human being and long life of earth as well. Goals are like good health and well-being, clean water and sanitation, affordable and clean energy, industry innovation and infrastructure, sustainable cities and communities, climate action, life on land, partnership for the goals etc.

### **Element of Green Library**

- **Community & Locality**

As Library is a heart of any institution or university or any department, it should be in a perfect locality such as away from the noise zone like club, auditorium, entertainment hall etc. to make patron concentrate on their study. Also public transportation system to reach library is a necessary element which should need extra attention while choosing location. There are various guide lines have been given by different agency and organizations like LEED and U.S. Green Building Council to developed world class green library

- **Area**

India's diversity is not only on its languages, culture, and traditions but also it differentiates itself by its locality, weather and area. So before planning for a constructional setup it is most important duty of the institutional head is to think about all sides benefit and drawback of it, just like separate plans for hilly area and a plain area setup.

- **Constructional material**

While we think about green library the first thing which comes in to our mind is the library building. There are lots of standards and protocols in India and outside India to make a green building by using recyclable and environment sustained materials.

**IGBC** (Indian Green Building Council) is a part of CII (Confederation of Indian Industry) offers a variety of services which include green building rating programs, training programs, certification service program etc.

**LEED** (Leadership in Energy and Environmental Design) is a nationally accepted program planning environmentally compatible high performances green building for a healthy environment. According to LEED wastes should be minimized at every stage of construction of building.

- **Light**

A library should have sufficient windows, glass windows and skylights which allow natural light abruptly in to it and there would be no need of any light generated from electricity during day time. **Also** using of low energy consuming bulbs and lights in non-reading areas during night time indirectly help library financially and save electricity as a whole.

- **Air**

Today air is a most important factor. Air for breath should be pure and breathable. A proper plantation is needed in the surrounding campus which provides clean and pure air and make library cool (plain area library). **Also** trees gives pleasant air and it control air conditioner operation during summer. In hilly area cases building should be in a sunny place so that it will become little warmer and reduces room heater and blower expenses. The more air ventilator planned the more it reduces the electricity consumption.

- **Electricity**

Electricity can be generated using direct sun light by planting solar system on the roof top of library building. Also the surplus energy can be conserved and helps during summer when library need extra energy consumption because of the use of air conditioner, fan and cooler.

- **Water**

For the good sanitation system a library should plan in proper water available area which helps library clean, green and healthy. As natural resources are decreasing by its amount, drinking water is also one of them so it's become responsibility of every human being to save drinking water. By looking in to the matter a library can reuse of waste water and rainwater in plantation, harvesting and flushing in toilets.

### **The Role of Green Librarian**

- Librarian should always make efforts to promote green library movements by using different online tools like social media.
- The Librarian constantly willing to work under the Eco-library system and identify those people who are willing to work in this environment.
- He can promote green library tools, techniques to encourage others.
- A Librarian can encourage other librarians towards green library by discussion, seminar, and conferences.
- The green librarian's role is most dynamic he is also called as eco librarian because he has to handle the budgets to support the organizations.
- Use wooden furniture and material because these are bio degradable materials
- Library can use wool brick instead of burnt brick.
- Solar tiles or panel can be used for roof.
- Paper Insulation is also an ultimate trick to make environment friendly building. It is made from newspaper and cardboard which are recyclable. Also it protects wall from fire and insects.
- More and more use of bamboo by replacing steel.
- Rooftop planting can be a good idea.

### **The best one:**

- Reading room, children's reading room, story, novel, entertainment purpose books, maps, atlases, gazette, encyclopaedias, new arrivals, newspaper, magazine, OPAC should be in ground floor of the library.
- Book shelves should not be exceeds 110 cm in heights.
- Arrangements of library should be made by considering physically handicapped patrons.
- There must be a parking lot for the patrons and staff to smoothly run the library

### **Indian initiatives towards Greening India:**

India has been ranked third on the list of top 10 countries in Leadership in Energy and Environmental Design outside America, according to the latest US Green Building Council report. Canada followed by China occupies the top two ranks in the ranking of the top 10 countries for Leadership in Energy and Environmental Design (LEED) outside the US. There are numbers of Green library has situated at different part of the country. In Asia's first LEED Gold rated Library building is Anna Central Library, Chennai. There are some other green libraries are given below:

### **Karnataka university library Dharwad:**

The library stated working since 1950. The library is eco-friendly library. They facilitate. Give a green space to the students of the University. The library follows the traditional Gurukul system in this view they setup a green library environment. The main motto of the green library is to facilitate students for group discussion. The Library gives an open



study space for the student with sitting, dirking and WiFi facilities, etc. The green library situated at nearest to all P.G departments so that students can get maximum benefits.



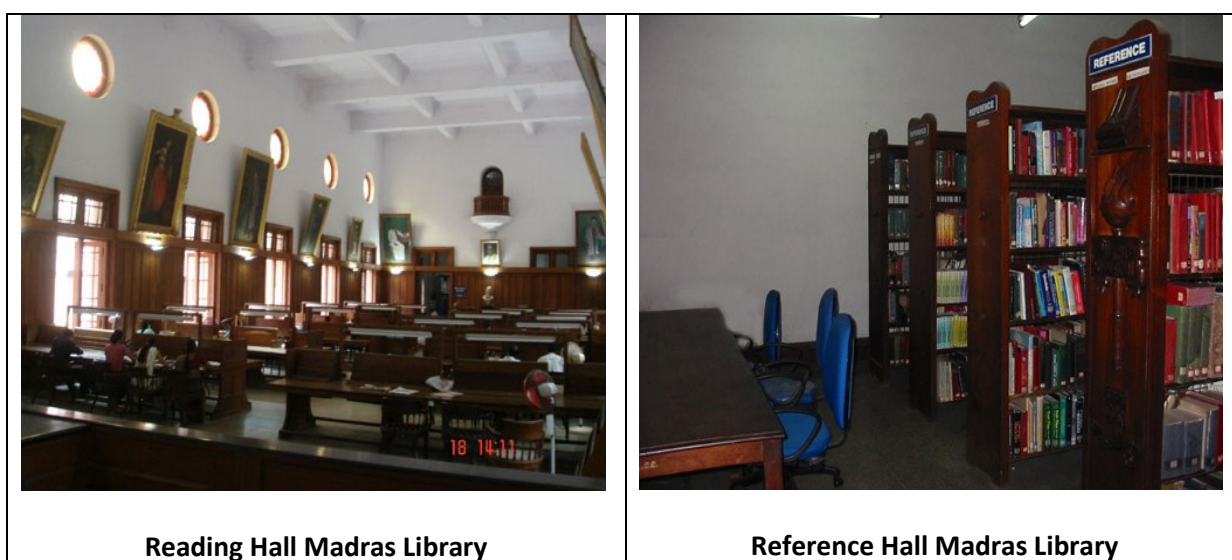
Figure-1

#### **Mumbai University Library:**

The Mumbai University Library was setup in the year 1880. The library are made with eco-friendly equipments with wood the size of the windows are wide so that proper light get in to the library. The library gives a big open space area for the readers. The library use wood as stack materials.

#### **Madras University Library:**

It was built in the year 1907 in Indo-British style. The library use wood material in stack areas and reference hall, periodical section reading hall. The windows are big and wide and proper lights come to the reading area and fresh air came.



Reading Hall Madras Library

Reference Hall Madras Library

Figure-2

**Anna Centenary Library (ACL):**

The library was established in 2010 by Government of Tamilnadu situated at Kotturpuram, Chennai. The buildings occupy an area of 8 acres. The library is well equipping with modern technology and proper use light, air and wood. The cost of the building is 172 crore. It is one of the reputed green libraries in India which is gold rating by LEED.

**Figure-3**

Other green libraries initiatives in India are given below:

- Calcutta University Library
- Delhi University Library
- Perma Karpo Library, Ladakh in Indian Himalayas

**Conclusion:**

The library always facing problems like space and budget in the same way the books has been facing problems from dust, moisture, fungus and it needs special care. The green library or sustainable is a modern library where minimize electricity consumption and maximum use of renewable sources like air, sunlight, woods. Now days it is much more needed for a library to greening the library environment. The librarians should take some decisions to make green library. And also take part in green library movement. Many national and international bodies are helping to make green library. Government should encourage the green library and guide to the all the libraries for making green libraries. Some of the Indian libraries have been trying to make a successful green and Librarians should take initiatives and participate in green library movement.

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