

Present Status of Green Library Aspects and Its Implementation in Academic Libraries of Maharashtra

Meena Dongare

Pratibha College of Commerce and Computer Studies, Chinchwad, Pune.
Savitribai Phule Pune University, Maharashtra

ABSTRACT

This study of green library aspects of academic libraries in Maharashtra will help the libraries to assess their place in the green library revolution according to norms and aspects about green library. Survey of library users has carried and their expectation from library has framed into green library criteria to save the environment. A green library is a library built with environmental concern and norms. It works as a sustainable Library. It provides minimum harms or no harms to society and reduces the demand which will in turn harm the environment like deforestation. It is library with eco-friendly green aspects .It saves energy, it save environment it reduce pollution, Green libraries are a part of the larger green building movement. Currently there are already lots of certification systems, rating systems and labels and some of these could be appropriate for Green Libraries initiatives. In this survey we observe that in this era only green building should not be the parameter of measurement of green library but green and eco friendly function and collection should be the part of it. Every library is also having scope to search for more aspects and include it in green revolution of library as per their geographical area. Target group used for survey is from urban and rural area to make the result comprehensive.

KEYWORDS: Green, Library, Academic, Sustainable, Survey, Geographical, Environmental.

INTRODUCTION

In curriculum of schools of all boards, Environment science is compulsory subject to inculcate the importance of environment in growing age. In this sense library can provide the literature to students which provide information, attraction and sense of gratitude about the environment around us. Library should develop the collection which will promote environment awareness.

It should avoid the material in the library and premises which will promote pollution, brings hazards to environment. Students from its childhood are bothered to respect environment through number of slogans, poems, logos, campaign. Number of saints like Tukaram Maharaja, Saint Tukdoji Maharaj, Saint Gadgebaba had sowed the seeds

of friendship between human and nature. Green library is the concept not only green building but it should provide the resources, e-resources about the environment and should be eco-friendly.

OBJECTIVES OF STUDY

- To adjust a set of criteria for evaluating green features of libraries and provide a guideline for greening libraries.
- To check about the status of green library revolution.
- To aware with the norms of green library
- To evoke the need to become green in librarians
- To make the libraries sustainable
- To inculcate the eco-friendly view in libraries.
- To build the perception that libraries can become by its function and interiors and not only by green building norms.

Discussion

What are green Library aspects?

Water	<ul style="list-style-type: none"> • Water saving features (WCs, wash basin equipment)
Transport	<ul style="list-style-type: none"> • Bicycle rack • Connection to public transport
Workflows	<ul style="list-style-type: none"> • Waste separation • No more plastic bags • Library café: china and glass bottles instead of plastics, fair trade products • <i>Switch off light and electronic equipment at night and in empty offices</i>

Overview of Green library Efforts

According to Wikipedia, "a green library is designed to minimise negative impacts on the natural environment and maximize indoor environmental quality by carefully selecting a site, using natural construction materials and biodegradable products, conserving resources, and disposing of waste responsibly." IGBC is an Indian organization that rates buildings, whereas LEED is a global organization that rates green buildings all over the world

LEED The Leadership in Energy and Environmental Design (LEED) grading system was created by the United States Green Building Council (USGBC) in the year 2000 to assist building owners and operators in being environmentally conscious and making efficient use of resources. Between the years 1994 and 2015,

For example, The Clarksville Montgomery County Public Library, received Tennessee's Clarksville-Montgomery County Green Certification. "The library has increased its recycling programme, reduced its use of paper, and increased energy efficiency practises such as using sleep mode and shutting down all computers, printers, and copiers at the end of the day, as well as adjusting the thermostats for optimum efficiency, updating to a floor cleaning system that uses less water and energy, hiring a laundry service to wash cleaning rags rather than disposing of them, and replacing old computers with energy efficient computers," says the statement.

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IGBC The Indian Green Building Council (IGBC) was founded in 2001 by the Confederation of Indian Industry (CII). They are always seeking to increase the usage of ecologically friendly and green construction techniques in the Indian building industry. The Confederation of Indian One of India's green buildings is the Confederation of Indian Industry (CII) - Green Business Centre building in Hyderabad. The council's vision is to "enable a sustainable built environment for everybody" and "assist India becoming one of the global leaders in the sustainable built environment by 2025." The council is divided into committees, with members in charge with the purpose of consensus. Architects, developers, and product makers are among the players in the construction sector.

Green building design takes an integrated strategy that considers the resources' life cycle impacts.

An important development in the growth of green building movement in India is the launch of the following IGBC Green Building Rating Systems: IGBC Green New Buildings• IGBC Green Existing Buildings• IGBC Green Homes• IGBC Green Residential Societies• IGBC Green Interiors• IGBC Green Healthcare• IGBC Green Schools• IGBC Green Factory Buildings• IGBC Green Campus• IGBC Green Villages• IGBC Green Townships• IGBC Green Cities• IGBC Green SEZs• IGBC Green Landscapes• IGBC Green Mass Rapid Transit System[6]•

LITERATURE REVIEW 1

Mahboubeh Ghorbani (2020), Designing a Green Library Evaluation, National Library and Archives of I.R .of Iran According to this researcher the criteria were developed by looking at green building standards and literature, such as LEED and green library studies, as well as interviewing and analysing opinions from experts in the disciplines of environment and library science. This study's findings are presented in the form of a checklist with 103 criteria grouped into seven sections. Construction and equipment Planning and administration of strategic initiatives, The sections deal with instilling environmental management motivation, commitment, and culture in librarians, as well as collection development, information organization, dissemination, and engagement, and supporting national and international sustainable development programmes.

LITERATURE REVIEW 2

Sunil Rabidas (2016) Green Library Buildings: A Sustainable Process Librarian, Loyola College of Education, Vol-2 Issue-6 2016 Namchi ,Sikkim, India, IJARIE-ISSN(O)-2395-4396.

According to this we have reached a tipping point when we can re-invent and overhaul administrative systems as a result of rapid technological advancements. Green structures are another example of modern architecture that is commonly used in modern technology. The rating scales LEED and IGBC, both founded in the United States and India respectively, are accredited to illustrate how modern buildings are created in an environmentally responsible manner. Libraries and librarians are inextricably linked to society; they should not undermine our environment, but rather play a leadership role in preserving it. This article discusses what a green library building is, how they are certified, what is expected of them, and what the future of green library buildings in modern India looks like.

In reference with all above discussion, we have to focus on the efforts initiated by number of college libraries in the Maharashtra. Following are the main aspects of our library which will focus on the foot prints of library towards the green library revolution and sustainable development.

- Libraries of colleges in the Maharashtra are at 1st or 2nd floor and it is enough safe place to protect library collection from flood like situation in moderate rain fall area. In Maharashtra, in district Kolhapur number of

academic libraries, public libraries on ground floor are ruined due to the standing flood water. In 2019 and 2021. Thus reveals the green aspect can change as per different circumstances according to safety, geographical and climate condition.

- Pune, Maharashtra is geographically comes under rainy region and contain number of dams. The monsoon lasts from June to October, with moderate rainfall. Pune floods: In July 2021 there are 84 villages in Pune and Pimpri Chinchwad area which were flood-prone the administration continues to be alert as the many dams and rivers in the district makes it vulnerable to floods.
- The Central Water Commission (CWC) on 15th July, 2021 said there was a moderate risk of flooding in Pune district too besides coastal districts of Thane, Palghar, Raigad, Ratnagiri and Sindhudurg in Maharashtra, where the risk was moderate to high. Due to diversion of streams.
- Due to deposition of construction debris in streams. No proper sewage system and waste being pumped into water bodies. Increased runoff owing to cement and concrete roads.

In Maharashtra every administrative section has this situation of water drainage and also has surrounded by big dams. So this monster is same at all places.

In summer days, water shortage is another problem, and to overcome this most of the libraries has harvested rain water.

Some of libraries situated on ground floor has shifted their reading room to open garden-reading room by developing greenery, big trees. Libraries provided seating arrangement in natural light, sunbath with vitamin -D and fresh air. This is very helpful to prevent increasing bone diseases due to Vitamin-D deficiency.

Number of libraries set up the solar plant on the roof of library to generate the power form solar energy.

Building of all college libraries are big, wide and allows plenty of natural light and air explore in the library. Use of glasses in the building allow the natural light explore up to every corner of library.

Numbers of libraries are using the recycled computers and minimize the e-waste production.

Libraries are practicing the practice to shut off the PCs at the end of work at end of day.

Library has displayed instructions and monitored the controlled use of electricity.

Number of libraries switched to use of metal furniture's and avoids wooden chairs to save tree.

Number of colleges and libraries strictly prohibited use of plastic and has preserved plastic free area.

Number of colleges and libraries has green campus with tall green trees at western side to prevent infra red rays to reach inside.

To minimize the tree cutting libraries are using the one-sided pages to create and keep its print information.

Library makes the optimum use of space for stake by increasing the height of racks up to 09 shelves.

Libraries using dry mopping, use of vacuum cleaner to minimizes the use of water for housekeeping.

METHODOLOGY

I had followed a structured interview, or a standardised interview. It is common a quantitative research method used in survey research. This ensures that responses can be gathered with confidence and that comparisons between sample subgroups or survey periods can be done with confidence. As we carried structured interview with 100 library users of different colleges of Maharashtra as a part of random sample which provide equal probability of getting selected.

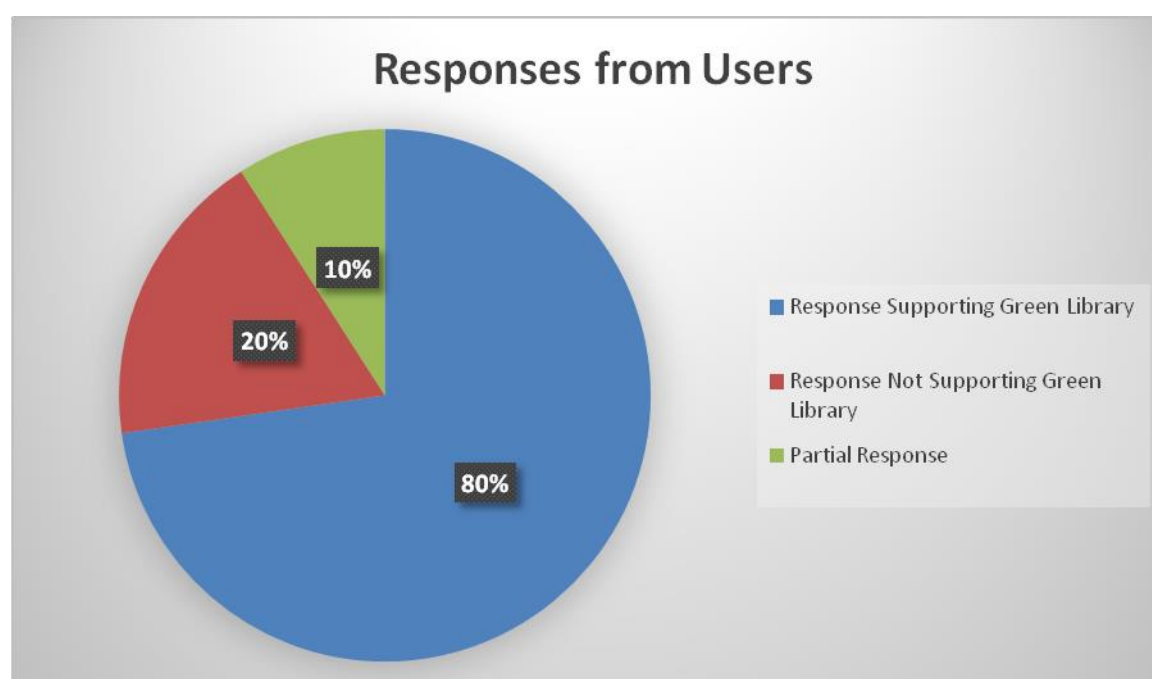
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We asked the following questions to know the status of green efforts inculcated through the library by various curriculum and cultures of colleges.

- 1) Are you using polythene bag for your tiffin? Yes/NO
- 2) Which bottle you using for carry drinking water in library? Plastic/Metal/Glass
- 3) Which type of study material are you using? e-study material / print material for your studies.
- 4) Racks in your college library are made up of which material? Metal/Wooden.
- 5) Seating desks of your library made up of which material? Metal/Wooden
- 6) Your library providing digital library? Yes/NO.
- 7) If you will like garden/ open reading room? Yes/NO
- 8) Which types of light devices used in your library? LED/Tubes/Bulbs
- 9) Are your college library has having solar system to generate light? YES/NO
- 10) Are your college library has having rain water harvesting? YES/NO

Response

Question	Response of users	If, Response supporting to green library
1	Yes :20 users No: 80	Yes
2	Plastic: 20, Metal: 79, Glass:01	Yes
3	e-Study material: 62, Print material: 38	Yes
4	Metal: 54, Wooden: 46	Yes
5	Metal: 40, Wooden: 10, Plastics: 50	Partial
6	Yes: 96: No.: 04	Yes
7	Yes: 100, No: 0	Yes
8	LED: 40,Tubes:59,Bulbs: 01	No
9	YES:27, NO:73	No
10	YES: 81, NO: 19	Yes



Data collected for target group according to above questions and analysis is carried out.

For the plastic polythene bag awareness is great. Digital library use, rainwater harvesting awareness is at excellent step. Major number of students are using e-material to study is good sign of to save space required for print material. Wooden desk for sitting arrangement showing need to awareness about reduce wooden material use to save trees. Rain water harvesting to save water has great implementation in number of libraries.

Major numbers of libraries are still using the tube lights and have to shift to LED bulb to save electricity.

All users of library are demanding open or garden reading room .this is need of the time to give natural touch to our priorities and education like Shantinikatan concept.

Nearby all libraries in the Maharashtra are providing digital library

CONCLUSION

Libraries of Maharashtra are in transforming stage and major numbers of functions are transformed successfully towards the green and sustainable library. Still there is scope to shift the library needs towards the green library aspects and aware with the need and importance of green library. It is also necessary to increase the area and scope of green library to cover more functions. Criteria should be not only green buildings but comprehensive.

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