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December 2021

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Singha, Bibhash Ram ,Librarian and Halder, Bikash Kumar Librarian, "A Perusal on Preservation and Conservation Techniques in the Government Aided College Libraries of Diamond Harbour and Alipore subdivision in South 24 Parganas" (2021). *Library Philosophy and Practice (e-journal)*. 6511.  
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# **A Perusal on Preservation and Conservation Techniques in the Government Aided College Libraries of Diamond Harbour and Alipore subdivision in South 24 Parganas**

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***Abstract:** The present study is exhibited the preservation and conservation techniques in the college libraries of Diamond Harbour and Alipore subdivisions in the district of South 24parganas. It is also discusses about degradation problems of print and non-print materials, causes of deterioration of library documents and different obstacles to use preservation techniques. To secure the library materials in a well manner need to apply the preservation and conservation techniques which includes cleaning and dusting, use of insecticides and insect repellent such as Thymol, Dichlorovos, Dursban, Naphthalene balls, Neem leaf etc., besides that there is a provision for security systems of the college libraries to secure the library materials, mutilation and defacing of paper-based materials and shelving library documents to allow for free flow of air. But binding, photocopying, and use of insecticide and insect repellent for preservation are used occasionally. Hence, the results indicate that the different college libraries are more or less need to preserve their library documents according to the existing preservation policy as well as new preservation policy and also college authority should provide sufficient fund and engaged skilled laborer.*

**Keywords:** College libraries, Preservation, Conservation, Diamond Harbour Subdivision, Alipore Subdivision, South 24parganas.

**Introduction:** In the present society where information is essential for every individual and library is a centre of information for that reason the library should keep their collection in an organized manner. The collection of the college libraries implies text books, reference books, institutional publications, periodicals, newspaper cuttings, manuscripts, etc. and also subscribing other material such as paintings, drawings, charts, maps CD-ROM, DVDs, audio and video recordings, films, microfiches, microfilms, art reproductions, computer, online database, external hard disk or server for backup and other digital material. So the huge collection of the college libraries is needs to preserve and conserve in the expected level and make this collection in usable condition. Preservation and conservation activities include bookbinding, book repairs, and it also includes treatment such as pesticides of the damaged documents and emergency preparedness and response.

**Objective of the Study:** The main objectives of this study are as follows:

- To identify the preservation and conservation techniques in the government aided college libraries.
- To find out the different safeguard which is taken by the college libraries from different disaster?
- To identify the different technique are applied for the library collection development.
- To know the present condition of the college libraries.

**Literature Review:** [1] [Ambika and Khaiser Jahan Begum \(2017\)](#) in their article highlighted the use of preservation and conservation techniques, problems faced in preservation and conservation of materials, damage cause of the library material and different type of disaster on library collection. They also stated that how to handle the preservation and conservation techniques as there is no written policy, updated hard ware and software etc. [2]

[Tahmina Akter \(2011\)](#) discusses in his article that the libraries are faced with the challenge to preserve their materials and recorded knowledge in libraries. These libraries are also preserving their rare and valuable library materials into microfilm and modification of library service, preservation policies and practices using the current technologies, resources and expertise. [3] [Sivamay Bhattacharjya \(2017\)](#) focuses in his article that the digital Preservation is a collaborative, community effort to support the archive and how the archive is governed, managed and running in India providing access to the users of the libraries. [4] [Saranjit Kaur \(2017\)](#) in his paper stated that the old literature has been preserved or conserved by Indian libraries in any ways and different ways to preserve and conserve library material and also said that the main problems for deterioration of the print material. Almost all the institutions have adopted mending, repairing and binding, cleaning, dusting, shelving, lamination, installing air-conditioners, adequate security, fire extinguishers, use of insecticide, fumigation, photocopying for library material so that its life can be increased. [5] [Navin Prasad \(2016\)](#) in his article the libraries have been experimenting with various preservation strategies such as technology preservation, emulation, migration etc. The paper also discusses various issues and challenges associated with digital preservation and examine different strategies of digital preservation.

[6] [Victoria A. Ivishu, William O. Nkanu and Frederick O. Ogar \(2013\)](#) Their paper attempts to explain preservation and conservation as measures for achieving sustainability of library materials as long as possible in their original format. In order to achieve this, causes of deterioration of library materials such as poor paper manufacture, improper storage, rough handling, pests and knowledge of disaster occurrence, electronic means of preservation, challenges and strategies for digital materials preservation have been examined. [7] [R. Kavitha \(2009\)](#) stated that the change have occurred in acquisition, retrieval and storage of

information due to technological developments. Limitations, restrictions and problems being faced by librarians and readers due to the same have also been discussed. Collection development of digital libraries is greatly influenced by a number of stakeholders such as library and information science professionals, publishers, subscription agencies, database manager and information services providers. [8] [Sawant Sarika \(2014\)](#) in his paper preservation by definition is activities associated with maintaining library and archival material for use either in their original physical form or in some other usable way. The study also investigated the preservation and conservation of library materials in the college libraries and there must be a written policy in the libraries with sufficient fund to smoothly carry out the work. [9] [Adekannbi, Janet O and Wahab, Femi-Wale Wasiu \(2015\)](#) in their article stated that the most commonly used techniques for preservation and conservation in the academic libraries was shelving to allow free flow of air, cleaning and dusting, use of insecticides or pesticides, installation of air conditioners and provision for adequate security systems to prevent vandalism and mutilation while the least used technique was de-acidification.

**Methodology:** The present study envisaged the different relevant literature search; questionnaire is prepared for data collection. The study has been engaged 7 government aided college for field survey. The data collection work was deployed by interview, survey and observational method to the target respondents of different college libraries at the Diamond Hourbour and Alipore subdivisions in the district of south 24parganas of West Bengal to base on the objective of the study.

## Analysis & Findings:

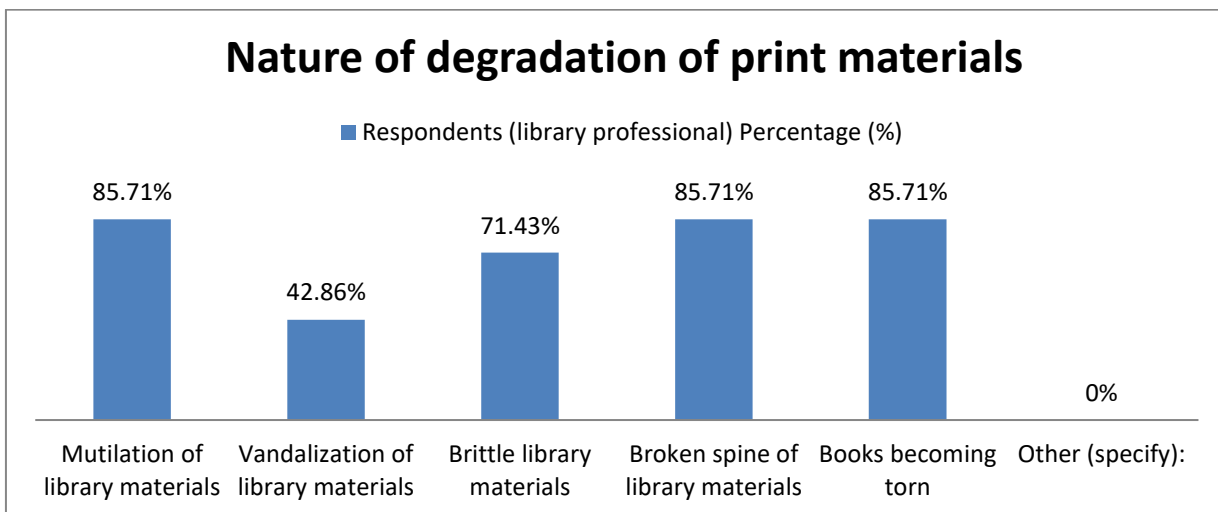


Figure-1

The Figure-1 reveals that the nature of degradation of print materials. Out of the total respondents de-gradation of mutilation of library materials, broken spine and books becoming torn are 6(85.71%) followed by brittle library materials is 5(71.43%), and vandalize of library materials is 3(42.86%). Therefore, most of the college libraries are facing degradation problems of print materials such as mutilation, broken spine and books becoming torn and brittle library materials.

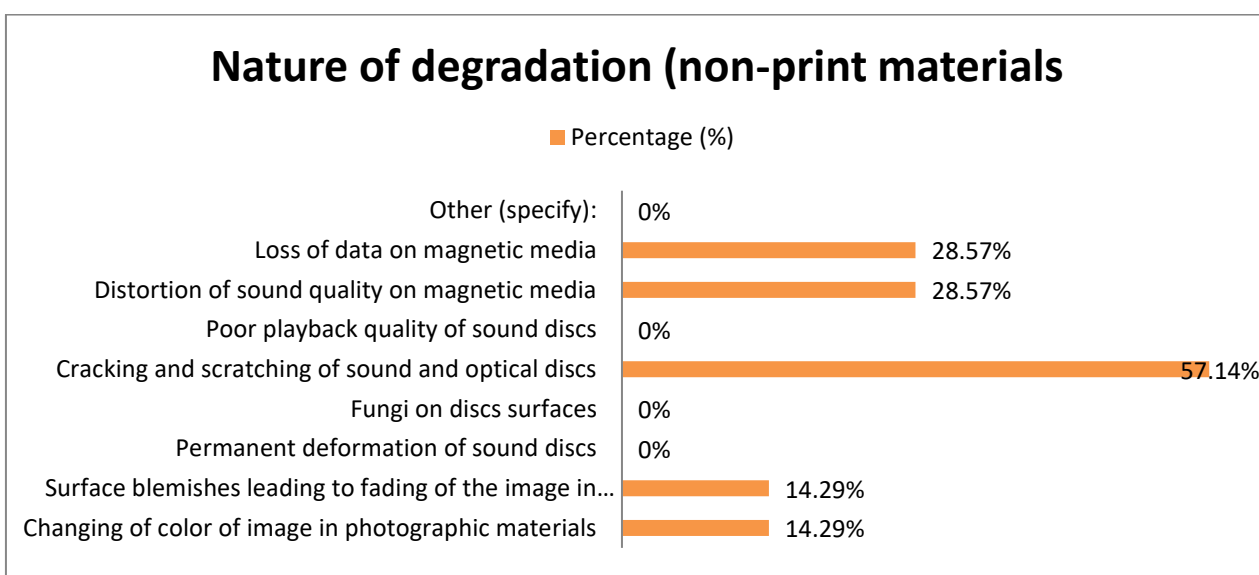


Figure-2

Figure-2 represented that the nature of degradation of non-print materials such as Cracking and scratching of sound and optical discs i.e. 4(57.14%), followed by 2(28.57%) of distortion of sound quality on magnetic media and Loss of data on magnetic media. Only, 1(14.29%) of the changing color of the image, photographic and Surface are blemishes leading to fading of the image in photographic materials.

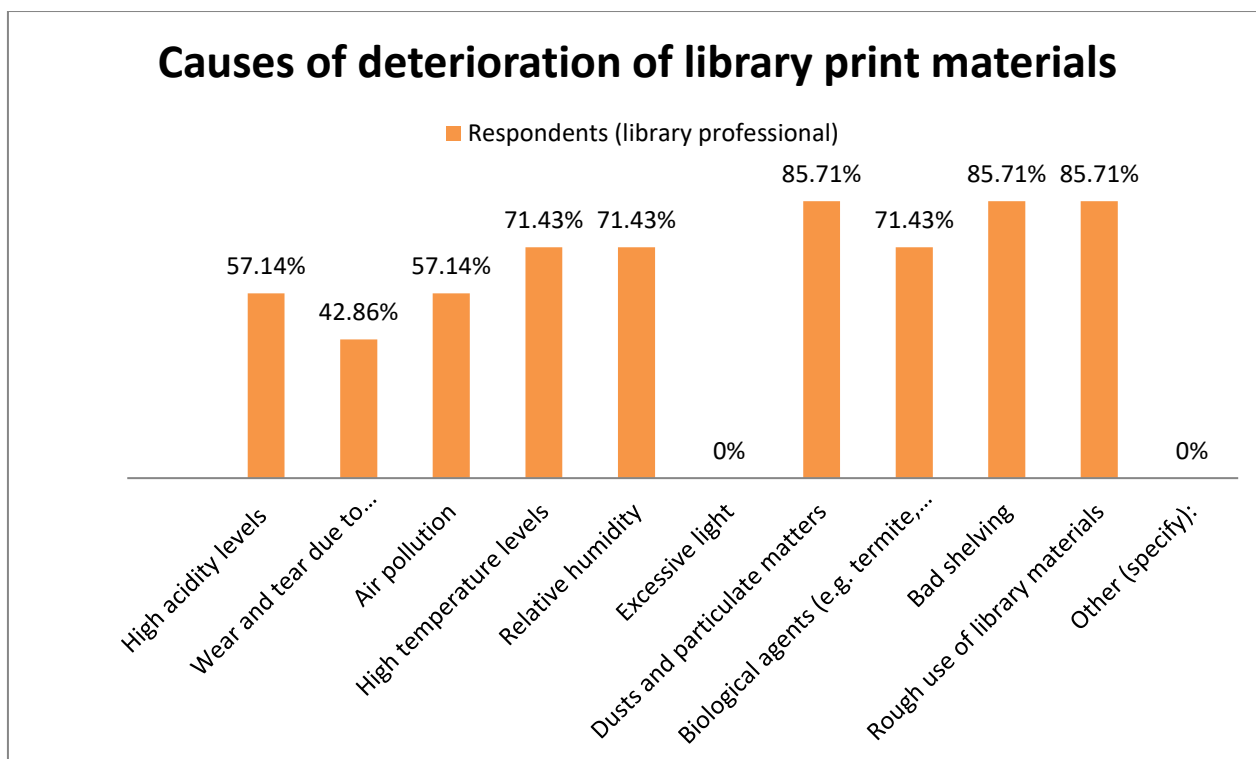


Figure-3

The Figure-3 shows the nature of causes of deterioration of library print materials. Causes of deterioration due to dusts and particulate matters, bad shelving and rough use of library materials are 6(85.71%) followed by high temperature levels, relative humidity and biological agents are 5(71.43%) respectively. In case of high acidity levels and air pollution both is 4(57.14%), and wear and tear due to excessive photocopying is 3(42.86%). So, Most of the college libraries are faced the causes of deterioration of library print materials such as dusts

and particulate matters, bad shelving and rough use of library materials and also high temperature levels, relative humidity and biological agents.

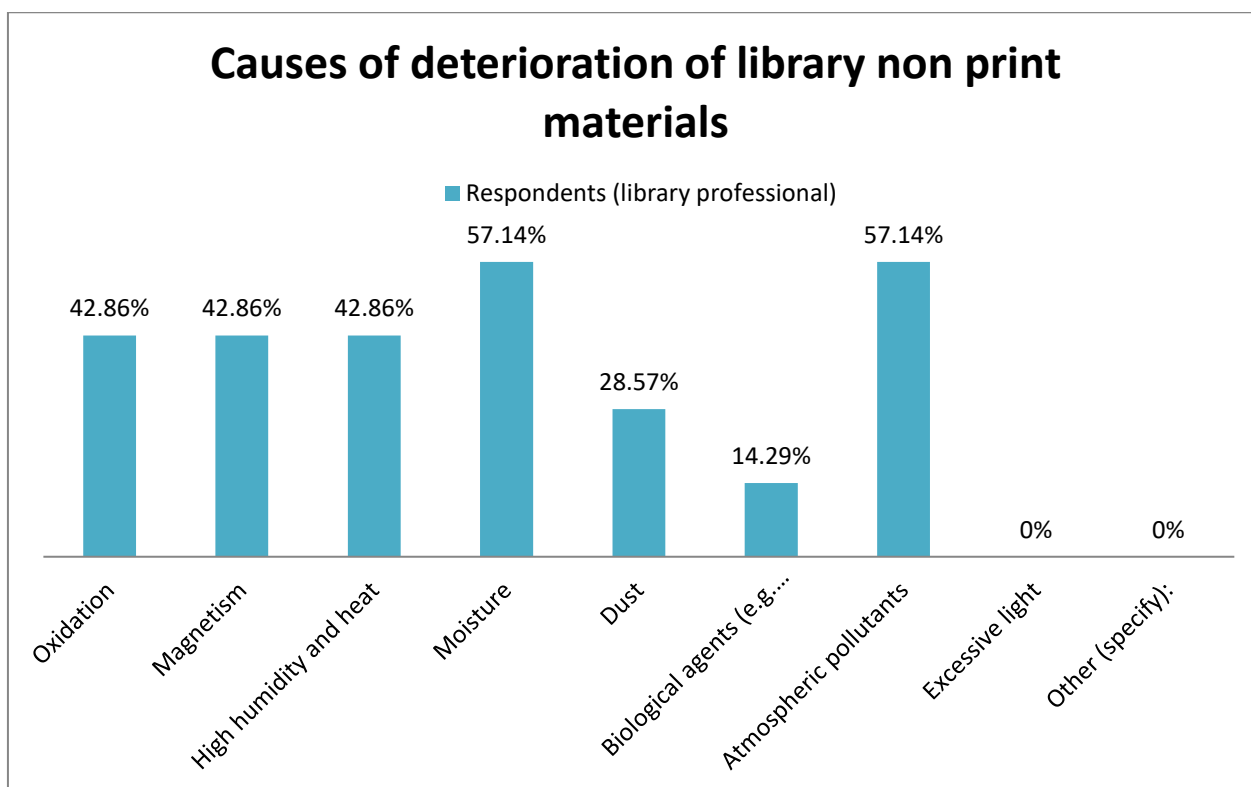


Figure-4

Figure-4 depicted the nature of causes of deterioration of library non-print materials. Causes of deterioration comprising of moisture and atmospheric pollutants both is 4(57.14%), oxidation, magnetism and high humidity and heat all are 3(42.86%) respectively; dust is 2(28.57%), and biological agents is 1(14.29%). So, Most of the college libraries are faced the main causes of deterioration of library non-print materials such as moisture and also oxidation, magnetism, high humidity and heat.



Table-1: Distribution of Respondents according to techniques adopted and usage frequency of time

Use of Preservation and conservation techniques.	Respondents (Library Professional)					
	Very often		occasionally		never	
	No.	%	No.	%	No.	%
Cleaning and dusting of library materials	4	57.14	3	42.86	0	0
Reducing the intensity of light using window/door curtains	1	14.29	0	0	6	85.71
Using ultra violet absorbing filters at the glass panes	0	0	1	14.29	6	85.71
Shelving library materials to allow for free flow of air	4	57.14	2	28.57	1	14.29
Binding	0	0	7	100	0	0
Encapsulation	0	0	0	0	7	100
Photocopying	1	14.29	4	57.14	2	28.57
Microfilming	0	0	0	0	7	100
Lamination	0	0	0	0	7	100
De-acidification	0	0	0	0	7	100
Installing air-conditioners	0	0	1	14.29	6	85.71
Use of insecticide and insect repellent for preservation	4	57.14	3	42.86	0	0

Provision for security systems to secure, mutilation and defacing of materials	4	57.14	2	28.57	1	14.29
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Table-1 pictured that the most used preservation and conservation technique of print and non-print materials in the college libraries is very often comprising cleaning and dusting, shelving library materials to allow for free flow of air, use of insecticide and provision of adequate security system, mutilation and defacing of paper-based materials i.e. 4(57.14%), along with reducing the intensity of light using window/door curtains and photocopying is 1(14.29%). Occasionally used preservation and conservation technique in the college libraries are binding is 7(100%); photocopying is 4(57.14%); cleaning and dusting and use of insecticide and insect repellent for preservation is 3(42.86%) and shelving library materials and provision of adequate security system is 2(28.57%). Out of 7, most of the colleges never used preservation and conservation techniques. So, cleaning and dusting, use of insecticide and insect repellent for preservation, provision of adequate security systems to prevent theft, mutilation and defacing of paper-based materials and shelving library materials to allow for free flow of air are use in the college libraries regular basis i.e. very often. But binding, photocopying, and use of insecticide and insect repellent for preservation is used irregular or occasionally.

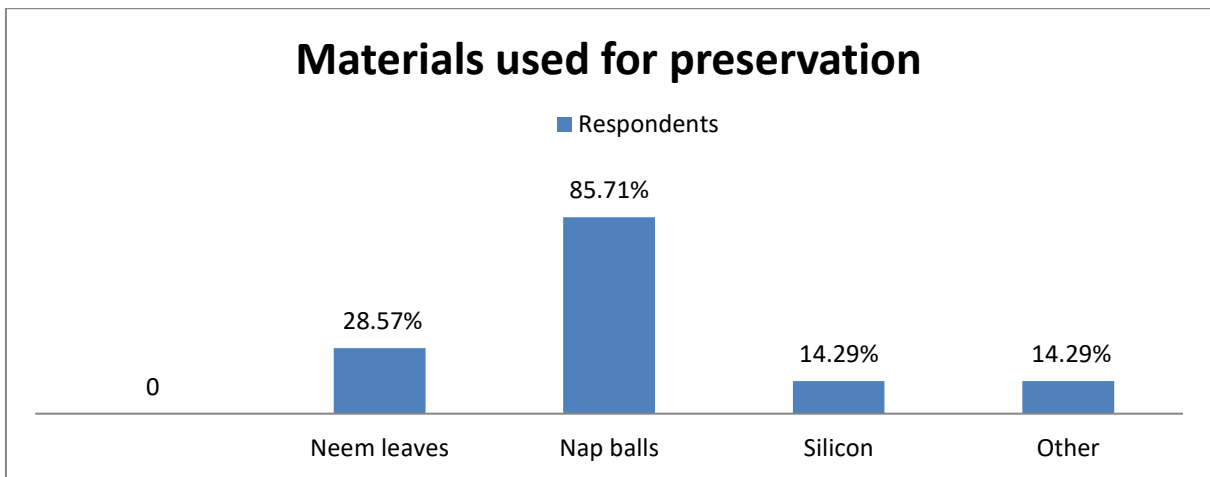


Figure-5

The above figure highlighted the different materials use for preservation in the different colleges. Out of seven college libraries, 6 (85.71%) libraries use Nap balls, 2(28.57%) libraries use neem leaves and only 1(14.29%) of the library use silicon. So, most of the college libraries are using Nap balls.

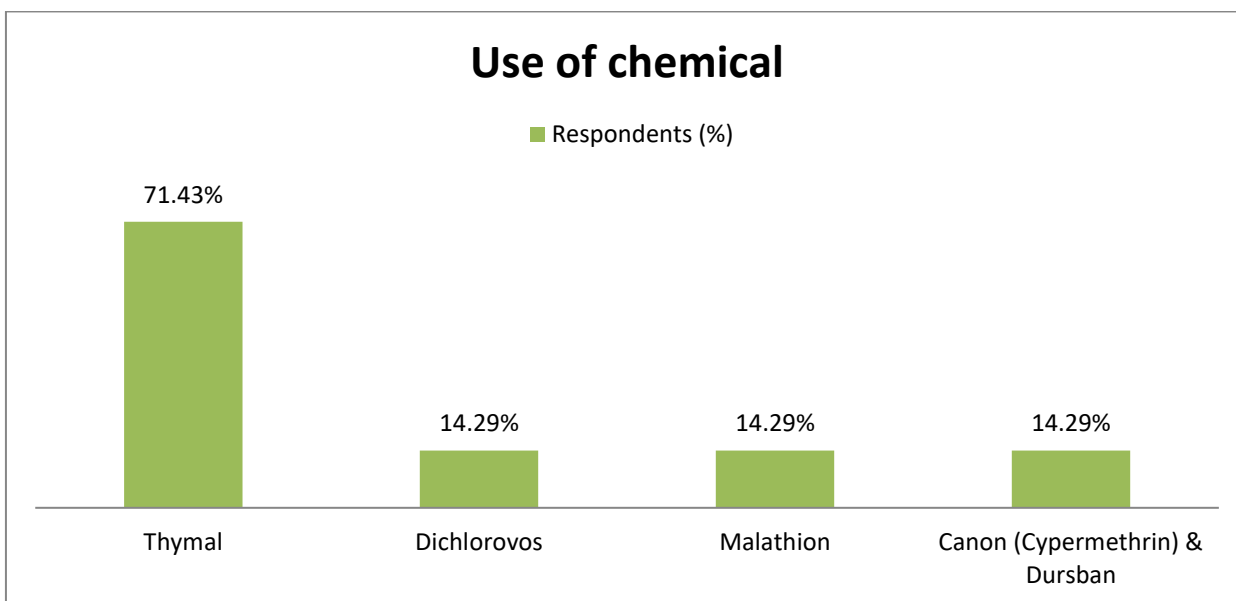


Figure-6

Out of 7, 5(71.43%) colleges are used Thymol and Dichlorvos, Malathion and Dursban and Canon (cypermethrin) are used by 1(14.29%) colleges. So, most of the colleges are use Thymol for preservation and conservation techniques.

Table-2: Adopted Digital Preservation Techniques and frequency of time wise distributions

Digital technique adopted	Respondents(Library professions)					
	Very often		Occasionally		Never	
	No.	%	No.	%	No.	%
Refreshing	0	0	1	14.29	6	85.71
Technology preservation (replicating any old configuration of hardware and software)	1	14.29	0	0	6	85.71

Emulation (preserving the original application program)	1	14.29	0	0	6	85.71
Encapsulation (Creating the original application that was used to create or access the digital object on future computer platforms)	0	0	1	14.29	6	85.71
Migration (Transfer of digitals from one generation of computer technology to a subsequent generation)	0	0	1	14.29	6	85.71
Microfilm	0	0	0	0	7	100
None of the Above	0	0	0	0	7	100
Other (Specify)	0	0	0	0	7	100

Table-2 shows that the use of preservation technique of digital collection in the college libraries are very often comprising technology (replicating any old configuration of hardware and software) and Emulation (preserving the original application program) is 1(14.29%). Apart from that minimum number of college libraries are occasionally used digital preservation technique such as refreshing, encapsulation (Creating the original application that was used to create or access the digital object on future computer platforms) and migration (Transfer of digitals from one generation of computer technology to a subsequent generation) i.e. 1(14.29%). So maximum number of the college libraries never use any preservation techniques for their digital collections.

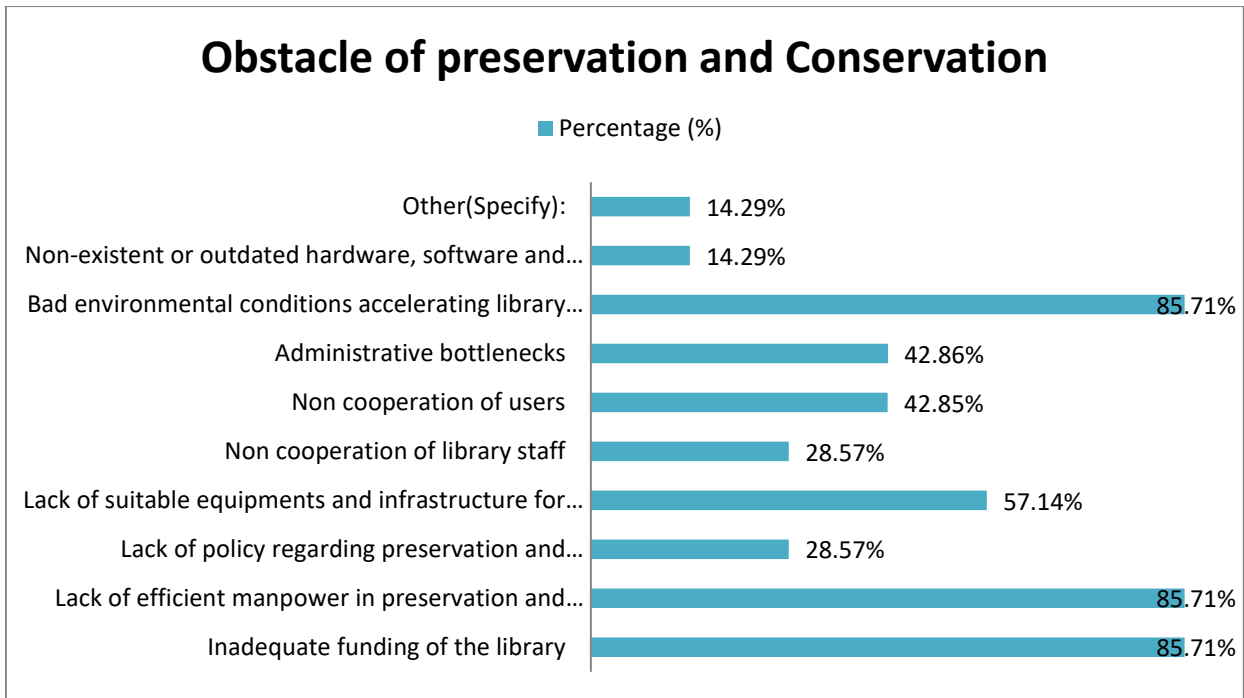


Figure-7

Figure-7 narrates that the different obstacles against the preservation and conservation policy. Most of the colleges i.e. 6(85.71%) have inadequate funding, lack of skilled manpower and bad environment condition which accelerate the depreciation of the library materials. Around 4(57.14%) colleges are facing the problem of lack of suitable equipments and infrastructure. Again 3(42.86%) of the college libraries are suffer from administrative bottlenecks and non co-operation of the users; 2(28.57%) college libraries lack policy and non co-operation of library staff for using of preservation and conservation techniques. Lastly 1(14.29%) college libraries have non-existent or outdated hardware, software and network connectivity and other problems. Hence we can depict that the colleges of this two subdivisions have many obstacles. Obstacles of lack of fund, lack of skilled manpower and bad environment. In the other side, maximum numbers of colleges have good preservation policy, good hardware, network connectivity etc.

**Suggestions:** The following suggestion has been taken from the above finding the study. To smoothly carry out the preservation and conservation work of the library materials the college authority should immediately appoint permanent skilled personnel and allotted sufficient fund. Apart from that the infrastructure of the colleges are to be enriched according to the demand of the newly stated work environment. Librarian and other library staff should attend in the different training program, seminar, conference and workshop, etc. to make themselves up-to-date. The working personnel should look-after that which preservation and conservation technique is widely performed to secure the library materials that techniques are to be used conveniently.

**Conclusion:** This study looks into the preservation and conservation policy of the college libraries in Diamond Harbour and Alipore Subdivisions in West Bengal where, as seven Government Aide colleges are taking into consideration as survey work. The users of these colleges are students, teachers and other non teaching staff. All the colleges have more or less all type of collections such as huge collection of text books, reference books and different type of newspaper, magazine, periodical, map, and atlases but there is no globe in any colleges. Due to massive collection library are facing degradation problems by mutilation, broken spine, torn and brittle etc. and even non-print materials are also degradation by cracking and scratching of the non-print documents. The causes of deterioration of documents is dust and particulate matters, bad shelving, rough use, high temperature, relative humidity and some biological agents are the main reason for damaging the library documents. In the other side non-print materials are also deteriorating by oxidation, magnetism, high humidity and heat. So to rescue from this degradation effect it's necessary to apply the preservation and conservation

techniques regularly. So at the end of the conclusion that maximum number of the college libraries are fully enhances with the preservation policy, it is the good sign of college libraries.

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