

# Creating and Managing Digital Collection at National Archives of Bangladesh: A Developing Country Perspective

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## Abstract

*Bangladesh emerged as an independent country in 1971. After the emergence of Bangladesh the government of Bangladesh established National Archives of Bangladesh. A national archive is a topmost national institute of every nation. It is a distinct type of government owned and managed institute organized to serve the interest of the nation. Its resources are usually planned to cover the inter output of the nations record of culture, wisdom and experience, both retrospective and current as well as the representative graphic records of world culture and experience. The prime purpose of the study is to present the current status of National Archives of Bangladesh, its existing services and current preservation practices. The author also shows the ways to create and manage digital collection on the basis of cost effective system available in the market. Finally an attempt has been made to identify the constraints that impede the gradual development of National Archive of Bangladesh and some recommendation has been given to overcome the problems.*

## Background

The perception of the importance of archives is not new in Bangladesh. Even in the days of the Muslim Sultans and Emperors official records were preserved in a central place. These were known as Mohafezkhanas. However the continuous preservation of important government and official documents were begun during the British rule in India.

Soon after the establishment of the East India Company's government in Bengal, the Secretariat structure of administration with all its divisions and sections began to develop. Consequently various departments and offices began to accumulate large number of documents of various types. It was felt that a central depository system is required to preserve the important ones and destroy the unnecessary documents. Thus the Imperial Records Department was established in Calcutta in 1891 which was transferred to Delhi later and took the name National Archives of India.

After the partition of India in 1947, the National Archives of Pakistan was established in 1951 under the Directorate of Archives and Libraries. There was no branch of Archives in Bangladesh during the Pakistan period. After the emergence of Bangladesh as an independent country in 1971, Government of Bangladesh established the National Archives of Bangladesh (NAB) in Dhaka the capital city of Bangladesh in 1973 under the control of the Directorate of National Archives and Libraries. [1]

The National Archives of Bangladesh was initially housed in a rented building at Elephant Road of Dhaka City. In 1985 the construction of the National Library building at Agargaon, Dhaka

was completed. The office and the collections of the National Archives of Bangladesh was temporarily shifted at the National Library building. In 1995 the Government of Bangladesh approved a project, aims at establishing separate building of National Archives of Bangladesh in the premise of Directorate of Archives and Libraries. Under this project the foundation stone of the archives building was laid in 2001 and construction was completed in June, 2004. This new archive building has two wings: Twelve storied stack building and five storied administrative building. In the first phase, four stories of stack and two stories of administrative Building were completed. National Archives of Bangladesh was shifted to its new building in 2005.

For the smooth operation of the National Archives of Bangladesh, the Government of Bangladesh promulgated the National Archives Ordinance in 1983.

## Objectives

The main objectives of National Archives of Bangladesh, as mentioned in its guide book are:

- i. To ensure official custody and physical safety of the archives of all public offices and to make them available for reference and research;
- ii. To serve as the legal depository of all the records of the Government;
- iii. To increase knowledge by providing information to the government agencies and to the public;
- iv. To strive for efficiency and economy in the administrative machinery through systematic and proper management of modern records of the government agencies.

## Functions

The principal functions of the National Archives of Bangladesh are:

- i. To acquire and preserve government and private collections;
- ii. To provide research facilities for the administrators and Researchers and the public;
- iii. To provide technical and scientific advice on conservation and restoration of records, books and other documentary materials;
- iv. To give advice to public offices on records and ArchiveManagements;
- v. To promote writers, researches by awarding prizes andorganizing exhibitions of records etc.
- vi. To inspect, examine and appraise the records of government agencies and determine the records to be retained or destroyed;

- vii. To serve as the National Repository for Archival materials and to act as the custodian for the preservation and conservation of the Nation's documentary cultural heritage;
- viii. To co-ordinate and maintain linkage with similar foreign organizations.

### Collection

The total collection of documents and records in the National Archives of Bangladesh is about 80000 (eighty thousand) volumes. Most of these have collected from the Bangladesh Secretariat Record room and record rooms of various districts of the country. Several thousands of District records dating from 1780s are available at NAB. NAB has collected good number of Dhaka Divisional Commissioner's Records, Collectorate Records, Sylhet Proceedings/Files, Old Maps, Government Publication, Gazettes, Estate Records and East Pakistan and Bangladesh Periods Records. Besides it also acquired Bangladesh Taxation Appealate Division Records, Newspapers, Press Clippings and Microfilms of Old Records.

### Main Division and Manpower Strengths

The main divisions of the National Archives of Bangladesh are: i) Archives Administration, ii) Records Management iii) Preservation and Conservation iv) Microfilming/ Reprography v) Repositories vi) Public Relations vii) Exhibitions viii) General Administration. Only 26 staffs are allocated to run these divisions of which some vital posts are still vacant. Director of the Directorate of Archives and Libraries is the head of both the National Archives of Bangladesh and National Library of Bangladesh. There is no separate Director for the National Archives of Bangladesh.

### Budget

There is no independent budget for National Archives of Bangladesh. A joint budget is allocated for both the National Library and National Archives of Bangladesh. The total budget is distributed among the two organizations on priority after being approved by the ministerial authority. In reality National Archives of Bangladesh enjoys about 40 percent of the total budget. In the 2007-2008 fiscal year the budget allocation for the two organizations was about 18 million taka and in 2006-2007 fiscal year it was about 17.5 million taka.

### Preservation

Being the national body of archival records National Archives of Bangladesh preserve mainly printed historically valuable records which aim at offering historically valuable information to the researchers. A separate Preservation and Conservation unit is working to achieve its primary goal. Preservation and Conservation unit performs physical, chemical, reprographic and digital preservation works. For the collection government records and other important records, the authority of National Archives of Bangladesh visits various government offices and collects the records if the record has historical value. After selection they bring the records at the National Archives of Bangladesh preservation unit and process it for future use. Major conservation works performed includes: binding, fumigation, tissue, lamination,

digitization that includes microfilming and scanning. Though digitations is performed only for some selected district records which bears high importance. However other conservation works is performed where necessary. District and document wise register is maintained to identify the records for future use.

### Creating and Managing Digital Collection

A five year (2002-2007) project entitled "Digitization of District Records Collected from 1760-1900" was taken by the government in July 2002. District Records are the correspondences from and to the district during East India Company's rule. They consisted of letters both received and sent, memoranda, reports, petitions and official documents prepared by the District Collector, his/her subordinate officials and the local people on various aspects of district administration and local condition. Table 1 shows the selected district records for digitization along with the period and their corresponding volume:

This project spends about 7.5 million taka. Officially it was started in July 2002. However actual digitization was started in January 2004. Due to administrative complexity to purchase the digitization equipment the project did not able to start timely.

The number of staff employed in the project was not enough to digitize huge amount of District records. Table 2 shows the number of staff employed in digitization project:

**Table: 1 District Records Selected for Digitization**

District	Period	Total Volume
BARISAL	1790-1887	371
BOGRA	1783-1893	38
CHITTAGONG	1760-1900	538
COMILLA	1782-1868	465
DHAKA	1783-1859	189
DINAJPUR	1786-1900	1116
FARIDPUR	1799-1868	93
JESSORE	1786-1868	506
MYMENSIGH	1787-1869	37
NOAKHALI	1840-1879	91
PABNA	1820-1886	267
RAJSHAHI	1782-1878	192
RANGPUR	1777-1878	513
SYLHET	1777-1878	423
	<b>TOTAL</b>	<b>4839</b>

**Table 2: Number of Staff Employed in Digitization Project**

Designation	Job status	Number	Educational Qualification
Chief IT officer	1 <sup>st</sup> Class	01	Masters
Research Officer	1 <sup>st</sup> Class	01	Masters
Computer operator	3 <sup>rd</sup> Class	03	Bachelor Degree plus degree on Diploma in computer science
Peon/MLS	4 <sup>th</sup> Class	02	HSC

It is clear from the above table that the number of staff employed in the digitization project was not enough to complete the project timely and successfully. It is also clear from the above table that only one staff is educationally qualified. Only the Chief IT officer of the Digitization project had required qualification to digitize the records rightly. The duty of the Research officer was to find out the future research value of the digitized materials. The responsibilities of the Computer Operators were to Scan the printed materials and pass the materials to the Chief IT officer for editing and preserving it on CD and/or on DVD.

Digitization equipment used in the project was also inadequate.

**Table 3 shows the equipment used in the digitization project**

Name of the equipment	Quantity	Remarks
Computers	04	Intel Pentium 3 equivalent
Scanner	05	02- Epson 2400 model and 03- Epson 10000XL
Laser Printer	02	
Photocopy Machine	01	

All the computers used in digitations were networked. Computer operators first scanned the volume of records then passed the volume to the Chief IT officer for editing and preserving on CD and/or DVD. If the document had high research value then it was printed for the researchers. National Archives of Bangladesh does not offer computer aided service to its researchers which is unexpected.

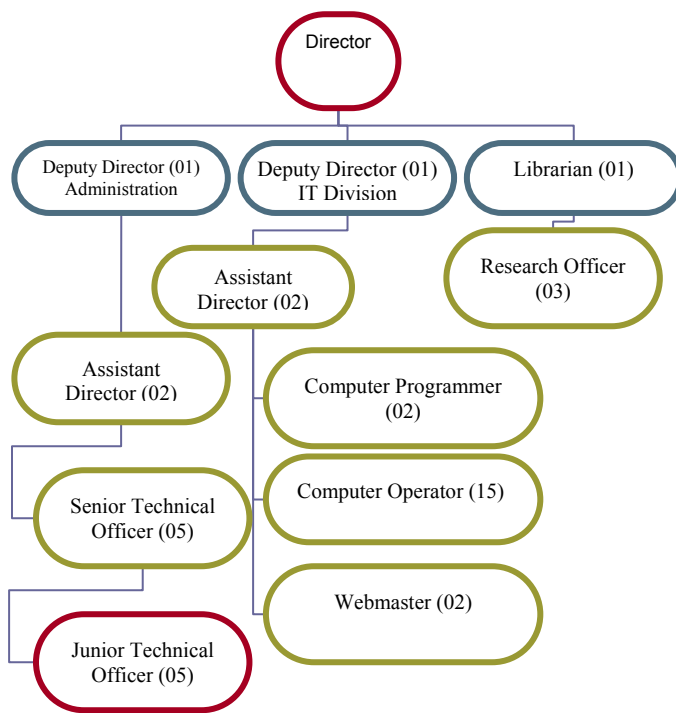
Though the project was officially ended in December 2007 but the team worked till December 2008 with the hope that the project may get extensions and they may become permanent employer of the National Archives of Bangladesh. However their hope proved completely wrong.

During the project period the digitization team was able to digitize 150 District records on CD and more than 1000 records on DVD. But the project aimed at digitizing about 5000 volumes of District records. Due to administrative complexity, inadequate staff

support, lack of equipment, lack of adequate funds, supply of uninterrupted electricity the project did not see its successful completion. Actually in Bangladesh very few projects end with success.

After a long discussion with the Chief IT officer of the Project the author found that digitization should not be accomplished as part of project. There should be a full-fledged IT division at the National Archives of Bangladesh with adequate staff support.

Full-fledged IT division should be established immediately to digitize very rare materials of National Archives of Bangladesh. Staff employed in IT division should have higher degree in Computer Technology as well as degree in Library and Information Science. The proposed structure of IT division is given in the following diagram:



*Diagram: Proposed Administrative Structure of National Archives of Bangladesh.*

In the above diagram proposed administrative structure of National Archives of Bangladesh is presented. It is clear from the above diagram that the proposed IT division is quite strong than the division formed during the project. Computer operators will be responsible for scanning the documents. After scanning, documents will be passed to Assistant Director (IT Division) for final checking. After checking it will be passed to Computer Programmer for preserving on DVD and for assigning metadata to all documents and for indexing the documents in the computer system for future retrieval. National Archives of Bangladesh

should have permanent web space. The webmasters will be liable to host archival information even the scanned documents for worldwide use. Use of rare materials may be restricted to certain users. Some charge may be taken from the users requiring access to rare online materials.

Adequate funds should be allocated for the establishment of full-fledged IT division. Required staff should be recruited for the effective working of the National Archives of Bangladesh. Consultant may also be appointed at the initial stage of digitization for the successful design and creation of digital collections.

As digitization is not an overnight process, strong, goal oriented, dedicated efforts are indeed very much important. At the initial stage archival materials having greater value and importance should be selected. A selection team should also be formed before digitization starts. The responsibility of the selection team should be to select the materials collected for archival preservation. The team should select those having future archival value. Not all materials collected by National Archives of Bangladesh have the same value. Some materials may not be useful for future preservation. To save time, space, money and labor, selection of materials is very important.

Digitization should be a continuous process. The digitization team should not use rewritable discs for long-term storage. They should not use stickers to label discs and should always store them covered in a dark dry place, safe from damage. It is also important to convert old discs to new formats as they become available. The digitization team should establish a backup system so that computer files are copied on a regular basis to DVDs and to an external hard drive. The digitization team should make more than one copy of the digital archival files and store the copies in different physical locations. Archival materials having great research value may also be printed for easy access by the researchers.

As each volume of archival materials consists of several pages, while digitizing each volume should come under one PDF file to make the document more readable and convenient. Some important keywords, a brief description of the volume as well as some numerical system could be labeled to the box of the DVDs with a view to retrieve required materials conveniently. Separate printed sheet could also be brought out to keep valuable information of all digitized archival materials in one place and for the purpose of greater use.

Before digitization take place there should be adequate infrastructural facilities. During the digitization project IT division was housed at the premises of the National Library of Bangladesh. Now permanent IT division should be set up at the new premises of National Archives of Bangladesh with adequate infrastructural facilities. After it is set up a team should be formed to purchase required hardware and software for digitizing. The team should assess the existing condition of the archival materials as well as hardware components required to digitize the printed materials. As National Archives of Bangladesh face huge fund shortage every

year, the team should purchase the cost effective hardware components from the local market. A local tender may also be called with a view to get hardware and software components at the minimum cost. However special attention should be given to service warranty. As there is greater chance that the whole system may fall into trouble for various reasons the team should select components from those vendor ensuring maximum service support.

A Content Management System (CMS) should be developed locally for the efficient management of the archival materials. In Bangladesh there are many software development firms who design software according to the customer's requirements. Local software producer offers very economic solutions for the Bangladeshi organizations. A major benefit of purchasing software from the local vendor is 24/7 physical supports.

After hardware and software is acquired and required personnel for digitization is appointed formal digitization starts. Digitization of archival materials starts with the selection of materials for digitization. After the materials are selected it is sent to the IT division for digitization. IT division should maintain a register to locate what materials are coming for digitization and what materials are sent back after digitization just to ensure the location of the archival materials. IT division will first scan the document and check the documents quality. Until the required quality is not achieved document should not be given metadata and should not be saved permanently at the computer system. After successful scanning it should be given metadata and should be included in the content management system. Then the documents will be preserved in different storage system e.g. in DVDs, hard drive and web server. During the whole digitization process monitoring is a vital part for successful digitization. Deputy Director of the IT division should rigidly monitor the whole process.

## **Barriers to Creating and Managing Digital Resources**

The creation and management of digital resources at the National Archives of Bangladesh is being hampered by a number of factors. Some of the major problems that impede the gradual development of National Archives of Bangladesh are briefly discussed below:

1. Lack of sufficient funds: This is a major problem area, whether for initial implementation, for maintenance or for establishment of permanent IT. At the moment, the main funding source of National Archives of Bangladesh is government. It does not enjoy independent budget.
2. Absence of comprehensive national and local IT policies: Absence of a comprehensive national IT policy in the country is not helpful to organizations and institutions that deal with information. The government's inaction has left a vacuum in which no rules, procedures or standards have been laid down for the deployment of electronic resources in the country.
3. Inadequate IT skills: Most of the staffs of the National Archives of Bangladesh lack IT related skills required to create and manage digital collections. Even a major portion of the staffs do not have fundamental computer knowledge.

4. Battle against change: Most of the administrative staffs think that if automation occurs in the National Archives of Bangladesh they will have no manual works and they will lose their job. As a result they try their best to oppose the digitization.
5. Bureaucratic procedures: Acquisition of equipment and materials in the National Archives of Bangladesh is very slow because of the procedures involved. Actually it takes long time in most of the government organizations in Bangladesh to acquire a single material due to the lengthy administrative procedure.
6. Lack of adequate staff: National Archives of Bangladesh face shortage of staff. As a result it is not possible for the limited staff to concentrate on digitization and other administrative works. Though the administrative structure proposed different staff category but in reality most of the vital post of the National Archives of Bangladesh is still vacant.
7. Lack of IT infrastructure: In the age of IT National Archives of Bangladesh is lagging behind the technological development. Even today National Archives of Bangladesh is unable to establish a full-fledged IT division which is a very frustrating fact.

Other problems of National Archives of Bangladesh in creating and managing digital collections are:

- 8 Lack of trained archival personnel and training facilities
- 9 Unskilled and shy archivists
- 11 Lack of proper planning
12. Lack of cooperation among the archival institutions and lack of cooperative spirit among the archives personnel
- 13 Lack of international cooperation
- 14 Lack of government support
- 15 Lack of assessing community needs
- 16 Lack of standards for archival services
- 17 Lack of strong, effective archival institutions in Bangladesh

## Recommendation

The following recommendations could be taken into considerations for the development of the National Archives of Bangladesh and to start creating and managing digital collections:

1. The Government of Bangladesh should allocate sufficient funds to implement full-fledged IT division at the National Archives of Bangladesh. Required IT equipments should be purchased for the division aiming at efficient and speedy digitization of the archival materials. A good number of digitization experts should be appointed as soon as possible.
2. Training: The training of staff members of National Archives of Bangladesh in information and communication technologies is a must. Without adequate IT knowledge, the possibility of implementing digitization at the National Archives of Bangladesh is unlikely to take place.
3. International cooperation is a must in the archival field. The government and archival authorities should coordinate with international bodies for the development of the archives.
4. Government should introduce new archival departments at the various public universities. Alternatively comprehensive

course on archives may be integrated with the departmental curriculum of Library and Information Science and the department of History

5. Library and information science teaching and training institutions should introduce different types of training programs for the unskilled archive professionals.

## Conclusion

As creating and managing digital collection at the National Archives of Bangladesh is not an overnight process it requires careful planning, dedicated efforts of the concerned persons, adequate infrastructure and funding support etc. National Archives of Bangladesh preserves very rich archival materials of the sub-continent. It is prime time that the National Archives of Bangladesh should immediately take efforts to digitize these invaluable archival materials for the future generations. Otherwise we will loose our nation's cultural heritage soon.

## References:

- [1] Sharif Uddin Ahmed, "Archival Resources in Bangladesh," Jour. Asiatic Society of Bangladesh, 45(2), 110 (2000).
- [2] Bangladesh National Archives Guide Book, Ministry of Cultural Affairs, Directorate of Archives and Libraries, (2001).

## Author Biography

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