

**National Educational Information
System of Bangladesh: A Critical Study**

*National Educational Information System of
Bangladesh: A Critical Study*

By

Md. Harun-or-Rashid

**Bachelor of Arts, 1977, Master of Arts in Library Science,
1981, Dhaka University, Master of Social Science in Political
Science, 1996, National University, Gazipur, Bangladesh**

491337

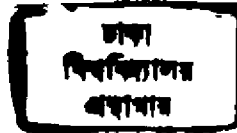
GIFT

**Thesis submitted to the Department of Information Science
and Library Management, Faculty of Arts, University of
Dhaka in fulfillment of the requirement for the degree of
Doctor of Philosophy**

Dhaka University Library



491337



September, 2003

DECLARATION

The work of study incorporated in this thesis has been accomplished by me in the Department of Information Science and Library Management, University of Dhaka, Bangladesh.

The work reflected in this thesis is original and I do declare that it has not been submitted in full or in part for any degree or diploma or associateship in any other university in home or abroad.

491337



Md. Harun-or-Rashid 18/19/03
(Md. Harun-or-Rashid)
Dhaka, Bangladesh

Dr. Serwar Hossain
Professor (retired)
Department of Information
Science and Library Management
University of Dhaka

Dhaka
18 September, 2003

CERTIFICATE

Certified that this dissertation, "National Educational Information System of Bangladesh: A Critical Study", submitted by the candidate, Mr. Md. Harun-or-Rashid, M. A., M.S.S. for the Ph.D. Degree, is a bonafide record of the research work done by him under my supervision during his study in the University of Dhaka and that it has not previously formed the basis for the award of any degree, diploma, associateship, or any other similar title, that it is an independent work done by him.

491337



Serwar
(Dr. Serwar Hossain)
Supervisor

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
LIST OF FIGURES	xii
LIST OF ABBREVIATIONS AND ACRONYMS	xv
ACKNOWLEDGEMENTS	xvii

CONTENTS

CHAPTER ONE	1-31
1.0 Introduction	
1.1 Statement of the Problem	
1.2 Importance of National Educational Information System (NATEIS)	
1.3 Background of the Problem with Review of Literature	
1.4 Rationale and Importance of the Study	
1.5 Objectives of the Study	
1.6 Basic Hypothesis and Assumptions of the Study	
1.7 The Scope of the Study	
1.8 Methodology of the Study	
1.9 Organization of Contents	
<i>Notes and References</i>	

CHAPTER TWO

32-85

2.0 Bangladesh: Basic Facts

2.1 Bangladesh: Basic Facts

2.2. Education in Bangladesh

2.3. Library, Documentation and Information (LDI)
Infrastructure in Bangladesh

Notes and References

3.0 CHAPTER THREE

86-163

**Development of National Information System for
Education: Concepts**

3.1 Information and Education

3.2 Information: Importance and Use in Education

3.3 Nature of the Present Society

3.4 Need for Continuous Innovation for Education Reform

3.5 System's Concepts

3.6 Analysis of Library, Documentation and Information
Services Organisation in Terms of System Concepts

3.7 Information System

3.8 Classification and Configuration of Information System

3.9 Components and Steps in Developing an Information
System for Education

3.10 Educational Information System in India, USA and UK

Notes and References

CHAPTER FOUR

- 4.0 National Educational Information System (NATEIS) of Bangladesh**
- 4.1 Bangladesh Bureau of Educational Information and Statistics (BANBEIS) LDI Centre
- 4.2 National Academy for Educational Management (NAEM) LDI Centre
- 4.3 National Curriculum and Textbook Board (NCTB) LDI Centre
- 4.4 University Grants Commission (UGC) of Bangladesh Library
- 4.5 National Academy for Primary Education (NAPE) LDI Centre
- 4.6 Institute of Education and Research (IER) Library
- 4.7 Teachers' Education and Training Institute Libraries
- 4.8 LDI Centres in the Organisations of Educational Administration, Management
- 4.9 A Critical Overview on NATEIS with Educational LDI Centres

Notes and References

	CHAPTER FIVE	230-315
5.0	Presentation and Analysis of Data	
	CHAPTER SIX	316-324
6.0	Summary of the Findings	
	CHAPTER SEVEN	325-362
7.0	Recommendations	
	Part One: A Model of Effective National Educational Information System (NATEIS) for Bangladesh	
	Part Two: Recommendations	
	APPENDIXES	i-xxx
	APPENDIX-A	
	APPENDIX-B	
	APPENDIX-C	

List of Tables

Table No.	Title of the Table	Page No.
Chapter Two		
2.1	Primary education: institutions, teachers and enrolment	39
2.2	Secondary education: institutions, teachers and enrolment	40
2.3	Number of post-primary technical and vocational institutes	41
2.4	Madrasah education: institutions, teachers and enrolment	42
2.5	General higher education: degree colleges, teachers and enrolment	44
2.6	University education: institutes, teachers and enrolment	44
2.7	Number of professional education institutes	46
2.8	Public expenditure on education	54
2.9	Growth of public university libraries in Bangladesh	69
2.10	Growth of private university libraries in Bangladesh	71

Chapter Five

5.1	Classification of respondents	232
5.2	Respondents by types of educational organisations	233
5.3	Respondents by sex	234
5.4	Respondents by age	235
5.5	Respondents by level of work-experience	236
5.6	Respondents by educational qualification (General)	237
5.7	Respondents by level of professional education and training	239
5.8	Respondents' information seeking purposes	240
5.9	Materials and information sought by trying the sources	242
5.10	Information materials used in languages	242
5.11	Opinion in getting needed materials	244
5.12	Trend of use of various informative materials	246
5.13	Causes for occasional use and non-use of some materials	247
5.14	Need and availability of information materials in LDI centres	249
5.15	Respondents' consultation of information products	250
5.16	Causes of occasional use and non-use of some information products	251
5.17	Needs of information products in a LDI Centre	252

5.18	LDI Centres' procedures to keep the users up-to-date	252
5.19	Fulfillment of educational information resources services and needs	253
5.20	Evaluation of users' own LDI Centre in terms of input provided	254
5.21	Opinion regarding ways and means in fulfillment of educational information resources needs of the users	256
5.22	Classification of target groups of educational LDI Centres	257
5.23	Bio-data of the respondents by level of education	259
5.24	Basic data and information of LDI Centres of educational research and specialised organizations- Group-1	260
5.25	Basic data and information of LDI Centres of teachers education colleges/institutes: Group-2	261
5.26	Basic data and information of LDI Centres of educational administration and management organization: Group-3	268
5.27	Policy, planning & operational manual as input provided in the LDI Centres	269
5.28	Floor space (as input) provided in the LDI Centres	270
5.29	Furniture (as input) provided in the LDI Centres	270
5.30	Reprographic facilities/Photocopier	271

5.31	Facilities for use of computer	271
5.32	Personnel (as input) in the LDI Centres	272
5.33	Status of the heads (professional personnel) of LDI centres/units	273
5.34	Staff development programme	274
5.35	Collection : Group-1 (as on December 2002)	275
5.36	Collection : Group-2 (as on December 2002)	276
5.37	Collection : Group-3 (as on December 2002)	277
5.38	Periodical/Journals literature received in the LDI Centres	278
5.39	Sources of financing	279
5.40	Use of cataloguing rules	280
5.41	Use of classification schemes	281
5.42	Use of subject-headings/descriptors	281
5.43	Other processing works in providing information services	282
5.44	Information services provided	283
5.45	Use of IT, especially computer in LDI functions, activities, and services	284
5.46	Opinion of LDI personnel on users' fulfillment of educational information needs	285
5.47	Opinion regarding ways and means in fulfilling the users' information resources needs	286

5.48	Classification of target groups	287
5.49	LDI Centre's participation in the educational LDI Centres' network/information system for resource sharing at international and regional levels	288
5.50	LDI Centre's participation in the activities of NEDC of BANBEIS for resource sharing in meeting educational information needs	289
5.51	Educational information products and services received from the present NEDC of BANBEIS	290
5.52	Opinion on meeting the users' educational information needs by the services provided by the NEDC of BANBEIS	291
5.53	Opinion regarding the causes of non-participation in the activities of NEDC of BANBEIS	291
5.54	Evaluation of role of National Educational Documentation Centre (NEDC) of BANBEIS as National Focal Point	292
5.55	Causes of non-effective NATEIS in Bangladesh	293
5.56	Users and LDI personnel's opinion on need for developing and designing of NATEIS	293
5.57	Opinion regarding the objectives for the NATEIS of Bangladesh	294
5.58	Opinion regarding information services to be assigned for the education personnel	295

5.59	Opinion regarding information products by NATEIS	296
5.60	Opinion regarding language of information products	296
5.61	Opinion on the tier of the System	297
5.62	Development of the National Focal Point of NATEIS	298
5.63	Opinion on selection of some educational LDI Centres as Sectoral focal points on specific area of education in the NATEIS	300
5.64	Selection of District LDI Centres as district focal point	301
5.65	Selection of educational departments LDI Centre as participant-member in NATEIS	302
5.66	Selection of educational institute LDI Centres as participants members in NATEIS	303
5.67	Level of co-operation in the system	303
5.68	Opinion on selection of focal points at international, regional levels	304
5.69	Opinion on the sources of financing the NATEIS	305
5.70	Opinion regarding operation of NATEIS	305
5.71	Opinion on legal frame-work, national policy, planning, and development programme for NATEIS	306

5.72	Opinion regarding national council / board of governors for policy-making, planning, co-ordinating and advising the NATEIS at different levels	307
5.73	Distribution of power, authority, and responsibility in the system	308
5.74	Opinion on the status of the LDI personnel	309
5.75	Functional division of national focal point of NATEIS	310
5.76	Standard for technical tasks of the system and its participant members	311
5.77	Staffing pattern for different levels	312

LIST OF FIGURES

Figure	Title of the Figure	Page No.
Chapter Two		
2.1	The present educational structure of Bangladesh	38
2.2	The present structure of educational administration and management	53
Chapter Three		
3.1	LDI Centre as hierarchical systems	112
3.2	LDI Centre as system organization	113
3.3	A schematic model of the library as transformation system	115
3.4a	Conceptual model of a library	116
3.4b	Boundaries of the library	116
3.5	The way information systems might evolve and transmute into networks	117
3.6	Organisational links...	117
3.7	Decentralised network	131
3.8	Centralised network	131
3.9	Mixed network	131
3.10	Star network	132
3.11	Hierarchical network	132

3.12	The Distribution networks	133
3.13	Ring network	133
3.14	Directed/Centralised network	135
3.15	Directed/Hierarchical network	135
3.16	Directed network including specialised centre	136
3.17	Interface of two directed networks	136
3.18	Non-directed/decentralised network	137
3.19	Non-directed/mixed mode network	137
3.20	Combination of directed and non-directed network	138
Chapter Five		
5.1	Classification of respondents	233
5.2	Respondents by sex	234
5.3	Respondents by age	235
5.4	Respondents by level of work-experience	236
5.5	Respondents by educational qualification (general)	238
5.6	Respondents by level of professional education and training	239
5.7	Respondents' information seeking purposes	241
5.8	Information materials used in languages	243
5.9	Fulfillment of educational information resources needs	253
5.10	Evaluation of users' own LDI Centre	255

5.11	Ways and means for fulfillment of information needs	256
5.12	Classification of target groups of educational LDI Centres	258
5.13	Collection of Group-1	275
5.14	Collection of Group-2	276
5.15	Collection of Group-3	277
5.16	Opinions of LDI personnel on users fulfillment of needs	285
5.17	Distribution of power, authority in the system	309
 Chapter Seven		
7.1	Organizational structure of the proposed Ban-NATEIS	333
7.2	Organizational structure of the national focal point of Ban-NATEIS	336

List of Abbreviations and Acronyms

AIC	Agricultural Information Centre
ALA	American Library Association
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
Ban-NATEIS	Bangladesh National Educational Information System
BANSDOC	Bangladesh Scientific and Technical Documentation Centre
BEI	British Education Index
BERNET	Bangladesh Education and Research Network
BISE	Board of Intermediate and Secondary Education
BMEB	Bangladesh Madrasah Education Board
BOU	Bangladesh Open University
BRAC	Bangladesh Rural Advancement Committee
CD-ROM	Compact Discs-Read only Memory
CDS/ISIS	Computerised Documentation System/Integrated Set of Information Systems
DAL	Directorate of Archives and Libraries
DPE	Directorate of Primary Education
DSHE	Directorate of Secondary and Higher Education
DTE	Directorate of Technical Education
EMIS	Educational Management Information System
ERIC	Educational Resources Information Center
EUDISED	European Documentation and Information System for Education
HSTTI	Higher Secondary Teachers' Training Institute

LDI Centre	Library Documentation and Information Centre
MOE	Ministry of Education
MPME	Ministry of Primary and Mass Education
NAEM	National Academy for Educational Management
NAIS	National Agricultural Information System
NAPE	National Academy for Primary Education
NARS	National Agricultural Research System
NATEIS	National Educational Information System
NCERT	National Council of Educational Research and Training
NCTB	National Curriculum and Textbook Board
NEDC	National Educational Documentation Centre
NHLDC	National Health Library and Documentation Centre
NIIPA	National Institute of Educational Planning and Administration
NISE	National Information System of Education
NLE	National Library of Education
PTI	Primary Training Institute
REDUC	Latin American Educational Information and Documentation Network
TTC	Teachers' Training College
TTTC	Technical Teachers' Training College
UGC	University Grants Commission
UK	United Kingdom
UNESCO	United Nations Educational Scientific and Cultural Organisation
USA	United States of America

Acknowledgements

Anyone who accomplished so modest research study must be humbled by the extent, variety and ramifications of the obligations which he has entailed. To all those who have contributed to make the study possible directly or indirectly, let me here express my thanks and gratitude.

My first gratitude and debt is due to my respected teacher Dr. Serwar Hossain, Professor (retired), Department of Information Science and Library Management, University of Dhaka, supervisor of Ph. D dissertation, whose contributions in ‘lighting candle than cursing the darkness’ of my career is invaluable.

I am grateful to my friend, Dr. Md. Hanif Uddin, Chairperson, Department of Information Science and Library Management, University of Dhaka for his encouragement and help in my study.

I am also grateful to all teachers of the Department of Information Science and Library Management, University of Dhaka.

Let me express my sincere thanks to those teacher-educators, educational researchers, trainers, and educational administrators, managers, planners and library and information professionals who participated in filling the questionnaires for conducting the research study.

I am grateful to all the members of the Academic Committee, Department of Information Science and Library Management, University of Dhaka for arranging seminars as partial fulfillment of Ph. D dissertation and also initiating all the official needful.

I am grateful to the Education Secretary, and Prof. Md. Khurshid Alam, Director General of NAEM who extended their hands to grant me one

year leave in 1997-1998 for my study. Thanks to the Education Secretary and Professor Ayesha Khatun, Director General who extended her hand for granting me leave of 45 days in 2000 to visit India for collecting informative literature relating to my study. I am also grateful to my all colleagues of NAEM library especially to Mr. Abdur Rashid Mia for taking my responsibilities of the NAEM Library during my leave.

I express my gratitude and thanks to the authorities of Dhaka University Library, BANSDOC Library, NAEM Library, IER Library, and also special thanks to Information Resources Centre, The American Centre, Embassy of the United States of America, Dhaka and British Council Library, Dhaka for giving me permission to use their libraries.

I am grateful and thankful to the Librarians/Heads/Directors of libraries of Calcutta University, Jadavpur University, Delhi University, National Institute of Educational Planning and Administration (NIEPA) and National Council of Education Research and Training (NCERT), Osmania University, India for giving me opportunity to use their libraries for my study.

And finally, I am deeply indebted to my wife, Ms Shamsunnahar and my daughters, Sabika and Anika for their many sacrifices and sufferings for my constant and lengthy absence during the long period of my research work. Their strong support and encouragement enabled me to accomplish this research work.

Dhaka
18 September, 2003

Md. Harun-or-Rashid
Researcher

Chapter One

Chapter One

Introduction

1.1 Statement of the Problem

The present study entitled “National Educational Information System¹ (NATEIS) of Bangladesh: A Critical Study” is an investigation of the national educational information system of Bangladesh through analysis of the users’ needs of educational information resources, determination of gaps between needs and fulfillment, and users needs fulfillment system comprising the key educational Libraries, Documentation and Information (LDI) Centres² of the country. The study will finally formulate a model with recommendations for development of NATEIS of Bangladesh in meeting the users’ needs of educational information resources.

1.2 Importance of National Educational Information System (NATEIS)

1.2.1 Education for National Development

Since the beginning of human civilization education has been playing an effective role in social development. ‘Man is the principal architect of development activities of a nation and education can provide maximum support to make him a balanced combination of his personality and inherent quality’.³ “Humankind is a unique creation and a bare survival is not the main objective of his life. A meaningful constructive life dedicated to the welfare of mankind should be his main mission. Only education can give him a right direction in this regard. Hence, education is regarded as a driving force for self-development of a human being. His

consciousness is expanded, self-determination is strengthened and moral value is awakened through education. It is essential to educate all for the sake of an overall development of a country".⁴ Education is a 'commitment to national development. It establishes a close network of relationship with other development activities of the country'. Education is the 'birth right of a person. It flourishes the inborn qualities of humankind and thereby enriches his ability and efficiency of work. A minimum level of education is required for national development, professional skill development, employment, and to lead a decent life'.⁵ Therefore, for a developing country like ours, it is essential to ensure education for all.

'Education increases the awareness of humankind through raising the rate of literate population as well as develops a potential human power for the country'.⁶ In a nutshell it can be stated that 'education is a vehicle of social progress and socio-economic transformation. It is viewed not only as an individual's fundamental right but also an investment in human resource development'.⁷ So, it is universally recognized that 'education is important input for the development of an individual, society and nation. The main contributions of education to the individuals are the basics-right types of attitudes, values, adequate knowledge and essentials skills'.⁸

Considering the changes of our society, Jacques Delors proposed a profoundly humanistic approach for today's education. He stated, 'how can one lay down for every one the path of wisdom, meaning, the path of responsibility and self-control, in private and public life alike, and how, consequently, can we give people ability to know themselves and behave in a way that is self-reliant...? In other words,

why and how must we educate the citizens for the twenty first century?”⁹ According to the Mandate of the UNESCO International Commission on Education for the Twenty-First Century the central question is, “what kind of education is needed for what kind of society of tomorrow?”¹⁰ On the other hand, the ‘accelerating growth of information, knowledge and new technology is creating pressure over the government and education professionals today to make education and training more accessible and affordable in the 21st century’.¹¹

So, a system of education in the coming decades has to serve as an instrument of social change. ‘Education needs to play a key role in achieving community development in the process of globalization. To achieve this objective, we need to concentrate on various concrete measures which necessarily emphasize individual efficiency, dignity of labor, national outlook aimed at achieving excellence’.¹²

1.2.2 Importance of National Information System for Education

From the management’s point of view the education system of a country consisting of various components, especially the educational institutes can provide all basics at different levels. On the other hand, a quality national education system mainly depends on proper education policies, planning, programmes, teachers’ quality and also continuous educational research for solving existing educational problems. But, the development of sound education policies, plans, curriculum, implementation of programmes and educational research at various levels require a wide range of information resources. It is stated that a “constant flow of information resources to and from all groups taking part in the educational enterprise, such as policy makers, administrators and managers, researchers, teacher educator and trainers, teachers and

members of the community at large, is required for awareness of innovation and improvement in our educational system".¹³

It is seen in the statement of UNESCO's recommendations that as 'due recognition has been given to the information component in the decision making process; in the approach to educational policy making; the planning of reforms, the laying down of educational priorities; improvement of the existing education system and educational practice, it is important to identify the needed information that may provide input and guidance in the above processes. It is, therefore, necessary to make suitable provision for proper flow of information resources through an effective educational information system of a country'.¹⁴

It is observed that, "in both developed and developing nations over the last decades there has been a steady growth of interest in the creation and expansion of educational information systems designed to provide information resources that will assist decisions concerning planning and educational research and the quality of education. This interest has often been encouraged through the financial contributions of external donors and other international agencies".¹⁵ "In the past decades since the educational information systems movement began its major growth in the United States and Europe, these design issues have usually resulted in an acceptance of the quality of education".¹⁶ Hence, the need for national educational information system is universally recognized as an integral component of education system of a nation-state in the modern world.

In fact, the people who work in education have a variety of functions, but in all cases they use educational information resources. The questions do arise to us: What type of information is needed? How information is

brought to the person who needs it? The answer must be sought in several directions: the types of services which can be offered and the institutional form they take- in other words, function and structure.¹⁷ In fact, the people working in the field of education obviously use educational information resources and these information resources are made available to the educational personnel through only institutional arrangement like LDI organizations and information system/networks.

The most remarkable development of our times is the 'spectacular growth of data, information, and knowledge in the production of publications, unpublished documents and organizations' databases. The proliferation of information resources in different forms has led to what is called 'Information Revolution' expanding the frontiers of knowledge at a faster rate. Currently, about one million of books, about one hundred thousands of periodicals, one hundred thousands of patents, thousands of standards and other types of documents are being published every year. Now, it is estimated that the volume of materials published is increasing at 2.5 percent each year in the world'.¹⁸ Besides these, 'hundred of thousands of scholarly informative documents are being produced and marketed in the form of non-print materials like microfiche, microfilms and CD-ROMS¹⁹, etc. In addition, innumerable MIS²⁰-databases are being produced by the world organizations of different kinds.

About the information gap in both developed and developing countries, it is observed in a World Bank Report that 'most nations have extremely limited capabilities and resources for the production, publication and acquisition of information resources. Many of the developing countries produce very little of the world literature. Some very advanced countries also produce little like developing countries, but inadequate in meeting

their needs. This fact demonstrates that a country's development depends on its application of knowledge and information rather than in the generation of new knowledge. The knowledge and information are mostly and readily available somewhere in the world; they must however be made accessible to all types of users'.²¹

From the beginning of the human society and civilization, LDI centre/organization is recognized as the key instrument/agency to collect, store, process and disseminate information resources for the different types of personnel working at various fields. But, a single LDI centre/organization can not handle the voluminous amount and range of information resources currently available and expected to be generated at home and abroad in future. In this connection, S. L. Verma stated that 'in this information age a single library or libraries isolated from each other at any level or sector or sub-sector is becoming inadequate and ineffective in fulfilling their mission and also in meeting the information users' needs. He also stated that educational LDI Centres are now compelled to participate in information system, because of: 'huge growth of literature on education; new thrust in education programmes; multiplicity of institutions engaged in education information activities; rising cost of various input and their optimum utilization; improvement of the mobility of data/information; professional contact among education specialists; and improved flow of educational information'.²²

'In this information age, the need for establishing national information system and services in the field of education for promoting and strengthening the quality education covering all levels, i.e., institutional, national, regional and international, is now considered a priority task for greater access to data, information, and knowledge resources. At present,

building of information system for education is the demand and reality of the times. So, an effective educational information system consisting of the key Educational LDI Centers is now considered as an integral component of the education system of a country. It is also observed that educational information systems in different countries have been playing a vital role by providing information services to educationists, educators, educational administrators, managers, planners and researchers in accomplishing the tasks of educational policy, planning, decision-making and educational research for the overall development of education.

1.3 Background of the Problem with Review of Literature

Franz Hilker observed that 'the practice of building up and storing collections of documents about education took shape in nineteenth century Europe, in parallel with the development of national systems of education. These centers were generally called school museums'.²³ But, the idea of information services, based on such collections, was slow to shape. In 1867, the United States Office of Education was established for the specific purpose of collecting and making available information about education. A further step was taken in 1879 when the French government established the 'Musee Pedagogique'²⁴ (Library of Education) in Paris as an official agency to provide teachers throughout the country with the documentation they required to perform their task. Whether spontaneously or under the influence of these models, other countries set up their own institutions: for examples, the Danish State Educational Library²⁵ was founded in 1887, and Uruguay in 1889 established its 'Biblioteca y museo Pedagogico' (State Library of Education).²⁶

A number of countries during and after the First World War “developed specialized educational libraries or museums with a service role: to provide information on request, to prepare teaching materials or to contribute towards the preparation of teachers. The year 1915 saw the opening in Berlin the ‘Central Institute of Education’, sponsored as an educational foundation in which the central, provincial and municipal authorities and teachers’ organizations were all represented. Other countries, namely, Norway, Italy, Mexico, and Brazil set up institutions for educational information in 1920s and 1930s respectively, and in the same period interest in international exchanges led to the founding of the International Bureau of Education (IBE)²⁷ in Geneva (initially in 1925, but officially as an intergovernmental body in 1929)”.

The creation of UNESCO as an inter-governmental body after the Second World War was accompanied by-or rather, was the outcome of- greatly increased national efforts in education, which in turn brought about the need for more documentation and a search for services, which would improve access and disseminate such materials. It was in this period too, especially during the last two decades (1960-80), that the large number of newly independent countries started to organize their national system of education. The planning movement emerged – a means of consciously and realistically shaping the development of education- which produced a fresh demand for relevant information and a corresponding growth of the institutions dealing with it. It would seem that all education system have in recent years set about developing services to deal with the problem of educational information, whether by establishing new educational LDI centers or by reorganizing and expanding those which exist’. The trend of gradual increasing number of LDI centers in the world was also seen in

the document entitled 'Directory of Educational Documentation and Information services (IBA Data Service) containing the names of countries having National Educational Documentation Center (NEDC). All of these centres, by definition, were central and national bodies.²⁸ We also observed greater number of NEDCs in the Directory of 1988 than before.²⁹ It is revealed from these Directories that the number of NEDCs has been gradually increasing day by day and hence, it indicates broadening attempts to provide information services and also an expansion of their educational programmes and activities. After the growth of NEDC in most of the developed and also some developing countries in the world, the educational information services offered by them evolve towards systems.³⁰

In education systems, the application of system theory or networking theory to programmes for informing different parts of the community has attracted increasing attention. At the international level, UNESCO has an evident advantage in adopting networking/system as a basis for constructing their programmes'. The UNISIST³¹ programme, initially designed for scientific and technical information, but now progressively being extended into the social sciences, is designed as a worldwide network system (it has brought national system of information-different information systems). A similar approach to educational information was adopted by the 'Council of Europe' during the feasibility studies leading to the setting up of the European Documentation and Information System for Education (EUDISED)³² and subsequently it was adopted by the IBE. The ERIC (Educational Resources Information Center) programme launched in the 1960s in the United States was an early example of the deliberate creation of a national educational information

system / network. Now, for educational purposes, the information system/network principle is equally applicable to national condition.

International Conference on Education of 1977 convened by the IBE invited the Member States of UNESCO to report on their national arrangements in respect of educational information system. A pen-picture on the status of NATEIS of different regions of the world, Africa, Arab States, Latin America, etc., was reflected in that study report.³³

In India in 1989, a research study entitled “A Comparative Study of the National Information Systems in Education in UK and USA with a View to developing a Model for India” was undertaken by S. L. Verma financed by National Council of Education Research and Training, Government of India.³⁴ This research study followed documentary, and survey method as approaches of study. Another documentary research article was produced by Nirmal Malhotra on ‘Information Problems of Educationists in India’ in 1992.³⁵ This research article indicated the problems of educational information flow and services of the country.

Another study (published in 1995) was made by International Bureau of Education (IBE) to fulfill its (IBE) mandate to provide and promote the use of information on education, and specially to gear its information activities more closely to Member-States’ needs. The IBE carried out this study on “Information Availability and its Impact on Educational Policy-making, Planning, Decision-making and Research”. This study was based on cases that were considered to present interesting approaches to the provision of information for the educational policy and planning communities. The emphasis is on issues related to developing countries, although not exclusively so. This study selected the four national

educational information systems of Argentina, Botswana, Jordan and Switzerland, which represent very different economic and social situation, levels of development and educational information infrastructures. This study also included the Latin American Educational Information and Documentation Network (REDUC) and the Regional Educational Information Network of the South East Asian Ministers of Education Organization (REIN)'.³⁶

In Bangladesh, the following notable studies were accomplished on individual Educational LDI Centres.

In 1976, the Institute of Education and Research (IER), University of Dhaka accomplished a study, entitled 'An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh',³⁷ containing a component of LDI centers/units of Primary Training Institutes, Teachers' Training Colleges, Colleges of Education (now all Teachers' Training College), and IER, Dhaka University. In data collecting procedure, this study used questioning, structured opinion, etc. This study found the poor condition of the above LDI centers and made some valuable recommendations for the improvement in terms of manpower, collection and services of these LDI centers to provide quality educational information services to the students, teachers and researchers for education.³⁸

In 1990, an evaluative study was taken by ^aan UNESCO Expert-Group on 'National Institute of Educational Administration Extension and Research- NIEAER (Now NAEM)', a national specialized educational apex institute in Bangladesh, containing a component of its LDI center in taking development plan for its improvement. This study used documentary and observation method. The research study found that

NAEM-LDI Centre was under staffed and inadequate in collection, especially in educational journals.³⁹

In 1998, another study entitled ‘Staffing Patterns at TTCs: A Review of Teacher Training College Staff, including TTC Recruitment Policy and Implications for Staffing HSTTIs’ was taken by the Higher Secondary Education Project, Ministry of Education. Main focus of this study was on Higher Secondary Teachers’ Training Institutes (HSTTI) with its LDI Centre.⁴⁰ This study commented that ‘all the HSTTIs have libraries with limited accommodation. There is hardly any provision for study in libraries. Books on pedagogy, excepting the training modules, were very few in number. The study recommended that ‘budget allocation be provided and systems developed to create specialist library resources for staff use within each HSTTI (perhaps in collaboration with a TTC) with relevant texts, journals, and research reports. Computerized access to wider resources should be provided as a matter of urgency’.⁴¹

In Bangladesh, the study entitled ‘National Pattern of Information Flow in Educational Planning and Policy-making in Bangladesh’ was undertaken in 1977. In this study it was observed that ‘one of the major impediments to sound educational planning and policy-making in Bangladesh was the inadequacy of the existing institutional arrangements for information flow. Bangladesh so long had little self-sufficient organization at the national level, government or semi-government for the collection, compilation, documentation and dissemination of educational information and data and statistics of the country. Besides, there were no private organizations in the country to do so. Hence there was no significant national inventories or any comprehensive LDI center for the purpose of co-ordination of the available resources, even within the

country, not to speak of supplying the same to international organizations and other countries'.⁴²

In this study it is also observed that 'a small cell called the "Bureau of Educational Information and Statistics" was responsible for the collection, compilation and documentation of the educational statistics'. This study also remarked that 'the Bureau attached to the Education Directorate did not adequately meet the educational information needs of the country'. It also stated that 'Bureau was only limited to statistical information services and it did not provide the library, documentation, information (LDI) based educational information services'.⁴³ However, the recommendations of this study made some valuable directions to create an effective national educational information system in both Library and documentation based educational information services and also education statistical information services (now, it is also called EMIS) in Bangladesh. However, though it was the study of importance and necessity for establishing NATEIS in Bangladesh, but it was a good beginning towards NATEIS for the country.

Immediately after in 1977, the 'Bangladesh Bureau of Educational Information and Statistics (BANBEIS)' was established as an attached Department within the Ministry of Education, Government of Bangladesh for providing facilities of educational information system and services.⁴⁴ The major objective of BANBEIS was assigned to act as National Documentation Centre for educational matters and National Focal Point for educational information activities and also as National Center for educational information (statistics) services through establishing a system/network at national, regional and international levels.⁴⁵ But except

this (establishment of BANBEIS) no other research study as yet has been undertaken on NATEIS of Bangladesh.

All the studies, especially related to Bangladesh cited above were on importance and necessity of NATEIS. The studies were also very short reports. None of them closely dealt with the present problem. The studies of UNESCO did not use a single word about Bangladesh. The present study is required to meet the gaps and it will be a comprehensive research study useful to all concerned. So, the present study on National Educational Information System (NATEIS) of Bangladesh is a burning issue and need of the time.

1.4 Rationale and Importance of the Study

For a developing country like Bangladesh, it is essential to establish and to operate an effective national educational information system and services for proper educational policy, planning, decision-making, research for the attainment of our national educational goal and objectives. In this connection, National Educational Information System (NATEIS) comprising Educational LDI Centres/units/organizations for providing educational information services to the educational personnel should be studied whether it has been working properly or not in terms of input (information and other resources entered in the system), process (transformation of information resources input) and output (various services produced through processing for the educational information user groups). The importance of this study is stated below:

- a. The present study will help us know the gaps between the educational information needs of the users and their fulfillment

- b. It will reveal the present status of the key LDI centers functioning at different levels in the field of education in Bangladesh;
- c. This study will help us know the present status of National Educational Information System (NATEIS) of Bangladesh;
- d. The education policy makers and planner will be benefited by the results of this study in developing an effective NATEIS for Bangladesh;
- e. This study will provide great benefits to the educational administrators and managers at Ministry/Division, Directorates, and Institutional levels for the development of their LDI Centers/Units/Organizations;
- f. This study will serve great benefits to the educational information user groups in doing their educational tasks properly;
- g. This study will also bring benefits to the library, documentation and all information personnel in playing their proper role for further development of educational LDI Centers, and NATEIS of Bangladesh;
- h. Educational information personnel and user groups will be acquainted with the NATEIS of some developed and developing countries of the world;
- i. Developing countries, which don't have effective national educational information system, will also be benefited by this study.

1.5 Objectives of the Study

1.5.1 General Objective

The general objective of the research study is to accomplish a critical investigation to find out the present status of National Educational Information System (NATEIS) comprising key Educational LDI Centres of Bangladesh and to make a model with recommendations for the development of NATEIS of the country to make it an effective system.

1.5.2 Specific Objectives

With that general purpose in mind, the study takes the following specific objectives:

- a. to examine the use of educational information resources of the various user groups working for education in the country;
- b. to investigate the users' needs of information resources materials in their various tasks of education;
- c. to investigate the information services and information products provided by the educational LDI Centres and NATEIS to the users to keep them up-to-date;
- d. to investigate the gaps between the existing educational information resources needs and their fulfillment through the services provided by the NATEIS comprising of educational LDI Centres of the country;
- e. to investigate the present capabilities of the key educational LDI Centres and the NATEIS in meeting educational information needs of the users;

- f. to critically investigate the various 'input-resources' consisting of information resources, financial resources, human resources, material resources, and also policy, planning, etc., provided in the LDI Centers of educational organizations at different levels in meeting the educational information needs of the user;
- g. to critically study the present practices of 'transformation process' or 'organization of information resources' consisting of the tasks of cataloguing, classification, indexing, abstracting, preparation of bibliographies, and documentation lists, etc., done by the educational LDI Centers and NEDC/NATEIS;
- h. to make critical investigation and analysis of 'output' regarding the fulfillment of educational information needs of the user groups comprising various information services' products like indexes, abstracts, bibliographies, current awareness lists/new addition, SDI etc., made by the educational LDI Centers and NEDC/NATEIS in the country.
- i. to study the national education systems of Bangladesh for gathering knowledge and ideas about the nature and characteristics of our educational environment under which the educational LDI Centres, NEDC/NATEIS of our country is working;
- j. to examine the NATEIS of United States of America, United Kingdom, India for getting ideas, experiences and knowledge for improving and developing the NATEIS of Bangladesh as an effective educational information system;

- k. to investigate and analyze critically the present status of National Educational Information System (NATEIS) of Bangladesh with special emphasis on the management of present National Educational Documentation Center (NEDC) as national focal point of NATEIS with its national role in terms of legal framework, policy, planning, and organizational structure, functions and services;
- l. finally, to prepare a model with some recommendations in the light of the system approach to develop and improve the NATEIS of Bangladesh including the educational LDI Centers/Units (which are participant or to be participant of NATEIS) attached to the key educational organizations of the country.

1.6. Basic Hypothesis and Assumptions of the Study

1.6.1 Basic Hypothesis⁴⁶

An effective National Educational Information System (NATEIS) does not exist in Bangladesh.

1.6.2 Assumptions

- a. An adequate and effective educational information system for education personnel is an integral component of any education system of a country;
- b. The LDI Centers for education in Bangladesh, which are participating and/or willing to participate in the National Educational Information System (NATEIS) or the system to be developed, are not equipped with essential resources (information, men, money, materials, policy and planning) in playing their proper role in meeting the educational

information needs (through various information services and products) of the different types of user groups in education;

- c. National Educational Documentation Center (NEDC)⁴⁷ as central focal point, responsible for creating National Educational Information System (NATEIS) of Bangladesh is now existing in the paper document only, because no adequate measures in terms of legal framework, policy and planning have been taken by that organization or the authority (Department of Education) to operate the system properly;
- d. There is a strong need for National Educational Information System (NATEIS) in Bangladesh;
- e. The National Educational Information System (NATEIS) operated by a National Educational Documentation/Information Center as Central Focal Point working in developed and developing countries in the world is very useful.

1.7 The Scope of the Study

The title of the research study is “National Educational Information System (NATEIS) of Bangladesh: A Critical Study”. So, the scope of the study was confined to the investigation of national information system comprising the key educational LDI Centers in Bangladesh. Though this study was limited to the above field in Bangladesh yet, the scenario of the same field of some of the countries, viz., UK, USA, and India was analysed in brief for taking important and valuable ideas from them for Bangladesh’s NATEIS.

Education system of Bangladesh being a very big one, it is not possible to bring the whole system or the whole information system of education sector (all educational institutes library like school, college, universities, etc.) in this study by the researcher. Here 'Education' has been treated as a distinct discipline and a subject. Hence, the educational information system comprising the key educational LDI centres/units working for educational information needs to the educational personnel was investigated. So, this study is confined only to the NATEIS comprising the educational LDI centres of the fields of educational research, teachers education, educational administration, management, policy and planning in Bangladesh.

In this connection, the following educational LDI centers/units are included in the study:

a. Ministry/Division level

1. The Ministry of Education (MOE)
2. The Ministry of Primary and Mass Education (MPME)

b. National Organizations/Institutes level

1. The National Academy for Educational Management (NAEM)
2. The Bangladesh Bureau of Educational Information and Statistics (BANBEIS)
3. The National Curriculum and Text Book Board (NCTB)
4. The National Academy for Primary Education (NAPE)
5. The University Grants Commission of Bangladesh

6. The Institute of Education and Research (IER), University of Dhaka

c. Line Directorates level

1. The Directorate of Secondary and Higher Education (DSHE)
2. The Directorate of Primary Education (DPE)
3. The Directorate of Technical Education (DTE)
4. The Directorate of Non-formal Education (DNFE)

d. Institutes (field level)

1. Government Teachers' Training Colleges
2. Technical Teachers' Training College
3. Higher Secondary Teachers' Training Institutes
4. Primary Training Institutes
5. School of Education of Bangladesh Open University (BOU)
6. Bangladesh Technical Education Board (BTEB); and
7. Bangladesh Madrasah Education Board (BMEB)

1.8 Methodology of the Study

Keeping the above objectives, importance, and scope in mind, the following methods, procedures, approaches were used for this study:

- (1) The researcher followed documentary method through an extensive search of literature, such as monographs, different types of reports (organizational and research), encyclopaedias, articles, hand-outs, manuals, dissertations, journal articles, mimeographs available at the

different LDI centers of universities and institutions; the Information Resources Center (IRC), The American Center, Embassy of the United States of America, Dhaka and The British Council Library, Dhaka; and a number of LDI Centers of Calcutta, Delhi, Hyderabad of India and also a database of ERIC in USA through internet search. The collected information and data were analyzed and synthesized for setting forth the criteria of educational information system which provided the framework of the study.

(2) In this study, primary data and information from the files and records, available in the offices of relevant organizations and other depository centers like archival and record centers in Bangladesh were collected, analyzed and synthesized.

(3) The following three Questionnaires⁴⁸ were developed in the light of the concept of the study of LDI centers and information system organizations:

First one: Questionnaire was designed for the personnel of educational information user groups comprising educational researchers, planner and decision-makers, administrators and institutional managers, teacher educators and also class room teachers working in educational organizations/institutes, for gathering data and information regarding their educational information needs and fulfillment by the services provided by their own educational LDI centers and also the NATEIS of Bangladesh. This questionnaire contains 4 components- A for particulars of informants; B for educational information seeking behaviour; C for fulfillment of educational information needs; and D for status of National Educational Information System (NATEIS) and its improvement and development.

Second one: Questionnaire was designed for the personnel presently working in educational LDI Centres (noted in the phase of scope of the study) for collecting data and information on the present status of educational LDI centers and NATEIS of Bangladesh. This questionnaire contains 5 component-A for particulars for informants; B for Institutional and Educational LDI Centres' data ; C for input facilities, processing and services; D for fulfillment of educational information needs of the users; and E for status of NATEIS of Bangladesh.

Third one: Questionnaire was designed for the LDI experts groups from education and also other sectors of the country on status of NATEIS of Bangladesh. It contains 2 components-A for particulars of informants and B for status of NATEIS and its improvement.

It is noted that the component D of Instrument (Questionnaire-I); component E of Instrument (Questionnaire-II), and component B of Instrument (Questionnaire-III) are same, i.e., status of NATEIS of Bangladesh and its improvement.

(4) Administering the Questionnaires

For collection of data the above questionnaires were administered by mail and the following categories of personnel were selected as targeted population (digit in bracket indicates the sample number).

- (a) Personnel working for educational administration, management, policy, planning, decision-making at ministerial, directorate and institutional levels (120) in the country;
- (b) Personnel working for teacher education at primary, secondary and tertiary levels (310) in the country;

- (c) Personnel working for educational research, training in educational research and specialized organizations (120) in the country; and
 - (d) Personnel working in the educational LDI Centres including the NEDC of national focal point of NATEIS (85) and also senior retired LDI specialists from education sector and existing senior LDI specialists of other sectors (40) in the country.
- (5) In presentation and analysis of the data and information received from questionnaires, it is noted here that the components of A, B and C of the first questionnaire have been presented and analysed in part one in Chapter Five. The components of A, B, C and D of the second questionnaire have been presented in part two in Chapter Five, and lastly, the component D of first questionnaire, the component E of the second questionnaire and component B of the third questionnaire have been combinedly presented and analysed in the part three of Chapter Five. Because the contents of the questionnaires are same. The testing of hypothesis have been presented in part four in Chapter Five.
- (6) In this research study, descriptive statistics, i.e., simple statistical methods like table, charts, graphs, mean, average, percentage, etc. have been used for analysis of data collected.

1.9 Organization of Contents

Chapter One deals with the statement of the research problem, importance of information system in education; the rationale and significance of the study, background of the problem with review of literature, scope of the study, objectives of research, and sources of data, methodology of collecting data, etc.;

Chapter Two has dealt with the education system of Bangladesh including some basic data and information on Bangladesh and present infrastructure of LDI services of the country;

Chapter Three contains the meaning of information and education, importance of information in education, features of the present society, use and users of educational information resources, concepts of information system; objectives and functions of information system, components of information systems and development of national educational information system, etc.;

Chapter Four presents National Educational Information System (NATEIS) of Bangladesh with its key educational LDI centres based on documents and literature available;

Chapter Five contains presentation and analysis of data and information collected through survey method; and testing of hypothesis.

Chapter Six contains summary of the findings.

Chapter Seven presents a proposed model for effective NATEIS in Bangladesh in part one and recommendations for implementation of the proposed model in part two.

Notes and References

1. Information system means 'a complete system designed for the generation, collection, organization, storage, retrieval, and dissemination of information within an institution, organization or within various institutions and organizations' and when this concept is applied to educational LDI centers for forming a system/network is called national educational information system. See: *The ALA Glossary of Library and Information Science*, Chicago, ALA, 1983, p.117-118.
2. In this study, Library, Documentation and Information Center has been used interchangeably. "(a) Library means that an organization which collects, stores, and makes available for use books, periodicals and similar material. (b) Documentation means that broadly, the systematic collection, organization, storage, retrieval, and dissemination of specialized information...and more specifically, the acquisition, organization, storage, retrieval, and dissemination of documents. (c) Information Center means that an independent organization or an administrative unit of an organization which normally collects, organizes, stores, retrieves, and disseminates documents and performs such services as literature searches, compilation of bibliographies, issuance of selective dissemination of information bulletins, and abstracting, but does not produce evaluative reports requiring the analysis and synthesis of the contents of documents". See 1. UNESCO. *Handbook for information systems and services*, Paris, UNESCO, 1980, p.88 and 2. *The ALA Glossary of Library and Information Science*, Chicago, ALA, 1983, p.77-118.
3. Begum, Kamrunnesa, "Introduction", *Education and Gender Equity: Bangladesh*, edited by Asifa Duza, et al., Dhaka, Women for Women, 1992, p. 9
4. Ibid, p.9.
5. Ibid,
6. Ibid,
7. Ibid, p.3.

8. Venkataiah, N.: "About Curriculum Innovation", Curriculum Innovations for 2000 A. D., edited by N. Venkataiah, New Delhi, Ashish Publishing House, 1993, Ibid, p. 1
9. "An Agenda for Renewal Mandate of the UNESCO International Commission on Education for the Twenty-first Century" in Education Challenges of Twenty-first Century: The Global Context, edited by Kishore Gandhi, New Delhi, Vikas Publishing House Private Ltd, 1999, p.4.
10. Chowdhury, Namita Roy: "Implications of New Information Order" in Curriculum Innovations for 2000 A. D., edited by N. Venkataiah, New Delhi, Ashish Publishing House, 1993, p.131
11. Ibid, "An Agenda for Renewal Mandate of the UNESCO International Commission on Education for the Twenty-first Century" in Education Challenges of Twenty-first Century: The Global Context, p.1-6.
12. Khan, Khursheed Alam, "Towards a Global Education" in Education Challenges of Twenty-first Century: The Global Context, edited by Kishore Gandhi, New Delhi, Vikas Publishing House Pvt Ltd, 1999, p.2
13. Verma, S. L., A Comparative Study of the National Information Systems in Education in UK and USA with a View to Developing a Model for India (Ph. D dissertation), Delhi, Delhi University, 1989, p. iii (appendix)
14. It is a statement of Recommendation No. 71 to the Ministries of Education concerning the problem of information at the national and international level which is posed by the improvement of education systems at the International Conference on education, convened by the UNESCO, meeting in Geneva at its 36th Session, held from 30 August to 8 September 1977.
15. IIEP. Planning the Quality Education edited by Kenneth N. Ross, and Lars Mahlck, Paris, IIEP, 1990, p. 66
16. Ibid, p. 67.
17. IBE, UNESCO, The Place of Information in Educational Development by Leo R. Fernig, Paris, IBE, 1980, p. 10.

18. Fazle Rab, Syed, *The Changing Frontiers of Library and Information Science: Concepts, Models, and Applications*, New Delhi, Commonwealth Publishers, 1994, p.12.
19. The term CD-ROM stands for Compact Discs-Read only Memory. CD: Pressed optical discs for storing digital audio data and CD-ROM: pressed optical discs used to store digital data for specifically computer related purposes, including programs and any kind of data file. See Norton Peter and John Goodman: *Peter's Norton's inside the PC*, eighth edition, New Delhi, Techmedia, c.1999, p.268-274.
20. MIS is an acronym of Management Information System, which means, "an integrated approach to the design and use of computer based information system that provides summary information and highlights exception conditions for corrective decision making. Actually, in MIS, management-related data are collected, processed to make output in the form of information for the use of decision making. So, it primarily deals with statistical data. When the concept of MIS is applied to the field of educational management then it is called Educational Management Information System (EMIS). This type of information system also helps in educational research sand planning. See *Improving Educational Quality: A Global Perspective*, edited by David W. Chapman and Carol A. Carrier, New York, Greenwood Press, 1990, p.227-241.
21. Atherton, Pauline, *Hand Book of Information Systems and Services*, Paris, UNESCO, 1980, p.1
22. Verma, S. L., *National Information System in Education: A Comparative Study*, New Delhi, Concept Publishing House, 1996, p. 282.
23. Ibid, *The Place of Information in Educational Development*, p. 35-36.
24. 'Musee pedagogique' is, a complex French term and it is constituted with two words, 'musee' and 'pedagogique'. Musee means museum or library and the term 'pedagogique' is derived from the term of 'Pedagogy'. Pedagogy means "the theory, practice (and sometimes the art) of teaching. It also implies a systematic study of educational goals, and principles and methods of teaching; but in this sense the term; education' is mostly used.' See, *Encyclopaedic*

Dictionary & Directory of Education, Vol. I, edited by Biswas and Aggarwal, New Delhi, Academic Publishers, 1971, p. 119-120.

25. Danish State Education Library is a national library on education/pedagogy established by the Denmark government in 1887 for providing educational information services to the teachers, educators and administrators.
26. Biblioteca y museo Pedagogico is a Uruguay word. It means state library of education, which was established in 1889 by the Uruguay government.
27. IBE is an abbreviation of International Bureau of Education. An international center for the content of education, the IBE was founded in Geneva in 1925 as a private institution. In 1929, it became the first intergovernmental organization in the field of education. In 1969, the IBE joined UNESCO as an integral, yet autonomous, institution with three main line of action: Organizing the sessions of the International Conference on Education; collecting, analyzing, and disseminating educational documentation and information, in particular on innovations concerning curricula, and teaching methods; and undertaking surveys and studies in the field of comparative education. See, International Academy of Education. IBE. Teaching by Brophy, Jere, UNESCO (Educational Practices Series-1), p. 2.
28. IBE, Directory of Educational Documentation and Information Services(IBE Data Series), Paris, IBE, 1977.
29. IBE, Directory of educational documentation and information services (IBE Data Series), Paris, UNESCO, 1988.
30. Ibid, The Place of Information in Educational Development, p.39-40.
31. (a) Ibid, The Place of Information in Educational Development, p. 10; (b) UNISIST stands for 'Intergovernmental Programme for co-operation in the field of scientific and technological information'. In view of the vital role of information in development a long term intergovernmental programme widely known as UNISIST was initiated in 1973 with a view to designing a "general conceptual framework for information system development in the fields of science and technology within the United Nations System to facilitate the

world's information resources, particularly for the developing countries, and to create the necessary conditions for information system inter-connection and capability." The UNISIST is now also working in information system of social sciences sector. See, Rab, Syed Fazle, Access to Information: The Growth and Development of Information systems in Social Sciences and the Pioneering work of Kaula" in Dimensions of Library and Information Science : Kaula Festschrift, edited by Venkatappaiah, Velaga, New Delhi,. Concept Publishing Company, 1990, p.284

32. (a) Ibid, The Place of Information in Educational Development p. 42; (b) EUDISED is an acronym of European Documentation and Information System for education. It was established as Documentation Centre for Education in Europe under the Council for Cultural Co-operation within the Council of Europe. See, Directory of Educational Documentation and Information Services, IBE (IBE Data Services), Paris, UNESCO, c.1988. P. 106.
33. IBE, Reports from the International Conference on Education, 1977, Paris, UNESCO, 1979, 90p. (Series of International Reports on Education-SIRE)
34. Ibid, Verma, S. L., A Comparative Study of the National Information Systems in Education in UK and USA with a View to Developing a Model for India, 470p.
35. Malhotra, Nirmal, "Information Problems of Educationists in India, University News, Monday, February 17, 1992, p. 8-9
36. International Bureau of Education, 'Educational Innovation and Information', No. 84, September 1995, p. 2-7.
37. Institute of Education and Research (IER), University of Dacca, An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh, Dacca, IER, 1976, 261p.
38. Ibid,
39. Bangladesh. Ministry of Education. Report of the External Evaluation Committee on National Institute of Educational Administration Extension and Research, Dhaka, MOE, 1990, 35p.

40. HSTTI is acronym of Higher Secondary Teachers Training Institute providing 8 weeks in-service training to the teachers of higher secondary level since 1995 in Bangladesh. At present there are 5 HSTTI in the country.
41. Bangladesh. Ministry of Education, "Staffing Patterns at TTCs: A Review of Teacher Training College Staff, Including TTC Recruitment Policy and Implications for Staffing HSTTIs" in Eight Research Studies, Vol. One, Dhaka, MOE, 1998, p.Study 3/44
42. Quasem, K. A., National pattern of information-flow in educational planning and policy-making in Bangladesh, Dacca, FREPD, 1977, 21p.
43. Ibid,
44. Bangladesh. Ministry of Education, BANBEIS: An Introduction (A Brochure), Dhaka, BANBEIS, 1986, p.1.
45. Ibid, p. 1-3.
46. 'A hypothesis is a shrewd and intelligent guess, a supposition, inference, hunch, provisional statement or tentative generalization as to the existence of some fact, condition, or relationship relative to some phenomenon which serves to explain already known facts in a given area of research and to guide the search for new truth on the basis of empirical evidence. The hypothesis is put to test for its tenability and for determining its validity.' See, Sidha, Kulbir Singh, Methodology of research in Education, New Delhi, Sterling Publishers Private Limited, 1992, p. 62.
47. National Educational Information Center means an educational library or documentation or information center which provides educational information services nationally and gives leadership in educational information system/network. See UNESCO. Handbook for information systems and services, Paris, UNESCO, 1980
48. 'A questionnaire is a form prepared and distributed to secure responses to certain questions. It is a device for securing answers to questions by using a form, which a respondent fills by himself. It is a systematic compilation of questions that are submitted to a sampling of population from which information is desired.' See, Ibid, Sidha, Kulbir Singh, p. 131.

Chapter Two

Chapter Two

Bangladesh: Basic Facts

For proper understanding of the present status of National Educational Information System (NATEIS) comprising the educational LDI Centres of Bangladesh, it is essential to state in brief some basic facts about the country.

2.1 Bangladesh: Basic Facts

2.1.1 Historical Background

The official name of Bangladesh is 'The People's Republic of Bangladesh'.¹ Although Bangladesh is a young country, yet the Bangalee nation has a long history. The region, which comprises Bangladesh, was first inhabited by an Austric race that were followed by the Dravidians from western India. Later, the Aryans from central Asia settled in the fertile region. The Mongolians, Persians, Turks, and Afghans added further diversity to the ethnic roots of the Bangalee. Hindu and Buddhist kingdoms flourished till the 12th century A.D.² The area constituting the country was also under Muslim rule for five and a half centuries i.e., from 1201 to 1757 A.D. and passed into British hands after the defeat of the last sovereign ruler, Nawab Sirajaddowla, at the battle of Plassey on June 23, 1757. The British ruled over India for nearly 175 years i.e., 1772 to 1947 when the country was a part of the British Indian provinces of Bengal and Assam. With the termination of British rule in August 14, 1947 it constituted the eastern wing of Pakistan and was known as East Pakistan. Bangladesh appeared on the world map as a sovereign state on December 16, 1971 following the war of Liberation from March 25 to December 16, 1971.³

2.1.2 Geographical Area and Territorial Position

Bangladesh lies in the north eastern part of South Asia between 20d 34 and 26d 38 north latitude and 88d01 and 92d41 east longitudes. The country is bounded by India on the west, the north, and the north-east and Burma on the south-east and the Bay of Bengal on the south. The area of the country is 55,998 sq. miles or 143,999 sq. k.m.⁴

2.1.3 Population

The population of Bangladesh on the night of January 22, 2001 was 12,92,47,233 (male: 6,58,41,419; and female: 6,34,05,814). The sex-ratio is found to be 103.8 which indicates that there are just 103.8 males per 100 females in Bangladesh. The annual compound growth rate of population (unadjusted) of Bangladesh as per 2001 Census over the enumerated population (10.63 crores) of 1991 Census is 1.47%. The annual compound growth rate of population in the 2001 (adjusted) Census over the adjusted 1991 Census population is 1.48%. The population density is 834 per square Kilo metre in 2001, while 720 in 1991. The number of households enumerated in 2001 is 2.54 crores. The average household size in 2001 census is 2.8 persons (unadjusted). According to the Population Census- 2001 the number of urban and rural population are 2,88,08,477 (23.39%) and 9,43,42,769 (76.61%) respectively.⁵

2.1.4 Labour Force

It is observed from the last report of the Labour Force Survey that of the total 74.2 million population at the national level aged 15 years and over, 40.7 million are in labour force and the rest 33.5 million are outside the

labour force. Among the population in labour force 39.0 million are employed and rest 1.7 million are unemployed. Those who are outside the purview of the labour force, among them the highest 25.4 million are engaged in household work, 6.1 million are students, 2.1 million are income recipient/retired and 0.9 million are beggar, disabled etc.⁶

It is also observed from the report that of the 74.2 million working age, 16.6 million are in the urban area and the rest 57.7 million are in the rural area. Of the working age population at the national level, 38.3 million are male and 35.9 million are female which gives a sex ratio of 106.6. As regards percentage distribution of working age population, 94.6% are in the age group 15-64 and rest 5.4% belongs to age group 65 year and over.⁷

It is observed that of the working age population, the highest 34.2% are engaged in household work, 27% are self-employed and own account worker. 21.6% work for wages, salaries and commission. 6.9% are student, 6.3% are engaged in crop and non-crop production, cottage industry, small trade and farm activities as unpaid workers. The percentage of working age population who does not work but fit and willing to work was 2.3%, those who retired from service and income recipients are 2.8% and others 1.2% are beggars, disabled etc.⁸

2.1.5 Government, Politics and Public Administration

Bangladesh has unitary form of government. The President is the Head of the State and the Prime Minister is the Head of Government. The Prime Minister is assisted by the Council of Ministers. The permanent officer-in-charge of the Ministries/Divisions is designated as the Secretary who are members of the civil service. There are now 35 Ministries and 52

Divisions excluding the offices of the President and the Prime Minister.⁹ Bangladesh is governed by a parliamentary form of government. The Prime Minister is selected by the President from the majority party leader. For the convenience of administration the country is divided into six administrative divisions each placed under a Divisional Commissioner. Each division is further sub-divided into district. After the administrative re-organization carried out in 1984 the country has been divided into 64 districts. The administration of each district is headed by a Deputy Commissioner who is assisted by other officials. District is divided into Upazilas (sub-district) headed by Upazila Nirbahi Officer (Sub-district Executive Officer). Currently there are 496 Upazilas of which 36 are Metropolitan Cities.¹⁰ Educational administration and management is an important large component of the public administration of the country.

2.1.6 Economy

Bangladesh economy has been undergoing a lukewarm transformation into an open and free economy espousing rapid integration in the global economy for nearly two decades. Economy of Bangladesh is basically agrarian and hence, role of agriculture is predominant from grass root to national level. It is the single largest sector in the economy. The combined contribution of all sub-sectors of agriculture in GDP (crops, fishery, livestock, and forestry) is about 24.59% (2001-2002) and 62.3% of total employment is in agriculture. Growth rate of agriculture in 2000-2001 was 5.5%. Government approved the National Agriculture Policy in 1999.¹¹ Industries sector (manufacturing) plays a predominant role in the economic development of Bangladesh This sector accounted for 15.58% of GDP (2001-2002) and 5% of industrial growth rate for 2001-2002. Government approved the new Industrial policy in 1999.¹² Despite the

slow economic growth in the developing countries under the process of globalization, there has been marked growth in the export sector of Bangladesh.

2.2. Education in Bangladesh

2.2.1 Constitutional and Legal Foundation of Education

The documents like the Constitution, Acts and Ordinances are the sources of authority of educational administration and management. The government develops plans and policies of national system of education on the basis of these legal bases.¹³ The Article 17 of the Constitution of the People's Republic of Bangladesh provides a constitutional obligation for the government to educate all the citizens. This Article clearly specified that the state should adopt effective measures for the purpose of “ (a) establishing a uniform, mass-oriented, universal system of education and extending free and compulsory education to all children to such stage as may be determined by law; (b) relating education to the needs of the society and producing properly trained and motivated citizens to serve those needs; and (c) removing illiteracy within such time as may be determined by law”.¹⁴ Bangla (our mother tongue) was declared as the state language of the Republic in Article 3, the Constitution of 1972. This ensured the place of Bangla in the national education. Thus it became the medium of instruction.¹⁵

2.2.2 Objectives of Education of Bangladesh

According to the ‘National Education Policy (NPE) 2000’, the major education objectives of Bangladesh are as follows:

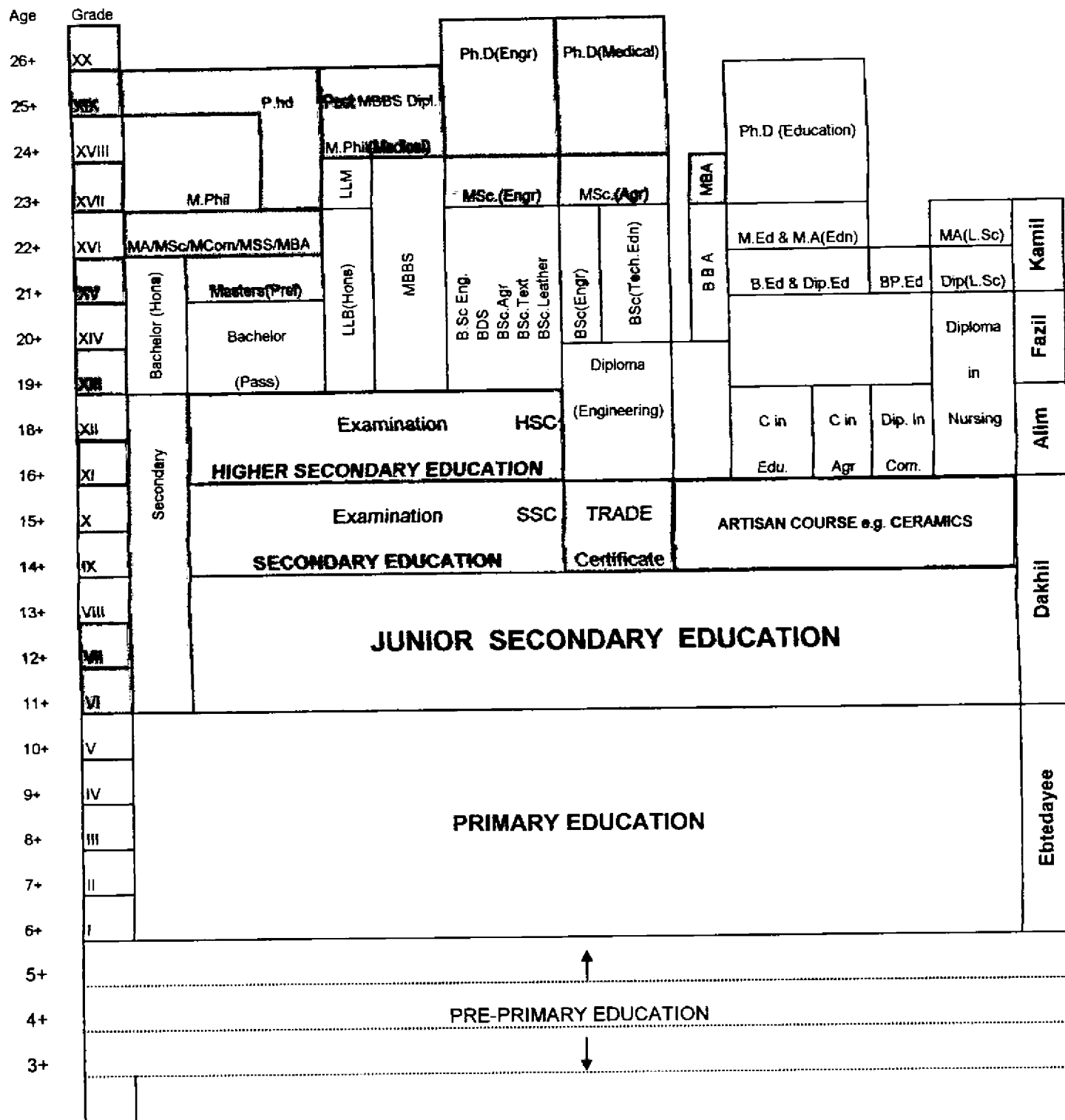
“i) To give impetus to thoughts and deeds in practical life in order to establish moral, humanitarian, religious, cultural and social values in

personal as well as national life; ii) to develop awareness in the learners to protect the independence, sovereignty, and integrity of Bangladesh; iii) to inspire the learners with the ideals of Liberation War and to instill in them the spirit of patriotism, nationalism, and qualities of good citizenship in their character; iv) to make education pragmatic, productive, and creative with a view to bringing about changes in the socio-economic conditions of the country and making the students dutiful and responsible manpower with scientific output; v) to make them respectful and eager to manual labour and enable them to acquire skill in vocational education for self employment in all stages of education; vi) to promote fraternity, secular values, generosity and fellow feelings in men and make them respect human rights; vii) to develop in them the spirit of mutual understanding and help them develop life-oriented, realistic, and positive attitude for blossoming democratic awareness; viii) to strengthen, in every level of education, the knowledge, skill, and attitude acquired in the previous stage and help them widen and to enable the students to acquire new knowledge and new skill; ix) to flourish national history, tradition, culture and moral values transmitting them to the posterity; x) to emancipate the country from the curse of illiteracy; xi) to generate largely equal opportunities for education in accordance with merit and aptitude for the purpose of building a society free from disparity; xii) to remove gender-bias in education irrespective of caste and creed; xiii) to reflect constitutional guarantee in all levels of education; and xiv) to create awareness about education".¹⁶

2.2.3 Organization, Structure of Education and Institutes

The structure of formal education system of Bangladesh has been given in Figure 2.1.

Fig. 2.1: The Present Educational Structure of Bangladesh



Source: Bangladesh. Ministry of Education, National Education Survey (Post-Primary)-1999, Dhaka, BANBEIS,

Primary Education. Prior to 1952, primary stage of education comprised a 4-year course (class I-IV). In 1952, the duration was extended by one year more (class I-V) and the same duration is retained till to day.¹⁷ So, at present, in primary stage of education, schools offer a uniform course of study from class I to V of five years duration.¹⁸ Primary education begins at the age of 6, generally, children between 6-11 years are enrolled in primary education. The academic year begins in January and ends in December. Primary schools are run in two shifts.¹⁹ Primary education is free and compulsory for all children from 6 to 10 years of age.²⁰ Nursery, Kindergarten, Tutorial and Pre-cadet schools are located in urban areas, which have preprimary classes.²¹ Mosque-based institutions such as the Maktab, Forkania and Quarania madrasahs also offer pre-primary education along with religious teaching. These institutions impart literacy as well as religious teaching and serve as feeder schools to primary schools and madrasahs. There are other institutions mainly for religious education such as the 'Hafezia madrasah', where pupils learn to read and to memorize the Holy Koran.²² At present, the Institutions, Teachers and Enrolment in primary stage is given below:

Table 2.1: Primary Education: Institutions, Teachers and Enrolment-1999

Types of Schools	No. of Institutions	Teachers	Enrolment	
			Total	Girls
Govt. Primary Schools	37709	149530	11022234	5406690
Registered Non -Govt. Primary Schools	19553	78673	4032995	1957272
Non-Registered Non-Govt. Schools	2632	9683	367948	171929
Other Primary Level Inst.	18934	74359	2198554	1020821
Total Primary Institutes	78828	312245	17621731	8556712

Source: Bangladesh. MOE. Bangladesh Educational Statistics (at a glance) 2000, Dhaka, BANBEIS.

Secondary Education. The level of education after primary and immediately preceding higher education is known as the secondary education. It caters to the adolescents of 11-17 years age group.²³ Secondary education is currently sub-divided into (i) three years of junior secondary education (grades 6 to 8), after completion of primary stage (I-V); (ii) two years of secondary education (grades 9 and 10) and (iii) two years of higher secondary education (grades 11 and 12).²⁴ A statistical profile of secondary education in Bangladesh is presented below:

Table 2.2: Secondary Education: Institutions, Teachers and enrolment-1999

Types of Secondary Schools	Institutes by Management			Teachers				Enrolment	
	Total	Govt.	Non-govt.	Total	Govt.	Non-govt.	Female %	Total	Girls %
Junior Secondary	3024	-	3024	19885	-	19885	16.39	698504	56.8
Secondary	12269	317	11952	155712	8187	147525	15.07	6681212	53.0
Higher Secondary	1316	05	1311	23819	123	23696	20.0	327414	47.49
Do (Cadet)	10	-	Autonomous	378			8.0	2830	7.0

Source: Bangladesh. MOE. Bangladesh Educational Statistics (at a glance) 2000, Dhaka, BANBEIS,

Technical and Vocational Education: Technical education in Bangladesh is organised in two phases, viz. Certificate, Diploma. The certificate course which prepare skilled workers in different vocations are of 1-2 years duration after 8 of schooling (class VIII) imparted in Vocational Training Institutes (VTIs). Polytechnic Institutes and Monotechnic Institute offer diploma courses in engineering, commercial and industrial subjects. The duration of course is 3 years for technical courses and 2 years for commercial courses after SSC.²⁵

Table 2.3: Number of Post-primary Technical and Vocational Education Institutes

Types of Institutes	Institutes				Enrolment		Teachers	
	Tot	Pub	Priv	Female %	Total	Female %	Total	Female %
Polytechnic Institute	27	20	7	3.70	19698	7.64	820	15.2
Vocational Training Ins.	51	0	0	0	5837	14.60	450	10.0
Ins of Glass & Ceramic	1	1	0	0	163	5.52	10	1.0
Ins of Graphic Arts	1	1	0	0	241	6.64	16	0.0
Textile Vocational Ins	28	28	0	0	5707	11.63	335	8.1
Technical Training Centre	13	13	0	0	4887	9.82	356	18.8
Survey Institute	2	2	0	0	461	0.0	15	6.7
SSC Vocational Institute	522	0	522	30.0	38622	36.64	2247	25.9
HSC Business Management Institute	404	0	404	20.0	26452	25.92	1969	21.3
Computer Training Centre	413	0	413	-	19382	23.78	1130	15.0

Source: Bangladesh. Ministry of Education, National Education Survey (Post-Primary)-1999, Dhaka, n. d., p.17, 41, 47, 49, 71-72

Religious Education: Beside the general system of education there is a parallel system known as Madrasah Education which offers traditionally Islamic Instructions to Muslim boys and girls. The Madrasah education includes the stages of Ibtedayee (primary- 5 years duration); Dakhil (secondary- 5 years duration after Ibtedayee); Alim (higher secondary of 2 years duration after Dakhil); Fazil (Bachelor degree of 2 years duration after Alim); and Kamil (Master's degree of 2 years duration after Fazil).

Subjects taught in these institutions focus mainly on the study of Holy Quran, Hadith, Tafsir, Fiqh, Usul and Arabic language and literature. In addition, provision has also been made for the teaching of General science, Mathematics, Social Studies, Bengali, English, Persian and Urdu in appropriate levels so that the Madrasah students become qualified for general vocations as well.²⁶

A statistical profile of madrasah education in Bangladesh is presented below:

Table 2.4: Madrasah Education: Institutions, Teachers and enrolment-1999

Types of Institution	Institutions			Teachers		Enrolment	
	Total	Govt.	Non-Govt.	Total	Female %	Total	Female %
Dhakil (I-X)	4865	-	4865	60113	3.2	1755434	46.2
Alim (XI-XII)	1090	-	1090	17576	2.48	501500	36.4
Fazil (XIII-XIV)	1000	-	1000	19509	1.9	565824	27.4
Kamil (XV-XVI)	141	3	138	3602 (53)	1.0	112590 (3219)	12.7

Note: Figure in the parenthesis for teachers and students of the govt. institutions.

Source: Bangladesh. MOE. Bangladesh Educational Statistics (at a glance) 2000, Dhaka, BANBEIS.

Besides the Public system of Madrasah Education a good number of private institutions offer traditional Islamic teaching to Muslim boys and girls. These are known as Furqania Madrasah, Hafizia Madrasah and Quaumi or Nizamia Madrasah. Furqania Madrasah offers basic education (maximum 4 years) on Islam including Arabic language, Quran recitation, elementary Bengali language and simple arithmetic. Hafizia Madrasah is exclusively meant for 'Hifz' or the memorising of

the entire Quaran. Children of the earliest possible age group join these institutions and complete their programme within the required period. Mostly these institutions are residential and attached to a Mosque. Quaumi or Nizamia Madrasahs arrange their academic programme according to grades of one year each beginning from grade I to XIV. The grades are named in Arabic. The final grade is called 'Daurah'.²⁷

There are Sanskrit and Pali institutions in Bangladesh which offer traditional religious education to the minority communities mostly Hindus and Buddhists known as Tol. It has two separate department Sanskrit and Pali. The former mainly focuses on Sanskrit language and Hindu religious teaching and scriptures and the later focuses on Buddhists religious teaching and scriptures. Courses are offered into three grades of studies of one year known as 'Adya' (basic), 'Madha' (middle) and 'Upadhi' (title) and the institutions are also classified accordingly as 'Tol College' and 'Chotspadi' respectively.²⁸

Higher Education (Colleges, Universities and Professional). Higher education is open to students who have passed the Higher Secondary Certificate (HSC) examination. They are enrolled on either Pass or Honours Courses for a bachelor's degree (2/3 years for Pass and 3/4 years for Honours) in the degree colleges or in the universities or professional institutes. This may be followed by master's degree courses of one year's duration for holders of a bachelor's degree (Honours) and 2 years' duration for holders of a bachelor's degree (Pass). There are government and non-government (aided) degree colleges where degree courses including Honours and master's are offered. The degree colleges are mainly affiliated to National University at Gazipur (near Dhaka); a few specialized degree colleges/institutions are also affiliated to the

University of Dhaka and the University of Chittagong for academic and examination purposes.²⁹ M.Phil. and Ph.D. courses in selected subjects are also offered in the universities. The duration of studies for an M. Phil. Degree is 2 years and for a Ph.D. minimum of 3 years after master's degree.³⁰ The position of higher education through colleges and universities is shown below:

Table 2.5: General Higher Education: Degree Colleges, Teachers and Enrolment-1999

Type of Ins.	Institution			Teachers			Enrolment			
	Tot	Govt.	Non-govt.	Tot.	Govt.	Non-govt.	Tot	Govt.	Non-govt.	Female %
Degree College	882	228	654	31501	5564	25937	1127725	131278	996447	36.0

Source: Bangladesh. MOE. Bangladesh Educational Statistics (at a glance) 2000, Dhaka, BANBEIS.

Table 2.6: University Education: Institutes, Teachers and Enrolment'2001

Universities by Management	Total	Teachers Total	Enrolment Total
Public University	21	5147	92562
Private university	50	2205	27245

Source: 1. Bangladesh University Grants Commission, Annual Report'2001, UGC, Dhaka, 2002 (excluding the students of National University, Bangladesh Open University; excluding the students and teachers of new 4 university of engineering and technology; and excluding the students and teachers of 28 Private Universities (data is not available) 2. Patwary, Mamtajuddin, Bangladesher Bay-sharkari Shikhyar Samasya: Where is Solution? in "the Danik Bhorer Kagaj, Dhaka, 3 August, 2003.

Four autonomous degree awarding institutes namely 'Bangladesh Institute of Technology (BIT) [1 is located in Gazipur, 1 in Khulna, 1 in Rajshahi, and 1 in Chittagong) under a Council of BIT, where four-year Bachelor of Engineering and Technology courses are offered (these BITs have been working as university from 1 September, 2003 (after passing Bills in the Parliament on 14 July, 2003).³¹ After H.S.C.(Science) Bangladesh University

of Engineering and Technology (BUET) also offers a five-year Bachelor of Architecture followed by a one year Master of Architecture as well as other courses in engineering and technology. Ph D degrees are also awarded by the BUET after two to three years following completion of an M Sc.³² Besides these, other 5 new and small universities established during the period of 1987-2001 (1 in the year of 1987, 1 in 1991 and 3 in 2001) offer Bachelor degree in Engineering and Technology.³³ Diversified courses in agriculture are offered at the Agricultural University at Mymensingh, three other Government Agricultural Colleges (which have been very recently announced as universities), and Institute of Post-graduate Studies in Agriculture (IPSA) offers only M.S. and Ph. D. courses (which recently has been declared as a university).³⁴ HSC is the minimum entry requirement for admission in the university and institutes. In the universities Bachelor of Science (Honours) courses are offered in pure agriculture, animal husbandry, fisheries, veterinary science, agricultural engineering, agricultural economics followed by one year Master's degree course and then Ph.D. course of two to three years' duration.³⁵ There is a Forest Research Institute where Honours and Master's courses in Forestry are offered. There is also an Institute under the Chittagong University which offer courses in Marine Science of equivalent level.³⁶ Five-year MBBS (Bachelor of Medicine and Bachelor of Surgery) courses are offered at the government and non-government medical colleges. Academically they function under the affiliating Universities of Dhaka, Rajshahi and Chittagong. The administrative functions are under the control of the Ministry of Health and Family Welfare. The Bangladesh Medical Council gives Registration Certificates to candidates who have passed the MBBS course and completed one year internship training. The Institute of Post-graduate Medicine and

Research, recently declared as university is offering post-graduate education and training in medicine.³⁷ Also available is a four- year BDS (Bachelor of Dental Surgery) course after HSC and a Nursing College offers a four year BNsc (bachelor of Nursing Science) course after HSC. Also forty-two Schools of Nursing offer four year Senior Certificate courses. The other specialised medical institutes include National Institute of Ophthalmology; Institute of Public Health and Nutrition. These institutes offer different post-graduate courses.³⁸ Besides, Diploma in Homeo Medicine and Surgery (DHMS), a four years course in Homeopathic Medicine is offered (after SSC) and after DHMS a student can join Bachelor of Homeo Medicine and Surgery (BHMS) course, a two years course and certificate is awarded by the Faculty of Medicine of the Dhaka University. The traditional Unani and Ayurvedic System of Medicine are very popular in Bangladesh. The former system is based on the medical system developed at ‘Unan’ in Greece. There is 16 Unani and Ayurvedic institutions in the country.³⁹ Number of Post-Primary Professional Education Institutes are shown in the following Table 2.5:

Table 2.7: Number of Professional Education Institutes

Types of Institutes	Number of Institutes				Total Enrolment		Teachers	
	Total	Public	Private	Female %	Total	Female %	Total	Female %
Medical College	22	13	9	0	14125	43.78	1144	18.1
Dental College	1	1	0	0	675	37.63	111	18.1
Nursing College	1	1	0	0	121	96.69	14	100
Homeopathic College	31	1	30	0	16091	27.62	418	12.9
Unani/Ayurvedic College	16	2	14	0	1398	19.03	92	17.4
Nursing Training Institutes	44	38	6	100	3789	93.32	222	70.3

Continued Table 2.7

Types of Institutes	Number of Institutes				Total Enrolment		Teachers	
	Total	Public	Private	Female %	Total	Female %	Total	Female %
Bangladesh Institute of Technology	4	4	0	0	3565	4.74	270	3.3
Textile Technology College	1	1	0	0	459	5.23	20	10.0
Leather Technology College	1	1	0	0	392	8.42	20	15.0
Commercial College	16	16	0	0	2747	19.29	162	14.2
Physical Education College	2	2	11	0	1630	17.98	98	21.4
Agriculture College	4	4	0	0	2612	10.38	210	8.1
Agriculture Training Institutes	18	11	7	0	7103	20.93	148	8.1
Law College	59	0	59	0	18312	28.09	580	1.6

Source: Bangladesh, MOE, National Education Survey (Post-Primary)-1999, BANBEIS, Dhaka, p. 18, 25, 42, 73-75

Non-formal Education: Bangladesh has a long heritage of literacy endeavours. History reveals that there were night schools and adult education centres in the early years of the century.⁴⁰ In recent times, Non-Formal Education (NFE) has emerged as a distinct and complementary system to the formal sub-sector of education all over the country enlisting commitments and endeavours of the government and a number of Non-Government Organizations (NGO). Integrated Non-Formal Education Programme (INFEP) was implemented during 1991-97, aiming at developing an infrastructure in NFE sub-sector. The successful implementation of INFEP project resulted into development of a permanent set up for NFE. The erstwhile INFEP office has now been

upgraded to a Directorate of the Government (Directorate of Non-Formal Education-DNFE).⁴¹ Studies and statistics reveal that out of a target population of 1.67 million, INFEP managed to make some 2.47 million people literate.

2.2.4 Curriculum Development, Teacher Education and Research

Curriculum Development

We inherited curriculum mainly from British Colonial period. Now in curriculum development, the government attempts to convey the country's philosophy, ideology, and heritage through curriculum in education system.⁴² At first curricula and guidelines preparing textbooks were formulated in 1977 by the National Curriculum and Syllabus Committee (NCSC). The corresponding textbooks were produced during the period of 1980-83. Again, from 1992 NCTB has proceeded with the preparation of primary curriculum and textbooks following a competency based approach. Pursuing the approach textbooks at primary level has been completed in 1996.⁴³ Recently, NCTB developed revised curriculum, both secondary and higher secondary level. This new curriculum is being implemented since 1996 at secondary level and since 1998 at higher secondary level.⁴⁴

NCTB is responsible for the development of curriculum of primary, secondary and higher secondary education and research also. In classes I and II, pupils study Bangla, arithmetic, and environmental science (general science and social studies); from class III onward, pupils take physical education, arts and crafts, music and religion as additional subjects. English is taught as a second language beginning in class III.⁴⁵

In secondary education, the curricular structure is uniform up to class VIII. Diversification of curriculum has been introduced at class IX comprising three streams of courses- science, humanities and commerce and at the higher secondary stage, the academic programme for general education is of two years duration (class XI and XII) with three streams (science, humanities and commerce) and is directed to the preparation of students for higher education.⁴⁶ Bangladesh Technical Education Board (BTEB) is responsible for the preparation of curriculum of vocational and technical education; Bangladesh Madrasah Education Board (BMEB) is responsible for madrasah education and curriculum.

Teacher Education, Training and Research

One of the objectives relating to education and training for teachers and educational personnel in the Fifth Five Year Plan (1997-2002) is to expand specialised and professional education and training in all relevant fields of education in the country⁴⁷ and to achieve this objective the strategy has been taken to provide massive and continuous training of teachers, especially at primary and secondary levels and also to provide education extension and management training for teachers and educational administrators.⁴⁸ At present, Government of Bangladesh (GOB) has emphasised education and training for the teachers and other educational personnel.⁴⁹

At primary education, there are 52 government and 1 private Primary Teachers' Training Institutes in Bangladesh.⁵⁰ They offer one year Certificate in Education (C. in Ed.) programme to the serving untrained teachers, as well as SSC passed outsiders (raised to HSC since 1981 for male students) who want to be a teacher at primary schools. An academy

called “National Academy for Primary Education (NAPE)” located at Mymensingh is responsible for the development of PTIs and conducting and evaluating the terminal examination of PTI course.⁵¹ In technical education at secondary level, there is only one Technical teachers’ Training College (TTTC) located at Dhaka in Bangladesh for providing education and training for the teachers of Polytechnic Institutes. The TTTC offers one year Diploma in Technical Education and a two year B Ed (Technology) course for teachers holding technical diploma of Polytechnic Institutes. The college also runs in-service short courses for teachers in polytechnic institutes and also VITs.⁵² In general education at secondary level, by 1997 a total of 11 Government’s TTCs exists. There is also a number of private TTCs. In addition, there is a School of Education as Education Faculty of the Bangladesh Open University (BOU); Institute of Education and Research (IER), University of Dhaka; All of these specifically virtually and exclusively cater for secondary teachers’ education.⁵³ Most of the TTCs have introduced one-year Bachelor of Education (B Ed) programme. TTC of Dhaka, Rajshahi and Mymensingh have introduced also one-year Master’s in Education (M Ed.) programme for the B. Ed. holders. TTC, Dhaka⁵⁴ and IER also offer 3 years and 4 years of Bachelor in Education (Honours) programme respectively for the HSC holders. After completion of B. Ed. (Hon.) students are entitled to get admission in one-year M. Ed. programme.⁵⁵ The BOU has introduced B. Ed. and M. Ed. programmes in distance mode.⁵⁶ At present, all institutes for education of teachers in the country has library in each for providing educational information services to the teachers and students. A detail discussion on these educational LDI Centres is presented in Chapter Four and Five.

2.2.5 Administration and Management of Education System

Educational administration and management involves two levels- policy and execution. 'The Ministry of Education (MOE), headed by a minister (at present the minister is assisted by a State Minister), is concerned with policy formulation, planning, monitoring, and evaluation.⁵⁷ In addition, 'The Bangladesh National Commission for UNESCO (BNCU) functions as a corporate body within the Ministry of Education. This is headed by the Minister of Education as Chairman and the Education Secretary as the Secretary General.⁵⁸ 'In pursuance of the government's policy of decentralization, there is separate ministry⁵⁹ as it is now called Ministry of Primary and Mass Education (the former name was Primary and Mass Education Division (PMED) and recently it has been declared ministry).

There is a number of line directorates viz., Directorate of Secondary and Higher Education (DSHE); Directorate of Primary Education (DPE); Directorate of Technical Education (DTE); Directorate of Non-formal Education (DNFE), responsible for execution of the policies, planning, and programmes laid down by the MOE and also MPME. These line directorates manage and supervise the institutions under their control.⁶⁰ In addition, the following staff departments of the MOE and MPME perform specialized functions assigned to them:

The National Academy for Educational Management (NAEM) is responsible for providing Foundation Training for the new-entry Government College Lectures; In-service Training on educational administration and management for the heads of secondary and Higher educational (college) institutes; and also responsible for conduct of educational research. *The Bangladesh Bureau of Educational Information and Statistics (BANBEIS)* is responsible for collection, compilation and

dissemination of educational statistics and also for national educational documentation and information services and system . *The Directorate of Audit and Inspection (DAI)* is responsible for auditing the accounts and academic situation of the secondary schools, madrasahs and colleges. Compulsory Primary Education Implementation Monitoring Unit looks after the implementation of compulsory primary education in the country.⁶¹ Furthermore, a number of autonomous bodies have a share in the administrative matters of education. These are:

The National Curriculum and Textbook Board (NCTB) is responsible for curriculum development and research at the primary, Junior, secondary and higher secondary levels. *The University Grants Commission (UGC)* is responsible for co-ordinating the activities of the universities (Public and Private) and distributing government grants to them. *The National University*, responsible for academic control of all the affiliated degree colleges of the country and other three universities responsible for a number of specialized institutions within their respective jurisdiction and for conducting examinations. There are seven organizations named *Board of Intermediate and Secondary Schools (BISEs)* responsible for conducting the SSC and HSC Examinations. *The Bangladesh Technical Education Board (BTEB)* is responsible for curriculum and textbook development and for conducting certificate and under graduate diploma examinations in technical and vocational education. *The Bangladesh Madrasah Education Board (BMEB)* is responsible for curriculum development, affiliation of Madrasah and conducting public examination of Dhakil, Alim, Fazil and Kamil classes. Bangladesh Institute of Technology Council⁶² look after the academic functions of BITs (all 4 BITs are University since 1 September, 2003). The structure of educational administration and management system is shown in the Figure 2.2 in the next page.

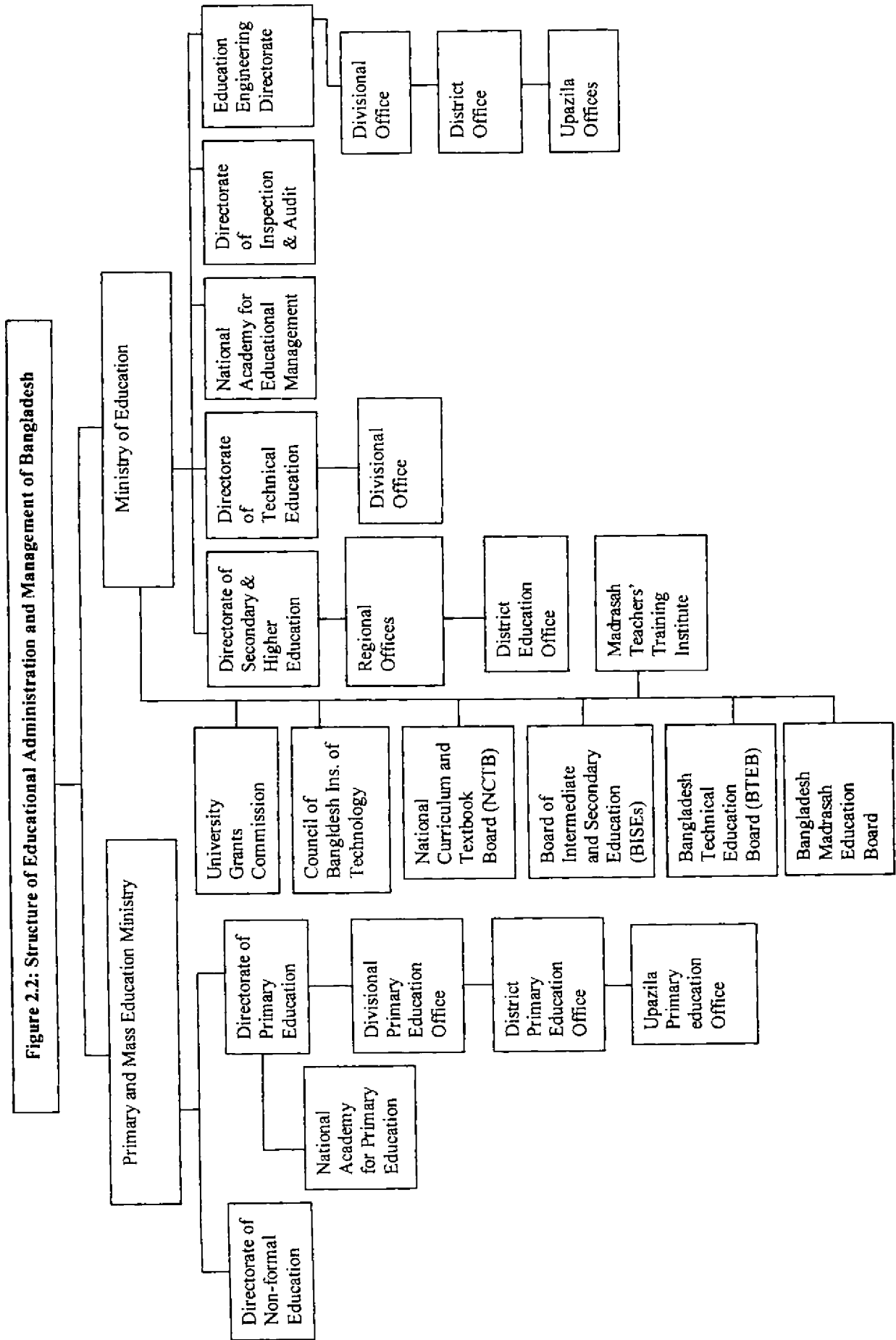


Figure 2.2: Structure of Educational Administration and Management of Bangladesh

Source: Bangladesh Open University, Principles of Educational Administration and Management (in Bangla), Gazipur, School of Education, 2000, p.48

2.2.6 Educational Finance and Development Programmes

In financing the education, government has been increasing public expenditure on education as a percentage of GNP since 1971. In every Fiscal Year of Bangladesh provisions are made for handsome investment for education sector.⁶³ The public expenditure on education different Fiscal Year (1997-2002) is shown in the following Table 2.8.

Table 2.8: Public expenditure on education.

(in Million Taka)

Fiscal Year	Revenue Budget	Development Budget	Total Budget	% of Growth
1997-98	23428.27	16504.90	39933.17	3.8
1998-99	29490.22	16548.62	46038.53	15.3
1999-00	32201.62	19235.97	51437.50	11.73
2000-01	35796.60	22546.60	58343.20	13.42
2001-02	37389.70	21376.80	58766.50	13.72
2002-03	38021.12	29079.90	67101.02	14.18

Source: Bangladesh. Ministry of Education, BANBEIS, Pocket Book on Educational Statistics 2002, Dhaka, BANBEIS, 2002

In the purview of the planning discipline of the Government, there are 15 to 20 years long-term perspective plan, 5 years medium term plan, 3 years rolling plan and annual development programme for the development of education sector.⁶⁴ For the financial year of 2003-2004 Tk. 6340 crores have been allotted for education in the revenue and development budget.⁶⁵

2.3 LDI Infrastructure in Bangladesh

Like other countries, both developed and developing, the present LDI systems of Bangladesh comprises the National Library and the National Archives system; the Public Library system; the Schools and Academic

Library system; and the Special and Research Library system. In the following paragraphs, the LDI infrastructure of Bangladesh in general has been discussed in brief.

At present, the administration and management of major number of libraries, documentation and information centres in public sector of Bangladesh are directed, co-ordinated and controlled mainly by the two ministries. The Cultural Division, Ministry of Sports and Culture with its two directorates (viz., DAL and DPL) controls the i) National Library and the National Archives system; and ii) the Public Library system. The Ministry of Education with a number of directorates controls the schools, colleges, special and research libraries in education sector. Besides, there are also a limited number of special and research libraries in the country which are administered and controlled by the respective ministries and offices.⁶⁶

2.3.1 The National Library System

2.3.1.1 The Bangladesh National Library

In true sense, there was no national library in the British Period 1757-1947 and also in the Pakistani period 1947-1971 in the present territory of independent Bangladesh. Actually, a new phase of library movement began in Bangladesh after its liberation in 1971.⁶⁷

The National Library of Bangladesh as part of the Directorate of Archives and Libraries (DAL) has been functioning as the Bangladesh National Library as per official declaration of the Government since 29 August 1975.⁶⁸ The Bangladesh National library, a government institution, works within the Directorate of Archives and Libraries (DAL) headed by a

director under the Ministry of Cultural Affairs. The DAL has 48 staffs in the permanent set-up. Among these, the National Library has 27 staffs (excluding Director (he is also Director of Archives) and his 2 personal staffs) comprising of 5 professionals (1- Assistant Director, 1-Librarian, 3- Bibliographers), 5 sub-professional (4 Senior Technical Assistants, 1- Junior Technical Assistants) and 17 non-professional and support staffs in the permanent set up.⁶⁹

The principal functions of the National Library of Bangladesh are: ‘ (i) to collect, preserve, process materials on Bangladesh published in country and abroad; (ii) to compile and publish national bibliography; (iii) to act as guardian and co-ordinate library services in the country; (iv) to maintain liaison with the libraries of other countries to take programme for international exchanges; (v) to prepare and publish articles index on national newspapers published in the country); (vi) to prepare union catalogue, etc. To perform the above functions, the management of the NLB has been organised into the functional units of Bibliography Section, Library section, Binding Section, Processing Section, Computer section and Microfilm Sections.⁷⁰ At present, the library has about 5,00000 volumes including bound periodicals and maps in the collection. The National Library of Bangladesh also regularly receives national and international periodicals.⁷¹ Although the main function of NLB is to prepare National Bibliography, but it is not yet being published regularly.⁷²

The Bangladesh National Library is yet ⁱⁿ passing its development stage. But, the time period since its inception in 1972 is not so little. Many researchers have pointed out different problems and suggestions for improving its capacity building. It is observed that ‘the National Library

is functioning as part of the DAL, it has no separate entity, and it should be organized as an autonomous agency. It is also observed that 'the organizational structure is very weak, so it (organisational structure) should be changed according to national libraries in other countries. Copyright Deposit Law should be vigorously enforced to ensure the receipt of a copy each of all indigenous publications. The publication of the Bangladesh National Bibliography and the Index to Articles in Newspapers should be brought up-to-date.⁷³ It is suggested that 'to properly perform the functions of the National Library of Bangladesh, it needs 'more professional personnel, highly educated, motivated and professionally qualified staff.⁷⁴

2.3.1.2 The National Health Library and Documentation Centre (NHLDC)

The National Health Library and Documentation Centre (NHLDC) was established at Mohakhali in Dhaka in 1974 with the financial assistance of the Asia Foundation.⁷⁵

The major objectives of the NHLDC are: i) to collect, organize and preserve all health science literature issued in the country and abroad and promote their use; ii) to establish national standards and criteria for health science library activities; iii) to provide leadership among the health science libraries of the country for planning developing and promoting information services; iv) to conduct training courses for librarians and library users; v) to conduct research on the development of sound library and information systems and services; and vi) to provide leadership in the national programmes for co-operative acquisitions of foreign materials .⁷⁶

The NHLDC's services are: i) compilation of bibliographies; ii) formation of union catalogues; iii) indexing and abstracting services; iv) current awareness services; v) reprographic services; and vi) computerized services for the readers.⁷⁷ NHLDC serves as the apex body for bio-medical network in the health sector in the country for sharing medical information resources. Now, it has a collection of 30,000 books including 15,000 volumes of bound periodicals. It receives 250 current journals. It has microfiche readers, 5,000 microfiches, 2,590 slides, 108 filmstrips, 150 films of 16 mm, and 153 phonotapes.⁷⁸ NHLDC also provides technical services to the constituent libraries in its network system and it exchanges resource materials at the national and international levels, it offers literature services, and prepares indexes and union catalogue of medical source materials available in the libraries of the country.⁷⁹ NHLDC is manned by 4 professional, 6 sub-professional and 24 non-professional personnel.⁸⁰ In pointing out the various problems of NHLDC, library experts opined that this library is under staffed, collection is inadequate.

2.3.1.3 Bangladesh National Scientific and Technical Documentation Centre (BANSDOC)

The present BANSDOC is an autonomous and independent organization under the administrative control of the Ministry of Science and Technology (M S & T) for providing information services in the field of science and technology in the country. It acts as national organization like the national science library in other countries.⁸¹

The principal objectives of BANSDOC are: i) to collect, process and store information and data on scientific research and experimental

development in all branches of science and technology; ii) to disseminate information to researchers irrespective of their affiliations whether they are engaged in research and academic institutions, planning organizations, policy making bodies and in the public and private industries sector; and iii) to assist researchers to make contact with researchers of other countries working in the same field of interest.⁸²

To fulfill the above objectives, the major services provided by BANSDOC are: i) Document procurement services; ii) Scientific contact service; iii) Translation service; iv) Bibliography compilation service; v) Document reproduction service; vi) Library service; vii) Computer service; and viii) Inter-library lending services.⁸³

The library has over 16,000 books and bound journals. It subscribes 182 titles of national and international journal.⁸⁴ The BANSDOC has introduced computer technology based services since 1988. At present computers are being used in preparing data-bases, card catalogue, and in all official works. It has a database which contains over 4,000 records. With a view to enhancing the capability of BANSDOC to provide quicker and effective services to its users, modern information technology like telex, fax and e-mail have already been installed.⁸⁵ The BANSDOC recently completed a project sponsored by the government of Bangladesh titled ‘ Automation and Networking of Science and Technology Libraries (BANSLINK) in Bangladesh (1995-98), with a view to providing quicker information services to the users by creating on-line database service, e-mail facility and facility for internet connectivity. But, the impact of the project is not up to the mark. In this connection a researcher commented that ‘ BANSLINK is still in embryonic stage...’⁸⁶

2.3.1.4 Agricultural Information Centre (AIC) at National Level

To modernise the country's agricultural sector, the Bangladesh Agricultural Research Council (BARC), Dhaka, as the apex agricultural research organization of Bangladesh, coordinates the research activities of different research institutions in related fields. For supporting research activities, the BARC established an institute named the 'National Agricultural Library and Documentation Centre (NALDOC) in 1980 as a development project for 1980-85 and after this it was again revised as three-year project in 1984.⁸⁷ At the end of the project period in June 1987, it (NALDOC) was renamed as Agricultural Information Centre (AIC) of the BARC under the Ministry of Agriculture.⁸⁸ The mission of the AIC is to develop a national information system for effective promotion of co-operation and co-ordination in generation, dissemination and exchange of information in agriculture and allied sciences among the members' institutes under the National Agricultural Research System (NARS).⁸⁹ The major objectives of AIC are: I) to serve as Agricultural Information Resource Centre to provide information facilities to scientists, policy-makers, teachers and research students in agriculture; ii) to create facilities for literature searching; iii) to act as national focal point in NARS information system and to strengthen and coordinate the activities of NAIS; iv) to participate in the regional and international agricultural information system like AGRIS.⁹⁰

The services provided by AIC are: i) technical services; ii) users' services; iii) information services; iv) document services; v) news paper indexing services; vi) audio-visual services; SDI services; vii) literature searches; and CD-ROM search.⁹¹

The library has a collection of 12500 books, 1650 bound journals, 5000 pamphlets and also a number of non-book materials. The library also receives 250 current journals.⁹²

The Library has been using Computer technology in preparing databases and official works. The AIC's databases are: database on AIC holdings; databases on National Agriculture System; database on periodicals available at AIC; database on news paper articles of major news paper of Bangladesh; and database on periodicals collection of NARS institutes library.⁹³

2.3.2 The Public Library System

beginning of
The public library movement in Bangladesh dates back to the mid nineteenth century. There is no doubt that the idea of establishing public libraries is essentially western, and the spread of the public library movement in this part of the world is the result of the impact of western culture on our intelligentsia.⁹⁴ Establishment of public libraries (as these are called) started here as an aftermath of the Public Library Act of 1850 passed in England, but these were started not with any clear mandate of law. In many cases, these were established, at the behest of the Crown's civil servants, by the Zaminders, and in some cases, by trusts sponsored by officials of the government.⁹⁵

In the present territory of Bangladesh in the British period, the first public library was established at Jessore in 1851. In 1854, public libraries were established at Bogra, Rangpur, and Barisal. Subsequently, we see the establishment of public libraries at Rajshahi (1871), Dhaka (1874), Comilla (1884), Pabna (1890), Noakhali (1897), Sylhet (1897), Chittagong (1904), Cox's Bazar (1906), Munshiganj (1908), Kishoreganj

(1909), Kustia, Faridpur and Khulna (1914), Dinajpur and Mymensingh (1930). These Libraries were not established under any mandate of law, although the Local Government Act of 1885 and its subsequent amendment in 1919 entrusted the Local Government authorities, such as Zilla Boards, and Municipalities with the responsibility of establishing and managing public libraries. However, since this task was not mandatory in nature, the Local Government authorities felt little concern beyond giving occasional financial support for those libraries. It, however, transpires from different sources that these libraries were run in those days quite satisfactorily, and most of them had very good collections.⁹⁶ But, during the British period there was no government public library in this present territory of Bangladesh.

In Pakistan Period, the number of such public libraries in districts and sub-divisional headquarters in this territory were 110 by 1968. Among these libraries, 57 had the facility of mobile library services. These libraries were termed as non-government public libraries.⁹⁷ There were other non-government public libraries, mostly components of clubs and societies, and some of them received aids from local bodies and the government.⁹⁸ Besides, during the Pakistan period there were only 4 Govt. libraries in the present territory of Bangladesh. The first journey was started by establishing the then East Pakistan Central Public Library, Dacca in 1954 which began its operation in 1958. Subsequently, the then the government of Pakistan established 3 more public libraries-one each at the then divisional headquarters in Chittagong, Khulna and Rajshahi through a development scheme in the Second Five Year Plan (1960-65) of Pakistan. These libraries were started functioning at mid sixties.⁹⁹ During this period there was another type of govt. organization called

information centre, managed by the East Pakistan's wing of the Pakistan Parishad under the Ministry of Information. This council had centres in almost all districts and sub-divisions. These centres used to provide public library services, including book-lending service to the community.¹⁰⁰

After the emergence of Bangladesh in 1971, the Pakistan Parishad was renamed as the Bangladesh Parishad and the Central Public library of the then East Pakistan was renamed the 'Bangladesh Central Public Library (BCPL)'. The administration and management of public libraries of the country was run by the old set-up up to 1982. But, in 1982, the Bangladesh Parishad was dissolved, and at the behest of the Administrative Reorganization Committee, a Department of Public Libraries (DPL) was created in 1983 by amalgamating the existing govt. public libraries.¹⁰¹

The DPL has now in its administrative control 68 govt. public libraries including the Bangladesh Central Public Library (Now Begum Sufia Kamal National Public Library), Dhaka, headquarter of DPL. Now, the DPL has a public library in each district located at district headquarter.¹⁰²

The Independent Bangladesh Yearbook 1999 indicated that at present 'there are 883 public libraries including the govt. public libraries in Bangladesh.'¹⁰³

To increase the awareness of the mass people of the country, especially in the rural areas, a number of Non-Government Organizations (NGOs) has been functioning with the programme of establishing public libraries or community information centres. Among these NGOs, Community Development Library-CDL (has 40 branches), Bangladesh Rural

Advancement Committee-BRAC (350 libraries by the end of 1998), PROSHIKA Manabik Unnayan Kendra, Gano Shahajjyo Sangstha, etc. are prominent.¹⁰⁴

After the independence, the government took several development projects for improving the public libraries of the country, viz., Assistance to the non-government public libraries at the district and Upazila level, Establishment of Model Public Library System, In-service Training Programme for the Personnel of the Government and Non-government Public Libraries, etc.¹⁰⁵

In reviewing the problems and prospects of public library services in Bangladesh a number of comments has been presented in various literature by the library experts and also administrators. It is observed from the preceding analysis that the present public library system only provides library and information services to the community of the district headquarters, located in urban areas, but not in the vast semi-urban and rural areas, i.e., Upazilas, Unions and villages.¹⁰⁶

‘There is absence of integrated approach to extend public library facilities to the people of this country.’¹⁰⁷ In public library services system in Bangladesh, there are some problems, viz., administrative, managerial and planning, shortage of professional staff and budget, etc. But shortage of professional staff and budget are the great problems.

2.3.3 School Library System

The school education system comprises the educational institutes of Primary School, Junior Secondary High school, Secondary High school

and Higher Secondary High Schools (Junior college). In the following paragraphs, school library sub-system has been discussed in brief.

2.3.3.1 Primary School Library

There was no provision of library in primary school either in British period or Pakistan period and this situation also exists in the present Bangladesh. The Report of the National Committee on Education Policy 1997 observed that (as like as the Report of Bangladesh Education Commission 1974) “it is necessary to establish libraries in those institutions where there is no library. It is not possible to establish libraries in all primary schools at present. But it is desirable to establish libraries in all primary schools”.¹⁰⁸ In connection to this, the report recommended to establish a thana library (Public Library) to arrange to supply books to the primary school libraries for building reading habit among the school children.¹⁰⁹

It is expected that if the education year in the primary school is extended from class V to VIII under the National Policy of Education 2001, then each primary school must need a library.

The Directorate of Primary Education took a development project to provide training to a primary school teacher on organization of library in 421 primary schools. This programme is to be extended gradually.¹¹⁰

2.3.3.2 Secondary School Library

Actually, education development and expansion in this territory began after the partition of 1947. In the British period, the education authority and community leaders encouraged to establish library in each school. There were some zilla schools which had libraries and the private or

aided schools which were financially solvent maintained libraries, though having no professional librarians.

In 1967 in Pakistan period, there were well over 7000 secondary schools including 155 technical ones. In theory each such school was supposed to have a collection of books which comprise its library.¹¹¹ In East Pakistan, a development project named “Pilot Scheme” was taken by the then East Pakistan Education Extension Centre (now NAEM) for the development of 770 secondary schools including the development of their libraries through providing training, finance, books, etc., under that scheme.¹¹² On the other hand, the Govt. Secondary schools, especially Zilla Schools had a library with a post of librarian in each upto year of 1982.¹¹³ It is a matter of very regret that in 1983 the Enam Committee for reorganization abolished the post of school librarian of govt. schools.¹¹⁴

After independence of Bangladesh, in reviewing the situation of school libraries, The Bangladesh Education Commission 1974 observed:

‘In majority of the schools, the library is scattered, most of the books being in the Head Master’s room and the Teacher’s sitting room... New books are mixed up with heaps of worn-eaten, and out of use... For want of space, books cannot be segregated. To write off obsolete books is not free from complications arising out of rules and procedures... The uncouth appearance of the scattered school library fails to arouse any interest in teachers and pupils’.¹¹⁵

Although that Commission suggested a number of valuable recommendations for establishing improved school library system in the country, but it was not implemented. In 1994, the government created a post of Assistant Librarian¹¹⁶ in the status of Assistant teacher for each

private/aided secondary school, but yet it is not being implemented. At present, there are over 20,000 secondary schools/institutes in the country, having no library in true sense.

2.3.4 The college Library System

Growth of libraries in Bangladesh is directly related to the spread of education, especially higher education. The nineteenth century saw the establishment of modern college libraries in the present territory of Bangladesh. Each of the first-grade colleges such as the Dhaka College (1841), the Chittagong College (1869), the Rajshahi College (1873), the Jagannath College, Dhaka (1884), the Victoria College at Norail (1886), the Braja Mohan College at Barisal (1889), the Edward College at Pabna (1894), the Victoria College at Comilla (1899) had library with good collection.¹¹⁷ The report of the DPI of 1947-48 stated that there were 55 colleges with library in each in East Bengal.¹¹⁸ According to the Pakistan Bibliographical Working Group Directory, there were sixty-seven college libraries in 1957 in East Pakistan. The largest of these libraries had over 30,000 volumes and the smallest three hundred volumes.¹¹⁹ In 1963, there were 78 college libraries.¹²⁰ In 1974, there were 510 intermediate and degree colleges with library in each and by 1978, the number of colleges increased to six hundred. Education authorities claimed that each college had a library....¹²¹

With regard to the state of the college libraries, The Bangladesh Education Commission 1974 observed:

‘The poverty of our college libraries is in essence like that of the school libraries...In some of the newly established colleges, one finds books spread all over the library room....students send in demand slips of

desired books well in advance of the appointed time when they troop up in front of the counter outside.¹²²

In the survey report'1990 of BANBEIS it is observed that by 1987, the number of government colleges increased to 173 including the 19 post-graduate colleges and private/aided colleges increased to 630. All colleges had a library in each.¹²³ This report also indicated that 11.56% govt. colleges had separate library building and remaining were maintained in a part of a college building; the average collection of books were 6926 volumes; 56.03% personnel were professional. On the other hand, 7.42% non govt. colleges had separate library building, the remaining were maintained in part of the college building, average collection of books were 1543 volumes, and only 21.02% colleges had professional personnel.¹²⁴ Now, there are 233 govt. colleges and 981 non-govt. colleges in the country. As per government rules each college has a library. But the situation of college libraries are deplorable. A library expert states that 'more deplorable is the lack of both student and teacher demand and need for libraries and library services in present education system. Unless teaching methods and evaluation of performance of students are changed, the need for good libraries in the academic institutions is not likely to be felt. The present reliance on a single text must be abandoned; the library must be integrated in the education processes.¹²⁵

2.3.5 The University Library System

The University of Dhaka, the first and only public university in this territory of Bangladesh under British rule, was established in 1921. It is the beginning of the growth of academic libraries in the country. At

present it has grown to become the largest academic library of the country.¹²⁶ The growth of university libraries in Bangladesh is shown in the following Table 2.9:

Table 2.9: Growth of Public University Libraries in Bangladesh

Name of University	Period and Year of Inception	Appr. Collection
Dhaka University	British Period (1921)	591000
Rajshahi University	Pakistan Period (1953)	273117
Bangladesh University of Engineering & Technology (BUET)	Pakistan Period (1962)	131540
Bangladesh Agricultural University	Pakistan Period (1961)	174909
Chittagong University	Pakistan Period (1966)	183039
Jahangirnagar University	Pakistan Period (1970)	89733
Islamic University	Independent Bangladesh (1985)	69625
Shah Jalal Science and Technology University	Independent Bangladesh (1987)	37733
Khulna University	Independent Bangladesh (1991)	25917
National University	Independent Bangladesh (1992)	20553
Bangladesh Open University	Independent Bangladesh (1992)	21787
B S Mujib Medical University	Independent Bangladesh (1998)	22364
B S M Rahman Agriculture University	Independent Bangladesh (1998)	12498
Haji Danesh Science and Technology University	Independent Bangladesh (2001)	Data is not available
Moulana Bhashani Science and Technology University	Independent Bangladesh (2001)	“
Patuakhali Science and Technology University	Independent Bangladesh (2001)	“
Sher-e-Bangla Agriculture University	Independent Bangladesh (2001)	“

Contd. of Table 2.9

Name of University	Period and Year of Inception	Appr. Collection
Chittagong University of Engineering and Technology (former BIT)	Independent Bangladesh (July, 2003)	“
Rajshahi University of Engineering and Technology (former BIT)	Independent Bangladesh (July, 2003)	“
Khulna University of Engineering and Technology (former BIT)	Independent Bangladesh (July, 2003)	“
Dhaka University of Engineering and Technology, Gazipur (former BIT)	Independent Bangladesh (July, 2003)	“

Sources: a. Bangladesh. Bangladesh University Grants Commission, Annual Report' 2001, Dhaka, UGC, 2002 and b. The Daily Star, Dhaka, 15 July 2003, p.11

The Dhaka University Library, the Rajshahi University Library, the Chittagong University Library, the Agricultural University Library, the Bangladesh University of Engineering and Technology Library and the Jahangirnagar University Library are no doubt well developed. But still they have many problems.

Besides public universities, there is a number of private universities¹²⁷ in Bangladesh with library provision in each. Among these private universities, few university libraries have good collection and they provide information services with the facilities of information technology. But in the case of some others the condition is deplorable.

Table 2.10: Growth of Private University Libraries in Bangladesh

Name of University	Year of Establishment	Total No of Collection in Library
North South University, Dhaka	1992	18912
University of Sc. and Technology, Chittagong	1992	9040
Independent University Bangladesh, Dhaka	1994	16795
Central Women's University, Dhaka	1993	3600
Darul Ihsan University	1993	18556
International University of Business Agriculture and Technology, Dhaka	1995	12000
International Islamic University Chittagong	1995	14787
Ahsanullah Science and Technology University, Dhaka	1995	6176
American International University, Dhaka	1995	15000
Comilla University	1996	1659
Asian University of Bangladesh, Dhaka	1996	42041
East West University, Dhaka	1996	6592
The University of Asia Pacific	1996	4100
Queens University, Dhaka	1996	3345
Peoples University	1996	11566
The Peoples University of Bangladesh, Dhaka	1996	3094
Dhaka International University	2000	1862

Contd. of Table 2.10

Name of University	Year of Establishment	Total No of Collection in Library
BRAC University, Dhaka	2001	10000
Manarat International University, Dhaka	2001	2136
Vikarunnesa University, Dhaka	2001	1210
Bangladesh University, Dhaka	2001	Data is not available
Leading University	2001	“

Sources: Bangladesh University Grants Commission, Annual Report' 2001, Dhaka, UGC, 2002 (data are not available of the 28 private universities. The Vikarunnesa University, Dhaka is now closed)

Among the public universities only the Dhaka University has only one institute namely Institute of Education and Research (IER) with a library for providing educational information services to the teachers, educational researchers and students of education. Its library has been discussed in Chapter Four. Among the new universities, the Bangladesh Open University has a School of Education but there is no any separate provision of a library for it. The central library maintains limited collection on education. Another new university namely the National University has no teaching and research programme on education, but it has 11 affiliated Government Teachers Training Colleges offering B Ed, and M Ed. degree. The library situation of these affiliated colleges has been also discussed in Chapter Four. Among the recently established established private universities only 2 universities namely Ahsanullah Science and Technology University and Darul Ihsan University have the department of education offering B. Ed. and M. Ed. degree, but unluckily library situation in these universities especially for the dissemination of

educational information resources is very disheartening. Critics state that lack of library standard in terms of manpower, status, budget for university libraries in Bangladesh is the major problem.' In fine^{†ue'} we may agree with the remark of the National Committee in Education Policy 1997 headed by Prof. Shamsul Haq regarding the status of university libraries of Bangladesh that ' university libraries are not enriched with information technologies, inter university library cooperation, LAN and on line service programmes.'¹²⁸

2.3.6 The Special and Research Library System

There are more than one hundred special/research libraries in Bangladesh and these are attached to specialized institutes of the government, autonomous bodies, learned societies, research institutes and non-government organizations. Some of the important special libraries belong to: the Bangladesh Institute of Development Studies (BIDS), the Bangladesh Academy for Rural Development at Comilla, the Bangladesh Rural development Academy at Bogra, the Council of Scientific and Industrial Research, the Bangladesh Bank, the Bangladesh Institutes of Bank Management, the Bangladesh Small and Cottage Industries Corporation, the Bangladesh Secretariat Library, the Bangladesh Public Administration Training Centre at Savar, the Bangladesh Civil Service Academy, Institute of Bangladesh Studies at Rajshahi, the Atomic Energy Commission, The Export Promotion Bureau, ERD Documentation Centre, the Planning Commission, the Ministry of Agriculture, the Ministry of Foreign Affairs, the Bangladesh Jatiyo Sangsad, the Bangla Academy, the Bangladesh National Museum, the Asiatic societies of Bangladesh, Bangladesh Institute of International and the Strategic Studies, the Bangladesh Institute of Management, the Bangladesh College

of Physicians and Surgeons, the Bangladesh Institute of Research and Rehabilitation for Diabetes Endocrine and Metabolic Disorders, the Bangladesh Space Research and Remote Sensing Organization, the National Institute of Local Government, the Islamic Foundation Of Bangladesh, the National Institute of Population Research and Training, the Bangladesh Rural Advancement Committee, etc.¹²⁹ Moreover, there are some libraries, documentation and information centres maintained by foreign governments and regional and international organizations in Bangladesh. Notable libraries here are the Centre for Integrated Rural Development for Asia and Pacific Library, The British Council Library, the Information Resources Center of USIS, the International Centre for Diarrhoeal Disease Research Bangladesh, The World Bank Library, SAARC Agricultural Information Centre, United Nation's Library and the libraries of Embassy of foreign countries, etc.

2.3.7 Information Systems/Networks at Sector and National Level

In Bangladesh like other developed and developing countries, efforts have been taken to establish information systems and networks at sectoral and also at national level for information resource sharing among the LDI centres for meeting the information needs of the user groups. The notable information systems and networks in the country are:

(1) 'National Health Science Information Resource-sharing Network' is a system working in health sector's LDI centres with NHLDC as its national focal point participating in Health Literature, Library and Information Services (HeLLIS); (2) National Agricultural Information System (NAIS) is a network in agricultural sector with AIC as the national focal point participating in AGRIS, (3) Information Network on Rural Development

(INRD) is a network in rural development sub-sector with CIRDAP library located in Dhaka as its principal focal point in rural sub-sector, (4) Development Sciences Information System is a network in the development sector with BIDS library as its national focal point participating in DEVINSA, (5) BANSLINK is a national network in science and technology sector with BANSDOC as its national focal point participating in regional and international networks in the same nature.¹³⁰ (6) Bangladesh Education and Research Network (BERNET) is a network of universities of the country, established under the leadership of Bangladesh University Grants Commission starting its function since April 7, 1999 with UGC's University Resources Centre located at UGC's Office as its National focal point with the objective of resource sharing among the universities of Bangladesh and abroad.¹³¹

The above information systems and networks, especially the use of information technology (an integral component and input of information system/network) in Bangladesh are evaluated and criticized by the information specialists in country and abroad. It is observed that 'lack of technically trained staff, lack of funds, lack of administrative support, lack of software packages, and lack of standard are the major problems in automation of library services in Bangladesh for creating information system/network'.¹³² Actually, information systems/networks in various sectors and sub-sectors in Bangladesh have just started their journey. But with no success so to say mainly due to lack of policy, planning and serious study and research on it.

=====

Notes and References

1. Bangladesh. Ministry of Law, Judicial and Parliamentary Affairs, *The Constitution of the People's Republic of Bangladesh Government* (revised up to 31 December, 1998), Dhaka, GOB, 1999, p. 2
2. Bangladesh. Ministry of Planning, "Bangladesh: A Brief Introduction" in *1980 Statistical Yearbook of Bangladesh*, Dacca, Bangladesh Bureau of Statistics (BBS), 1981, p.3
3. Bangladesh. Ministry of Planning, *1992 Statistical Yearbook of Bangladesh*, 13th ed., Dhaka, BBS, 1993, p.3
4. Ibid.
5. Bangladesh. Ministry of Planning., *Population Census 2001: Preliminary Report*, Dhaka, Bangladesh Bureau of Statistics, 2001, p. 4-7.
6. Bangladesh. Ministry of Planning, *Report of the Labour Force Survey Bangladesh 1999-2000*, Bangladesh Bureau of Statistics, Dhaka, 2002, p.19-30
7. Ibid.
8. Ibid.
9. Bangladesh. Ministry of Planning, *Statistical Pocketbook Bangladesh 99*, Dhaka, BBS, 2000, p.25
10. Bangladesh. Ministry of Planning, *1998 Statistical Yearbook of Bangladesh*, Dhaka, BBS, 1999, p. xxii-xxiii.
11. Bangladesh. Ministry of Finance and Planning, *Bangladesh Aarthanaitik Samikkha*, Dhaka, Finance Division, , 2002, p.46-57.
12. Ibid, p.58-63
13. Sharifa Khatun, *Development of Primary education policy in Bangladesh*, Dhaka, University of Dhaka, 1992, p. 27

14. Bangladesh. Ministry of Law and Parliamentary Affairs, The Constitution of the People's Republic of Bangladesh (as modified up to 30th June, 1988), Dhaka, GOB, 1988, p.13
15. Ibid, Sharifa Khatun, p. 38.
16. Bangladesh. Ministry of Education,. National Education Policy'2000, Dhaka, MOE, 2000, p.1-2
17. Bangladesh. Ministry of Education,. Education System of Bangladesh, Dhaka, BANBEIS, 1992, p.1
18. Ali, M. M., "Bangladesh: System of Education" in the International Encyclopedia of Education, Vol. 1, 2nd 3d. by Torsten Husen et al, U. K. Pergamon, 1994, p. 450-457
19. Ibid, Education System of Bangladesh, 1992, p.1
20. Ibid, Ali, M. M., p. 450-457
21. Ibid.
22. Ibid.
23. Bangladesh. Ministry of Education, Bangladesh National Curriculum and Syllabus Committee Report, Vol. 1. (Primary level), Dacca, MOE, 1976, p.27-36
24. Ibid, Education System of Bangladesh, p.1
25. Ibid, Bangladesh Education in Statistics, 1991, p.225-26
26. Ibid..
27. Ibid.
28. Ibid, p.
29. Ibid, Ali, M. M., p.450-457.
30. Ibid.
31. a. Great Britain. Education in Britain, London, 1996, p.103

- b. The Daily Star, Dhaka, 15 July, 2003, p.11
32. Ibid, Education in Britain, p.104
33. Bangladesh. University Grant Commission Bangladesh, Annual Report-2002, Dhaka, UGC, 2002, p.
34. Ibid.
35. Ibid. Education in Britain
36. Ibid.
37. Ibid.
38. Ibid.
39. Bangladesh. Ministry of Planning,, Bangladesh Education in Statistics, Dhaka, BBS, 1991, p.225
40. Bangladesh. Primary and Mass Education Division, Reaching the Grassroots through NFE: The Bangladesh Experienced, Dhaka, DNFE, 1998, p.2.
41. Ibid.
42. Ibid, Ali, M. M., p. 450-457
43. Bangladesh. Ministry of Education, Secondary Education in Bangladesh: A Sub-Sector Study, DSHE, Dhaka, 1992,p.26
44. Bangladesh. Ministry of Education, Higher Secondary Education Project: UNDP TA Consultancy Support: Eight Research Studies, Vol. One, Dhaka, HSEP 1998, p. Study 6/7
45. Ibid, Education System of Bangladesh, p.2
46. Ibid, Bangladesh Education in Statistics, 1991, p.224
47. Bangladesh. Planning Commission, the Fifth Five The Fifth Five Year Plan 1997-2002, Dhaka, Ministry of Planning, 1997, p. XX-10.
48. Ibid.
49. Ibid, Education System of Bangladesh, p.9.

50. Bangladesh. Ministry of Education, Primary Education in Bangladesh, Dhaka, BANBEIS, 1987, p.5
51. Ibid.
52. Bangladesh. Ministry of Education, "Role of Technical Education by Md. Ziaur Rahman" in the National Education Week 2001 Document, MOE, Dhaka, 2001, p. 100.
53. Ibid, Higher Secondary Education Project, UNDP TA Consultancy Support: Eight Research Studies, Vol. One (Study-3), p. 7.
54. Office Record of the TTC, Dhaka.
55. Office records of the Institute of Education and Research, University of Dhaka and Teachers' Training Colleges
56. Office record of the Regional Resource Centre (RRC), Dhaka of the Bangladesh Open University.
57. Ibid, Ali, M. M., p. 450-457
58. Ibid.
59. Ibid.
60. a. Bangladesh. Ministry of Education,. Review of the Situation of Education and Culture in Bangladesh, MOE, Dhaka, 1983, p.3-4 (Country Document of First Conference of the Ministers of Education and Culture of Non-Aligned and other Developing Countries Held in Pyongyang, Democratic People's Republic of Korea, in September 1983)
b. Bangladesh. Ministry of Education, Statistical Profiles on Education in Bangladesh, Dhaka, BANBEIS, 2002, p.2-4
61. Ibid.
62. Ibid.
63. Bangladesh. Ministry of Education, Higher Secondary Education Project: UNDP TA Consultancy Support: Eight Research Studies, Vol. Two, Dhaka,

- HSEP, 1998, p. Study 5/28
64. Bangladesh. MOE. National Education Week Document, MOE, Dhaka, 2000, p.86-87
 65. Dainik Ittefaq (published in Bangla), Dhaka 13 June, 2003
 66. (a) Bangladesh. Government of the People's Republic of Bangladesh: Table of Organisation and Equipment, Phase II, Department / Directorate/ Subordinate Offices, Dhaka, GOB, 1983, p. X- 267
(b) Bangladesh. Government of the People's Republic of Bangladesh, Table of Organisation and Equipment, Phase III, Public Statutory Corporations (Autonomous/Semi-Autonomous Bodies) and Allied Organisations, Dhaka, GOB, 1984, p.VII- 196
 67. Nurun Nahar, National Library of Bangladesh: Retrospect and Prospect, Dhaka, Bangla Academy, 1992, p. 100
 68. Bangladesh. Ministry of Sports and Culture, Development Scheme of the National Library of Bangladesh: Second Five Year Plan (1980-85), Rev., Dhaka, 1981, p.3.
 69. Bangladesh. Report of the Martial Law Committee on Organization Set Up Phase II (Departments/Directorates and other Organizations under them), Vol. XIV (Sports and Culture Division) Part 3 Chapter II (Directorate of Archives and Libraries), Dhaka, 1983, p.3
 70. Bangladesh. Directorate of Archives and Libraries, Newsletter of Archives and Libraries, January-June, 2001
 71. Ibid.
 72. Office records of the National Library of Bangladesh., Dhaka
 73. Ibid, Nurun Nahar, p. 147-148
 74. Nasiruddin Ahmad, "The National Library of Bangladesh is in the Making" in *The Eastern Librarian*, Volumes 14-15, 1989-90, LAB, Dhaka, p.20

75. Shamsul Haque, Md., "Health Information services in improving the Health of the people of Bangladesh: Resource-sharing of the National Health Library and Documentation Centre" in Proceedings of the National Seminar on Preparing the Libraries and Librarians of Bangladesh for the 21st Century, LAB, Dhaka, c. 1993, p.190-191
76. Hanif Uddin, Md., Library automation: A study of the AIC, BANSDOC and the National Libraries of Bangladesh, Bangladesh Journal of Library and Information Science, Vol. 1, No.1, December 1998, University of Dhaka, Dhaka, p. 71
77. Ibid.
78. Ibid.
79. Office records.
80. Ibid.
81. Bangladesh. BANSDOC, Brochure, Dhaka, Bangladesh National Scientific and Technical Documentation Centre (BANSDOC), Dhaka, n.d.
82. Bangladesh. BANSDOC, Annual Report of Bangladesh National Scientific and Technical Documentation Centre (BANSDOC) 1994-95, Dhaka, BANSDOC, 1995, p.1-3
83. Ibid.
84. Ibid.
85. Ibid. Hanif Uddin, Md, p. 70
86. Mannan, S. M., The availability of automation facilities for networking and resource sharing in Bangladesh: A study on some selected libraries, Bangladesh Journal of Library and Information Science, Vol.1, No.1, December 1998, p.101-118
87. Bangladesh. Bangladesh Agricultural Research Council, Agricultural Information Centre, "National Agricultural Information System", The Eastern Librarian, Vol. 17, No. 1 and 2, 1992, p.15-30

88. Ibid.
89. Ibid.
90. Ibid.
91. Ibid.
92. Ibid. Hanif Uddin, Md., p. 67
93. Ahmed Mostaque, Information services to agricultural scientists: role of the Agricultural Information Centre. Paper presented at the Regional Workshop/Training on "Library, Documentation, Publication and Audio-visual" organised by AIC, BARC, June 14-18, 1998
94. Syed, M A, Public libraries in East Pakistan: Yesterday and Today, Dhaka, Green Book House Limited, 1968, p. 1
95. Badiur Rahman, A F M, " Public Libraries in Bangladesh by the Year 2000 A D" in National Seminar on Preparing the Libraries and Librarians of Bangladesh for the 21st Century Proceeding, LAB, Dhaka, c.1993, p. 171, quoted from Bangladesh Book Centre, Pathagarpunji, 1991:1.
96. Ibid. Syed, M A,
97. Ibid, Syed, M A, p. 83-90
98. Ibid, p. 90
99. Ibid, p. 27.
100. Ibid, Badiur Rahman, A F M, p. 174
101. Ibid.
102. Office records of the Department of Public Libraries of Bangladesh
103. "Museums and Libraries" in Independent Year Book 99 edited by Mahbubul Alam , Beximco Media Ltd., Dhaka, p.113
104. National Seminar on Development of a Grameen Library System for Providing Information Support to the Rural People of Bangladesh (p.19), 2 May, 1997, Dhamrai, Dhaka organised by the Library Association of

Bangladesh in Collaboration with BANSDOC and Dhamrai Thana Administration.

105. (a) Bangladesh. Planning Commission, Fourth Five Year Plan 1990-95, Ministry of Planning, Dhaka, 1990
(b) Ibid, Fifth Five Year Plan 1997-2002, p.XXIII-1—XXIII-12.
106. Office records of the Department of Public Libraries of Bangladesh It is observed from the records that DPL's all libraries are located in urban areas (only at divisional and district towns, not at Upazila or union or village).
107. Ibid, Badiur Rahman, A F M, p. 176.
108. Ibid, National Committee on Education Policy Report 1997, p. 173-177.
109. Ibid.
110. (a) Bangladesh. Planning Commission, Fourth Five Year Plan 1990-95, Dhaka, Ministry of Planning, 1990
111. Siddiq Khan, Muhammad, "Libraries in Pakistan" in Complete Works of Muhammad Siddiq Khan, , Vol. 2, edited by Mohammad Miniruzzaman, Dhaka, Bangla Academy, 1996, p. 198-199.
112. Pakistan. Government of Pakistan, Scheme for Development of Pilot Secondary Schools in East Pakistan (with the assistance of the University of Chicago Consultants and grant from Ford Foundation), Karachi, Government of Pakistan, 1958-61, p.10-11
113. Bangladesh. Ministry of Education,. Statistical Profile of Government Secondary Schools of Bangladesh' 1983, Dhaka, BANBEIS, 1986, p.5.
114. Bangladesh. Chief Martial Law Administrator's Secretariat. The Report of the Martial Law Committee on Organizational Set up of the Directorate of Secondary and Higher education, Ministry of Education, Notification No. 7002/1/Civ-1, dated Dhaka, the 8th October 1983
115. Bangladesh. Ministry of Education, "Library (Chapter 30)" in Bangladesh Education Commission Report 1974 (in Bengali), Dhaka, 1974, p. 232-247

116. Bangladesh. MOE. No. Sec: 11/Misc.-5/94/ (Part-6)/394/Date: 24 October 1995 in Education Development Manual, Dhaka, MOE, 1995 , p.110-132.
117. Ibid, "Museums and Libraries", p.111.
118. East Pakistan. Ministry of Education, Culture, Religious Affairs, Report on Public Instruction in East Bengal for the year 1947-48, Dhaka, East Bengal Government Press, 1951, p. 20-23.
119. Rasul, MA, School and College Libraries in Bangladesh (mimeographed-a lecture note), Dhaka, 1997, 13p.
120. Ibid.
121. Ibid.
122. Bangladesh. Ministry of Education, "Library (Chapter XXX)" in Bangladesh Education Commission Report 1974 (in Bengali), Dhaka, MOE, 1974, p. 231-248
123. Bangladesh. Ministry of Education, College Library Survey, Dhaka, BANBEIS, 1990, p. 1-31
124. Ibid.
125. Ibid. Rasul, MA.
126. Ibid, "Museums and Libraries", p.112.
127. a. Bangladesh. Ministry of Education, National Education Survey (Post-Primary)- 1999: Final Report, Dhaka, BANBEIS, p.130 (actually published in 2001)
b. Patwary, Mamtajuddin, Bangladesher Bay-sharkari Shikhyar Samasya: Where is Solution? in "the Danik Bhorer Kagaj, Dhaka, 3 August, 2003.
128. a. Matiur Rahman, "The Status of Responsibilities of the University Libraries in Bangladesh" in the proceedings of National Seminar on "Preparing the Libraries and Librarians of Bangladesh for the 21st Century" organised by The Library Association of Bangladesh, Dhaka, 1993, p.120-127

- b. Dewan, Abdul Gafur, “ Development of Standards for university Libraries in Bangladesh” in *The Eastern Librarian*, Vol.15, No. 1 &2, 1993.
129. Ibid, “Museums and Libraries”, p. 113-114
130. Ibid, Mannan, S. M., p.101-118
131. Bangladesh. University Grants Commission, Annual Report 2001, Dhaka, UGC, 2002, p. 32-33
132. Zabeed Ahmed, S. M., Library automation in Bangladesh: Problems and Prospects, *Bangladesh Journal of Library and Information science*, Vol.1, No. 1, Dec1998, p.39-46

Chapter Three

Chapter Three

Development of National Information System for Education: Concepts

3.0 Before studying the educational information system, an integral component of the national education of any country, we should know the concepts relating to the study and also present situation of the society. Each and every sovereign and independent nation-state is not isolated from each other, they are interdependent and interrelated in sharing the necessities for human beings and they are influenced by each other. It is also true in the case of information and knowledge resources.

Hence, in this chapter the researcher has attempted to make an analysis of the meaning of information, education, importance of information, types of educational information and users, present nature of the society, and lastly the different conceptual aspects of information system for the development of National Educational Information system (NATEIS) of Bangladesh.

3.1 Information and Education

3.1.1 Meaning of Information

Actually it is not so easy to answer the question "What is information"? Because the divergent opinions about it can be related to different conceptions of the phenomenon. The term '*information*' gradually became complex as specialists and scholars interpreted it in different ways in different contexts.

In Medieval Latin, 'information' was used in the sense of image, instruction, and formation while in the classic French the word 'information' was used in the singular term 'Use information' to mean processing and collecting facts in legal investigation.¹

L. Brillioium stated that '*Information* is a raw material and consists of more collection of data'.² Here, Brillioium has treated information as data.

In defining information, American National Standard Institute (ANSI) stresses on human interpretation and the representation of data and according to it, '*Information* is the meaning that a man assigns to data by means of the known conventions used in their representation.'³ Here, ANSI has treated information as data using for representation. This definition is wider than that of Brillioium.

J. Farradane defined *Information* as, "any physical form of representation of knowledge or of a particular thought used for communication".⁴ He used information as knowledge or thought in his definition.

Claude E. Shannon et al. defined *information* as 'a selection from a set of available messages, a selection which reduces uncertainty. Information is that which relieves uncertainty'.⁵ Information according to him relieves uncertainty. Here, the author instead of defining the nature of information stated its importance.

According to Dais and Olson and Richard O. Mason *information* is "data that has been processed into a form that is meaningful to the recipient (the information taker), and is of real perceived value in current or prospective decision".⁶ In this definition they treated information as processed data with a definite meaning.

Prof. Hamid stated in common and everyday usage, “information is associated with a human situation, with a communication medium, with something that can be added and accumulated, with something factual, valuable, useful, useless, or with knowledge. Thus it is said that information is good, and more information is better, that information is power...”⁷ This definition is very wide. He has treated information as useful and valuable thing as communication medium, fact, knowledge, etc. The most important point in this definition is that here information is treated as power.

According to the Random House Dictionary of English Language the word ‘information’ has different meanings in different context. Information according to that Dictionary:

“is (i) Knowledge communicated or received concerning a particular fact or circumstances; (ii) Any knowledge gained through communication, research and instruction, (iii) The act or fact of informing; (iv) An Office or employee for distributing information to the public; (v) In communication theory (information is) an individualization of the number of possible choices of masses, expressible as the value of some monotonic function of the number of choices, usually log to the base; (vi) In computer technology (it refers) to any data that can be coded for processing by a computer (for creating information) or similar...”⁸

It is observed that academicians have defined information in different ways in different contexts. Considering all definitions it may be stated that-

Information is a resource consisting of ideas, opinions, facts, figures, forms, formulas, principles, theories of a part/unit or whole of knowledge

generated or created by experiences, experiments, observations, analysis and synthesis for the use of creators themselves or for dissemination to the others in written or printed or non-printed form by manual processes or the devices of communication and information technology.

3.1.2 Meaning of Education

Education, as a field of study, that is, as a “branch of knowledge, is the science, which has to do with the principles and practices of teaching and learning. It is the name given to that curriculum in institutions of higher education (i.e. Teachers’ college/institution/department/institute of a University) which consists of professional courses for the preparation of teachers, supervisors and managers and administrations. Included in these courses are philosophy and history of education (that is as a social process), psychology as applied to learning and teaching, curriculum, method of teaching, administration, and supervision”.⁹

Professor Stephen M. Fain stated that *education* is the “process by which people acquire knowledge, skills, habits, values or attitudes. The word *education* is also used to describe the results of the educational process”.¹⁰

According to the Dictionary of Education prepared by Carter V. Good, Education is “(1) the aggregate of all the process by means of which a person develops abilities, attitudes, and other forms of behaviour of positive value in the society in which he lives; (2) the social process by which people are subjected to the influence of a selected and controlled environment (especially that of the school) so that they may attain social competence, and optimum individual development; (3) ordinarily, a general term for the so-called “technical” or more scientifically classified

professional courses offered in higher institutions for the preparation of teachers and relating directly to educational psychology, philosophy, and history of education, curriculum, special and general methods, instruction, administration, supervision; broadly the total pattern of preparation, formal and informal, that results in the professional growth of teachers; (4) the art of making available to each generation the organised knowledge of the past".¹¹ It is a very comprehensive definition of education. It includes almost all the essential points related to the meaning of education.

Considering above definition, it may be stated that-

Education is a discipline or subject field of social process which deals with learning of citizens, principles, theories, methods, techniques of teaching-learning process, formulation of policy and planning, curriculum and materials development, teacher preparation, research, administration, management, supervision, etc. at all levels of instruction.

Educational Information

UNESCO defines educational information as 'generation and communication of ideas, opinions, facts, figures, etc, relating to improvement of education (in its organization, structures, content, methods, and evaluation) among those concerned at the sub-national, national levels'.¹²

In the light of the definitions of information and education it may be stated that educational information is a resource consisting of ideas, opinions, theories, principles, facts and figures etc, relating to the improvement of the education process which deals with education policy,

planning, decision-making, teacher education, evaluation, educational research, and other aspects of educational administration and management at institutional, sub-national, national, regional and international levels.

3.2 Information: Importance and Use in Education

3.2.1 Importance of Information

In stating the importance of information in decision-making and also the relationship between information life cycle and decision-making, Richard O. Mason et al., stated that “Information generates value through the decision situations it creates and the decision it informs”.¹³ In pointing out the value/ power of information B.S. Bhutola stated that ‘information, its various facets and functions constitute the living spirit of a highly integrated and interactive modern world system. The meaning and purpose of a scientific discovery and technological breakthrough for mastering both time and space is justified only by efficient and free flow and accessibility to information. ... At times it occupies its position over and above all the other systems and exercises its power of control and regulates the whole’.¹⁴

According to the Intergovernmental Conference on the National Information System organized by UNESCO in 1974: “information is an essential part of a nation’s resources and access to it is one of the basic human rights”.¹⁵ The New International Economic and Social Order at it’s Sixth Special Session of the U. N. General Assembly stated that “access to information must be a major feature in the improvement of quality of life for each individual as much as he needs...”¹⁶

Terry Lucey stated that ‘information generally improves knowledge. In addition to this information assists the management of organisation in the reduction of uncertainty (planning and decision making) and information also functions as an aid to monitoring and control of operation, as a means of communication about development, as a memory supplement, and as a tool to simplification by reducing uncertainty and enhancing understanding.’¹⁷

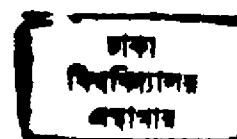
The social role of information has been visualised by the Mac Bride Commission on New International Information Order (NILO) in terms of three objectives: “*Socialization*, that is, the provision of a common fund of knowledge which would enable people to function as effective members of the society in which they live and which fosters social cohesion and awareness, thereby permitting active involvement in public life. *Motivation*, by promoting the immediate and ultimate aims of each society and the stimulation of personal desires and aspirations; the fostering of the individual or community activities geared to the pursuit of agreed aims; and *Integration*, providing all persons, groups and nations access to the variety of messages which they need in order to know and understand and appreciate each others’ living conditions, viewpoints and aspirations”.¹⁸

According to Richard O. Mason and et al., “information is the fuel of change. All Human beings use information to make decisions in their daily lives, and they also rely on it to take flights of fancy away from their day-to-day affairs. The people who handle information—managers, reporters, entertainers, system designers, analysts, technologists, white-collar workers of all types and, increasingly, blue-collar workers—are both the sources and users of this all-important fuel that is now necessary

to power the engines of change. In the process, they have become vital partners in the processes by which individuals and societies are transformed. All of this, of course, is helped along by the use of information technologies—tools for capturing, storing, processing, moving, and disseminating information. Indeed, the entire history of civilization can be outlined as a story of the ever increasing use of information enabled by innovations in information—handling technologies, a story we call “the ascent of information”.¹⁹

491337

Information creates new information and knowledge. In this connection, Viswanathan stated that, “the fundamental aim and function of any research is to find solutions to problems confronted in the course of human activity in variety of situations and in the midst of available data and information on accomplished work and output. Questions are raised and answers are found, but the quality and quantity of answers to those problems are new information generation. This seems to be an unending cycle, because the human mind is as restless as the restless atom, always on the forward march, engaged in ceaseless thinking and producing a prolific output of information”.²⁰ This statement indicates that existing stock of information and knowledge resources create new information and knowledge and it is restlessly continued. In this connection, Bhattacharya stated that “resources are needed for survival and development”. As a resource, or more specifically as an energy resource, information is directly related to the motion of ‘National development’. He further stated that the resources include manual, mechanical, financial, material and intellectual resources. Intellectual resources may be viewed as consisting of: (a).the intellectual of the people of the nation, and (b).information. These two resources are intimately related to each other.



Intellect uses information to create new information, which in turn, enriches the store of existing information; and the cycle goes on and on'.²¹

In stating the importance of information in national development, Pauline Atherton stated that 'the manufacture of goods depends on knowledge being produced, acquired, promoted, and applied. Information services form an integral part of this process. Libraries, documentation centers, and liaison information officers are essential information services if plans for economic development are to progress'.²²

Today information is considered as an essential phenomenon for the around development of our society. It provides tremendous opportunities to accelerate the pace of development both at national and international levels. Economists treat it "as critical a resource to man as food, water, light and heat..." According to Howken, information is substituted to some degree for time, labour and energy in the production of goods and services'.²³ Eminent economist and Nobel Laureate Kenneth Arrow opined that "the rich get higher returns from investment particularly in terms of capital gains because of the access to information". He further said that increasing "uncertainty" in all spheres of human activities has enhanced dependence on information for decision-making".²⁴ It is true that information plays a very important role in "overall development of a nation. Especially in a welfare state the success of its benefit system largely depends upon the flow of information. As the rational utilization of natural and human resources, scientific and technological development as well as agricultural and industrial progress and the advance culture and social welfare demand increasingly efficient data handling and access to the most diversified and comprehensive information".²⁵

About the importance of information it is remarked that “in the present day world, information is regarded as a major resource for any development activity. With the liberalisation of economy and consequent globalization, the demand for information is increasing rapidly. Information is now recognized as a key component of strategic planning and decision making. There is also a welcome change in the attitude of the information user community. Now, the users want information in the shortest possible time and are more than willing to pay for it. The advent of digital computers and modern telecommunication technologies has made possible the needed information available instantaneously. Most countries are now modernizing/setting up libraries and information centers with access to on-line as well as CD-ROM databases. Internet and World Wide Web access are now growing at a rapid pace”.²⁶

About the importance of information it may be stated that in the present day world information is regarded as international currency and a major resource for all development activities. It contributes to human progress. Information is needed by researchers ‘to generate knowledge. Policy-makers to formulate appropriate policy, decision-makers to arrive at appropriate decisions, administrators to direct, organize and manage programmers and planners to plan effectively. Scientific and technological information is further needed by entrepreneurs to make objective consideration and choice of optimum technology’.²⁷

From the discussion and analysis on importance of information made above, it may be said that information resource is needed in decision-making, planning, management, administration, teaching and learning, research in the field of education like other field of activities.

3.2.2 Users of Information Resources in Education

In mentioning the information users' groups/ actors in education, George Psacharopoulos remarked that 'education is an extremely complicated process. A host of actors is involved at a variety of levels in education system pursuing different objectives. The analysis of the interactions between these actors spans several disciplines: education, sociology, economics and politics. He further opined that all of practitioners in education system seek information regarding the solution of the problems in education'.²⁸

Considering the widely varying range of functions of different groups of personnel treated as users of information resources in education system of a nation-state, some of the users studies had distinguished three categories of education information users, such as: Educational Administrators, Educational Researchers, and Teachers. In addition to these categories of education information users, some of the U. K. studies treated the Teachers' Educators as a distinct category of education information users'.²⁹

The use of information within the education system, information users and needs requirements are determined in terms of more analysis of functions of educational personnel. By a hierarchic view of education personnel functioning in an education system, the categories of educational information users groups are classified as: *Policy-makers*- who have the responsibility of deciding and stating goals- the broad directions that an educational enterprise should take; *Administrators* who manage the institutions and programmes with the aid of planning mechanisms so that they also have the role of planners; Teachers who

carry out the direct task of working with students; the *Students*, for whom the entire system is, finally, arranged; the specialized group of teacher educators; research workers, with functions as wide as the term 'research'; the *Parents* whose involvement in the educational progress of their children is very real; and finally, the public- the entire body of citizens who have so much at stake in the system of education'.³⁰

S. L. Verma states that the important groups of users of an education information system are distinguishable according to the kind of activity in which they are engaged³¹

- Planners and administrators in education
- Teachers at different levels
- Teachers-educators
- Educational researchers
- Librarians/documentalists

The users of educational information resources system of ERIC are³²:

- Teachers
- Students
- Principals
- Parents
- Administrators
- School Board Members
- Researchers
- Professors
- Librarian and information specialists
- Journalists
- School psychologists, counselors, and other education professionals'.

3.3 Nature of the Present Society

১৮

The society is not a constant phenomena, it is continuously changing from the beginning of the world civilization. On the transition of society, Karan Singh stated that there have been many transitions in human history “from the caves to the forests, and then from forests to pastoral and agricultural and pre-industrial, industrial and post-industrial civilizations, but this time, there is a different quality in the transition. Impelled by science and technology, the world is moving irrevocably into a global society, whether it is politics or economics, trade or industry, commerce or culture, food habits or music, in whatever sphere you look this process of globalization is at work”.³³

On changing the society, Bell, an eminent sociologist has identified “three major technological breakthroughs that have had profound impact in social, political, and economic aspects of human civilization. These three "revolutions" - the agricultural, (1000BC to 1800), the industrial (1800 to 1950), and the information (1960 to the present)- are now being discussed as the major stages in technological history. Each period was or is marked by significant changes in the definition of property and work. In the agricultural period, 'Land' was the most important measure of property and work. 'Capital', in the form of machinery and money, characterized the period of industrial growth. Today, 'Information' is emerging as the dominant power factor in the information or "Post-industrial age".³⁴ On the multi-dimensional changes and development of the society since ancient to present time, we found that human being living in different nation states, were/are fond of using labels to characterize a significant aspect, event, or emotion for a given period of the world civilization. Especially, the academicians in different

disciplines of various nations labeled the passed centuries by different names in the context of the changing social, economic, political, cultural, and also science and technological aspects. Some examples of labels are: in a context, considering the social changes academicians remarked about the ancient society as "The Dark Age", "The Stone Age".³⁵ In the context of historic period in social changes, academicians used to label the society as "The Pre-historic Age", "The Historic Age", "The Modern Age", and "The Post Modern Age". In another context keeping the view of socio-economic development, examples of levels for social changes by the economists are, "The Agricultural Ages", "The Industrial Ages," and "The Post-industrial Ages ". Academicians have labeled the present society/age as "The Information Age", "The System Age", and "The Computer Age".³⁶ In analyzing the nature, pattern, character of this society, different commentators increasingly now talk about information as "a defining feature of the modern world"; "we have entered into information age"; "we have moved into a global information economy", etc. Many writers even go so far as to identify an entirely new phenomenon, "information societies," examples of which are found in the literature of the United States, Britain, Japan, and Germany'.³⁷ So, not only Bell's but also other academicians label the present society as information society.

Obviously, this age must be labeled as the "Information Age". Because the system approach and the computer are used as the tools for managing information resources. Hence, 'whether those labels discussed above are fads or of historical importance is not known nor necessarily important to know at this time. Because, the long talked about growth of the 'Information explosion and communication and information technology

are today's realities in our social and economic institutions'.³⁸ On the other hand, in measuring the proliferation of knowledge, i.e. the world information and knowledge generation and its stock, National Education Association of United States stated that "never before have the dynamic forces of change spun with such incredible speed, in nearly 2,000 years, since the birth of Christ, there has been first a very slow and then a very rapidly accelerating growth in the accumulation of knowledge. If this accumulation is plotted on a time line, beginning with the birth of Christ, it is estimated that the first doubling of knowledge occurred in 1750, the second in 1900, the third in 1950, and the fourth only ten years later 1960".³⁹

Undoubtedly, the human civilization is now moving to an age, which is characterized as an 'Information Age'. This transformation of the society is the outcome of massive growth of information at all levels. However, 'this change from 'Agricultural-Society' to the 'Industrial Society', leading to 'The Information Society' is not vertical rather it is quite possible for a country to be in various stages of agricultural, industrial, and information societies simultaneously'.⁴⁰ However, 'it is generally accepted that all nations regardless of levels of development are already in the midst of 'Information Age' internationally if not globally. Our all activities that deal with science and technology, society and culture, economy and polity, religion and philosophy, arts and sports etc., have increasingly become concerned and involved with information at all stages of development. The various terminology like information revolution /information explosion, information super highway, information system, information network, information and communication technology etc., are being frequently used as the attributes of information society'.⁴¹

It can be easily said in the language of Richard O. Mason et al. that “we live today in an information society, one in which most people live and work in the context of information and information technology. This is the culmination of an evolution of humankind that begun in antiquity and has continued to the present time. The development of knowledge and information has been a critical factor in the growth and development of an information based society over time as has created an “information era”.⁴²

3.4 Need for Continuous Innovation for Education Reform

According to modernization theory Dr. Leonard de la Cruz, Head of ACEID of PROAP, UNESCO in an article on ‘the Future of Education in Asia’ said that “there is a direct relationship between education and socioeconomic development... Education brings about a change in outlook in the individual which promotes productivity and work efficiency”.⁴³ So, the important feature of information society is its emphasis on education. A recent report on information society in Europe has emphasized the need to create a learning society.⁴⁴ The report of UNESCO of the International Commission on Education for the Twenty First Century (Learning : The Treasure Within) underlines the impact of the information society on education and studies some of its consequences.⁴⁵

The evolution of information society is very complex. The development of science and technology, explosion of information, knowledge, communication and information technology have opened multi-dimensional opportunities to human society. On the other hand, these developments have also created many problems and challenges to the society, especially to all developing countries of the Asia-Pacific region

to provide access to education for all citizens and also to maintain international standard of education at all levels. In this connection, Prof Raja Roy Singh of India remarked that 'the present society has brought positive and negative impact on education. Among positive ones is information/knowledge explosion, the development quest of the nations for better quality of life, a resurgence of human spirit for ending marginalizing; emerging interdependent world. On the negative side are problems of mortal danger to mankind such as: science and technology applied to destructive purposes; environmental degradation; population growth, and a crisis of human value. These are challenges to the people of Asia and Pacific regions.⁴⁶

In analyzing the present situation of education in the developing country, the country paper of Bangladesh in the World Conference on Higher Education in Paris stated that "in most of the developing world the gloomy situation of education sector is apparent. There are disappearance of values and social mores, lack of respect for law, an alarming increase in crimes and violence, pressure of population, unemployment, illiteracy, poverty, hunger, natural calamity, and man-made disaster which help decrease substantially the socio-economic progress of these countries. These countries are passing through crisis in education which is deepening day by day with progressive deterioration in the quality, content and purpose of education. The management of education is fast deteriorating and has resulted in system loss and wastage of resources".⁴⁷

In answering to the problems and challenges in education in information society, international organizations for education, education expert groups have made various recommendation and opinions to reforming education for each and every nation state. In this connection the Nepalese

education expert Prof. T.M. Sakuya opined that 'the future trend in education systems, policy and planning will be determined by the leading variable of knowledge explosion with other variables.'⁴⁸

The Delors Commission enunciated three directions for educational reform. These are: 'holistic approach to education reform; encompassing all the sectors from basic education to university study; re-defining roles and professional requirements of teachers; the need for international cooperation with the concept of education for a global society'.⁴⁹

According to Kevin Spears education in changing society is "closely linked to knowledge acquisition. But already there are indications that in the next 50 years, schools and universities will change more and more drastically, than they have since they assumed their present form from more than 3000 years ago when they reorganized themselves around the printed book. What will force these changes is, in part, the demands of a knowledge-based society in which organized learning must become a lifelong process for knowledge workers; in part new theory about how human beings learn; and, of course, the new technology computers and televisions via information networks".⁵⁰ He further added that 'to think of education in a time perspective is to think in terms of change, and change implies choices'.⁵¹

After analysing of the problems and challenges resulting from the direct or indirect impact of information and knowledge explosion and information technology, educational experts opined that "the mission of education will be both arduous and glorious. Whoever grasps 21st century education will hold the initiative in that epoch. The concept of education will be further renewed. Education will be lifelong; it will be something to which society as a whole pays attention; the structure of education will

become varied and move flexible, education forming a crisscross network embracing society in its totality; education will become the strategic focal point in promoting the economic and social development of various countries so that they will be able to take their place among the nations of the world. Exchange, cooperation and emulation in education amongst countries are constantly increasing daily and, at the same time, is becoming an indispensable part of educational development and reform in all countries”.⁵²

In expressing the view on future education in the changing society especially in case of Bangladesh, Professor Iqbal Aziz Muttaqi remarked that “the concept of education is vast and encompasses many social and political aspects at the national and international level. Further he stated that ‘Growth of Knowledge and Information is one of the big challenges in the case of education reform of any country’.⁵³ In explaining the ‘growth of knowledge and information’, he also opined that “Knowledge and information are the very stuff of education and learning on which rests the cultural and scientific advancement of societies. The growth of knowledge creates twofold problems: How to ensure that advances in knowledge are continuously incorporated into school curricula and How knowledge could be synthesized bringing together the findings from various disciplines in a form which is pedagogically viable for pupils and easily communicable to the wider public”.⁵⁴

To face the challenges of new society an education expert recommended that “While planning for higher education in 21st century the epoch making scientific and technological inventions and innovations of our time should be taken into consideration as a challenge and to keep pace with the explosion of knowledge in science and technology and social

sciences the universities of the developed world have undergone radical transformation. But that has not occurred in the developing countries like Bangladesh.⁵⁵

In the context of Bangladesh in the 21st century it is commented that education should be at—“universal literacy in all its aspects (i.e., conventional literacy, numeracy, scientific and technological literacy, etc.), which will increase every citizen’s capability and empowerment to use intellectual and moral tools for analytical and decision-making process ...”.⁵⁶

The Curriculum is the vehicle of education. In this connection, Dr. N. Venkataiah opined that “curriculum refers to all activities and experiences that we plan and organize for students inside and outside educational institutions for realizing the aims of education. The totality of learning experiences makes the live curriculum. The curriculum being the main instrument of education, it can never be static. As the frontiers of knowledge expand with time, the curriculum should be updated, restructured in such a way that it will enhance the quality and standard of education. Thus innovations in curriculum become inevitable, with the changes that take place in the present society”.⁵⁷ Dr. Prem Kirpal expressed that the ‘global prospects of education for the 21st century already touch all continents and societies, and will surely acquire more relevance and meaning through the decade ahead. Educational ideas and practices are increasingly shared by peoples and nations at different levels of development and inheriting diverse traditions. New dimensions of time and space projected by the march of science and technological developments, especially the revolution of information explosion and communication, have brought peoples closer to each other in thought,

action and aspirations. The interdependence of nations goes far beyond the structures of economy and communications. The human predicament is shared by all, and both survival and development depend upon co-operations among peoples and nations. International education is seen more and more as the best instrument of building that moral and human solidarity without which mankind cannot solve the emerging global problems and man cannot cope with problems of living together happily and creatively. The education of humanity for the 21st century will evolve in the context of global problems that are already with us...'.⁵⁸

In pointing out the importance of educational research, educational experts also opined that 'in rethinking education to cope with rapid changes at the threshold starting of the twenty -first century, innovation, technology; and research are indispensable tools of education. Failure to innovate by and large means repeating yesterday's educational programs and strategies tomorrow, which will only further jeopardize education's reputation as contributor to development efforts. Educational innovations are imperative and would no doubt be effective if they are research based and imbued with technology of education.'⁵⁹

In stating the today's education system, Judith Elkin stated 'education and the information age will support and reinforce each other. The information age will transform education, at all levels and for all ages. Education in turn will equip people with the necessary skills to profit from the information age...Information and Communication Technology (ICT) are learning tools, just like the blackboard or textbook. But they bring important advantages that will enhance the quality of education".⁶⁰

To meet the growing needs, to solve the problems and to face the challenges in the new millennium every country absolutely needs major reformation of national education system. Reformation of national education means formulation of proper education policy, planning, decision-making and creation of educational research infrastructure for problem-solving at all levels of education for its development. All these reforms are possible if the country has a sound educational information support system which is now treated as an integral component of education system of each and every nation state. In this connection Juian Carlos Tedesco remarked that “the development of systems of educational management is the strengthening of information system in education”.⁶¹ For strengthening the educational information system in the world today, Tedesco further opined that ‘...the use of communication and information technology in the management of educational information resources and political commitment of the country can strengthen the information system. In using CIT for controlling information in the present world, WB mentioned that ‘technology has revolutionized the ability to deliver education as well as dissemination of information resources in ways that were not previously possible’.⁶²

The above discussion and analysis of impact of information on education in the present world clearly indicates that though the information explosion has brought a little problem in management of education, but it has created a lot of opportunities.

3.5 System's Concepts

In this part of this chapter, the researcher has attempted to analyse the different conceptual aspects of information system for 'National Educational Information system (NATEIS)' of Bangladesh.

In the present world the human beings are now highly organised than ever before and for this, the present society is called collective society.⁶³ Most of the human activities are carried out by organisations. So, any programme or creation of service or product needs organisational efforts. The development of organisations is the 'principal mechanism by which, in a highly differentiated society, it is possible to 'get things done,' to achieve goals beyond the reach of the individual'. Hence, an organisation is collectively oriented to the pursuit of relatively specific goals and exhibiting a relatively and highly formalised social structure'.⁶⁴ It is also true in case of creating information service and system that needs an organizational effort. But, an organisation cannot run without management system. Management system is the 'method by which an organization plans, operates, and controls its activities and utilizes the resources of money, people, equipment, materials, and information in order to meet its goals and objectives'.⁶⁵ This concept of management system is also applicable in running the LDI services and information systems' organization.

3.5.1 System: Concepts and Elements

Concepts of a System

In our practical life we constantly encounter and participate in numerous forms of system. We take part in numerous social, industrial, economic,

political, religious, and educational systems. Each system, no matter how simple or complex, has its own relevant technology, strategies, and structures. Universities are systems with specific means for distributing education. While hospitals are systems for deliberating health care⁶⁶; LDI centers and information systems' organizations are systems for disseminating information.

According to August W. Smith a system is "simply a set of entities that interact".⁶⁷ Elias M. Awad defined system as a "regular or orderly arrangement of components or parts in a connected and interrelated series or whole; a series or group of components necessary to some operation".⁶⁸ This definition is better than the first one. Teery Lucey states that a system is an "assembly of parts where: the parts or components are connected together in an organized way; the parts or components are affected by being in the system; the assembly does something; the assembly has been identified by a person as being of special interest".⁶⁹ A system is a "set of interrelated elements and the systems presented share a common model of action: receiving input from their environment, processing the input, and producing output back to their environment".⁷⁰ The analysis of above definitions shows that the definition given by Elias M. Awad is very meaningful and comprehensive. Thus, it can be said that a system is an orderly arrangement of components necessary to some operation. This process occurs so commonly in LDI Centres and Information Organization.

3.5.2 Elements/Components of a System

A system has a number of basic elements.⁷¹ The major elements are: Goals and purposes: Any organizational system has a long-term purpose

(s) and a short-term goal (s) that can be explicit or implicit.⁷² Inputs: A system accepts input resources. Typically, the input resources of organizations are capital, personnel, information, energy, materials, inventories, machinery, and the like.⁷³ Processes and Transformations⁷⁴: The system's components perform the processing (transforming) of inputs into outputs. A process is an activity, or procedure, in which components consume input resources to produce some output.⁷⁵ Output: A system produces outputs that are used to achieve its purpose⁷⁶ and other elements are Feedback, Boundary and Environment, Constraints, Component of System, Structure and Hierarchy.

About the system's elements System Specialists opined that a system has "a set of interdependent components and the components are dynamically linked. That is to say, each one affects and is affected by other components. The system approach is concerned with a holistic entity, but does not neglect the components of the entity. It recognizes the activities of the components while simultaneously considering the activity of the whole system that contains them".⁷⁷ Further, management specialists observed that with the systems "we are concerned with individual components, but we emphasize their role in the system rather than their role as individual entities. Every organization is composed of subsystems. The subsystems interact and contribute to the common purposes of the organization. The effectiveness of these subsystems considered collectively as a system may be greater than the sum of the effectiveness of each subsystem considered separately. This phenomenon is labeled *synergism*. According to Aristotle the synergistic effect is "the whole is greater than the sum of its parts".⁷⁸

3.6 Analysis of Library, Documentation and Information Services Organization in Terms of System Concepts

We recognise the LDI centre or information system organization as a social organization. It receives inputs from various sources, then processes these inputs into output for the organizational needs and also society. So, we can easily say that all the attributes of any social organizations stated above are present in information systems' organizations.

In pointing out the elements of LDI centre or information system organizations, M M Kashyap observed that 'when we apply systems approach to examine, manage or design a library system we have to be concerned with the interrelated parts which comprise the system and how these parts together accomplish the purpose for which the system exists. According to him, from the point of view of system concepts, 'each library system can be visualized as comprised of some set of primary elements, these are: Goals or Purposes; Users or clients; Operational Components or Sub-systems; Environment and its Constraints...'.⁷⁹

D. J. Simpson, Librarian, Glasgow University Library considered library as 'a system' in terms of system concepts.⁸⁰ P. A. Thomas and H. East used the term library System as "the whole complex of library operations consisting of hierarchical systems and the term 'sub-system' to denote operations within the larger complex".⁸¹

P. A. Thomas further opined that 'library should be considered as a formal organization and it should be studied by using the theories and principles developed in more general studies of organization.'⁸² W. Boyd Rayward et al stated that "eighteen procedures are common to all the

libraries that lead us to develop a general operation of a library system'.⁸³ They described the library as hierarchal systems.⁸⁴ They have been shown in Figure 3.1.

It is observed in figure 3.1 that library is treated as a system. It is divided into two sub-systems, i.e., Operational and Administrative. Again, the Operational Sub-system has four sub-systems, i.e., Acquisition, Processing, Use and Maintenance and these four sub-systems include 18 procedures.

Figure 3.1: LDI Centre as Hierarchal Systems

System	Sub-systems	Operational Sub-systems	Procedures
Library		Acquisition	Selection (1) Order (2) Receiving (3)
	Operation	Processing	Accession (4) Catalogue (5) Classification (6) Label (7)
		Use	Shelving (8) Location (9) List (10)
	Administration	Maintenance	Lending (11) Reserve (12) Recall (13) Photocopy (14) Inter-library loan(15) Binding (16) Replacing (17) Withdrawing (18)

Professor F. W. Lancaster has also viewed the library as system' organization.⁸⁵ It has been shown in Figure 3.2.

It is seen in Figure 3.2 that a LDI Centre takes various types of information resources as input in the system. Then the LDI Centre processes the input by applying the techniques of cataloguing, classification, etc. for the creation of services like document delivery, reference services, etc. for users' satisfaction as outcomes. So, the following Figure: 3.2 clearly shows that 'the interrelationship that exists among inputs, outputs and outcomes has important implications for the design of information systems and services'.⁸⁶

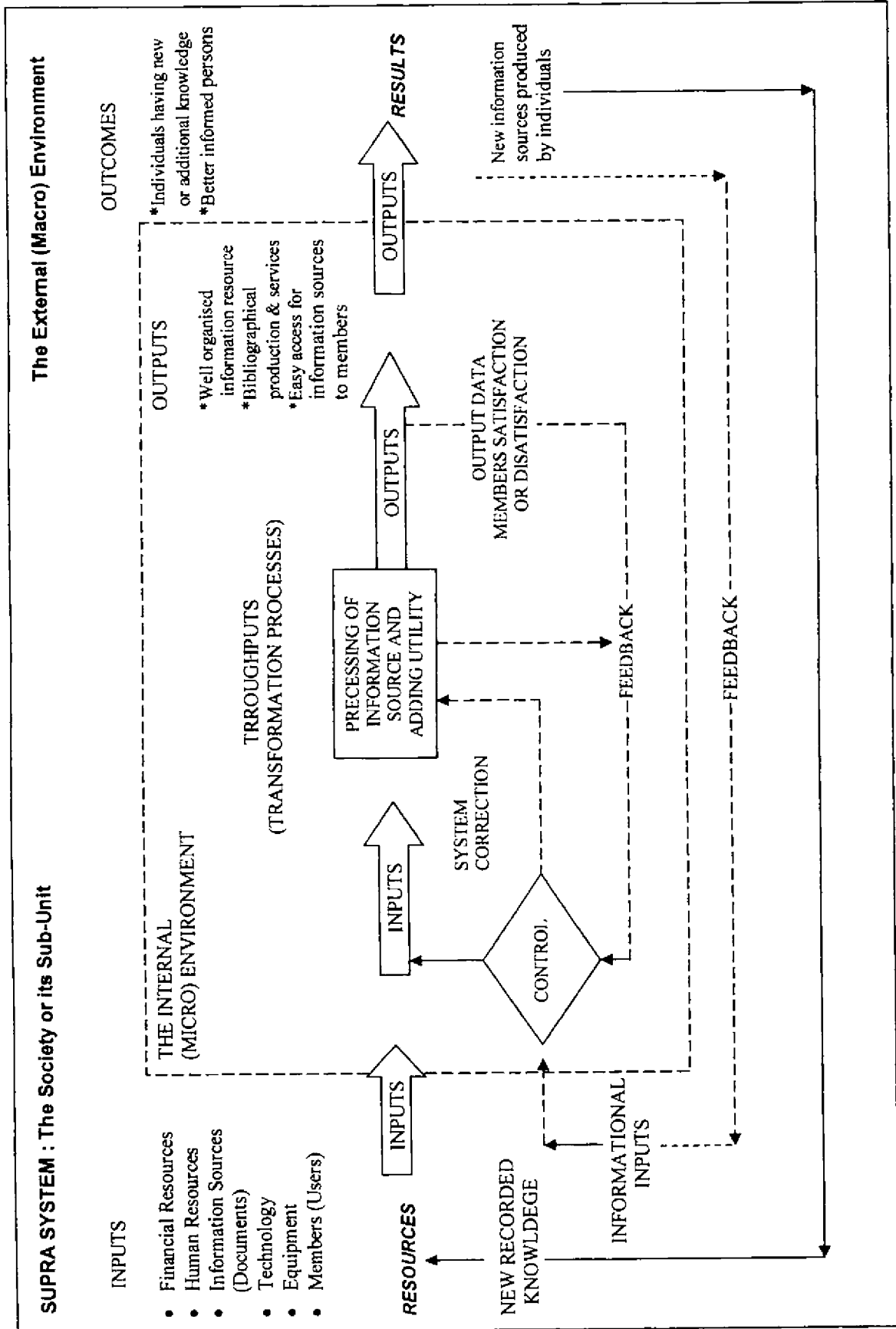
Figure 3.2: LDI Centre as System Organization

Inputs			
	Library		
Information Resources	Organization/ Control Cataloguing Classification Tools Indexing Abstracting Translation	Services On Demand Document delivery Literature search Question-answering Referral unsolicited (Notification)	User Community Outputs Outcomes

M M Kashyap stated that ‘when we view the library or the information organization as an open system, we find that it imports or inputs some resources from the environment or supra system (i.e., from the society or its sub-units), transforms the resources available to it by some kind of process or processes into outputs’. In this connection, M M Kashyap has presented a schematic model of the library or information organization as a general open-transformation system⁸⁷ and it has been shown in Figure 3.3.

It is observed in Figure 3.3 that a library is an open and transformation sub-system of the society (a supra-system) and it takes various inputs like financial resources, human resources, technology, information resources, users, etc. from the open external society, i.e., suprasystem and again the library processes those inputs into outputs and outcomes. This occurs continuously through feedback and control in the library as transformation system.

Fig. 3.3: A Schematic Model of the Library as Transformation System



Christine Abbott treats library as a system consisting of Physical Sub-systems, Information Collection Sub-system and Information Gateway Sub-system.⁸⁸ He has presented library as a system and it has been shown in the following two figures: 3.4a and 3.4b:

Figure 3.4a: Conceptual Model of a Library

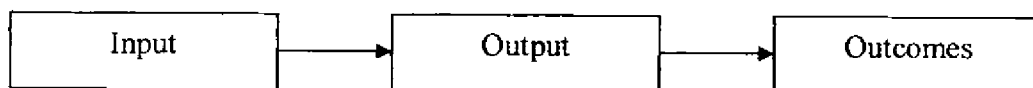
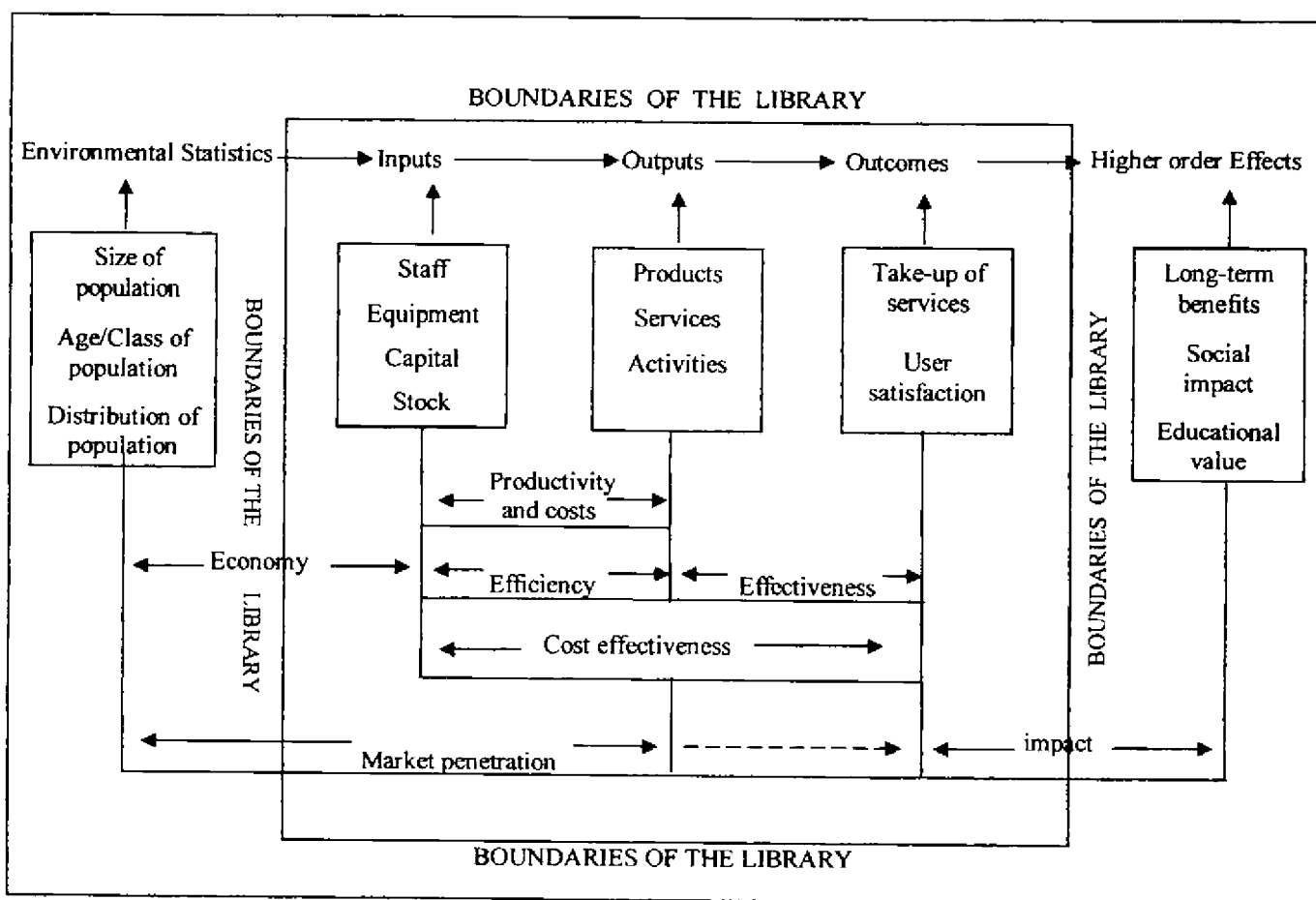


Figure 4. 4b: Boundaries of the Library



Not only a LDI Centre is explained as a system but also an information system organisation/network is a system. This very idea was also supported by Atherton.⁸⁹ He also holds the view that information network is also a system and he justified it in Figure 3.5 and 3.6.

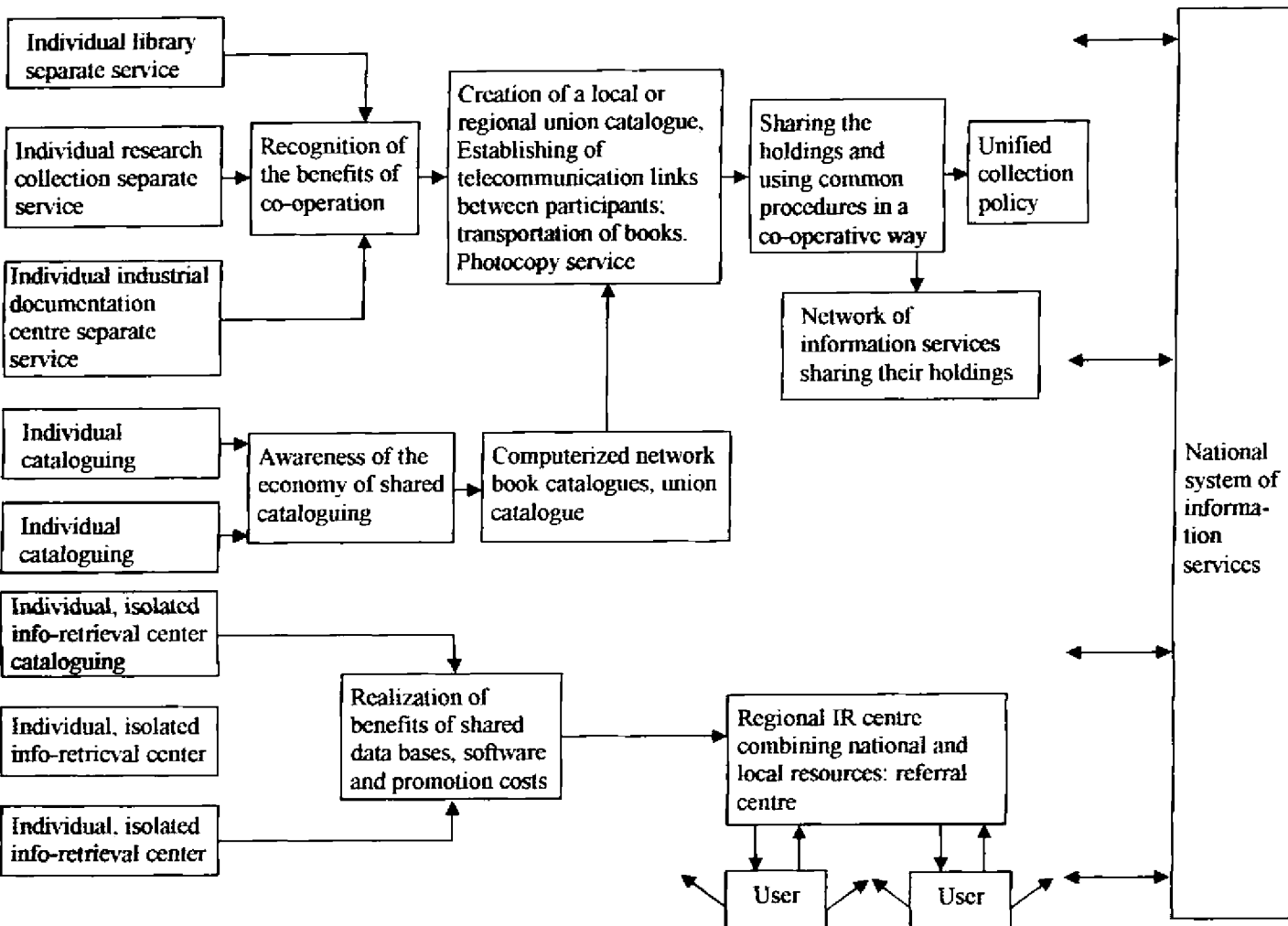


Fig. 3.5: The way information systems might evolve and transmute into networks

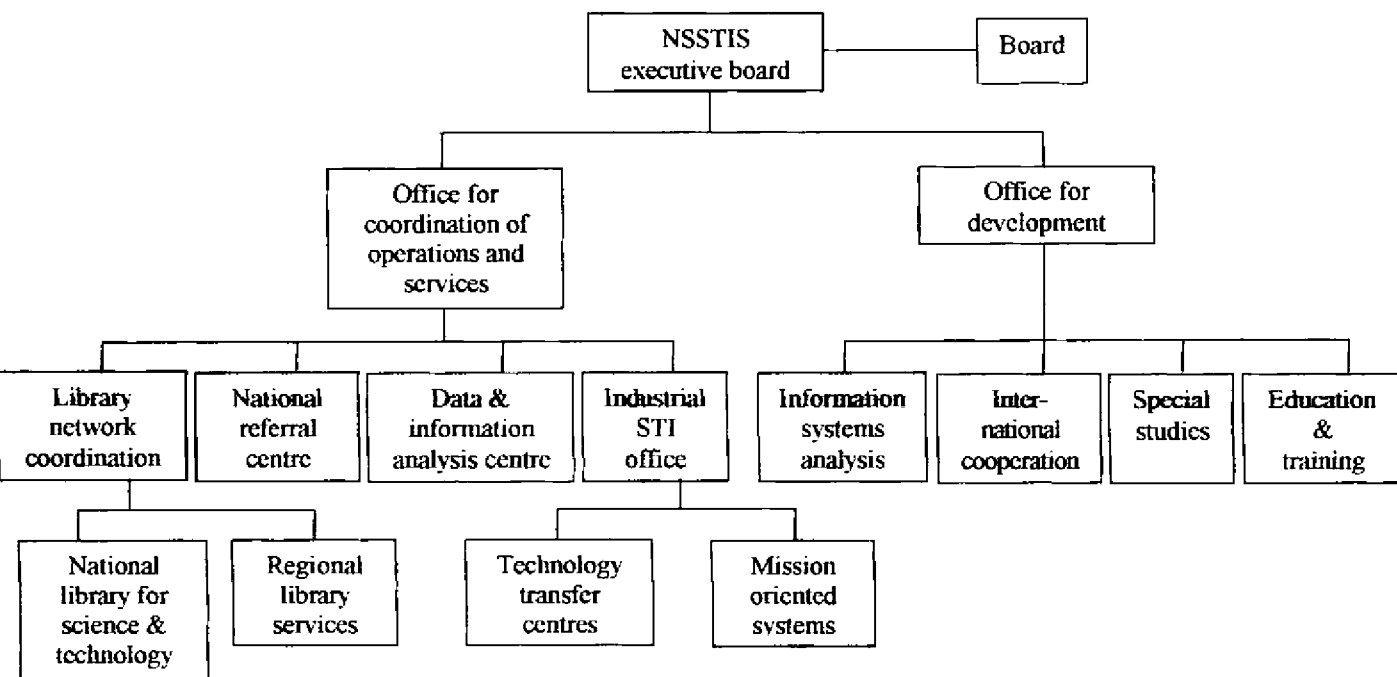


Fig. 3.6: Organizational links for NSSTIS

From the above analysis it may be stated that ‘information organizations are system/network of people, structures, technical operation or task systems, machines, equipment, and other technologies that transform the raw data and information sources into products and services desired by their users.’⁹⁰

3.7 Information System

3.7.1 Information Systems: Concepts

In discussing the information systems Syed Fazle Rab stated that ‘in modern practice, many information systems are in fact based upon networks and the two terms (information system and network) are often used interchangeably’.⁹¹ Considering this, Rab defines an information system as a “set of different components or subsystems that work together, as a whole, whose prime function is to transfer or transform information”.⁹² He further states “ Information system is an organization of entities and processes to facilitate the dissemination of information.” In this definition Dr. Rab has considered information system as an organization consisting of a set of components or sub-system that work together for information services functions.⁹³ In this connection S. L. Verma also opined that “the concept of network and networking is applicable within an information system and amongst various information systems”.⁹⁴ According to Verma information system is a network of LDI centres. Thus the definition of Dr. Rab is wider than Verma. Saracevic et al. consider information system as a ‘type of communication systems which select, organize, store and disseminate public knowledge for the purpose of communication of that knowledge to users’.⁹⁵ In this definition

information system has been treated as communication system for information collection, storage and dissemination to the users.

The National Commission on Libraries and Information Science (NCLIS), USA in its National Program Document defines an information system as: “two or more libraries and/or other organizations engaged in a common pattern of information exchange, through communications, for some functional purpose. A network usually consists of a formal arrangement whereby materials, information, and services provided by a variety of libraries and other organizations are available to all potential users. Libraries may be in different jurisdictions but agree to serve one another on the same basis as each serves its constituents. Computers and telecommunications may be among the tools used for facilitating communication among them”.⁹⁶ This is a very comprehensive definition of information system, because, it covers essential points of organization of information systems.

Alphones F. Trezza defined information system as “...a formal organization among libraries for co-operation and sharing of resources, in which the group as a whole is organized into subgroups with the exception that most of the needs of a library will be satisfied within the subgroups of which it is a member”.⁹⁷ This definition has noted information system as a formal library-organization stressing on resource-sharing.

Raynard C. Swank defines library based information system as a “concept that includes the development of cooperative systems of libraries on geographical, subjects, or other lines, each with some kind of centre that not only coordinates the internal activities of the system but also

serves as the system's outlet to, and inlet from, the centres of other systems. The concept is also hierarchical..."⁹⁸ This definition has identified the information system as co-operative organization of libraries.

According to Dr. M T M Khan, 'networking is a common concept, which concerns itself with mutual co-operation and coordination between systems of information for exchange of resources, services, facilities, etc. This exchange is termed as a network when these activities are performed in a systematic pre-planned manner'.⁹⁹ Mutual cooperation and coordination among information organization is the main tune of this definition.

UNESCO defined the information system as a 'form of arrangement or an administrative structure that links a group of individuals or organizations who have agreed to work together and/or have resources. Information networking entails the sharing of resources so that the information needs of both actual and the potential users of information – from the local to national level are met'.¹⁰⁰

According to Atherton, "a national information system is basically a network of existing information resources together with new services for identified gaps, so coordinated as to reinforce and enhance the activities of the individual units and thus enable specific categories of users to receive the information relevant to their needs and abilities".¹⁰¹

It is observed from some of the important definitions of information system cited above that the definitions of UNESCO and Atherton are very wide in scope. The definition of UNESCO may be accepted and used, because, it has emphasised administrative structure, agreement

among libraries, resource sharing, information needs, levels of services, etc. of an information system.

3.7.2 Nature and Features of an Information System

According to Brellt Butler there are five features of an information system- an information system is “a dependent system, which is operated multilaterally in response to common desires of a group of member libraries; a duplex elements, which enables two way communication, which separates a network from an information service which is one way; digital, which involves some use of computers of digital; the distribution of information which may take many forms such as catalogue card, print out etc.; and lastly, an independent organization, separated from the administrative, political and fiscal bounds of its members”.¹⁰²

Swank points out the following ingredients of an information system:

‘Cooperative agencies, information resources, users at different location, information delivery; and bi-directional communications, etc.’¹⁰³

According to Mercadu information systems usually have the following basic properties:

“The members are located at different places (e.g., regions, states, and districts); standard ways of organizing and transmitting information or data (e.g., in the collection of data, storage, and dissemination of information); There is two way communication and transfer of information among the members; and they have information resources and disseminate information through products and publications to their members”.¹⁰⁴

The above reveal that the following important features are seen common in any information system:

“1. It is a decentralized multilateral arrangement for the sharing of information; 2. It is completely a voluntary arrangement; 3. It enjoys complete autonomy; 4. It strengthens interdependence among the participants nodal organizations; 5. It promotes motivation for collaboration; 6. Its coverage is broad based; 7. It promotes greater accessibility to information; 8. It is more users oriented; 9. It reduces expenditure on building up huge complexes infrastructures; 10. It promotes standardization in the organization and flow of information”.¹⁰⁵

3.7.3 Objectives of Information System

An information system organization must have some objectives like other organizations in the society. Many LDI specialists have made discussion about the objectives of an information system.

According to views of Dagobert Soergel, ‘objectives of information system/network can be divided into broad/overall objectives and specific objectives or requirements that are needed to achieve the overall objectives’.¹⁰⁶ In explaining the broad objectives of an information system, especially in education Verma stated that the broad objectives are ‘to support the general policy of the government concerning educational research and development of the field, that is, to provide all types of information necessary for the development of educational research (fundamental and applied) and for the introduction of up-date technology (in case of educational information system).¹⁰⁷ He further stated that the overall objectives of an information system are:

- '(1) to render, as best as possible, library and information services in the field of an information system in general to all those who are interested;
- (2) to make sure that the educationists and persons interested in the research and development of education have information conducive to the development of high quality education;
- (3) to allow for better use of the existing research and development in the country;
- (4) to improve the practical utilization of the results of indigenous research; and
- (5) to facilitate the evaluation and utilization of methods and contents'.¹⁰⁸

Usually, the broad objectives can not be used by themselves as guides for design of a system or for its analysis. They must be translated into specific objectives and requirements, which should be quantified whenever possible. According to Atherton specific objectives of an information system are:

- "1. to study user needs as a basis for information system evaluation and design;
2. to select and acquire those information resources needed to support research priorities;
3. to provide access to recorded material;
4. to provide retrospective search services;
5. to respond to request for data;

6. to provide literature analysis;
7. to identify and establish better ways of improving the flow of educational information among members institutes;
8. to provide fast inter/library loan; and
9. to provide an SDI service covering journal articles and reports.”¹⁰⁹

In this connection we may consider the objectives of DELNET (Delhi Library Network system), stated below, which are elaborate, useful, meaningful and may be considered at the time of framing objectives of national educational information system for any developing country especially Bangladesh.

- “(1) to promote sharing of resources among libraries in a state or region or sector by developing a network of libraries, by collecting, storing, and disseminating information and by offering computerised services to the users;
- (2) to coordinate efforts for suitable collection development and reduce unnecessary duplication wherever possible;
- (3) to establish a referral centre, to monitor and/or facilitate catalogue search and maintain a central on-line union catalogue of books, serials, and non-book materials of all the participating libraries;
- (4) to offer guidance to the member libraries on cataloguing, editing, database services, circulation, acquisition, serials control, on-line services, selection of hardware and soft-ware, etc.;
- (5) to facilitate and promote delivery of documents manually and mechanically;

- (6) to develop specialist bibliographic database of books, serials, and non-book materials;
- (7) to develop a database of projects, specialists and institutions;
- (8) to possess and maintain electronic and mechanical equipment for fast communication of information and delivery of electronic mail;
- (9) to coordinate with other regional, national, and international networks for exchange of information and documents; and
- (10) to undertake, facilitate and provide for the publication of newsletters, and/or journal devoted to networking and sharing of resources".¹¹⁰

The DELNET's objectives are no doubt comprehensive. But according to Dr. M T M Khan an information system should also have the 'objectives of promotion of research, development and innovation in information technology; development of facilities for education and training in library and information science'.¹¹¹ But this objective is lacking in DELNET. This very objective should be taken into consideration while preparing the objectives of an information system especially NATEIS of Bangladesh.

3.7.4 Functions and Services of an Information System/Network

After specifying the major goals and objectives of any information system, the next step is to determine its (information system's organization) major functions for creating various information products and services.

Functions of an Information System

Generally, an information system covers the activities of “shared cataloguing; on-line reference; shared circulation; and inter-library loan” as major functions.¹¹² UNESCO stated the following functions of an information system/network:

“(1) Cooperative acquisition; (2) Technical service; (3) Publication Service/ Information repackaging; (4) Coordination service; (5) Delivery/ Mailing service; (6) Research, Training, and other special services; (7) Marketing of information services; (8) Provision of feedback between the producers and users of information”.¹¹³

In fact the principal function of an information system is to ultimately provide system’s member library users more extensive access to universe of information resources. In this connection James G. Williams and Roger Flynn categorized ‘three primary classes of information system/network functions- these are: (a) those that serve the patron; (b) those that serve the members libraries directly and the patron indirectly; and (c) those that support the system/network structure.’ They further stated that ‘under these basic functions an information system/network performs a number of specific functions. These are: Management function, developing standard, cooperative acquisition, processing, information storage and retrieval functions, control of serials and periodicals, inter-library functions, documents delivery functions, cooperative storage function, referral function, communication function, education function and marketing function.’¹¹⁴

Services provided by an Information system

For knowing the services, here we can analyse the services of INFLIBNET of India. Its services are:

“Catalogue-based Services: Shared cataloguing of monographs, serials, and non-book materials; Union catalogue of books, serials and non-book materials; On-line catalogue access for shared cataloguing and location identification; Catalogue production in card, book, magnetic tape/floppy, optical (CD-ROM), and COM form. Book processing and preparation; ***Database services:*** Bibliographic database services; Retrospective searches, SDI, Current awareness services; Database of non-bibliographic information such as ongoing and completed projects, institutions and specialists; ***Document supply Function Services:*** Inter-library loan request processing; Document delivery (fax,/non-fax); ***Collection development Services:*** Acquisition and assistance in selection and procurement; ***Communication –based Services:*** Electronic mail; Transfer/Receive messages; Bulletin board view/ update bulletin board; Academic communication through electronic mail, bulletin board, file transfer, computer/audio/video conferencing”.¹¹⁵

For knowing various types of services we can also cite the example of the Birmingham Library Cooperative Maintenance Project (BLCMP) established in 1969, a famous information system/network. Within the years passed this network has upgraded itself and offers the following services:

‘Acquisition and fund accounting related services online ordering and receipt of all types of materials), serials control related services (subscription control, automated claims, etc.), cataloguing related

services (MARC cataloguing and access to databases), circulation related services (circulation control system), users services (analysis of users needs and OPAC for them), union catalogue, retrospective conversion of catalogues, BLCMP library related services (inter-library loan, CAS, SDI, document copy and transfer, access to national and international databases, etc.)'.¹¹⁶

The above analysis of the functions and services of an information system/network reveals that information system performs a vast array of functions, including a mix of technological procedures, and provides various services, each of which requires a varying degree of proficiency.

3.8 Classification, and Configuration of Information System

3.8.1 Classification of Information system

On the basis of user's point of view or user environment, Vickery has classified information systems into two main groups- one is (a) information system within an organization (for information services to designated groups of people of that organization); and the other is (b) information system within and outside organizations serving, the users, that is, anyone who feels need for the information that the systems provides'.¹¹⁷ These can be termed as subject/mission oriented and general information system respectively. In this connection, Rab expressed that on the basis of subject coverage, information systems may be classified into (1) 'General Information Systems, and (2) Discipline / Mission-based Information Systems. He further stated that the above two types can be again divided on the basis of geographical coverage—local, national, regional and international information system.¹¹⁸ In this connection Willam Millard stated that 'in addition to a network in general at national

level, national networks can also be established to focus on specific subjects and serve specific groups, i.e., an education network can be supported by 'Higher education network, women education network, educational planning and administration network, etc. ERIC (USA), which is supported by 16 clearing houses is an example of this kind of national networking based on contents and specialized purposes. He also expressed views that one single information network can not be expected to effectively meet the vast and varied information requirements of multi-disciplinary user groups'.¹¹⁹

According to Dr. M T M Khan a number of information systems may be recognized. According to him one of the ways to characterize network systems is to distinguish them as '(1) Organizational networking system (i.e., public library system); (2) Specialized networking system (i.e., NISSAT scheme of India); and (3) Functional networking system' (i.e., national information centre's system).¹²⁰ Dr. M T M Khan also stated that networking systems may further be of the following types: 'LAN (Local Area Network); (2) MAN (Metropolitan Area Network); and (3) WAN (Wide Area Network)¹²¹ and according to levels, networks have the following levels: "(1) National Network system; (2) Regional Network system, and (3) Local Network system'.¹²²

From the above it is found that information system may be classified in many ways and it is a complicated concept. However, inspite of its complexity, library network is now considered as an essential mechanism to facilitate optimum utilization of the available resources.

3.8.2 Configuration of Information system

Information system/network structure can be analysed in terms of configurations and levels. A library network consists of nodes (i.e., a participatory library or an information centre) and arcs (i.e., possible communication links). The pattern that results when nodes and arcs are connected is the network configuration. The levels of network may be indicated by different stages in processing activities. Network configuration is an important specification because it affects the communication channels and the flow pattern of messages.¹²³ The structure of configuration of networks is an important consideration, since it affects the manner in which the information is communicated that is, how it actually circulates. According to Guinchat and Menon there are various communication links¹²⁴ - these are:

- (1) Decentralized networks: in it all member units communicate directly with each other. They have more communication channels and links which are often more direct but the management of the system is more difficult. This type is illustrated by the inter-library loan networks;
- (2) Centralized networks: in which the units communicate through a centre. This system is hierarchical and an example would be a central library with its associated libraries or branches;
- (3) Mixed networks: in which certain functions or certain geographical sectors are decentralized and others centralized'. These three types of networks have been shown in the following Figures-3.7, 3.8 and 3.9

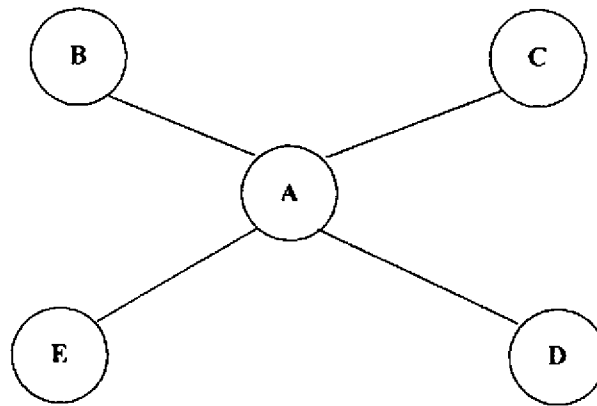
Fig.3.7 Decentralized Network Fig 3.8 Centralized Network Fig 3.9 Mixed Network



According to Albert F. **Maruskin** four common network configurations¹²⁵ are applied in library and information field- these are: '(1) The Star (Directed/Centralized Network) Network;(2)The Distributed (Non-Directed/Decentralized Network) Hierarchical Network; and (3) The Composite (Combination of Directed and Non-Directed Network) Network'. In this connection P. N. Kaula categorised five types of networking.¹²⁶ These are: '(a) Equally distributed networks: this type of resource distribution involves all the participants; (b) Star networks: it involves one participant holding substantially all the resources to be utilized only by the participants; (c) Star networks with overlapping collection: It involves several participants holding substantially equal quantity with highly overlapping resources to be utilized by themselves as well as others; (d) Hierarchical networks: It identifies the unsatisfied needs which are passed along the next greater resources centre; and (e) Mixed networks: It provides a combination of the four networks (a,b,c,d) stated above'.

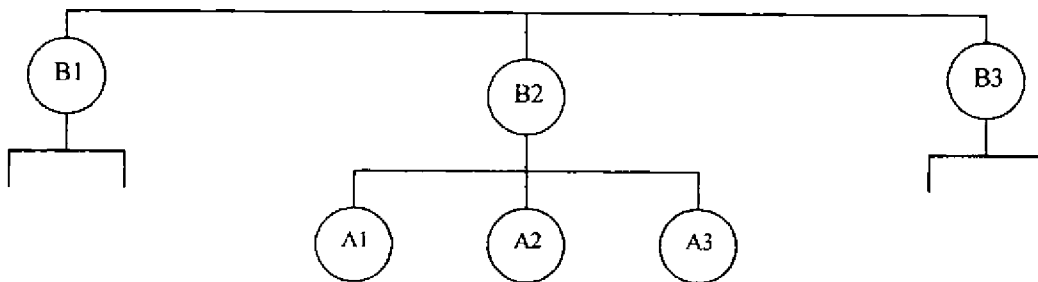
Allen Kent presents three basic networks configurations.¹²⁷ These are: The Star Networks: It corresponds to one network member holding substantially all resources with other members utilizing these resources. It has been shown in the Figure 3.10

Figure 3.10: Star Network



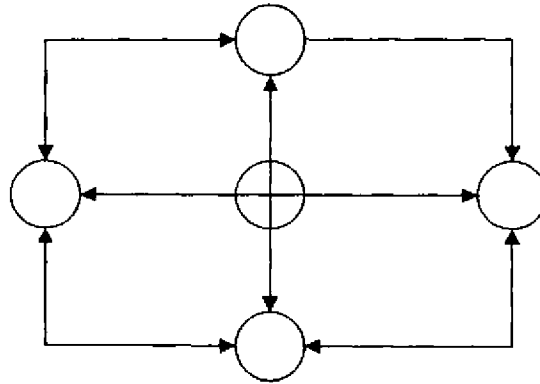
The Hierarchical Networks: It refers to that networking which involves members sharing resources locally; passing unsatisfied needs to the next higher resources centres. It has been shown in Figure 3.11

Figure 3.11: Hierarchical Networks



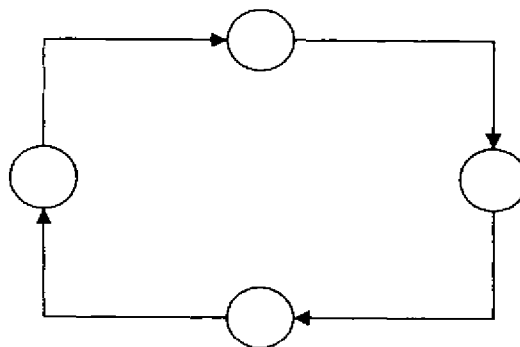
The Distribution Networks: It consists of members with equal but different resources with all members able to call directly on the resources of all others members. It is shown in Figure 3.12.

Figure 3.12: The Distribution Networks



Rouse and Rouse classifies four types of networks¹²⁸ out of which three are same as of Kent, the fourth one being the ring network (or a loop network). It is a kind of distributed network where a particular member can contact directly the adjacent members only. It is seen in the Figure 3.13.

Figure 3.13: Ring Network



Fernand Vincent mentions three kinds of network structure¹²⁹:

“(1) *Centralized network*: In the centralized network, a central body is responsible for most of the actions of the network calling on members for

support in policy making and cooperation in projects. Communication between members is not seen as being fundamental to the network's functioning; (2) *Semi-decentralized network*: The semi-centralized network is characterized by a centralized body which undertakes actions and facilitates contacts between members. This structure is adopted by networks which represent their members in negotiations with funding sources as it allows the central body to undertake the necessary actions and fosters support from members; (3) *Exploded network*: The exploded networks primarily emphasises communications and cooperation between all members. The main actions of the network are carried out by its members, with facilitation, provision of support services and representation undertaken by the central body”.

UNESCO identified various pattern of information flow based on different types of network. According to UNESCO a network may be based on one or more of the following criteria¹³⁰:

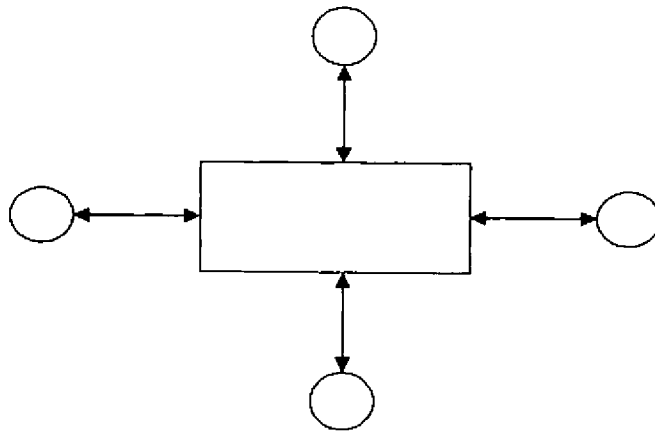
1. Directed Network: It has a clearing house node or focal point as a member institution which is responsible for the following:

‘(a) Maintaining a management secretariat to organize and operate the network; (b) Collecting, processing, organizing and supervising the storage and retrieval of information coming from member institutions; (c) Providing a communication link between itself and all members (i.e., through a regular newsletter); (d) Advising members concerning available information in its own collection as well as in the members' collections or libraries, and informing them of major activities, issues and problems which the network should address; and (e) Taking the lead in developing programmes for the benefit of the members.

In case of Directed Network, the network configuration may be the following:

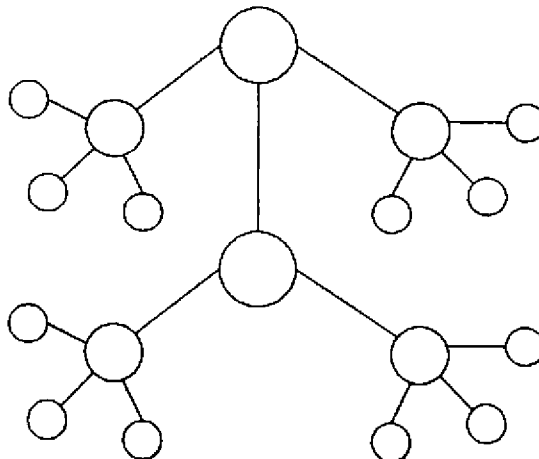
(i) *Directed/Centralized network* consists of members/users who are interconnected through a coordinating centre directing the flow of information to and from the branches/ units at different levels. It is shown in Figure 3.14.

Figure 3.14: Directed/Centralized Network



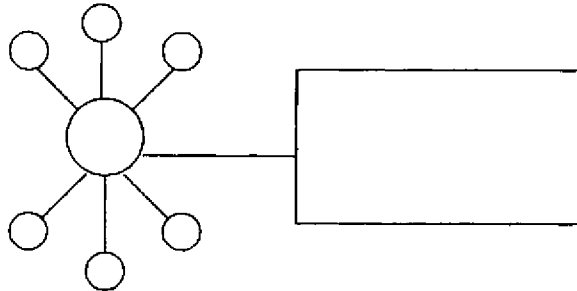
(ii) *Directed/Hierarchical Network* consists of members/users who are grouped in a hierarchical order of increasing /greater resources and expertise. It has been shown in Figure 3.15

Figure 3.15: Directed/Hierarchical Network



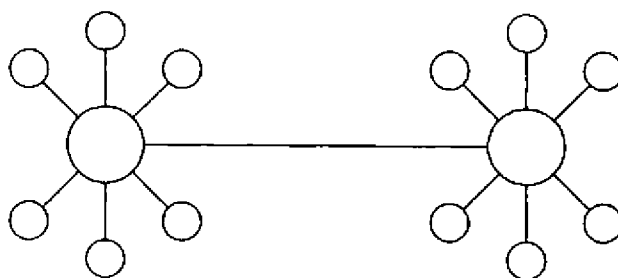
(iii) *Directed Network including Specialized Centre*: It interfaces with a specialized centre for the benefit of the network members. In other words, it is linked to another specialized centre only through the coordinating unit, which in turn passes information to its members. It is seen in the Fig 3.16

Figure 3.16: Directed Network including Specialized Centre



(iv) *Interface of Two Directed Network*: As national or regional centres begin to develop, there may be a need to link up related units nation wise or regional wise. For example the population education network can interface with the population/health network or population/agriculture network. It has been shown in Fig 3.17

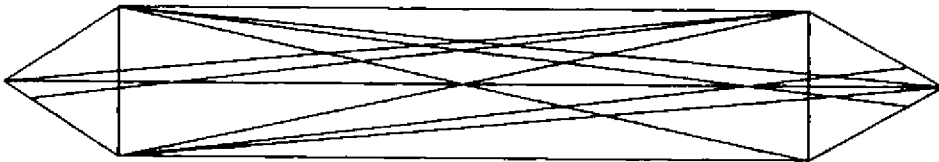
Figure 3.17: Interface of Two Directed Network



2. *Non-Directed Network*: This type of network is based on freely interacting bilateral/multilateral arrangement which does not need a focal point. The members may contact one another directly and there is no need to have a central body to maintain a separate collection of information. It may be:

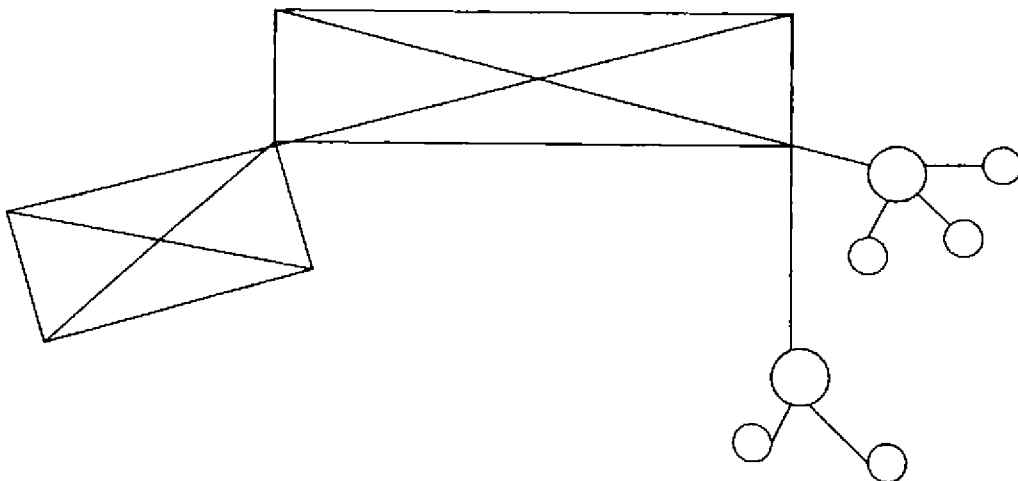
(b) *Non-Directed/Decentralized Network*: It is a specific type of network in which each member users connected with every other user, without any member acting as overall network coordinator. In other words the members can directly get in touch with one another for their information needs without going through any coordinating unit. It has been shown in Fig 3.18

Figure 3.18: Non-Directed/Decentralized Network



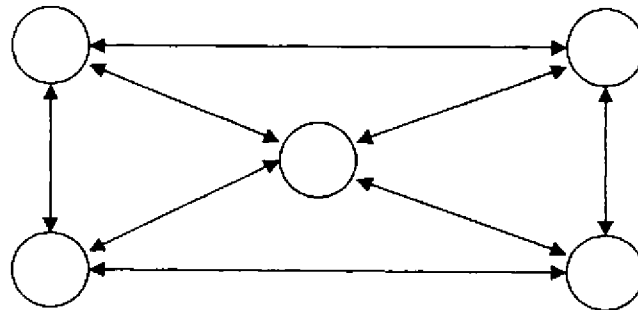
(ii) *Non-Directed/Mixed Mode Network*: Each member represents the interests of its own users through direct connection with other network members. It has no coordinating unit and members are in direct contact with one another and pass on information to their respective branches or members. It has been shown in Fig 3.19

Figure 3.19: Non-Directed/Mixed Mode Network



3. **Combination of Directed and Non-Directed Network:** This consists of a combination of clearing-house or coordinating unit node and freely interacting bilateral/multilateral arrangement communications among members either direct or through the coordinating unit. In this case the clearing house mainly serves as a facilitator rather than director. It has been shown in Fig 3.20

Figure 3.20: Combination of Directed and Non-Directed network



3.9 Components and Steps in Developing an Information System for Education

3.9.1 Components of Information System

The concept of information system/networking system is not new rather it is an extension of the traditional form of library cooperation existed in one form or other for several decades. There are differences of opinion regarding the number of components of information system. According to Dr. Syed Fazle Rab, the present form of information system networking consists of the following component:

- “(1) Two or more organizations/participants (located in different places);
- (2) Information users (across geographical territories);
- (3) Information resources (scattered on different libraries, documentation centres, databases etc.);
- and (4) Common programmes or objectives (sharing of

information based on mutually acceptable agreements and policies)".¹³¹ UNESCO identifies the following components, which are essential to orderly, planned development of an information system:

“(1) The members level of commitment to the networks goals; (2) Consensus among members on policies, objectives, operational agreements, rules and contracts which are drawn up by the network members to ensure balanced distribution of the work load among the members, as well as their equal access to network information and services; (3) Significant level of financial and organizational commitment from members; (4) Identification of categories of user groups and their needs and delegating responsibilities to the respective nodes for providing services to specific user groups and meeting their special needs; (5) Smooth communication facilities among the members of the network enabling them to send as well as to receive information using such facilities like computers, telephone, and other channels of communications; (6) Development of common standards for organising the collection, processing and retrieval of information; (7) Formulations of guidelines in the selection of the network materials/literature collection, ranging from books to microfilms; (8) Collaborative development of resources. It includes provision for cooperative acquisition and strengthening of local resources for frequently used materials. The development of multi-media resources is considered essential; (9) Development of central bibliographic record to facilitate location of items within the network; (10) Formulation of evaluation criteria and procedures to enable the nodes to receive feedback from users on ways to improve their services and network operations; and (11) Provision of training programmes for users and operators concerning the

networks policies and procedures".¹³² UNESCO's components for developing information system are yet very significant

3.9.2 Steps in Developing an Information System

In developing an information system, on the basis of the concepts of UNISIST Atherton suggested the following steps:

"Formation of some major information policy goals; Establishing Priorities; State Authorities; Design-Elements of National Information System-Networking; Structures and Main Links of a National System of Information Services; Financing the National System of Information Services; Plans for Manpower Training; Plans for Computer-Based Information services; Plans for Reprographic Equipment; and lastly, International and Regional Co-operation and Assistance in Information System Planning".¹³³ In developing national information system, Atherton further recommended to study the existing information system and LDI organizational infrastructure of the country.¹³⁴ For developing national information system/network in any developing country (like Bangladesh, India, Pakistan, etc.) Atherton advocated 'to make a national survey of the existing structure and systems of an information system with a managerial attitude considering the policy analysis, planning, system analysis, etc.'¹³⁵

Dr. S. L. Verma advocated that in designing National Educational Information System, the following factors are to be considered: "(1) Knowing the organizational background; (2) Users and their needs; (3) Types of users; (4) Types of information needs; (5) Coverage; (6) Centralization or decentralization; (7) Services; (8) Organizational structure; (9) Manpower recruitment; (10) Evaluation of the system".¹³⁶

The International Conference on Education, UNESCO suggested that the following should be guiding principles in building the National Educational Information System (NATEIS) of a country:

‘Recognition of educational information as component in the decision-making process; Co-operative networking; Standardization; Professionalisation; Policy and legislative provision; Services and programmes; Status and training of educational information personnel; Regional and international co-operation with United Nations, UNESCO, IBE, IIEP, UNESCO’s Regional Offices, etc.’¹³⁷

3.10 Educational Information System in India, USA and UK

NATES in India

There is no integrated system of educational information in India, but several, almost parallel systems, are operating for the various administrative functions. There are six parallel educational information systems (information about education and information for education) in India’.¹³⁸ Out of six, Educational Information System for Research and Studies, i.e. NATEIS is considered to be useful for education.¹³⁹ In the field of educational research and studies in ‘India with the federal structure, state ministries and institutions of education perform educational information functions for the respective states. At the center (national level), a cluster of institutions is involved’: These are: The National Council for Educational Research and Training (NCERT); The National Institute of Educational Planning and Administration (NIEPA); and The University Grants Commission (UGC).¹⁴⁰

The major special LDI centers in the field of education are NCERT, NIEPA, located at Delhi, playing vital role in providing LDI services on education in India. Besides these, NASSDOC of ICSSR, located at Delhi is also doing work in the LDI services on education in India. Educational information services are provided by the first two organizations (NCERT, NIEPA) for the use of the Department of Education personnel' including the personnel of their sub-ordinate and linking organizations. The educational information services being provided by NASSDOC are very small in magnitude. In addition UGC is also providing information services on higher education in a small scale.¹⁴¹ In India, the infrastructure of educational research is very strong. Though the national educational information system/network is yet to come formally, but in practice there exists a less formal national educational information system mainly consisting of the LDI Centres of the NCERT, NIEPA. The NASSDOC and the UGC also provides information services for education. These organizations are working like system/network for educational information services at organizational, national and also international levels.

The major information services and products of NCERT are: Edudoc Abstract Services; Current Content List; bibliographical services; A monthly List of Accession as CAS¹⁴² and documentation services on population education [143].¹⁴³

NIEPA: One of the important functions of the NIEPA is to act as clearinghouse of information in educational planning and administration in the country.¹⁴⁴ Whatever material is received in the LDI Center is indexed and disseminated to the various ways. The services and products of NIEPA are: Current Awareness Services, LDI Center Acquisition,

Selective Dissemination of Information, Bibliographical and other Services.¹⁴⁵

Library Co-Operation and Networking: In 1995 NIEPA LDI Center joined Delhi Library Networking/System (DELNET). This has facilities of 'On-line Access; E-mail Service, the 'Education File' on news brought out by the NIEPA LDI Center in association with Jaishankar Memorial Center.¹⁴⁶

NASSDOC: It is one of the foremost clearinghouses for information, documents and published data in social sciences. It has been serving social scientists for the last 30 years. Its major services are: Compilation of select bibliographies on request; Document delivery and reprographic services; Study grant; Short-term training courses for information intermediaries; A number of products are: Union Catalogue of Social Science Periodicals in India, Retrospective Index of Indian Social Science Journals covering 250 journals; Education Index of 26 journals; Sociology and Psychology Index of 42 Journals; Area Study Bibliographies; Current Contents of Indian Social Science Journals; "Conference Alert"; APINESS Newsletter; Bibliography on India in 2000 A. D. (with abstract); A number of Directories.¹⁴⁷

From the above analysis of NATEIS of India it may be stated that there is no organizationally integrated and coordinated educational information system/network at national level in India. But two national educational organizations, i.e., NIEPA in educational administration, management and planning, and NCERT in primary and secondary education including curriculum and UGC Library in higher education have been providing educational information services at national level.

In India, this is not system in the true sense of the term as explained above. The functions, services, objectives are not adequate to fully meet the information needs of users. The organisation of NATEIS of this country is very weak not being supported by public laws. Though the present NATEIS of India is not a very highly organized system, yet the products and services of the NCERT and NIEPA at national and international levels are praise worthy and we may take important ideas from it in developing and improving information products and services of NATEIS for Bangladesh.

NATEIS in the United States of America

The '**Educational Information Resources Center (ERIC)**', a world famous NATEIS, was developed as a national education information system/network in 1966 in the USA by the Office of Educational Research and Improvement (OERI) within the Office of Education (now Department of Education) to provide fast access to the rapidly increasing volumes of educational literature.¹⁴⁸ In March 1994 the Congress authorized the establishment of the National Library of Education, with specific charges.¹⁴⁹ The NLE is now the largest federally funded library in the world devoted solely to education. The NLE serves the U. S. Department of Education's staff and other federal employees, the executive Office of the President, and the United States Congress, as well as the general public.¹⁵⁰ Since 1994 the National Library of Education (NLE) is performing the responsibility of administration and coordination of the ERIC system. The NLE is ERIC's hub and national focal point of the NATEIS of the country.¹⁵¹

The objectives of the ERIC System is to improve American education by increasing and facilitating the use of educational research and information to improve practice in learning, teaching, educational decision making, and research, wherever these activities take place.¹⁵²

The NLE is located at 400 Maryland Avenue, SW, Washington, D.C. NLE reports to the Office of the Assistant Secretary for OERI, Department of Education, USA. Nine staff members work in the Office of the Executive Director of NLE. The three divisions of NLE are stated in brief. Reference and Information Services Division (RISD) serves as NLE's "one-stop information and referral" center on education. Collection Development and Technical Services Division (CTSD) identifies, selects, acquires, and provides bibliographic and subject access to education publications. Resource Sharing and Cooperation Division (RSCD) is responsible for the development and maintenance of a national network of education and education related technologies. In this capacity- RSCD (a) promotes greater cooperation and resource sharing among education and library professionals, policy makers, the public, and other providers and repositories of education information in the United States; (b) Develops new information resources, such as databases, network services, user-friendly interfaces, and knowledge synthesis; and provides leadership in the effective use of technology in all aspects of NLE planning and operation. *Major RSCD activities include ERIC*, a distributed national information system designed to provide users with ready access to an extensive body of education related literature, and I-net, the U. S. Department of Education's public access Internet site.¹⁵³

Components of the ERIC

The ERIC system is part of the U.S. Department of Education's National Library of Education and consists of 16 subject-specific clearinghouses, 13 adjunct clearinghouses, 1 affiliated clearinghouse, and additional support components. The ERIC clearinghouses collect, abstract, and index education materials for the ERIC database; respond to requests for information in their subject areas; and produce special publications on current research, programs and practices. The clearinghouses (each clearinghouse works on particular area of education) are: Adult, Career, and Vocational Education, Assessment and Evaluation, Community College education, Counseling and Student Services, Disabilities and Gifted Education, Educational Management, Elementary and Early Childhood Education, Higher Education, Information and Technology education, Languages and Linguistics Education, Reading, English, and Communication Education, Rural Education and Small School Education, Science, Mathematics and Environmental education, Social Studies/Social Science Education, Teaching and Teacher Education, and Urban Education.¹⁵⁴ The major Adjunct ERIC Clearinghouses are in the areas of Child Care, International Civic Education, Literacy Education, Consumers Education, Test Collection, etc. The Affiliated Clearinghouses are National Clearinghouse for Educational facilities, and National TRIO Clearinghouse (NTC).¹⁵⁵

In the organizational structure, ERIC has four Support Components. These are : (1) Access ERIC co-ordinates ERIC's outreach, dissemination, and marketing activities; develops system-wide ERIC publications; and provides general reference and referral services; (2) The

ERIC Documents Production Services (EDPS) produces and sells paper, microfiche, and electronic copies of documents listed in the ERIC database; (3) The ERIC Processing and Reference Facility is the technical hub of the system. It produces and maintains the ERIC database and support products for the ERIC system; (4) Publishers of ERIC Materials: Oryx Press publishes Current Index to Journals in Education (CIJE), the Thesaurus of ERIC Descriptors, and United States Government Printing Office publishes Resources in Education and other ERIC products.¹⁵⁶

To manage ERIC System, a creative synthesis of the two approaches—centralized and decentralized has been followed. This synthesis is, highly compatible with the decentralized American educational system. ERIC conducts most of its document-processing and dissemination activities at decentralized and relatively autonomous clearinghouses, while maintaining centralized management for overall coordination of the system.¹⁵⁷

The above analysis of NATEIS of the USA reveals that ERIC is a very advanced NATEIS in the world in terms of information products and services, use of technology, good planning and management. So, we may consider this system as a good example and learning organization for developing and improving national educational information system of Bangladesh. But ERIC's management system should be more decentralised for the benefit of the needs of the users.

NATEIS in United Kingdom

Like USA, the national educational information system/network in U.K. is not co-ordinated, controlled and planned by one national educational information centre.

Educational Information Network in the European Community (EURYDICE) sponsored by the EC is an information network, launched in 1980 and designed to disseminate education- policy related information to the policy-makers of the European countries. The Central Unit is located in Brussels and responsible for the creation of a Union Catalogue. Each participant country has own national centre for coordination.¹⁵⁸ The Educational Policy Information Centre (EPIC) at the National Foundation for Educational Research (NFER) in Slough, Bedfordshire is a national centre for U.K. Out of EPIC, it has taken the project for the Educational Management Information Exchange (EMIE). It was established in 1981 to provide information service for all local authority education departments in England and Wales, the emphasis being on evaluated information sponsored by the Society of Education Officers, the DES, and the NFER. The computerized database uses IBM Stairs and consists of two files- one of abstracts of documents received from local educational authorities and other sources; the other directory type file of LEA contacts and descriptions of interesting programmes and initiatives. Topic areas for the present are: Transition from school to work; Falling School rolls; Induction and in-service training of teachers; Micro-technology and educational implications; Assessment of performance; Special education; and Education in the 16-19 age range.¹⁵⁹

Leeds University and BEI: In the United Kingdom, the periodical literature of education is covered by the British Education Index (BEI). The BEI was established in 1954 by the Librarians of Institute and Schools of Education (LISE). In 1972, it was moved to the British Library/British National Bibliography. In 1985, it (BEI) was transferred to Leeds University. Coverage extends to approximately 300 British, and

a number of major European English-language journals. It aims at comprehensive coverage of the education-related periodical literature originating in the U.K. and about the U.K. Approximately 4000 records concerning British education are added annually. BEI is printed and published in the form of three parts a year, each containing over 1000 references, with a final fourth cumulative issue combing all records for the year and forming a permanent annual index volume. In March 1992, the machine-readable version of the BEI contained 57902 records extending from 1976 onwards. This file is made available on a worldwide basis through DIALOG Information Service as File 121.¹⁶⁰

The thesis literature in U.K. is covered by the British Education Theses Index (BETI). The education related literature (books) is covered by the British National Bibliography (BNB). DIALOG's File 121 also covers the British Education Theses Index (BETI).¹⁶¹

Neither BEI nor BETI maintains a document delivery service. This is largely because of the comprehensive national service available from the British Library Document Supply centre and ready availability of theses in the U.K. via regular inter-library loan procedures.¹⁶²

Beside, UK is participating in European Documentation and Information System for Education (EUDISED) with other 21 European countries. EUDISED is a bibliographic database and network under the auspices of the Council of Europe. The EUDISED R & D is published four times a year, each issue containing 250 reports on ongoing or recently completed projects in the field of educational research and development. Project reports are in English or French or German. These are indexed with descriptors (subject headings) taken from the European Educational

Thesaurus. Online access to the information resources published in the EUDISED R & D Bulletin is provided by the European Space Agency (ESA/IRS). Development of the EUDISED R & D database is part of the work programme of the Council for Cultural Cooperation, technical guidance being given by the EUDISED Data Network Group.¹⁶³

From the analysis of educational information system of UK it is seen that there is no integrated NATEIS in UK. Though the country has no organized single national system but in the area of educational research and policy the country has good educational information services system cooperatively maintained with other European countries.

In nutshell, on the basis of the discussion of concepts of information organization and information system, its objectives, functions, configuration, it's planning and development, it may be stated that a national information system/network may be established for education to serve specific group of information users. For developing this type of national information system for education the following points are to be carefully taken into consideration:

- (1) Status of existing national educational information policy in the country;
- (2) Status of existing planning for NATEIS and individual educational LDI center;
- (3) State Authorities for managing the NATEIS;
- (4) National Educational Documentation Center;
- (5) Status of key Educational LDI Organization infrastructure;

- (6) Identification of Users Needs and Gaps;
- (7) Financing of LDI centers and NATEIS;
- (8) Professionalisation and Training;
- (9) Evaluation of the System;
- (10) Standardization;
- (11) Organizational Structure;
- (12) Legal provision;
- (13) Communication and information technology, especially use of computer;
- (14) Reprographic Facilities.



Notes and References

1. Brilloium, L., Science and information theory, 2nd ed., New York, Academic Press, 1962
2. UNESCO, A handbook on evaluation restructuring and repackaging of scientific and technical information, Paris, UNISIST (UNESCO), 1981, p.11.
3. Farradane, J., The nature of information, Journal of Library science, 1, 1979.
4. Shanon, Claude E, et al., The mathematical theory of communication, Urban, University of Illinois Press, 1949
5. Quoted by Henry, C., Mason, et al., Ethics of information management, London, Sage Publications, c. 1995, p.35.
6. Hamid Mowlana, Global information and world communication, 2nd ed., London, Sage Publications, c.1997, p.25
7. Ibid.
8. The Random House of Dictionary of English Language
9. Gates, Jean Key, Guide to the use of books and libraries, New York, McGraw-Hill Book Company, c.1962, p.161-162.
10. Fain, Stephen M., "Education" in The World Book Encyclopedia, Vol. 6, Chicago, World Book, Inc., 1996, p.87
11. Dictionary of Education, 2nd edition, edited by Carter V. Good with the assistance of Winifred R. Merkel, New York, McGraw-Hill Book Company, 1959, p.191
12. UNESCO, Systems and policy: The function of information in improving education system, Paris, IBE, c. 1977, p.9
13. Mason, Richard O., et al. Ethics of information management, London, SAGE Publication, c.1995, p.51
14. Butola, B. S., "Social origin and function of information" in Social science information: problems and prospects, edited by J. C. Binwal et al., New Delhi,

- Har-Anand Publications, c. 1990, p. 363-364.
15. Green, S. NATIS: The theme for the 1970s. In: UNESCO Bulletin for Libraries, 29, (3) 1975, p. 117-123.
 16. Ibid.
 17. Lucey, Terry, Management information systems, 8th ed., New Delhi, BPB Publications, c. 1997, p.15.
 18. Kawatra, P. S., Text book of information science, New Delhi, A. P. H. Publishing Corporation, 2000, p.264-265.
 19. Richard O. Mason et al, Ethics of information management, London, Sage Publications, c. 1995, p. 4.
 20. Viswanathan, C. G., Elements of information science, New Delhi, Today and Tomorrow, 1976, p. 11.
 21. Bhattacharya, G. Information science: A unified view through a system-approach, IASLIC, 1978. P.22-23.
 22. Atherton, Pauline, Handbook for information systems and services, Paris, UNESCO, 1980, p. 1-3.
 23. Don A Dillman, Social impact of information technology in rural North America. (Rural Sociology), Vol. 50 (1), 1985, p. 6-7.
 24. Fazle Rab, Syed, The Indian Express (Delhi Ed), 26 Nov, 1986).
 25. UNESCO, Informatics: A vital power in development, Paris, UNESCO, 1980, p. 11.
 26. Address of Welcome by Dr. Md. Lutfur Rahman at Sub-Regional workshop on redefined roles of libraries in an information society and promotion of UNESCO Network of Associated Libraries (UNAL), 16-18 February 1997, Dhaka, jointly organized by UNESCO and BANSDOC, Dhaka, Bangladesh National Scientific and Technical Documentation Center (BANSDOC), 1997, p. 25.
 27. Ibid, p. 30

28. Psacharopoulos, George, "Information needs in educational planning" in *Information: an essential factor in educational planning and policy*, edited by George Psacharopoulos, Paris, UNESCO, c. 1980, p. 13-14.
29. (1) Dershimer, R. A., ed., *The educational research community: its communication and social structure: a proposal to improve the social and communication mechanisms in educational research*, Washington, D.C., American Educational Research Association, 1970, 172p; (2) Brittain, J. M., *User studies in education and the feasibility of an international survey of information needs in education*. Strasbourg, Council of Europe, 1971, 49 p.
30. Fernig, Leo R., *The place of information in educational development*, Paris, IBE, UNESCO, 1980, p.12-13
31. Verma, S L, *National information in education: a comparative study*, New Delhi, Concept Publishing Company, 1996, p., 311
32. "All About ERIC" collected by the researcher from internet:[http://www.access.org/resources/all about/what.html](http://www.access.org/resources/all%20about/what.html) (visited 31 January 2000).
33. Singh, Karan, "Transition and human history" in *Education challenges of the twenty-first century: the global context*, edited by Kishore Gandhi, New Delhi, Vikas Publishing House Pvt. Ltd., 1999, p.17.
34. Hamid Mowlana, *Global information and world communication: new frontiers in international relations*, 2nd ed., London, Sage Publications, c. 1997, p.
35. Burk, Jr. John G., Felix R. Strater and Gary Grudnitski: *Information system: theory and practice*, 3rd ed., New York, John Wiley & Sons, c. 1983, p.3.p
36. Ibid.
37. Webster, Frank, *The information society: conceptions and critique in Encyclopedia of Library and Information Science*, Vol. 58, 1996, p. 74.
38. Fazle Rab, Syed, *The changing frontiers of library and information science : concepts, models, and applications*, Delhi, Commonwealth Publications, 1994, p.1.

39. Davis, Ruth Ann, *The school library: a force for educational excellence*, New York, R. R. Bower Company, 1969, p.8.
40. Ibid, Fazle Rab p. 2.
41. Ibid.
42. Ibid, Hamid Moulana, p.90-95.
43. Cruz, Leonardo de la, "The future of education in Asia and Pacific", International symposium and round table: qualities required of education today to meet foreseeable demands in the twenty first century, Beijing, China, 27 Nov-2 Dec, 1989
44. Ibid, Kawatra, P. S., p. 268.
45. Delors, Jacques, et al, *Learning: the treasure within; report to UNESCO of the International Commission on Education for the Twenty-first Century*, Paris, UNESCO, 1998. 266p.
46. Singh, Raja Roy, *Education for the 21st century: Asia-Pacific perspectives*, APEID, UNESCO, Principal Regional Office for Asia and the Pacific, Bangkok, 1991, p.ii-ix.
47. Bangladesh. Ministry of Education, *Address of the minister of education of Bangladesh in the World Conference on Higher education*, Paris, 5-9 October, 1998, p. 2.
48. Sakuya, T. M., 'Challenges of 21st century and educational response' in *Education and development*, Research Center for Educational Innovation and Development (CERID), Tribhuvan University, Kathmandu, 1998, pp. 8-23.
49. Delors, Jacques, "Education for Tomorrow" in *Education for the 21st century* edited by Digumarti Bhaskara Rao, New Delhi, Discovery Publishing House, 1997, p.1-12.
50. Spears, Kevin, "New opportunities for libraries and information system" in *Education challenges of the twenty-first century: the global context*, edited by Kishore Gandhi, New Delhi, Vikas Publishing House Pvt. Ltd, 1999, p. 350.

51. Ibid.
52. Tieying, Li, "Opening speech" in the Proceedings and reports of the UNESCO International Symposium and Round Table- "Qualities required for education today to meet foreseeable demands" the Twenty-first century" held from 27 Nov to 2 Dec 1989 in Beijing, p.21 (Annex-1).
53. Muttaqui, Iqbal Aziz, Education for the twenty-first century in the context of Bangladesh, paper presented in the seminar on "Education for the 21st century" at NAEM, Dhaka, 22-23 June, 1999, p. 1.
54. Ibid.
55. Chowdhury, A. K. Azad, "Higher education in the twenty-first century", paper presented in the Seminar on "Education for the 21st century" at NAEM, Dhaka, 22-23 June 1999, p. 8.
56. Ibid, Paper presented in the seminar 'Education for the 21st Century' at NAEM, Dhaka, 22-23 June, 1999, p. 8.
57. Venkataiah, N., " About curriculum innovations" in Curriculum innovations for 2000 A. D. edited by N. Venkataiah, New Delhi, Ashish Publishing House, 1993, p.1.
58. Kirpal, Prem, "Toward an international education for the 21st century", Curriculum innovations for 2000 A. D., New Delhi, Ashish Publishing House, 1993.p.29.
59. Ibid. Singh, Raja Roy, Education for the 21st century: Asia-Pacific perspectives, APEID, UNESCO, Bangkok, Principal Regional Office for Asia and the Pacific, 1991, p.ii-ix.
60. Managing information edited by Judith Elkin and Derek Law, Buckingham, Open University Press, c 2000, p.21
61. Tedesco, Juian Carlos, " Confronting future challenges: the capacity for anticipation" in Educational innovation and information, September, 1995, No. 84, Geneva, IBE, p.1.

62. Ibid.
63. Hall, Richard H: Organization structure and process, 3rd ed., New Jersey, Prentice-Hall, c. 1982, p. 3-15.
64. Scott, W. Richard: Organizations: rational, natural, and open systems, Englewood Cliffs, Prentice-Hall, Inc., c. 1981, p. 4.
65. Smith, August W., Management system: analysis and applications, Chicago, The Dryden Press, c. 1982, p.3.
66. Ibid, ,
67. Ibid, ,
68. Awad, Elias M., System analysis and design, 2nd ed., New Delhi, Galgotia Publications (P) Ltd., c. 1997, p.513.
69. Lucey, T, Management information systems, 8th ed., New Delhi, BPB Publications, c. 1997, p.29.
70. Kroenke, David and Richard Hatch: Management information systems, 3rd ed., New York, McGraw-Hill, c. 1994, p. 21.
71. Ahituv, Niv, Seev Neuann: Principles of information systems for management, 2nd ed., Dubuque, Iowa, Wm. C. Brown Publishers, , c. 1986, p. 83.
72. Ibid, Ahituv, Niv, Seev Neuann, p. 82.
73. Ibid, p.84.
74. Ibid, Smith, August W., p.33-34.
75. Ibid. Ahitub, Niv, p. 84.
76. Ibid. Ahitub, Niv, p. 84.
77. Ibid, Smith, August W., p. 30-31
78. Ibid, Ahitub, Niv, et al., p.74-75.
79. Churchman, C West, The design of inquiring system: basic concepts and systems and organizations, New York, Basic Book, Inc., 1971, p. 43 from Kast, Fermante E and Rosenzweig, James E, Organization and Management:

- A System and Contingency Approach, 4th ed., New York, McGraw-Hill, 1985, p. 114-115.
80. Simpson, D. J., "Before the machine come", ASLIB proceedings, Vol. 20, No. 1, p. 21-31.
81. Thomas, P. A. and H. East, "Comments on the terminology of the analysis of library systems and the function of forms therein", ASLIB proceedings, Vol. 20, No. 8, p. 340- 344.
82. Thomas, P. A., "Task and analysis of library systems", ASLIB Proceedings, Vol. 22, No. 7, p. 336-343.
83. Ibid, p.336-337.
84. Ibid.
85. Lancaster, F. W., If you want to evaluate your library, London, The Library Association, 1988, p. 1-6.
86. Ibid,p.4
87. Ibid, Kashyap, M. M., p. 50-51.
88. Abbott, Christine, Performance measurement in library and information services, ASLIB, The Association for Information Management (The Aslib Know How Series, edited by Sylvia P Webb), c. 1994, p.14-19.
89. Atherton, Pauline, Handbook of information systems and services, Paris, UNESCO, 1980, p.24-26.
90. Speller, Benjamin F., Living in a open system, the individual and the library organization, Journal of Library Organization, 5, 1984; 41-52.
91. Fazle Rab, Syed, The Changing frontiers of library and information science: concepts, models and applications, New Delhi, Commonwealth Publishers, 1994, p. 138.
92. Ibid, Fazle Rab, p.133
93. Ibid, p.157

94. Verma, S L, National information system in education: A Comparative Study, New Delhi, Concept Publishing Company, 1996, p., 281.
95. Saracevic, Tefco at al., Consolidation of information: a handbook on evaluation, restructuring and repackaging of scientific and technical information, Paris, UNISIST (UNESCO), 1981, p., 37.
96. ALA World Encyclopedia of Library and Information Service, 2nd ed., Chicago, ALA, 1986, p.472.
97. Khan, M T M, Information organization and communication, New Delhi, Ess Ess Publications, 1998, p.232.
98. Swank, Raynard, Inter-library cooperation, inter-library communications and information networks—explanation and definition, Proceedings of the Conference on Inter-library Communications and Networks, Edited by Joseph Becker, American Library Association, Chicago, 1972.
99. Ibid. Khan, M T M, p.233.
100. UNESCO, Information Networking in Population Education, Bangkok, UNESCO, Principal Regional Office for Asia and Pacific, 1985, p. 11.
101. Ibid, Atherton, Pauline, p.17.
102. Butler, Brelt: State of the Art in Networking, Journal of Library Association, 1975 (cited by Fazle Rab, Syed, p.140).
103. Ibid, Swank, Raynard, Op. Cit.
104. Mercadu, Cesar: Information Networking Concepts and Models, Quezon City, Institute of Mass Communication, University of the Philippines, 1982, p.12) And Verma.
105. Ibid. Fazle Rab, Syed, p. 141.
106. Soergel, Dagohert, Organizing Information, New York, Academic, 1985, p. 74.
107. Ibid, Verma, S. L., p.287.

108. Ibid.
109. Ibid. Atherton, Pauline, p. 40.
110. Kaul, H. K.: *Library networks: an Indian experience*, New Delhi, Virgo Publications, c. 1992, p. 73-74.
111. Khan, M T M, Op., Cit., p. 235.
112. Ibid. Fazle Rab, Syed, p.154
113. UNESCO, *Manual on information networking in population education*, Bangkok, Principal Regional Office for Asia and Pacific, 1987, p.69-79.
114. Williams, James G. and Roger Flynn, *Network topology; functions of existing networks* (paper delivered at the Pittsburgh Conference, November 6-8, 1978), p2-3
115. University Grants Commission, *Development of an information system and library network (INFLIBNET): Report of the Inter-Agency Working Group*, New Delhi, 1988, p. 30-48.
116. Kaul, H. K., *Library networks: An Indian experience*, Virgo Publications, New Delhi, c 1992, p.79-81
117. Vickery, B. C., *Information systems*, London, Butterworths, 1971, p.37.
118. Ibid, Fazle Rab, Syed, p.134.
119. Millard, William, *Information network in biomedicine*, *Journal of Bio-communications*. 11 (3) November, p.7-14.
120. Khan, M T M, *Information organization and communication*, New Delhi, Ess Ess Publications, 1997-98, p. 236-7
121. Ibid.
122. Ibid, p.238
123. Rouse, S. H., *A selected review of the literature on inter-library loan Network*, 2 (1), p.17-25.
124. Ibid, Quoted by Fazle Rab, Syed, p.147.

125. Maruskin, Albert F., OCLC: its governance, function, financing and technology, New York, Marcel Dekkar, 1980, p.20.
126. Kaula, P. N., "Towards resource sharing in libraries" in Planning in library resource sharing edited by S. S. Chandel and Veena Saraf, Lucknow, Print House, 1987, p. 9
127. Ibid, Quoted by Murthy, S. S. Op. Cit.
128. Ibid.
129. Vincent, Fernard, Networking strategies, The IRED experience, Geneva, IRED, 1986.
130. UNESCO, Manual on information networking in population education, Bangkok, Principal Regional Office for Asia and Pacific, 1987, p.13-14.
131. Ibid, Fazle Rab, Syed, p.
132. Ibid. UNESCO, Manual on information networking in population education, p. 13-14.
133. Ibid, Atherton Pauline, p.
134. Ibid.
135. Ibid.
136. Ibid, Verma, S L, p.310-26
137. Recommendation No. 71 to the ministers of education concerning the problem of information at the national and international level which is posed by the improvement of education systems, The International Conference on Education, convened by the United Nations Educational, Scientific and Cultural Organization, meeting in Geneva at its 36th session, held from 30 August to 8 September 1977.
138. Kapoor, M. M., "Information system for educational management in India" in Handbook of libraries, archives and information centres in India, edited by B M. Gupta et al., Information Industry Publications, New Delhi, 1986, p. 196-197.

139. Ibid, Verma, S. L., p.334
140. Ibid, p. 193-5
141. Ibid.
142. Alag, Polly, "National Council of Educational Research & Training (Library and information activities)" in Handbook of libraries, archives and information centers in India, Vol. 8, edited by B. M. Gupta and V. K. Jain, Aditya Prakashan, New Delhi, 1990, p.48.
143. India. NCERT. A document (mimeographed) on Population Education Documentation Centre (POPDOC), NCERT, New Delhi, 4p.
144. Malhotra, Nirmal, The NIEPA (Library and Information Services) in Handbook of libraries, archives and information centres in India Vol. 8, edited by B. M Gupta and V. K. Jain, New Delhi, Aditya Prakashan, 1990, p.57-58.
145. Malhotra, Nirmal, NIEPA Research studies: annotated bibliography 1962-1993, , New Delhi, NIEPA, 1996, 115p.
146. India. NIEPA. Annual Report 1998-99, New Delhi, NIEPA, p. 25-26.
147. India. ICSSR: Indian Council of Social Science Research-a booklet, ICSSR, New Delhi, 1997, p.1-2.
148. Foreman, Sidney, "Education libraries" in Encyclopedia of Library Science, Vol. 7, p.409-13.
149. "National Library of Education" from Federal Agency and Federal Library Reports in the Bowker Annual: Library and Book Trade Almanac™, edited by Dave Bogart, 44th edition, New Jersey, R. R. Bowker, 1999, p. 148-49.
150. Ibid, p.146
151. Ibid,p.150
152. "All About ERIC" collected by the researcher from internet:http://www.access.org/resources/all_about/what.html, visited the 31 January 2000 and also September 2003.

153. Ibid, National Library of Education” ... in Bowker Annual, p. 150.
154. Ibid, “Who uses ERIC?”, All About ERIC.
155. Ibid.
156. Ibid.
157. Marron, Harvey, “Educational Resources Information Center” in Encyclopedia of Library Science, Vol. 7, p.548-49.
158. Verma, S. L., National information system in education: a comparative Study, New Delhi, Concept Publishing Company, 1996, p. 146-148.
159. Ibid.
160. Brandhorst, T, ‘British Education Index’ in International Encyclopedia of Education, Vol., p. 2824-2825.
161. Ibid.
162. Ibid.
163. Ibid, p 2825-2826

Chapter Four

Chapter Four

National Educational Information System (NATEIS) of Bangladesh

4.0 The subject matter of education practically deals with the process of education services and system. The process of education including the educational information system and services, i.e., NATEIS and its constituents- the educational LDI Centres of any country may be mainly represented by three broad areas, viz., i. Area of educational research, ii. Area of education and training for preparation of teachers and other educational personnel, and iii. Area of educational management, administration, policy and planning. It is especially noted here that the educational information resources' production/publication, dissemination, user groups mainly belong to those three broad areas.

In the following paragraphs, NATEIS comprising the Educational LDI centres of three areas (viz., educational research; teachers education and educational administration, management, policy and planning (within the MOE and MPME) in the country have been presented with critical analysis on the basis of information gathered through collection of documents available in the LDI Centres, Records/Archives Centre, etc. In presentation and analysis of particular LDI Centre, its parent organization's background, objectives, functions, programmes, etc. have been discussed in brief. It is because, LDI Centre is a component or unit of its parent organization established to support information services to education personnel to achieve the goal and objectives of the parent organization. Here, an elaborate discussion has been made on the key

LDI Centres of BANBEIS, NAEM, NAPE and UGC as key educational information services centre at national level in the NATEIS.

4.1 Bangladesh Bureau of Educational Information and Statistics (BANBEIS) LDI Centre

At present the Bangladesh Bureau of Educational Information and Statistics (BANBIS) is mainly responsible for collection, process and dissemination of educational information and statistics working as a governmental department under the administrative control of the Ministry of Education (MOE), Government of Bangladesh.¹ It is a specialized national organization in the field of educational information services in the country.

Background of Establishment

‘There was no full-fledged organizational arrangement for the management of educational information in this territory during Pakistani period and also in Bangladesh till 1977. But, ‘after the partition of 1947, a small Cell named the ‘Bureau of Educational Information and Statistics’ was attached to the Director of Public Instruction (DPI) till 1977 for the collection, compilation, documentation of the educational statistics managed by one documentation officer and one statistical officer. On the other hand, ‘there was no significant LDI centre at national level for the purpose of co-ordination of the educational information resources in the country.’²

During the First Five Year Plan (1975-80), the government recognized the need for establishing an organization for educational information services in the country. Because, ‘since the emergence of independent

Bangladesh in 1971, students enrolment, ^{number} access of teacher, new institutes and directorates, etc. in the education sector were started tremendously, ⁱⁿ increasing. In this situation, the 'Bureau of Educational Information and Statistics', a small cell attached to the DPI, was felt inadequate, and for educational information services a separate full-fledged organization was needed for that purpose. However, to meet this need of educational information in the country ^{the} present BANBEIS was established in 1977 through a development project.³ The Bureau became a permanent organisation under the permanent set up in the government revenue budget in 1983.⁴

Mission and Objectives of BANBEIS

Mission

The mission of the Bureau is to collect, and disseminate educational information from primary to university levels in the country.⁵

Objectives

The objectives of BANBEIS are to:

- 'act as ^{the} National Educational Documentation Centre for educational matters;
- act as ^{the} National Focal Point for Regional Informatics Network for South and Central Asia (RINSCA) of UNESCO;
- act as ^{the} Office for Computerized Monthly Pay Order (MPO) for teachers and other employees of all affiliated/recognized non-government educational institutes, and
- act as ^{the} organisation for Educational Management Information System (EMIS) in the country'.⁶

Functions of BANBEIS

To achieve the objectives of the Bureau, the functions of the Bureau are as follows:

To collect, compile, and disseminate all kinds of information and statistics relating to all stages of education in Bangladesh as well as other countries; To work as the national documentation centre in educational matters; To analyze and evaluate information and statistics on education and prepare reports, bulletins, etc.; To make survey of all types of educational institutions; To compile lists of educational institutions, publish brochures, monographs, etc. on educational systems, courses, curricula, syllabi, etc.; To publish educational data and information including reports on development activities, publish annual reports, periodicals bulletins, etc.; To exchange educational publications, information and data with various national and international organizations and agencies; To maintain specialized library containing books, journals, reports, encyclopaedias, etc. on education and allied subjects; To render assistance in educational research activities; To collect and consolidate necessary information and statistics for the purpose of replying to questionnaires and queries from international agencies like UNESCO, IBE, etc.; To computerize data collected for quick processing, analysis, storage and retrieval; To work as the Secretariat of National Focal Point for RINSCA of UNESCO; and To prepare computerized monthly pay order (MPO) for all the teachers and other employees of all affiliated/recognized non-government educational institutions of the country in co-operation and collaboration with the DSHE of MOE.⁷ In addition to these, since 1992 the Bureau has been serving as central Textbook Library and Book Bank at college/university levels.⁸

Organizational Structure of the Bureau

The Bureau has two Divisions and two Units. The Divisions are- (1) Documentation, Library and Publication Division (DLPD), and (2) Statistics Division. Two Units are Computer Unit and General Administration Unit. The organization is headed by a Director and he/she is assisted by 2 Divisional Chief (one for each) and the Computer Unit is managed by the Senior System Analyst and the Administrative Unit by an Administrative Officer. Out of total strength of 73 posts, the department has 40 professional and 33 ancillary staff.⁹

Documentation, Library and Publication Division (DLPD)

Present Staffing Pattern of the DLDP of the Bureau

It is observed in the present organizational chart that Documentation, Library, and Publication Division of the Bureau is headed by a Chief and he/she is assisted by 1 Specialist (library), 1 Specialist (documentation), and 1 Specialist (publication). The Specialist (library) of the library Unit is assisted by 1 Librarian, 1 Assistant Librarian, 1 cataloguer, 1 Lower Division Assistant cum Typist and 1 Library Helper. The Specialist (documentation) is assisted by 1 Documentation Officer, 1 Assistant Documentation Officer and 1 Copier. The Specialist (publication) is assisted by 1 Publication Officer, 1 Assistant Publication Officer, 1 Photo-copier Assistant, 1 Duplicate Machine Operator, 1 Lower division Clerk cum Typist and 1 MLSS.¹⁰

Functions of DLDP

The DLDP of the Bureau is responsible for the management and execution of all educational documentation work, maintenance of a

specialized Library, Documentation and Information Centre on education, publication of reports, bulletins, yearbooks, and other publication.⁹ It is a national educational documentation centre and maintains liaison with various national and international agencies for exchange of educational information. It provides information in response to queries and questionnaires on educational matters to various ministries, government agencies and organizations in the country and also international organizations ^{and national organisations of} different countries. The regular recipients of educational information are the MOE, Planning Commission, within the country and the international organizations including UNESCO, International Bureau of Education (IBE), International Institute of Education Planning (IIEP), UNICEF, Asia and Pacific Educational Innovation and Development (APEID), ISESCO, Commonwealth Secretariat and various universities and institutes. It is also responsible for computerization of bibliographic information on education including establishment of a national and international network. It also organizes seminars, symposia, training programmes on educational matters including information systems, library and documentation services.¹¹

In stating the status of library and documentation services provided by the DLPD of the Bureau it was remarked that the BANBEIS 'has got an organized library. It has a good collection on education and related subjects. It is a well equipped and well managed with a good number of qualified and trained professional personnel. The Documentation Unit maintains ^{under} sixty subject headings of newspaper clipping files specially on education and related topics. It publishes newspaper index of a few local dailies. It also provides CAS and SDI services to the scholars and high officials of the MOE and other government and non-government

agencies. This is a national documentation centre for education in Bangladesh. This centre is equipped with a computer and maintains profiles of government and non-government institution of all types".¹² the researcher does think that it is a one-sided comments on the BANBEIS library.

Development of BANBEIS

After 1983 no development project or scheme was taken over by the government of Bangladesh for the development of the Bureau. Considering the national importance and significance of educational information services in the country during the period of fourth five Year Plan (1990-95) extending to Fifth Five Year Plan (1997-2002), a development project (July 1991-June 2001) entitled 'Strengthening of Management Information System and Statistical Services of the Ministry of Education (EMIS) for the improvement of BANBEIS was undertaken by the MOE. The key objective of the scheme was to 'Strengthen the BANBEIS as the central institution for EMIS in the MOE as well as to create and establish an operational Educational Management Information System or EDUNET in BANBEIS with linkage to Ministry of Education's Planning Cell, DTE, DSHE, NAEM, Education Wing of Planning Commission.¹³

A Critical Analysis on the LDI Centre of the Bureau

From the above discussion based on various documents on the DLPD's mission, objectives, functions and services, it seems that it is a good library for education.

But it is also observed that the authority always emphasised only on institutional capacity building for EMIS since its inception, but not on the educational information system/network based on LDI services except creation of some posts for the LDI centre.¹⁴ A librarian remarked the following about the BANBEIS library and its role as NEDC for NATEIS:

- (i) The Bureau has not yet undertaken any effort to establish the educational information system/network connecting the other educational LDI services organizations in the country;
- (ii) Educational indexing and abstracting services based on educational periodicals/journals has not yet been started;
- (iii) No bibliography on education has yet been prepared by the DLPD of the Bureau;
- (iv) The library and documentation Units are under staffed;
- (v) Legal framework has not yet been initiated by the Bureau for developing effective NATEIS in the country;
- (vi) The Documentation Specialist and Documentation Officer working in the documentation unit at present are not professional;
- (vii) The infrastructure, especially the availability of computer, equipment, etc. are inadequate;
- (viii) The collection of bound journals and also regular subscription of journals on education are negligible;
- (ix) The provision of budget for DLPD is also inadequate;

- (x) The government always ^{have} emphasized ^{for} the development of educational statistical services rather than educational informational services based on LDI organization.¹⁵

4.2 National Academy for Educational Management (NAEM) LDI Centre

The NAEM, an institute of national importance is mainly responsible for conducting educational research on different issues and providing in-service training in educational administration, management, and planning to the heads of secondary schools, madrasahs, and colleges and foundation training to college teachers of Bangladesh Civil Service (Education Cadre). Besides, courses on project management, research methodology, training of trainers, computer application, library planning and management are also conducted by the academy.¹⁶

Background of Establishment of NAEM

There was no education service to perform ^{provision for} the re-training and refresher training of teachers, headmasters, inspectors, and other education officers in the then East Pakistan.¹⁷ To reach those ^{achieve it is} purpose and objectives, the 'East Pakistan Education Extension Centre at Dhaka was established in 1958 within the Directorate of Public Instruction under the administrative control of the MOE through a development scheme/project for three years commencing from April 1958 to March 1961.¹⁸ This centre, including its library was firstly housed in the old public library building at Dhaka and after three years it was shifted ^{to} in the newly built campus of 8.00 acre lands of its own ^{on} in 16 March, 1962¹⁹ which is now called the NAEM since July 1991.²⁰

Aim and Objectives of NAEM

Aim

“The aim of NAEM is to ensure quality management of education at all levels of post primary education”.²¹

Objectives

To provide professional and technical support to the education sector for improving institutional capacity in educational management and administration; to promote increased efficiency and effectiveness in the management and administration of the post primary education sub-sector; and to assist the development of manpower for the different sub-sectors of education.”²²

Management, Organization and Staffing Pattern

From the East Pakistan Education Extension Centre (EPEEC) in 1959 to Bangladesh Education Extension and Research Institute (BEERI) in June 1982, this organization worked within the Directorate of Public Instruction (DPI) under the administrative control of the MOE. At that time it was headed by a Director with some other officers and support staff.²³ But after renaming in July 1982 as NIEAER, this organization was recognized as an attached department/directorate under the MOE. The then NIEAER was headed by a Director General with 2 Directors and other support officers and staff.²⁴ At present the National Academy for Educational Management (NAEM) is an attached staff-department/directorate like DSHE, DPE of the MOE. It is headed by a Director General assisting with ^{who is assisted:} 4 Directors, 7 Deputy Directors, 16 Assistant Directors, 1 Librarian, 1 Registrar, 1 Accounts Officer and

other 58 Support Staff in the permanent set up of the government's revenue budget.²⁵ Besides, there is a number of officers and support staff recruited under the "Restructuring NAEM", a development project for July 1991-June 2001 in the government's development budget.²⁶ And it is under process to bring these posts of officers and staff into the permanent set up of the NAEM.

Research and Documentation Division and Staffing Pattern for LDI Centre

There are four Divisions in the organizational set up of the present NAEM and its Library and Documentation Centre is a unit under the Research and Documentation Division. This Division is headed by a Director and he is assisted by two Deputy Directors (1 for library and documentation); four Assistant Directors (two for library and documentation); and Librarian in the permanent set up. For library, there are also one post of Assistant Librarian, one Cataloguer, two Library assistants, two Book sorter,³ one Bookbinder and one MLSS and in the development project there are also one post of Documentation Officer and 1 Documentation Assistant, two Cataloguers, one Bookbinder.²⁷

Development of LDI Centre of the NAEM and its Activities

In the development scheme of the East Pakistan Education Extension Centre in 1959-61, a plan for establishing a modern library and documentation centre was included for providing information services to the faculty members and trainees and also to take programme to disseminate educational information among education officers and teachers in the then East Pakistan.²⁸

The professional librarian was first appointed by the authority on 4 April 1963. Besides, there was also a post named Library Specialist for providing one month library training to the graduate high school teachers of the pilot high schools to make them able to run the school library.²⁹

In stating the chronological development of collection and utilization of library resources it is observed in an EPEEC document that the 'Education Extension Centre has a library of its own containing up-to-date volumes of books on teaching various subjects besides books on general educational principles and educational psychology, textbooks and books for general knowledge and recreation. The library was fast growing year by year through both purchase of books locally and import of books from abroad, and through additional gifts from benevolent agencies. Local purchases were made entirely out of government funds, and the import of books from abroad had been made through the University of Chicago with fund from the Ford Foundation. The Centre had, however, to borrow books from some other institutions on some specific occasions for the benefit of the trainees'.³⁰

Since the emergence of independent Bangladesh in 1971 to June 1982 due to the vacant post of the Librarian, the Library Specialist (with 1 Cataloguer, 2 Library Assistants and 1 Bookbinder cum MLSS) worked as officer in Charge for the library, in addition to his assigned duties. This situation hampered the growth of development of the library. It is also unfortunate that the post of Library specialist created for preparation of school librarian was abolished after the merger of NIEAMR and BEERI into NIEAER in July 1982 and instead of this only a post of Librarian was created for the management of the library and documentation centre of NIEAER. The library had 20,000 volumes in June 1982.³¹

For the development of LDI centre, an expert committee recommended that “library should be modernized, upgraded and redecorated and a book stock of some 10,000 volumes provided for the use of the Education Management and Administration Unit”.³² For implementing this recommendation Tk. 600000.00 was allotted in the development project during 1982-85 for purchase of such types of books.³³ About one decade after in a study by External Evaluation Committee in 1990 on NIEAER³⁴ including its LDI centre commented that ‘library is somewhat crowded and is not well maintained. Library can provide seating capacity for about 40 persons on the ground floor and another 25 on the upper floor. The library has a total collection of about 24000 volumes and recently acquired a number of books on administration and management. New courses that are planned to be introduced will require much greater use of the library by the course participants and the faculty members. At present the participants are not given any assignment requiring library use. New books on educational planning and management must be procured. The question of expanding library facilities, not necessarily construction of additional floor space, has to be examined in further detail. Establishment of a seminar library by using one of the existing rooms on the campus merits serious consideration as it can augment additional capacity without having to construct a new floor on the present building. A seminar library is essential for serious academic work’.³⁵ On the recommendations of the study report of EEC of 1990 a development project including a component for LDI centre improvement was undertaken for the period of 1991-2001 which was completed on 30 June 2001.³⁶

At present, the library is housed in a two-storied building with total space of 8800 sq. ft.³⁷

Mission and Objectives of the LDI Centre

The mission and major objectives of the NAEM's LDI Centre are: To serve as national documentation centre and library in the field of educational administration, management, planning, training and research in the country; To serve as national clearing-house in the field of educational administration, management, planning, research, etc. in the country.³⁸

Functions of the LDI Centre

The major functions of the NAEM LDI Centre are as follows: To collect books, documents, research reports, journal and periodicals and also non-book materials from home and abroad on the defined areas; To organize the collected information resources through cataloguing and classification; To make the needed information resources available to the trainees, trainers, researchers of the academy and other related educational organizations; To make library cooperation with other similar organizations at home and abroad; To prepare indexes of journal articles and newspaper articles; To prepare bibliography and abstract on educational administration, management, planning, training and research; To prepare Current Awareness List and circulate it among the faculty members of the academy; To maintain Selective Dissemination of Information file; and Any other task assigned by the authority.³⁹

A Critical Analysis on the NAEM's LDI Centre

Although additional physical facilities for NAEM have been created under the 'Restructuring NAEM' programme, but qualitative development has not yet been achieved in terms of objectives and output determined in that scheme. Still now, NAEM has been suffering from qualified manpower for implementing its programmes, especially in doing research in education. The research activity is yet almost nil, which was the comment passed by the External Evaluation Committee in 1990. In the programme of the LDI Centre development, it is seen that though additional library space is created but its qualitative development has not yet been achieved. No international journal on education, especially on educational administration, management and planning is subscribed. The budget for books and documents is inadequate. The organizational structure for LDI Centre is defective. Because, the posts of two Assistant Directors for documentation and library have not been filled up by professional library personnel due to the defective recruitment rules and qualification test. Except acquisition services on defined areas of education, reference services and retrieval services the LDI Centre does not regularly provide documentation services; CAS services; SDI services; bibliographical services, reprographic services and there are no indexing and abstracting services. In a nutshell, it may be said that the NAEM LDI centre is not well managed and administered in terms of policy and planning in comparison to other similar LDI centre in developed and developing countries in the world.⁴⁰

4.3 National Curriculum and Textbook Board (NCTB) LDI Centre

“The curriculum is the heart of education system. It reflects the aspirations, the vision, the culture, the social and economic life and heritage of a nation. It should be dynamic and responsive, like life itself, to the challenges of development and growth. A quality curriculum begets quality education”.⁴¹ On the other hand, if curriculum is not properly reflected in the textbook, an important input in the education process, it will hamper the quality education. So, curriculum and textbook are equally important in the education system of a country.

The ‘National Curriculum and Textbook Board (NCTB), an autonomous body within the MOE is primarily responsible for curriculum development and textbook from primary to secondary level in the country’.⁴² So, it is an organization of national importance in the education sector of Bangladesh.

Background of Establishment

The National Curriculum and Textbook Board (NCTB) came into being as a result of the merger of the erstwhile Bangladesh School Textbook Board (which was established in 1954 in Pakistan period) and the National Curriculum Development Centre (which started functioning in January 1981 as sub-ordinate office of the MOE) on 2nd October 1983.⁴³ Under the provisions of the Ordinance (Ordinance No. LVII of 1983) all types of assets, rights, powers and authorities of the two organizations were transferred to the present NCTB.⁴⁴

Functions of the NCTB

The broad functions of the NCTB are as follows:

a. to examine (and research) the curricula and syllabi of schools (primary to higher secondary level) and suggest revision thereof; b) to pre-test and evaluate the effectiveness of curricula, syllabi and textbooks of schools; c) to arrange for the preparation of manuscripts of the textbooks; d) to arrange for the publication, distribution and sale of textbooks; e) to approve the textbooks, prize books, library and reference books; f) to encourage scientific, literary and cultural works by providing grants and donations; g) to donate books to the poor and deserving students; h) to do such other acts and things as may be assigned to it by the Government from time to time.⁴⁵

Organization and Staffing Pattern

The NCTB is headed by the Chairman, Chief Executive of the Board. It has now four divisions: (i) Administrative Division, (ii) Curriculum Division, (iii) Textbook Division, and (iv) The Finance Division. Besides, there is an on going development project named 'Population Education Project' working within the Curriculum Division of the Board. The LDI Centre/Unit of the Board is working within the Curriculum Division.⁴⁶

LDI Centre /Unit of NCTB

The NCTB has been maintaining a library since the inception of the Board. In addition to this a documentation unit has been established under the Population Education Project for providing educational information services in the field of population education. At present the Library and

Documentation Centre is working within the Curriculum Division of the Board.⁴⁷

The Board is housed in its own campus with two big buildings located at Motijheel, Dhaka, the Capital city of Bangladesh. The Library is housed in the 6th floor and the Documentation unit is housed in the 8th floor. In the mid-sixties a professional librarian was appointed for the better management of the library. After his retirement (Librarian) a non-professional person has been performing the duties of the librarian, but for the documentation unit, one professional personnel in Library Science has been appointed.⁴⁸

The Library unit is headed by a Librarian and the Documentation Unit is headed by a Documentation Officer working under the direct supervision of the Member (Curriculum) within the Curriculum Division. In the Library Unit there is one Assistant Librarian cum Cataloguer, 2 MLSS/Book sorters. In Documentation Unit for Population Education Project there is no other auxiliary staff.⁴⁹

Objectives and Functions of the Library Unit and Documentation Unit

Objectives of the Library Unit and Documentation Unit are to act as the information resources centre for the development of curriculum and textbook at primary and secondary education in the country; to act as documentation centre in population education in the country.⁵⁰

Its functions are as follows: to collect books, journals, research reports and other related publications in curriculum and textbook from home and abroad; to catalogue and classify the collected books to make them

available to the faculties; to prepare bibliography on curriculum and related areas; to provide reference services to the users; to make documentation list on population education; to provide documentation services in preparing any project in the research of curriculum, textbook and population education; to establish cooperation with other similar type of organizations at home and abroad.⁵¹

A Critical Analysis on the NCTB LDI Centre

Being an important national organization, the NCTB has not been performing its role in the curriculum development like other similar organizations, both in developed and developing countries. In this connection, the Chairman and the Member (Curriculum), two catalysts of the NCTB indicated in their opinions that the NCTB with its present administrative structure and its level of manpower cannot adequately perform its role as major curriculum developer. The deficiencies they noted are lack of: professionally qualified manpower; research base; permanency of staff; proper administrative structure; updated information materials.⁵²

Though the NCTB has own its adequate land/space but the authority has been maintaining its library in a very limited place since its inception. The post of the professional librarian has been vacant since the retirement of the previous librarian one decade before. Almost all collection of the library is uncatalogued and unclassified. Curriculum is the heart of education process. But up-to-date books on curriculum are negligible. Not a single journal/periodical on curriculum is subscribed. Even there is no modern facility in the library to preserve the textbooks produced by

the NCTB. No modern library and information services are provided by the library.⁵³

4.4 University Grants Commission (UGC) of Bangladesh Library

Background of Establishment

After the independence of Bangladesh in 1971 the “University Grants Commission of Bangladesh was established under the Presidential Order of the Government of the People’s Republic of Bangladesh which was deemed to have come into force with effect from the 16th December 1972”.⁵⁴ The present UGC of Bangladesh, an autonomous organization functioning since 1973 as coordinating agency, is primarily responsible for planning, financing and managing the academic aspects of the public universities funded by the government and also responsible for the establishment of private universities under the Private University Act of 1992 in the country.

The Responsibilities and Functions of the UGC

The major functions of the UGC are to assess the needs in the field of university education and formulate plans for the development of such education; to determine financial needs of the universities; to receive funds from the government and allocate and disburse, out of such funds, grants to the universities for their maintenance and development; to evaluate the programme under implementation for development of universities, teaching departments, institutes and other constituent institutions; to examine all kinds of development plans; To collect statistical and other information on university matters; to advise the

government in the establishment of new universities or on proposals for expansion of the existing universities; to advise the government regarding the right to confer special degree awarding status on colleges; to exercise such other powers and perform such other functions as may be conferred on it by any law or by the government; the Commission shall have the right to visit the Universities or to have them visited by teams of experts as and when necessary for evaluating their programmes and assess their needs and requirements, etc.⁵⁵

Management and Administrative Structure of the UGC

The UGC consists of the Office of the Chairman as chief executive; the Offices of the two Full time Members; four Divisions, and Institute of Scientific Instrumentation (ISI). There are also 9 Part-time Members. Four Divisions are: 1. *The Secretariat and Administrative*; 2. *The Planning and Development Division*; 3. *Finance and Accounts Division*; 4. *The Research and Publication Division*.⁵⁶ There are over 150 employees of different categories of staff in the UGC and about 35 employees in the ISI.⁵⁷

The Library of the UGC

Since its inception in 1973, the UGC has been maintaining a library to provide library and information services to the researchers and the persons concerned in higher education. Till 1995, the UGC Office including its library was housed in the temporary building allotted by the government in Dhaka and in 1996; it was shifted in its new campus at Agargaon in Dhaka. At present, the library is housed on the third floor in the main building of the UGC.⁵⁸

Staffing Pattern and Management of the Library

The Library Unit of the UGC is included in the Research and Publication Division. The Library is managed and administered by the Library and Publication Wing and is headed by a Deputy Director as Executive Head of the library. He is assisted by 1 Senior Cataloguer, 1 cataloguer, 1 Administrative Officer and 1 Office Assistant and 1 MLSS.⁵⁹

Mission and Objectives of the UGC Library

The main objective of the UGC Library is to provide information and library services to the research workers and officers concerned in the planning, management and development of higher education in Bangladesh.⁶⁰

Responsibilities and Functions of the UGC Library⁶¹

To achieve the vision, goals and objectives of the UGC, the responsibilities of its library are to provide information resources support in formulating plan in higher education; in designing administration and management of higher education; in research in higher education; in knowing up-to-date situation in higher education in the world; in taking development programmes in higher education in Bangladesh; in the establishment of new universities/ institutes in the country. The functions and services of the library are:

Acquisition functions and services

To collect information resources of all types in higher education from home and abroad; Organization of resources and retrieval services: to organize the collected resources and to make available those to the users; Preparation of Index, Abstract, Bibliography, documentation lists, etc., to

give up-to-date information to the researchers; and CAS, SDI services to the researchers.

Development Programme for the improvement of Library Service

The UGC has established a University Resources Centre for upgrading the quality of higher education including the library services in the country under the three years recurring programme in its office campus. The major objective of this programme is to connect the libraries of home and abroad with internet; to establish a Central Databank; to modernize the curriculum of universities and to hold seminars, workshops, etc.; to establish a Central Library in UGC to provide information services to the researchers. For the implementation of those objectives, the UGC inaugurated 'Bangladesh Education and Research Network (BERNET)' in April 1999 at the cost of Tk. 2,25,00000. The implementation of that programme is going on.⁶²

A Critical Analysis on the UGC Library

The UGC has a lot of problems. The major problems are lack of adequate and skilled staff, limited budget, power concentrated in the hand of the MOE, etc. These are also applicable to the management of its library. Moreover, low importance given to the library in the past is the main weakness of the library management of the UGC.

The present library is housed in a floor of the new UGC building. But this place has not been properly designed for a modern library. The present collection of the library on higher education is not adequate, especially; ready reference books like Encyclopedia of Education, Encyclopedia of Higher Education, Encyclopedia of Comparative Education, Education

Index, Education Abstracts, etc. have not been procured in the library. No journals on higher or university education are subscribed. There is only one professional staff in the library.⁶³

4.5 National Academy for Primary Education (NAPE) LDI Centre

The National Academy for Primary Education (NAPE) is the name of the former 'Academy for Fundamental Education' established in July 1978 in the campus of the erstwhile College of Education, Mymensingh. The present name of the academy, the 'National Academy for Primary Education (NAPE)' has been named since 1983.⁶⁴

The academy has been renamed to bring greater clarity in its objectives and to focus its exclusive attention to the priority needs in primary education. The academy is a milestone in the history of both primary education and primary teacher training programmes in Bangladesh.⁶⁵ The academy was created to cater to the needs of different areas of primary education and to materialize the early universalisation of primary education programme in the country.⁶⁶ The present NAPE started its journey through the development scheme of "Establishment of an Academy for Fundamental Education" of 1976-1980.⁶⁷ During this scheme, additional physical facilities like hostel, academic building, library and documentation space, etc., had been increased.⁶⁸

Functions and Activities of the Academy

The NAPE is committed to the nation building task of universalisation of primary education through the following function⁶⁹: meaningful improvements in primary curriculum; qualitative improvement in day to

day classroom instructions in the PTIs and in their experimental schools; up-dating of primary curriculum, contents and methodologies; maintaining standards in tests and examinations; organization and evaluation of non-formal education programmes; research activities in all areas of universal primary education and non-formal education; innovation in classroom instructions, management and evaluation.

Organization and Management of the Academy

The Academy is headed by a Director and he is assisted by two Deputy Directors, one for administration and training and other one for Evaluation and Examination. The activities of the academy are divided into 8 Faculty Divisions. These are: (1) Foundation Division; (2) Humanities Division; (3) Mathematics, General Science and Rural Science Division; (4) Art and Craft Division; (5) School Management and Supervision Division; (6) Non-Formal Education Division; (7) Research and Evaluation Division; and (8) Library and Documentation Division. Each Division is headed by 1 Specialist (like Assistant Professor) with 1 or more Assistant Specialists (like Lecturer). The academy has 36 faculty members and 50 other supporting staff. In addition to the above set-up it has two Boards and two Committees for the better management of the academy.⁷⁰

Library and Documentation Division of the Academy

The academy has been maintaining a library and documentation unit from its inception. At present Library and Documentation unit is recognized as distinct Faculty Division like other Faculty Divisions. The library and documentation centre has one Librarian, two Assistant Librarians, and one Documentation Officer.⁷¹

Objectives of the NAPE LDI Centre

The mission and objective of the Library and Documentation Division is to provide educational information resources support to the training and research activities of the academy to achieve its goal and objectives.⁷²

Functions and Services

For the Library and documentation Division, the following functions⁷³ are assigned by the authority. These are: to collect books, documents , periodical and journals relating to primary education; to catalogue and classify the collected materials; to provide reference and information services to the trainees and trainers and researchers; to prepare documentation list, bibliography; and to prepare index and abstract.

Status of the LDI Centre

It is observed in a document titled 'Introducing NAPE' that “ due to lack of sufficient space, the Academy Library has been shifted to Educational Resource Centre adjacent to the administrative building. At present, the ground floor (1622 sq. feet) consisting of 12 rooms including 2 reading rooms with 40 seats for readers is being used as library and the first floor of the same building is being used for housing educational museum (Academy Resource and Display Centre), Publication and Documentation Section.”

‘The present library consists of a variety of collections numbering 17000. They relate to (1) Education, (2) Primary Education, (3) Child Psychology, (4) Child literature, (5) Methodologies, (6) Primary curriculum, (7) Non-formal education and so on. In addition to the above mentioned collections, magazines, bulletins, periodicals, journals etc are

also available here”⁷⁴ Besides, UNESCO, UNICEF, Universal Primary Education (IDA) Project contributed books and documents for the academy library.⁷⁵

A Critical Analysis on the NAPE LDI Centre

The library and documentation activities has been given the equivalent status as other faculty division (like others 7 divisions) in the academy’s organizational structure. But, the Academy’s organogram and recruitment rules show that the LDI personnel has not given the equal status like other Division’s officers in terms of pay scale and promotion facilities. It is also observed that a separate library building or adequate space for the library has not yet been provided. The collection on primary education are not adequate and also not up-to-date. The major collection in the library is course books (own publication), training materials, etc. Journals/periodicals on primary/elementary education are not subscribed. Annual budget for purchase of books and journals are very inadequate.⁷⁶

4.6 Institute of Education and Research (IER) Library

The Institute of Education and Research (IER), an organization of national importance for education is the largest and oldest institute not only among all the institutes of the University of Dhaka but also in the country. ‘This institute was established on 1 November 1959 at the Dhaka University campus with joint collaboration between the then Pakistan Government and AID of the USA.’⁷⁷

Objectives of the IER

The major objectives of the institute are: to give inspiration and to provide opportunity in higher education and the development of

educational research; to award Diploma, Master in Education, and Ph D in Education; to provide opportunity for higher training and education to the persons engaged in education; to provide advice, consultative services on teaching and learning methods, education system to university, college and other higher education institutes in the country.⁷⁸

Management and Administration of the IER

The institute is headed by the director. At present, it has 40 faculty members including 15 teachers having Ph. D. degree with outstanding contribution in education in terms of research articles and other publication. The Director is assisted by a number of subordinate officers and staff, i.e., Section Officer, Accounts Officer, Computer Programmer, library personnel and other auxiliary staff.⁷⁹

Organization of the Academic Functions

At the beginning the IER began its journey with one year Diploma in Education Programme of 45 Credits. The next course introduced in 1967 by the IER is one year Masters in Education of 45 Credit. Among these 45 Credits, a student may take thesis for 9 Credits. The course of M. Ed. for part time student is two years. But the one year Diploma in Education Programme of 45 Credits has been dropped after introducing the 4 years Bachelor in Education (Honors) Programme for the last 5 years. At present there is an arrangement for Ph. D. Programme, but the programme of M Phil has not yet been introduced due to lack of provision in the University act.

At present, there are 9 Specialized Departments in education. These are: 1-Primary Education; 2-Secondary education; 3-Science and Mathematics

Education; 4-Social⁴ Sciences Education; 5-Commerce Education; 6-Fine art Education; 7-Educational Psychology and Guidance; 8-Educational Planning, Administration; and 9-Educational research.⁸⁰

Research and Publication

The faculty members of the institute do research individually and also collectively. The students of M. Ed. Programme also take research work as individual assignment under the guidance of the faculty member of the institute. A Quarterly educational journal named “Teacher’s World” is published with the research articles of the faculty members, research students of the institute and also articles of outside educators, teachers. Besides this, the IER publishes own research reports.⁸¹

The Library of the IER

Since its inception the IER has been maintaining a library for providing library and information services to its faculty members, students and also outside education researchers.

Objectives of the Library

The major objectives of this library are: to make educational information resources support to the teachers and student of the institute in teaching and learning in the various degree awarding programmes; to support educational information resources in the research project undertaken by the faculty members and students; to support educational information resources in preparing papers/articles to be produced in seminars, workshop, conferences by the faculty members.⁸²

Functions of the Library

The principal functions of the library are: to collect books, documents, journals, and also non-book materials; to organize collected resources through cataloguing, classification and indexing; to preserve the collected materials properly; to make bibliography/abstract to support the educational research; to make documentation list; to participate in the library cooperation/ networking programme for resource sharing for the benefit of the faculty members.⁸³

Critical Analysis on the IER Library

Research findings show that “the total number of books in the library of the IER was approximately 28000 during 1973-74. About Tk. 10000 are spent annually for purchasing books and teaching aids including equipment. Approximately 5 per cent of the books in the library of the institute were found to be of recent publications”.⁸⁴ Beside there were inadequate number of audio-visual aids in the library for teaching and learning.

The collection of books, bound journals, and other reading materials are insufficient in terms of number of students and teachers and researchers. It is a matter of astonishing that being an educational research institute the IER Library does not subscribe any foreign educational journals. The space facilities in the reading room in the library are also very inadequate. In the library collection there are no recent educational abstracts and indexes. One third of the sanctioned posts in the library are vacant. No reprographic and IC facilities are available for the library services.⁸⁵

4.7 Teachers' Education and Training Institute Libraries

It is stated in the report of the 'SAARC Workshop on Teacher Training' that "The quality of any education system is determined by the quality of its teaching force".⁸⁶ Considering this importance, teachers' education and training programmes have been organized in Bangladesh. The teachers' education programme in Bangladesh consists of different phases. The different phases of teacher educational institutes including their library/documentation units are evaluated in some of the next paragraphs.

4.7.1 Primary Training Institute Libraries

The primary Training Institute constitutes the very first phase in teacher education and training. At present there are 53 Primary Training Institutes in Bangladesh.

Objectives of PTI

The purpose of the PTI is to produce primary school teachers for the existing primary schools of Bangladesh; to conduct in-service training course for primary teachers; and also to conduct action research in problem solving in primary education.⁸⁷

Organization and Management

Primary Training Institutes are working under the control of Directorate of Primary Education (DPE) within the Primary and Mass Education Ministry. These PTIs are purely governmental organizations. Each PTI is headed by a Superintendent assisted by an Assistant Superintendent; a number of Instructors and a number of supporting staff.⁸⁸

The major functions of PTI

The principal function of PTI is to conduct the 'Certificate in Education (C. Ed.)' Course/Programme for preparing primary education teacher.⁸⁹ So, it is mainly a teaching-institute. It has a curriculum and syllabus designed for preparing primary school teachers. So, it is essential to know the curriculum of the PTI in understanding what type and nature of information resources the PTI library should have.

Curriculum of C in Ed

The major objectives of the curriculum of the C in Ed. Course are to teach the trainee-teachers about: Constitutional principles relating to education; the education system of Bangladesh; primary education system of Bangladesh; compulsory and universal primary education and its implementation process; curriculum of primary education; educational psychology and child development; educational principles; competency based curriculum; continuing evaluation; professionalism; non-formal education, Citizenship education, community participation, etc.⁹⁰

The duration of the training in the Primary Training Institutes is one academic year beginning from July. The minimum qualification which the trainees need to be admitted is Secondary School Certificate (SSC). The evaluation of the total programme is done on 1200 marks distributed among different subjects of the curriculum.⁹¹

The Library of PTI

At present there are 54 PTIs in Bangladesh and each and every PTI is maintaining a library.

Objectives and Functions of the Library

The main objective of PTI Library is to provide educational information resources support to the trainers and trainees in proper implementation of curriculum of the PTI. The major functions of PTI Library are: to collect the educational information resources relating to curriculum of PTI; to organize the collected resources by accessioning, cataloguing and classifying; to make information resources available to the trainers and trainees; to provide reference services to the users; to teach library use to the trainee-teachers; and support the classroom teaching of the teachers by providing appropriate books and other materials; and to render information services in action research in primary education.⁹²

A Critical Analysis on the Primary Training Institute Libraries

It is seen in a study in 1976 that 'the total number of books in the libraries of the 47 PTIs was found to be 132393, which gave an average of 2879 books per institute library; about 66 per cent of the institutes spent below one per cent of their annual budget for purchase of books and journals; in most of the institutes the libraries had very few books published after 1969. More than half of the institutes had up to 10 percent of the total number of books of recent publications'.⁹³ In another study in 1986 it was observed that 'There is no post of Librarian in the PTI which hampers proper management of the PTI Library.' And there is a post of an Assistant Librarian in PTI, but 66 percent post are vacant'.⁹⁴ This study also remarked about the poor management of the PTI libraries.

Though the qualification of the library personnel is equivalent to the teaching staff, but the pay and status are not same to the teaching staff. For the improvement of the PTIs libraries, the National Primary

Education Committee'1997 opined in their recommendations that "each PTI must have essential and relevant books and journal and each PTI should have a qualified Librarian having equal status and opportunity like Lecturer (teacher)".⁹⁵

4.7.2 Teachers Training College Libraries

There are 11 Government 'Teachers' Training Colleges' including the new one of Barishal Teachers' Training College. These colleges offer a ten-month Bachelor of Education (B. Ed.) course to the non-B Ed. secondary school teachers. Among the TTCs, Dhaka, Mymensingh and Rajshahi offer one-year M. Ed. Course after completion of B. Ed. Course.⁹⁶ Besides, there are a number of non-government Teachers' Training Colleges which were recently established under the academic control of the National University. However, the B. Ed. course conducted by those govt. TTCs covers the major portion of the teacher training programme of the country as it is connected with the secondary education and teacher training.⁹⁷

Organization and Staffing Pattern of TTC

All Teachers' Training Colleges of Bangladesh are administered and managed by the DSHE under the MOE and the National University controls the academic activity.⁹⁸ Each TTC is headed by a Principal with the status of Professor and he or she is assisted by 1 Vice-Principal with the status of Associate Professor. In addition to this, some of the TTCs have 1 additional Vice-Principal. Each TTC has 1 post of Associate Professor, 13 posts of Assistant Professor and 15 posts of Lecturers. Besides this there are a number of posts of supporting officers and staffs

for library, research, accounts and general management. The Principal of the institute is accountable to the Director General of DSHE.⁹⁹

Functions of TTC

The major functions of TTCs are to prepare secondary school teachers; to conduct research on secondary education system, and teacher education.¹⁰⁰

Curriculum and Syllabus of TTC: The curriculum is the heart of any educational programme. So, it is the central input to any education system. To understand about any institute and also its library, especially the nature of information resources to be collected, it is essential to know the curriculum and contents of the programme. The syllabus of the B. Ed. course has been renewed and redesigned by the Secondary Education Development Project, DSHE with a view to make it more effective, modern and suitable for present day needs.¹⁰¹ The subjects taught:

Compulsory Subjects (Five for 500 marks): Foundation of Education (philosophical, historical, social and legal); Psychological Foundation of Education; Secondary Education; Educational administration and Management; Measurement and Evaluation of Education Elective Subjects (Any two for 200 marks): Bengali; English; Math; Physics/Chemistry; Biology; Social Sciences/History; Geography, Business Education.

Optional Subjects (any one for 100 marks): Islamic Studies; Agriculture Education; Home Economics; Arts and Crafts; Computer education; Education Research and Library Science.

Practice Teaching in two Elective Subjects for 200 marks

Viva Voce for 100 marks.

The duration of B.Ed. course is ten months and entry requirements need graduation from any recognized university. The age limits to below 35 years and 70 per cent seats are reserved for the serving non-trained teachers at secondary schools.¹⁰²

The Library of the TTC

Each and every TTC has a library to make the educational information materials available to the teachers, trainee-teacher. The library is headed by librarian and he is assisted by 1 Assistant Librarian. Besides this the library has 2 supporting staff.¹⁰³ The Librarian is responsible for the management of the library and he/she is directly accountable to the Principal of the college.

Objectives and Functions of the Library

The prime objective of the TTC Library is to make educational information resources available to the teachers and trainee students in teaching and learning activities and also research works. The major functions of the library are to: collect educational books, documents, and journals for the users; to catalogue and classify the collected materials to make them available to the users; to provide reference and information services to the users; to prepare bibliography for supporting research work of the teachers and also in preparing dissertation of the research students; to maintain accession list of the new materials and to teach library- use to the trainee-students.¹⁰⁴

Critical Observation on the TTCs Library

It is observed in a research study on TTCs library in 1976 that 'library reading room facilities is adequate in 50 per cent of the TTCs, library books and other reading materials are adequate in 67 per cent of the TTCs, and it is also seen that the total number of books of recent publication in the libraries of the TTCs are 44289 (the mean number is 7382.5) and "only one TTC has 23 per cent of books of recent publication. There is no financial allocation for purchasing books and equipment in 50 per cent of the TTC'.¹⁰⁵ An important study was made by NIEAER in 1986. In this study it was observed that 'each of TTC has 7000 books on an average. The collection is insignificant and two-third of the collection is unutilized and majority books are not recent publication. The financial allocation for each library is also insignificant (only Tk 1000/ to 2000/ for each library)'.¹⁰⁶ In 1991, an education researcher opined that 'one of the major objectives of the TTC is to introduce the teachers to new idea, concept, innovation, philosophy, principles of education of the world, but it is seriously hampered due to lack of financial allocation for the TTC Library for purchase of new books, journals and other reading materials. So, it is immediately essential to up-to-date the collection and modernize the TTC Libraries...'¹⁰⁷ Besides, the staffing pattern is very defective. Though the status of the librarian is equal to the lecturer (entry level teacher), but the librarian has no promotion facility. The posts of the Class I Librarian in all TTCs have been vacant since 1984. There is no regular budget for purchase of new books and journals in the library.¹⁰⁸

4.7.3 Technical Teachers' Training College Library

There is only one education and training institute for technical teachers in the sub-sector of technical education in Bangladesh. Its name is Technical Teachers' Training College (TTTC) located at Dhaka City.

Background of Establishment

With the establishment of Dhaka Polytechnic Institute in 1955, one department for teachers' training was opened in this institute. In the early sixties following the increase of the number of polytechnic institutes the necessity of Technical Teacher' Training was felt. As a result, the department of teachers' training of Dhaka Polytechnic Institute was upgraded to Technical Education College in 1964. Later the name of the college was changed to Technical Teachers' Training College (TTTC).¹⁰⁹

Objectives and Functions of TTTC

The principal objective of the TTTC is to prepare professional technical teacher for the polytechnic institutions.¹¹⁰ This TTTC offers one-year 'Diploma in Technical Education' and two years 'B. Sc. in Technical Education' for the employed teachers (Technical Diploma holders, an undergraduate course of three years) of the Polytechnic Institutes.¹¹¹ For understanding the nature and type of its library and information services, the curriculum and syllabus of the two years B. Sc. in Technical Education of the TTTC is briefly discussed here. This course is divided into three departments/groups as Civil Engineering, Mechanical Engineering and Electrical Engineering.¹¹² In this course a Teacher-student must study the specific subjects on engineering related to his department/group and in addition a student is taught some core subjects-

these are 'Principles of Education, Curriculum and Educational Aids, Educational Psychology, Economics, Mathematics and Engineering Physics' at first year and at second year 'Educational Evaluation and Guidance, Bengali, English, Engineering Chemistry and Practice Teaching'.¹¹³

Library of the TTTC

Since its inception TTTC has been maintaining a library to provide information services to the faculties and teacher-students.¹¹⁴ The major collections of this library are: text and reference books on different branches of engineering education.¹¹⁵

A Critical Analysis on the TTTC Library

TTTC is the only institute of its kind in the country. It should have a good library with adequate facilities of collection, staff and services. The library is headed by a Librarian having class II status. There is no promotion facility of the Librarian. The library has only one support staff. The major collection of the library is on engineering books not education and pedagogy. No foreign journals on teaching engineering are subscribed. Sometimes the library receives a number of foreign journals. So the overall status of the library is not good.¹¹⁶

4.7.4 Higher Secondary Teachers Training Institute (HSTTI) LDI Centre

Background of Establishment

'Recognizing the importance of the higher secondary stage of education, the Government of Bangladesh launched a project entitled Higher Secondary Education Project (HSEP) in 1992 and it started functioning in

1993 with financial assistance from the Asian development Bank (ADB) with a view to reforming and improving the higher secondary education system of the country.¹¹⁷ The HSEP consisted of four main components. One of four components of the project' was establishment of five HSTTI in the country.¹¹⁸ In this sub-sector, at present 'there are five Higher Secondary Teachers' Training Institutes (HSTTIs) in Bangladesh' (at Mymensingh, Rajshahi, Barisal, Comilla, and Khulna).¹¹⁹ 'The HSTTIs commenced functioning in July 1995 and the five institutes planned under the project were in full operation by late 1997. All are currently offering 56-days' in-service training programmes to the teachers at this level'.¹²⁰

Objectives and Functions of the HSTTIs

The HSTTI programme's mainly aim at 'both enhancing subject-matter knowledge of different disciplines and developing teaching skills of the higher secondary teachers working in higher secondary schools/colleges and higher secondary section of the degree colleges in Bangladesh'.¹²¹ HSTTI also has a programme of conducting educational research at higher secondary education of the country.

Organization and Management of the HSTTIs

'All HSTTIs are working under the supervision of the DSHE within the MOE. Each of the five HSTTIs is headed by a director, equivalent to senior professor. The core faculty comprises 3 Senior Member Directing Staff (SMDS), 6 Member Directing Staff (MDS), 9 Assistant Member Directing Staff (AMDS). The status of the SMDS, MDS and AMDS are equivalent to professor, associate professor and assistant professor respectively. Besides, there are a number of supporting officers and staffs for library, office management and accounts'.¹²²

The Library and Documentation Centre of the HSTTI

There was a component in the development project for establishing a library and documentation unit in each HSTTI. In accordance with the provision each HSTTI has been organizing and maintaining a library and documentation unit/centre since its inception for providing information support to the programmes of the institute.

Objective and Functions of the LDI Unit

The principal objective of the library and documentation unit /centre of the HSTTI is to create information services facilities to make educational information resources available to the users of trainers and trainee-teachers in the training programmes and also educational research activities of the institute.¹²³ The major functions of the L & D Unit are: to make acquisition of information materials relating to educational training and research; to organize the collected materials through cataloguing and classification, indexing , abstracting and bibliography; to create inter-library co-operation with other libraries of the same nature; to maintain the accession register and to keep the library materials in safe custody; to provide reference and documentation services to the users; to computerize the library operation.¹²⁴

Organization, Management and Staffing of the LDI Unit

The organization, management and staffing pattern in all the HSTTI is the same. Library and documentation Unit is headed by a professional designated as Assistant Librarian.¹²⁵

During the period of 1993-96, the HSTTIs including their library and documentation units were housed in rented premises in poor working

conditions.¹²⁶ Since 1997 all institutes including the library and documentation units are housed in their own premises.

A Critical Analysis on the HSTTI LDI Centres

The age of all HSTTIs including their library and documentation centres is less than a decade; but, in the mean time, a study was undertaken on the activities of all institutes including LDI Centres. It is observed in this study that “all of the HSTTI have libraries with limited accommodation. There is hardly any provision for study in libraries (reading room). Books on pedagogy, excepting the training modules, are very few in numbers”.¹²⁷ It is also found (in the study) that there is inadequacy in budget provision for the library. This research study recommended that “budget allocation be provided and system developed to create specialized library resources for staff use within each HSTTI (perhaps collaboration with a TTC) with relevant texts, journals, and research reports. Computerized access to wider resources should be provided as a matter of urgency”.¹²⁸

It is observed from the present staffing pattern and organizational chart of HSTTIs that the post of the ASSISTANT Librarian is a block post and there is no scope for promotion to the higher post or higher pay scale. There is no support staff in the library. So HSTTI Libraries are ill staffed. The lion part of the collection is on training manuals, course books, etc. published by HSTTI’s project fund. There are very limited books on education and pedagogy.¹²⁹

4.8 LDI Centres in the organizations of Educational Administration, Management

4.8.1 Ministry of Education (MOE) Library

The Ministry of Education (MOE) is a big ministry in the public administrative set up in the country. The MOE looks after the whole education system of the country consisting the line directorates, attached offices, autonomous bodies at central level and hundred of thousand schools, colleges, universities, madrasahs at the field level.

Functions of MOE

The major functions of the MOE are to 'formulate plan, to prepare, monitor and evaluate educational projects; to look after university education; technical education; secondary and higher secondary (colleges) education, educational research and training; to administer and supervise autonomous bodies and attached offices, educational policy and reforms; curriculum development and textbooks production; to administer Bangladesh Civil Service (Education) Cadre, financial matters; public examinations, and to maintain liaison with international organizations for educational development'.¹³⁰ In a nutshell, the major responsibility of the MOE is to work as 'central administrative agency for the education sector and is mainly concerned with the broad issues of policy formulation, strategy, planning, co-ordination, monitoring and evaluation in education'.¹³¹

Organization and Management of the MOE

In the present Parliamentary Form of Government in Bangladesh, at present (July 2003) the MOE is headed by a Minister, called 'Minister of

Education' and he is the chief executive of the ministry and he is assisted by 1 State Minister. The next position is the Secretary and he is assisted by a number of officers.¹³²

MOE's Library

Though LDI centres of BANBEIS, NAEM are providing educational information resource services to the MOE' staff, but yet, the MOE has been maintaining a library for its own use. The MOE's library was established in 1991. At present it is housed in a single room located on the 17th floor of the building no.4 in the Secretariat Campus. The library is managed and administered by a professional librarian and his/her status is equivalent to class I officer in government service.¹³³ Users of the library are the officers and staff working in the MOE. They use the library mostly in the tasks of taking decisions relating to policy formulation, administration, management, planning, rule making, etc. Besides, the outside readers also use this library. The collection of the library is mainly confined to government publication relating to laws, rules, acts, policy documents, reports on education and other relevant materials to education. The library hour is from 9:00 a. m. to 5 p. m., office hour of the government of Bangladesh.¹³⁴

Critical Analysis on the Ministry of Education Library

There is no provision of additional staff for the library of MOE. This library is a single man managed library. There is no promotion facility for the Librarian. The space allotted for the library is very inadequate to run a modern library. There is very inadequate budget for the library. The major collection is on various types of reports only. Library collects materials from the MOE's sub-ordinates offices/organizations and also

regional and international educational organizations. Library provides only document delivery services to the officers of the ministry. It sometimes provides reference services. There are no modern library and information services.¹³⁵

4.8.2 Ministry of Primary and Mass Education (MPME) Library

The MPME (former Primary and Mass Education division) was established in 1992 and it is located at the present Secretariat Building in Dhaka. To implement the various programmes undertaken on primary and mass education, i.e., Universalisation of Primary Education, Compulsory primary education etc., and to ensure “Education for All”, this MPME, a distinct ministry has been established for increasing the efficiency in administration and management in this sub-sector.¹³⁶

Objective and Functions of the MPME

The MPME is the highest organization for primary and mass education. The prime objective of the MPME is to formulate educational policy, planning and development strategy for the sub-sector of primary and mass education in Bangladesh.¹³⁷

Organization and Management of the MPME

The chief executive of the Ministry is a Minister. The next executive is the Secretary or an Additional Secretary, a bureaucrat and member of the Bangladesh Civil Service (Administrative Cadre). The organization and management of the PMEM has been divided into 4 units- these are: 1) Administrative Wing, 2) Development Wing, 3) Planning Cell, and 4) Compulsory Primary Education Implementation and Monitoring Unit. There are a number of other officers and staffs in each wing of the

PMED.¹³⁸ Under this Division, there are 2 directorates / line offices: Directorate of Primary Education (DPE); and Directorate of Non-formal Education (DNFE).¹³⁹

Library of the MPME

The MPME has been maintaining a library since its inception in 1992. The library is working under the 'Administrative Wing' of the Division. The library is headed by a professional librarian, a class I officer and assisted by 1 auxiliary staff.¹⁴⁰

The library of the MPME is located on the 6th floor, Building No. 4 with the office of the Division. The library is housed in a single room like the library of the MOE. The collection of the library is confined to only primary, mass and adult education. The materials collected are educational reports, documents, workshop papers, curriculum, plans etc.; majority collections are not catalogued and classified. No journals on primary education are subscribed. The space allotted for the organization of its library is inadequate. There is no facility of promotion of the librarian'.¹⁴¹

Critical Analysis on the MPME Library

The types of collection are organizational reports, research reports and some books on education and also outside education. Major collections are not catalogued and classified. No journals on primary education are subscribed. The space allotted for the organization of its library is very inadequate. There is no facility of promotion of the librarian'. There is no support staff for the librarian. There is no facility for IT and reprographic services in the library.¹⁴²

4.8.3 Directorate of Primary Education (DPE) Library

Background of Establishment

The Directorate of Primary Education (DPE) was established within the MOE in 1981 as distinct organization, separated from the DPI, and its permanent organization was set up in 1983 by the Martial Law Organization Committee. But after the creation of the PMED as distinct Division/Ministry, it was transferred from the MOE under this new Division in 1992.¹⁴³ Now (from 2003) it is renamed as Primary and Mass Education Ministry (PMEEM).

The DPE is headed by a Director-General. There are also 4 Directors and 1 Senior System Analysts of the 5 wings. These wings are: Planning and Development Wing; Training Wing; Administration Wing; Monitoring and Evaluation Wing; and EMIS Wing.¹⁴⁴

The Objectives and Functions of the DPE

The main objective of the DPE is to implement, manage and administer the policy, planning and programmes of primary education in the country.¹⁴⁵ It is the second highest organization next to the PMEEM in primary education. The functions of the DPE are to 'administer, manage and supervise primary schools, teachers and other employees of the primary education offices, upazila offices; to advise government in formulating policy in respect of primary and mass education and implementation of all such policies; to prepare and execute development programmes; to provide training, to prepare budget for primary education in the country.¹⁴⁶

The Library of the DPE

The DPE has been maintaining a library and documentation unit since 1983. It is observed from the organizational chart that there is a post of Documentation Officer within the Administration Wing to manage and administer the library and documentation unit and it is also seen from the same document that there is no other auxiliary staffs for the unit.

At the beginning the library was housed with the office of DPE in the Education Building located at Abdul Gani Road, Ramna, Dhaka. After the transfer of the entire office of the DPE at Mirpur, Dhaka in 1992, the library was also transferred in the new premises. At present the library is housed in a small room on the ground floor of the DPE Office. It is managed by one Documentation Officer. The collection is concerned with mainly reports, documents on workshops, seminars, conferences, manual, handout, modules produced by the DPE.¹⁴⁷

Critical Analysis on the Directorate of Primary Education Library

Primary or elementary education is the foundation of any education system of a country. It is said that if the foundation of education is better then the secondary and tertiary education will be better. So, the DPE must have a good library at its central office for up-to-date information about primary education. But the status of the library is not so good. The space allocated for the library is a very small room. It is not easy to find a book in the library. Because, books and other reading materials are kept very tightly. There is no reading space facility. Though there is a post of documentation officer of class-III status but he has no professional qualification and his work in the library is his additional duty. There is no other support staff in the library.¹⁴⁸

4.8.4 Directorate of Secondary and Higher Education (DSHE) Library

Background of Establishment

After the partition of India in 1947 the Directorate of Public Instruction (DPI) of Bengal was reorganized as the Directorate of Public Instruction (DPI) of East Pakistan to develop, co-ordinate and manage the whole education system of the country. In 1982, the name of the DPI was renamed as Directorate of Secondary and Higher Education (DSHE).¹⁴⁹

Objectives and Functions of DSHE

The main objective of the DSHE is to manage, supervise, and control the secondary, higher secondary and college education in the country. The major functions of the DSHE are to implement education policy of the government; to advise the administrative ministry in matters of formulation of policy; to manage and supervise the academic functions of the educational institutions; to prepare revenue and development budgets, to arrange training; to administer personnel matters, to supply information on educational matters to approved agencies/organisations; to maintain liaison between different departments, to co-ordinate educational institutions; and to initiate introduction of new courses/subjects in government educational institutions at secondary level.¹⁵⁰

Organization and Management of the DSHE

Director-General is the chief executive of the DSHE. The DSHE has 4 Divisions, viz., (1) College and general administration; (2) Secondary education; (3) Training; and (4) Planning and development. Each Division has a Director with a number of Deputy Directors, Assistant

Directors, Research Officers and Education Officers. Besides, there are a number of other Officers and Staff for the purpose of management, accounts, library, etc.¹⁵¹

The Library of DSHE

The DSHE is a line directorate engaged in managing the secondary and college education of the country. Actually, the DSHE is mainly concerned with the management of high schools, madrasahs and colleges. The DSHE has a unit concerning library management, to look after the libraries of schools, madrasahs and colleges of the country and also the library in the DSHE office. The DSHE Library is headed by a Library Development Officer and he is assisted by 1 Stenographer, 1- M.L.S.S. The status of the Library Development Officer is equivalent to Assistant Professor/Assistant Director in the DSHE.¹⁵²

The objectives and functions of the library is to make educational information resources available to the officers of the DSHE to achieve the objectives and goal of DSHE.¹⁵³ The library of the DSHE is housed in a single room on the 2nd floor of the DSHE office. The collection is limited to educational reports, and other official documents.¹⁵⁴

Critical Overview on the DSHE Library

Secondary education is the foundation of higher education. So, DSHE looks after the secondary education and college level education of the country. For quality education it should have a good library for up-to-date information. But the condition of the library is not so good. In this DSHE there is a post of Library Development Officer to look after the school, madrasah and college libraries of the country. Besides this the LDO is the

head of the DSHE's Office Library. But the posts of LDO and support staffs have been vacant since LDO's retirement in 1996.

The library is housed in a very small room. All books are uncatalogued and unclassified. Only a very limited document (old) delivery services are given to the high official. There are no other services like reference, reprographic, information services, and etc.¹⁵⁵

4.8.5 Directorate of Technical Education (DTE) Library

Objectives and Functions of the DTE

The Directorate of Technical Education established in 1960 has the prime objective to administer and manage the technical and vocational education in the country. The major functions of the DTE are to implement the concerned education policy ; to advise the government; to manage and supervise the academic functions of the institutes under its disposal; to evaluate the technical educational programmes and to maintain academic standard; to assess the need for changes in curricula, to arrange training programme for the teachers; to co-ordinate work of all institutions; to draw development schemes; to maintain liaison between the government and the technical educational institutions; and to prepare the revenue and development budgets of the directorate, and etc.¹⁵⁶

This directorate is headed by a Director-general and he is responsible for implementation, management and development of technical and vocational education of the country. He/she is assisted by 5 Directors.¹⁵⁷

Library of the DTE

The DTE has been maintaining a library since its inception. The library is headed by 1 Librarian under the Administrative Officer within the wing

of Director (Administration). The objectives and functions of the library are to support information resources services in the management, administration and development of technical and vocational education in achieving the objectives and functions of the DTE.¹⁵⁸

The library is housed on the 2nd floor of the Education Building with the DTE Office. It is housed in a single room. The collection is limited to materials of technical and vocational education. The services provided by the library are reference and document delivery services to the officers working in the DTE.¹⁵⁹

Critical Analysis on the DTE Library

It is one of the oldest directorates in the education sector in Bangladesh. It should have a modern library. But the library of this directorate is not modern in terms of space allocation, staff, collection and services. The major portion of collection is on textbooks and reports published by the directorate and also Bangladesh Technical Education Board. So, up-to-date collection on technical and vocational education is very limited. All collected books and reading materials are not catalogued. The pay and status of the librarian is lower than the teaching staff (teacher) and having no promotion facility. Only document delivery services on request are provided. In fact no modern library and information services are provided to the users.¹⁶⁰

4.8.6 Directorate of Non-Formal Education (DNFE) Library

Background of Establishment

The government of Bangladesh has given more emphasis on adult and non-formal education for the avowed objectives of eradicating illiteracy from the country and that was why, a development programme named the

“Integrated Non-Formal Education Programme” was undertaken in 1991 and it was continued up to 1996. Upon the success of this programme a separate and distinct directorate named the “Directorate of Non-Formal Education (DNFE)” was established in 1997 within the PMED, now MPME.¹⁶¹

Now, the Directorate of Non-Formal Education (DNFE) is headed by a Director-General. DNFE is responsible for implementation of the policies, plans and programmes in non-formal education in Bangladesh.¹⁶²

Library of the DNFE

From its inception the DNFE has been maintaining a library at its central office. This library is headed by a Librarian and he/she is assisted by an Assistant Librarian. The status of the Librarian and Assistant Librarian is equivalent to the officer of class-I and II respectively in the government-service.¹⁶³

Critical Analysis on the Directorate of Non-formal Education Library

The library staffing pattern is better than the other directorates’ office library. But, the library personnel have no promotion facilities in the organisation. The collection on non-formal and adult education is good. But DNFE Library does not subscribe any foreign journal on the related subject. The library provides reference services, document delivery services, retrieval services. But, no indexing, abstracting and bibliographical services are provided to the users. Major collections have been catalogued. But there is no IT and reprographic facilities in the library.¹⁶⁴

4.9 A Critical Observation on NATEIS with Educational LDI Centres

An information specialist remarked on educational information of Asian countries that ‘the majority of countries in the Asian region appear to consider educational information as an integral part of the educational system. Therefore, institutions within the Ministry of Education/ Department of Education or those administered by it usually deal with educational information.’¹⁶⁵ It is also true in case of Bangladesh’s NATEIS.

It is observed from the above discussion that a cluster of key institutions’ LDI Centres is involved in providing educational information resources services to the information user groups in Bangladesh. These key LDI Centres are: the Bangladesh Bureau of Educational Information and Statistics (BANBEIS); the National Academy for Educational Management (NAEM); the National Academy for Primary Education (NAPE); the University Grants Commission (UGC) and etc. It is also observed that BANBEIS has been established as a National Educational Documentation Center (NEDC) in the country for creating a national educational information system/network in the country. But the role of BANBEIS is not notable.

It is clearly revealed to us from the discussion and analysis of the infrastructure of national educational information system that though the national educational information system/network is yet to come formally, but in practice there exists an informal national educational information system consisting of some key LDI Centres.

From the above discussion and critical evaluation of all types of Educational LDI Centres it is also found that all of those LDI Centres have various types of limitations and demerits. But after scrutiny it is found that some limitations are common with all of them. None of them is capable of meeting the demands and needs of their users not to speak of research scholar.³ All of them suffer from shortages of educational information resources materials, trained manpower, budget, and ICT facilities, etc. Some of LDI Centres are extremely weak in their collection. They constantly depend upon the help of other libraries. Thus it can be clearly concluded that effective national educational information system for various cooperation among the educational LDI Centres is urgently required to meet the information needs of the users. This very conclusion is also proved from the statistical analysis of data in chapter five.



Notes and References

1. Bangladesh. MOE, BANBEIS: An Introduction (A Brochure), Dhaka, BANBEIS, 1986, p. 1
2. Quasem, K. A., National Pattern of Information-flow in Educational Planning and Policy-making in Bangladesh, Dacca, FREPD, 1977, p.1-3
3. Bangladesh. MOE, "Development Scheme, BANBEIS", Dacca, MOE, 1976, 26p.
4. Bangladesh. Government of the People's Republic of Bangladesh: Table of Organisation and Equipment, Phase II, Department/Directorate/Subordinate Offices, Dhaka, 1983.
5. Ibid, BANBEIS: An Introduction (A Brochure), p. 1
6. Ibid.
7. Ibid, p. 2-3
8. Office Records of the BANBEIS Library.
9. Ibid, BANBEIS: An Introduction (A Brochure), p. 3
10. a. Ibid, p. 9
b. Organizational chart of the BANBEIS
11. Ibid, BANBEIS: An Introduction (A Brochure), p.4
12. Ahmad, Sultan Uddin, Librarianship and the State of Libraries in Bangladesh, Dhaka, Luthfun Nessah Begum, c.1994, p. 115
13. Bangladesh. MOE, Strengthening of Management Information and Statistical Services of the Ministry of Education (EMIS) [4th Revision], Dhaka, BANBEIS, 2000, p. 1
14. Ibid.
15. Rashid, M H, BANBEIS Library: A National Educational Documentation Centre (mimeographed), 1995, 14p.
16. Bangladesh, MOE, Concept and Contents of NAEM Training Programme, Dhaka, NAEM, 2003, 67p.

17. East Pakistan Extension Centre Bulletin, Vol. 1, March 1962, No. 5, p. 1
18. East Pakistan. MOE, Scheme for the Development of Pilot Secondary Schools in East Pakistan (Pakistan Education Project and the University of Chicago), Dacca, MOE, n.d., 19p.
19. East Pakistan Extension Centre Bulletin, Vol. 1, March 1962, No. 5, p. 1
20. Bangladesh. MOE, No.-E:10/3-2/91/92/99- Education dated 7 May 1991
21. Bangladesh. MOE, NAEM at a Glance (a Brochure), Dhaka, NAEM, 2003
22. Ibid.
23. East Pakistan. Department of Public Instruction, 'Ten Years of the Education Extension Centre Dacca 1959-1969', Dacca, EPEEC, 1970, p. 29-30.
24. Bangladesh. MOE, 'NIEAER Code', Dhaka, NIEAER, 1984, p. 16-19.
25. Bangladesh. MOE, 'National Academy for Educational Management (An introduction to NAEM written in Bangla)', Dhaka, NAEM, 1996, p. 1
26. Bangladesh. MOE, 'Restructuring NAEM' (Revised Project Proforma, December), Dhaka, NAEM, 1999, p. 65-66 (unpublished Govt. document)
27. Ibid.
28. East Pakistan., MOE, Pakistan Education Project Karachi: Scheme for Establishment of an Education Extension Centre for East Pakistan, p.7.
29. Ibid, 'Ten Years of the Education Extension Centre Dacca, p. 29-31
30. Ibid, p. 15
31. Office records and information from discussion with the relevant person working in the NAEM-LDI Centre
32. Bangladesh. MOE, Report of the Study Group on British Council Project related Studies (on National Institute of Educational Administration Extension and Research (NIEAER), Dhaka, NIEAER, 1983 p. 3 (unpublished Govt. document)

33. Bangladesh. MOE, 'Revised Scheme of NIEAMR/NIEAER: Project Pro-forma (PP), Dhaka, 1982, p. 25. (unpublished Govt. document)
34. Letter of the Ministry of Education (Education Division). No. MEPC/NIEAER/ 35/90/1343 (9)-Edn. Dated 5 March 1990 with 1 page of terms and reference enclosed.
35. Bangladesh. MOE, 'Report of the External Evaluation Committee on National Institute of Educational Administration Extension and Research, Dhaka, 1990, p.11. (unpublished Govt. document)
36. Ibid, 'Restructuring NAEM' (Revised Project Pro-forma, December 1999)
37. Ibid, p. 53-54
38. a. Bangladesh. MOE, Introducing National Institute of Educational Administration Extension and Research, Dhaka, NIEAER, 1983.
b. Bangladesh. MOE, 'National Academy for Educational Management (An introduction to NAEM in Bangla)', Dhaka, NAEM, 1996.
39. a. Job descriptions of the library personnel.
b. Ibid, 'NIEAER Code'
c. Ibid, 'Restructuring NAEM' (Revised Project Pro-forma, December 1999).
40. Rasul, M A, Educational Libraries in Bangladesh (mimeographed), Dhaka, 1993, 11p.
41. Bangladesh. MOE, 'Post-primary Education Sector Strategy Review Interim Report' (a joint study by GOB, UNDP & World Bank), Dhaka, MOE, 1994, p. 8.
42. Bangladesh. MOE, Higher Secondary Education Project: UNDP TA Consultancy Support: Eight Research Studies, Vol. Two, Cambridge Educational Consultants Ltd UK, Eduplus Canada, and PAL-AEA-HRD Consortium Bangladesh, DSHE/HSEP, Dhaka, 1998, p. Study 6/16.

43. Bangladesh. Government of Bangladesh, Report of the Martial Law Committee on organisational set up of the National Curriculum and Textbook Board, Education Division, Ministry of Education, Dhaka, Dhaka, GOB, 1983, p. 1.
44. Bangladesh. MOE, 'Secondary Education in Bangladesh: A Sub-sector Study', Dhaka, DSHE, 1992, p. 26
45. Ibid, Report of the Martial Law Committee on organisational set up of the National Curriculum and Textbook Board, p.1
46. Ibid, 'Secondary Education in Bangladesh: A Sub-sector Study', p. 27-28.
47. a. Organogram of Bangladesh School Textbook Board and Project Proforma of Population Education, NCTB and
b. Bangladesh. Government of Bangladesh, the report of the Martial Law Committee on Organisational set up of the National Curriculum and Textbook Board (NCTB), Education Division, Ministry of Education, Dhaka, GOB, 1983
48. Office records of the National Curriculum and Textbook Board
49. a. Ibid, The report of the Martial Law Committee on Organisational set up of the National Curriculum and Textbook Board (NCTB, 1983 and
b. Document of Population project of NCTB.
50. Ibid.
51. Ibid.
52. Bangladesh. MOE, Higher Secondary Education Project: UNDP TA Consultancy Support: Eight Research Studies, Vol. Two, Cambridge Educational Consultants Ltd UK, Eduplus Canada, and PAL-AEA-HRD Consortium Bangladesh, HSEP, Dhaka, 1998, p. Study 6/16
53. Rashid, M H, NCTB Library: An Educational Library for Curriculum (mimeograph), 1994, 13p.
54. Bangladesh. Government of Bangladesh, Presidential Order No. 10 of 1973, Dacca

55. Bangladesh. Cabinet Division. "Table of Organization and Equipment: Ministries/Divisions, Constitutional Bodies, Commission, etc.", Dhaka, Cabinet Division, 1982, p.112
56. Bangladesh. UGC. "Brochure", The University Grants Commission of Bangladesh, Dhaka, UGC, 1998, p. 8-24
57. a. Ibid, p. 9 and
b. Organogram of the UGC
58. Office records of UGC and information from consultation with the library personnel.
59. a. Organogram of the Research and Publication Division of UGC.
b. Ibid, "Brochure" The University Grant Commission of Bangladesh.
60. Ibid, "Brochure", The University Grants Commission of Bangladesh, p. 21.
61. Job description of the key library personnel of the UGC, Bangladesh
62. Bangladesh. "Annual Report' 1998", The University Grants Commission of Bangladesh, Dhaka, UGC, 1999, p. 92-93
63. Rasul, M A, Educational Libraries in Bangladesh (a mimeograph), Dhaka, 1993, 11p.
64. Bangladesh. National Academy for Primary Education (NAPE), "Introducing NAPE", Mymensingh, NAPE, 1986, p.5-10
65. Ibid, p.3.
66. Ibid, p.4
67. Bangladesh. Ministry of Planning, Planning Commission, "Scheme for Establishment of an Academy for Fundamental Education" (1976-80), Dacca, MOP, 1976, p.1-54
68. Ibid, "Introducing NAPE", 1986, p.5
69. Ibid, p.6-9
70. Ibid, p.9-11

71. Bangladesh. Government of Bangladesh, The Report of the Martial Law Committee on Organisational Set-up of the Directorate of Primary Education, Education Division, Ministry of Education, Dhaka, GOB, 1983, and the present organogram of the NAPE.
72. Ibid.
73. Ibid.
74. Ibid, "Introducing NAPE", p. 29-30
75. Ibid.
76. Ibid, Rasul, M A
77. Bangladesh. The University of Dhaka, Institute of Education and Research, 'Prospectus' (in Bengali), Dhaka, IER, 1986, p.2
78. Ibid.
79. Ibid, p. 6-8
80. Ibid, p. 2-3
81. Ibid, p. 6
82. Office records of the library of the IER and information collected from discussion with library personnel...
83. Ibid.
84. Bangladesh. The University of Dacca, "An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh, IER, 1976, p.65
85. Ibid, Rasul, M A
86. Bangladesh. MOE, "Report of SAARC Workshop on Teacher Training", Nov 1-3, 1993, Dhaka, p.3
87. Bangladesh. Government of Bangladesh, The Report of the Martial Law Committee on Organisational Set-up of the Directorate of Primary Education, Education Division, Ministry of Education, Dhaka, GOB, 1983
88. Ibid,

89. a. Ibid, and
b. Bangladesh. DPE, the "Curriculum and Syllabus: C. in Ed. Course", Directorate of Primary Education, Dhaka, 1992, p.3
90. Ibid, p.6
91. Ibid, "An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh"
92. Office records of the NAPE
93. Ibid, "An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh, p.47-48
94. Bangladesh. MOE, "Contemporary Educational Administration and Supervision System of Bangladesh: A Sample Survey", Dhaka, NIEAER, 1986, p.98-102.
95. Bangladesh. Primary and Mass Education Division,, "National Primary Education Committee'1997: Report", Dhaka, PMED, 1997, p. 82
96. Ibid, "Report of SAARC Workshop on Teacher Training", p.3
97. Bangladesh. PROMOTE. "Conference Report on Contemporary Secondary Education and Teacher Education", Dhaka, March 8-11, 1999, p.1
98. a. Bangladesh. Government of Bangladesh, The Report of the Martial Law Committee on Organisational Set-up of the Directorate of Secondary and Higher Education, Education Division, Ministry of Education, Dhaka, GOB, 1983
b. Ibid, "Conference Report on Contemporary Secondary Education and Teacher Education", p.1-3
99. Ibid.
100. Ibid, The Report of the Martial Law Committee on Organisational Set-up of the Directorate of Secondary and Higher Education,
101. Ibid, "Conference Report on Contemporary Secondary Education and Teacher Education", p.2

102. Ibid.
103. Ibid, The Report of the Martial Law Committee on Organisational Set-up of the Directorate of Secondary and Higher Education
104. a. Ibid and
b. Job description of the librarian
105. Ibid, "An Evaluation of the Curricula of Teacher Education Programmes of Bangladesh, p.60-62
106. Ibid, "Contemporary Educational Administration and Supervision System of Bangladesh: A Sample Survey", p.104
107. Golam Rasul Mia, Md., "Educational Environment" in Shikhya (Education), 01 (01), July-September, 1991, p.27-28
108. Ibid, Rasul, M A
109. Bangladesh. MOE, "Education System of Bangladesh", Dhaka, BANBEIS, 1992, p.10
110. Bangladesh. MOE, "Technical Education in Economic Development" by Md. Ziaur Rahman in National Education Week' Document, Dhaka, MOE, 2001, p.98
111. Ibid.
112. Bangladesh. University of Dhaka, Curriculum and Syllabus of B. Sc. in Technical Education of the Technical Teachers Training College, Dhaka approved by the Academic Council of the University of Dhaka dated 11 August 1990, 20p
113. Ibid.
114. Office records of the TTTC
115. Office records of the TTTC
116. Ibid, Rasul, MA

117. (a) Bangladesh. MOE, Teachers Training Manual: Education Principles and Education Management (Bengali), Dhaka, DSHE, 1999, p.22.
(b) Bangladesh. MOE, DSHE, Development of Staff Resources within Higher Secondary Education Institutions” in Eight Research Studies, Vol. One, p. 6 in Study 2.
118. Ibid.
119. Bangladesh. MOE, “Educational Administration and Management” by Md. Khurshid Alam in the Document of National Education Week’98, Dhaka, MOE, p.58
120. Bangladesh. MOE, DSHE, “Staffing Patterns at TTCs: A Review of Teacher Training College Staff, Including TTC Recruitment Policy and Implications for Staffing HSTTIs” in Eight Research Studies, Vol. One, p.8 in Study 3.
121. Ibid.
122. a. Ibid, and
b. the organogram of the HSTTI
123. Ibid.
124. Office record: Job description of the Library Personnel
125. Office record: Present organogram of the HSTTIs, 2003
126. Ibid, “Staffing Patterns at TTCs: A Review of Teacher Training College Staff, Including TTC Recruitment Policy and Implications for Staffing HSTTIs” in Eight Research Studies, Vol. One, p.9 in Study 3
127. Ibid, p.31
128. Ibid, p.44.
129. Office Records of the HSTTI
130. Bangladesh. Cabinet Division. “Table of Organization and Equipment-Phase II: Department/Directorates/Sub-ordinate Offices” (prepared by the Martial Law Committee on Organizational Set-up), Dhaka, Cabinet Division, 1983, p.84-87.

131. Bangladesh. MOE, "Education in Bangladesh", Dhaka, MOE, 1983, p.26.
132. Office Record: Present Organizational Chart of the MOE
133. Office Record
134. Ibid.
135. Ibid, Rasul, M A
136. Ibid, Teacher Training Manual: Education Principles and Educational Management, p.62
137. Ibid.
138. Office Records: Present Organogram of the MPME
139. Ibid, Teacher Training Manual: Education Principles and Educational Management, p.63-65
140. Office Records: Present Organogram of the MPME
141. Office records of the MPME
142. Ibid, Rasul, M A
143. Ibid, Teacher Training Manual: Education Principles and Educational Management, p.63-64
144. Office Records: the present organization Chart of the DPE
145. Bangladesh Govt. of Bangladesh, "Table of Organization and Equipment-Phase II: Department/Directorates/Sub-ordinate Offices", Dhaka, GOB, p.178-179
146. Ibid.
147. Office Records of the DPE
148. Ibid, Rasul, M A
149. Bangladesh. MOE, "Secondary and Higher Education in Bangladesh" by Ayesha Khatun in the document of National Education Week'2001, MOE, Dhaka, 2001, p.30.

150. Bangladesh. Govt. of Bangladesh, The Report of the Martial Law Committee on Organisational set-up of the Directorate of Secondary and Higher Education, Dhaka, Chief Martial Law Administrator's Secretariat, 1983, p.1-2
151. Ibid, "Secondary and Higher Education in Bangladesh", p.31-32
152. Ibid, The Report of the Martial Law Committee on Organisational set-up of the Directorate of Secondary and Higher Education, p. Annexure-A
153. Ibid, (Job description of the Library Development Officer), p.27
154. Records of the office of the DSHE
155. Ibid, Rasul, M A
156. a. Bangladesh. MOE, "Education and Training Programmes", Bangladesh Technical Education Board, Dhaka, 1995, p.1.
b. Ibid, "Table of Organization and Equipment-Phase II: Department/Directorates/Sub-ordinate Offices", p.180-181.
157. Ibid, Teacher Training Manual: Education Principles and Educational Management, p.68.
158. Office Record: Organizational Chart of DTE
159. Ibid.
160. Ibid, Rasul, M A
161. Bangladesh. Primary and Mass Education Division (now Ministry of Primary and Mass Education), Reaching the Grassroots through NFE: The Bangladesh Experience, Dhaka, Directorate of Non-formal Education, 1998, p.1-18
162. Office Records: The present organogram of the DNFE
163. Office Records of the DNFE
164. Ibid, Rasul, M A
165. UNESCO, Information: An Essential Factor in Educational Planning and Policy, edited by George Psacharopoulos, UNESCO, Paris, 1980, p.293-5.

Chapter Five

Chapter Five

Presentation and Analysis of Data

The summarised data and pertinent findings are presented in this chapter. The researcher used three Instruments (Questionnaires) for gathering data and information for this study.

Instrument-I contains 4 components (A, B, C, D) prepared for the educational information user groups. Instrument-II contains 5 components (A, B, C, D, E) prepared for the working library personnel of the selected Educational LDI Centres. Instrument-III contains 2 components (A, B) prepared for the library and information experts group of the country.

This chapter is organized into **Four Parts**:

Part One presents the findings of tangible data obtained through Instrument (Questionnaire)-I containing components-A, B, and C. This part covers the educational information needs of the education personnel and their fulfillment of needs.

Part Two presents the findings of tangible data obtained through Instrument (Questionnaire)- II containing components-A, B, C and D. This part covers the status of present key Educational LDI Centres which are participant-members or to be participant-members of the NATEIS.

Part Three presents the findings of tangible data obtained through component of D of Instrument- I, component E of Instrument-II and component B of Instrument-III. This part covers the status of NATEIS of Bangladesh and its improvement and lastly

Part Four covers the testing of hypothesis and evaluation of assumptions undertaken for this study.

Part One

Presentation and Analysis of Data of Educational Information Needs of the Education Personnel and their Fulfillment of Needs

A. Bio-data of the Respondents

Classification of Respondents

Educational Researchers

The educational researchers' sample consisted of 58 educational researchers (Table 5.1): four researchers (6.89%) from education departments (MOE, MPME, Line Directorates); twelve researchers (20.68%) from department/institute/school of education of the Universities; twelve researchers (20.68%) from teachers' colleges and other institutes; four researchers (6.89%) from non-formal and adult education; eighteen researchers (31.03 %) from educational research institutes; and eight researchers (13.79 %) from specialized organizations (Table 5.2)

Teachers-Educators

The teachers educators' sample consisted of 152 teacher educators (Table 5.1): eight teacher educators (5.26 %) from education departments (MOE, MPME, Line Directorates); twenty-five (16.45%) from department/institute/school of education of the universities; ninety-five teacher educators (62.50%) from teacher colleges and institutes; nine teacher educators (5.92%) from non-formal and adult education; four teacher educators (2.63%) from educational research organizations; and ^{eleven}seventeen teacher educators (7.23%) from specialized organizations (Table 5.2).

Educational Administrators

The educational administrators' sample consisted of 52 educational policy-makers, planners, administrators and managers (Table 5.1). Eleven educational administrators (21.15%) from education departments (MOE, PMED, Line Directorates); six (11.53%) from department/institute/school of education of the universities; twenty educational administrators (38.46%) from teacher colleges and institutes; three educational administrators (5.76%) from non-formal and adult education; five teacher educators (9.61%) from educational research organizations; and seven educational administrators (13.46 %) from specialized organizations (Table 5.2).

Table 5.1: Classification of Respondents

User Groups	Questionnaire Mailed	Responded	% of Response
1. Educational researchers	120	58	48.33
2. Teachers educators	310	152	49.03
3. Educational policy-makers, planners, administrators, managers	120	52	43.33
Total	550	262	47.63

The classification of respondents is shown in the Figure 5.1 in the following:

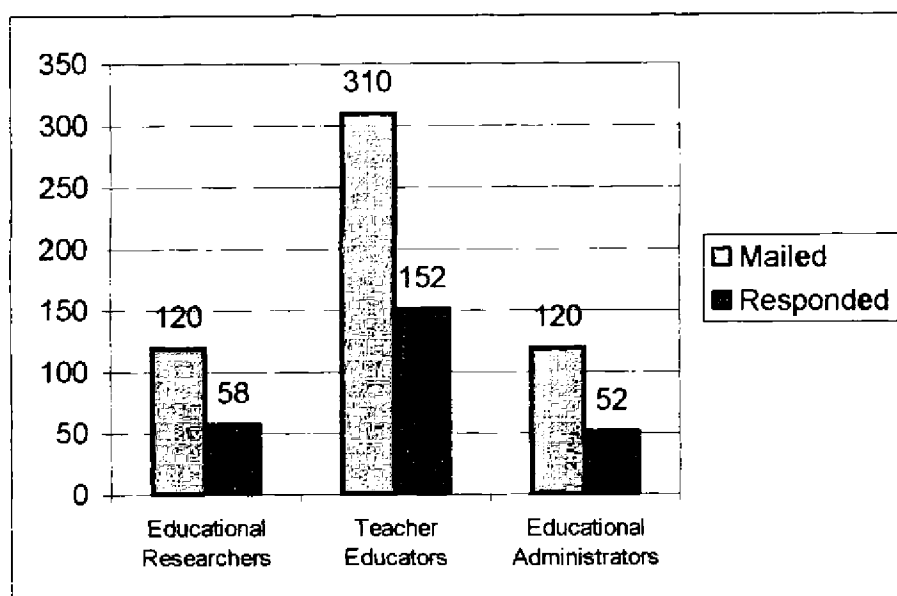


Figure 5.1: Classification of Respondents

Table 5.2: Respondents by types of educational organizations

Organisation	Educational Researchers		Teacher Educators		Educational Administrators		Total & Percentage	
	N	%	N	%	N	%	Total	%
1. Dept.of Edn. (MOE, PMED & Line Directorates)	04	6.89	08	5.26 (13.79)	11	21.15	23	8.77
2. University's Depts. Edn./ School of Education	12	20.68	25	16.45	6	11.53	43	16.41
3. Teachers' Education & Training (College & Ins.)	12	20.68	95	62.50	20	38.46	127	48.47
4. Non-Formal & Adult Education	04	6.89	09	5.92	03	5.76	16	6.11
5. Educational Research Organization	18	31.03	04	2.63	05	9.61	27	10.30
6. Specialized Organisation	08	13.79	11	7.23	07	13.46	26	9.92
Total	58	100.0	152	100.0	52	100.0	262	100.0

* N means number of respondents

Respondents' Sex

75.8%
 76.0 percent of the educational researchers are males, 24.0 percent are females; 75.0 percent of the teacher-educators are males, 25.0 percent are females; and 84.62%
 84.62
 15.38
 14.0 percent are females. On average, 77.10 percent of the total respondents of the above three groups are males and the rest 22.90 percent are females (Table 5.3)

Table 5.3: Respondents by Sex

Types	Educational Researchers N=58		Teacher Educators N=152		Educational Administrators N=52		Total N	%
	N	Percent	N	Percent	N	Percent		
1. Male	44	75.86	114	75.0	44	84.62	202	77.10
2. Female	14	24.14	38	25.0	8	15.38	60	22.90
Total	58	100.0	152	100.0	52	100.0	262	100.00

Respondents by sex is shown in the following Figure: 5.2

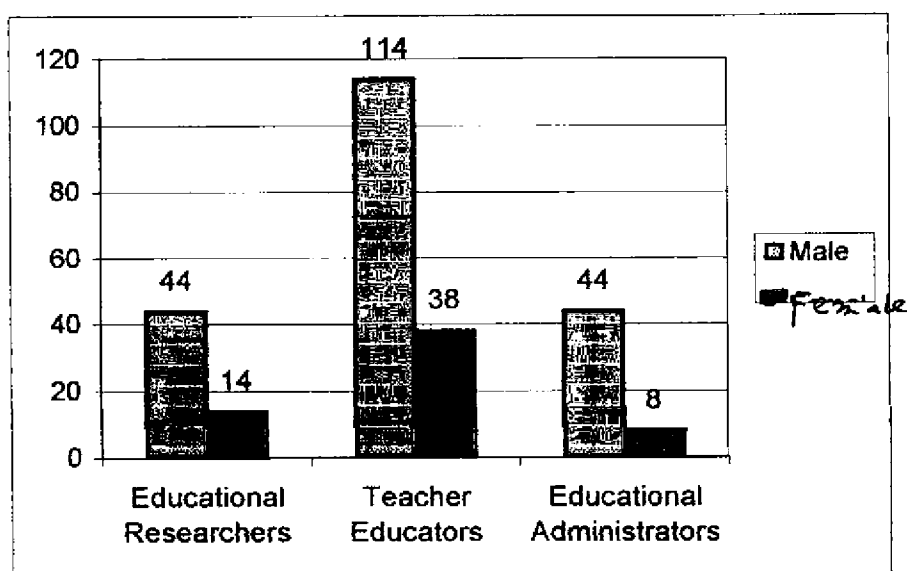


Figure 5.2: Respondents by sex

Respondents' Age

The largest number of the educational researchers (71.0%) is included in the 40-49 years, and 50+ years old group.^{70.69} The largest number of respondents of teacher's educators (65.45%) is included in the 40-49 years and 50 plus years old group and the largest number of educational administrators (65.38 percent) are also included in the 40-49, 50 + years old group. (Table 5.4). Respondents by age are also shown in the Figure 5.3.

Table 5.4: Respondents by Age

Age Group	Educational Researchers N=58		Teacher Educators N=152		Educational Administrators N=52		Total N %	
	N	%	N	%	N	%	Total N	%
1. 30-39	17	29.31	51	33.55	18	34.61	86	32.82
2. 40-49	22	37.93	67	44.07	23	44.23	112	42.74
3. 50 +	19	32.75	34	22.37	11	21.16	64	24.44
Total	58	100.0	152	100.0	52	100.0	262	100.0

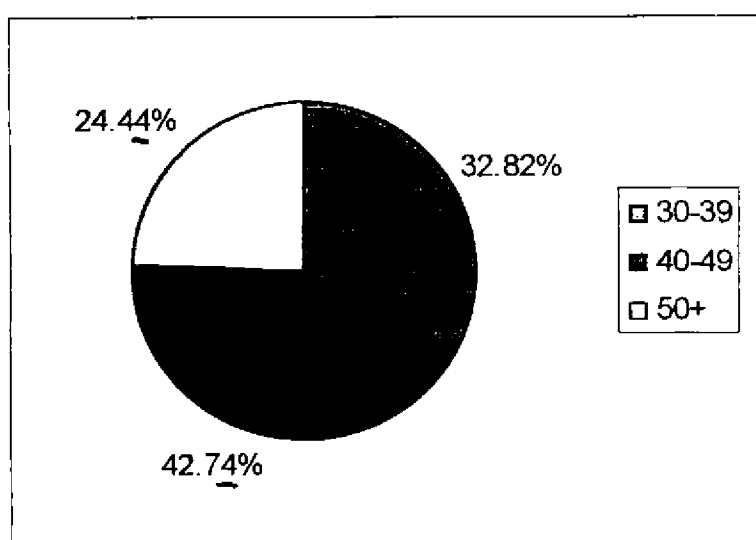


Figure 5.3: Respondents by age

Respondents by Experience

Twenty-four educational researchers (41.37%) in this sample group have 1-9 years experience; seventeen (29.31%) have 10-19 years experience; and the rest of seventeen (29.31%) have 20 years or more experience.

Forty-nine teacher-educators (32.24%) have 1-9 years of experience; sixty-eight (44.74%) have 10-19 years of experience, the larger group; thirty-five teacher-educators (23.02%) have at least 20 years experience;

Fourteen educational administrators (29.92%) have 1-9 years of experience; seventeen (32.69%) have 10-19 years of experience; and twenty-one (40.38%) have 20 and over 20 years of experience. Respondents by level of experiences are shown in the Figure: 5.4.

Table 5.5: Respondents by level of work-experience

Range of Years	Educational Researchers N=58		Teacher Educators N=152		Educational Administrators N=52		Total N %	
	N	%	N	%	N	%	Total N	%
1. 1-9	24	41.37	49	32.24	14	29.92	87	33.20
2. 10-19	17	29.31	68	44.74	17	32.69	102	38.93
3. 20 +	17	29.31	35	23.03	21	40.38	73	27.86
Total	58	100.0	152	100.0	52	100.0	262	100.0

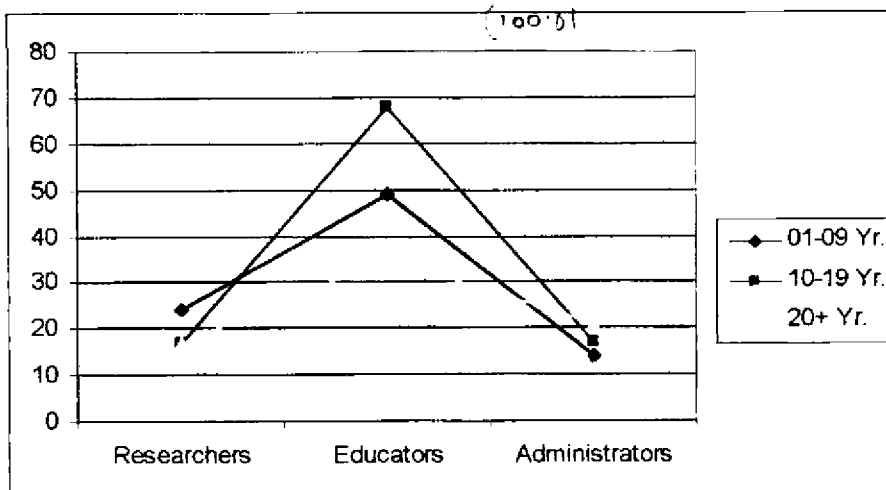


Figure 5.4: Respondents by level of work-experience

Respondents by Educational Qualification (General)

In respect of educational qualification, majority of the educational researchers (67.0%), teacher-educators (70.34%), and educational administrators (79.0%) hold Master's degree, while the highest number of educational researchers holds M.Phil/M.S (10.34%) and Ph.D/degree (20.69%). Thirty-five of the teacher educators (23.02%) hold the Baccalaureate degree while four of the educational administrators (7.69%) hold Baccalaureate degree and none of the educational researchers hold Baccalaureate degree (Table 5.5). It is revealed that thirty-nine (14.88%) of the total respondents (262) hold Baccalaureate degree; one hundred-eighty eight (71.75%) hold Master's degree, thirteen hold (4.96%) M.Phil/M.S and twenty-two (8.39%) hold Ph.D degree (Table 5.6). Respondents by level of general education are shown in the Figure 5:6.

Table 5.6: Respondents by educational qualification (General)

Level of Education	Educational Researchers N=58		Teacher Educators N=152		Educational Administrators N=52		Tot N %	
	N	%	N	%	N	%	Tot N	%
1. Graduate	0	0.0	35	32.02	04	7.69	39	14.88
2. Post-graduate	40	68.96	107	70.39	41	78.85	188	71.75
3. M.Phil/M.S	06	10.34	04	2.63	03	5.76	13	4.96
4. Ph.D	12	20.69	06	3.94	04	7.70	22	8.39
Total	58	100.0	152	100.0	52	100.0	262	100.0

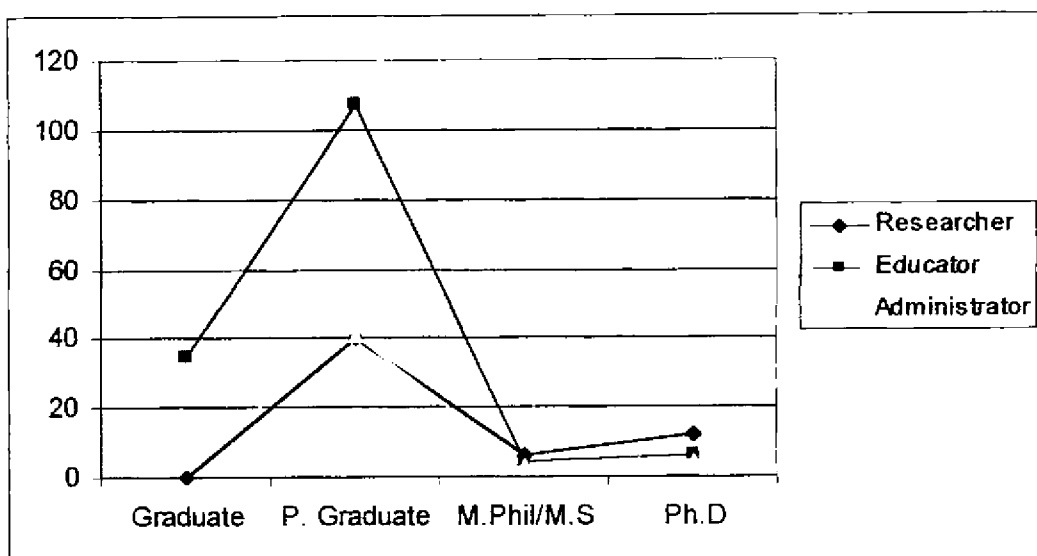


Figure 5.5: Respondents by educational qualification (general)

Respondents by Professional Education

Two hundred sixty two persons (100.0%) have had short training in professional education. Thirty-seven of the sample educational researchers (63.80%) have had degree in professional education; one hundred forty of teacher-educators (92.10%) have had degree in professional education; and fifteen of the educational administrators (28.85%) have had professional education. It is revealed that 192 (73.28%) have had some degree in professional education. Among three groups teacher-educators is the largest group and the educational administrators is the smallest group in respect of obtaining degree in professional education (Table 5.7). Respondents by level of professional education are also shown in the Figure: 5.6.

This statement is not clear

Table 5.7: Respondents by level of professional education and training

Level of Professional Education	Educational Researchers N=58		Teacher Educators N=152		Educational Administrators N=52		Total	%
	N	%	N	%	N	%		
Diploma/B. Ed.	12	20.69	95	62.50	07	13.96	114	43.51
M. Ed.	07	12.06	36	23.68	03	5.76	46	17.55
M. Phil/M.S in Edn.	05	8.62	05	3.29	02	3.84	12	4.58
Ph. D in Edn	13	22.41	04	2.63	03	5.76	20	7.63
Total	37	100.0	140	91.10	15	28.85	192	73.28

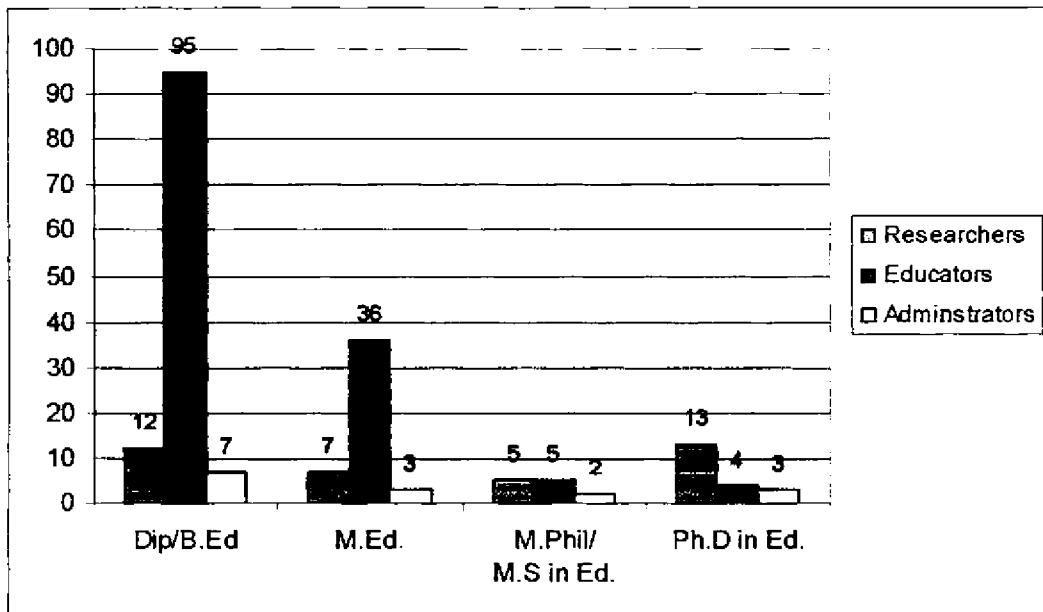


Figure 5.6: Respondents by level of professional education and training

B. Educational Information Resources Needs and its Fulfillment & Information Seeking Purposes

It is observed in the Table 5.8 that forty-three of the educational researchers (74.13%); nineteen of the teacher-educators (12.5 %); and only three of the educational administrators (5.77 %) sought educational information resources for the purpose of educational research (Table 5.8).

Table 5.8 : Respondents' information seeking purposes

Information Seeking Purposes	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=52		Total N	
	N	%	N	%	N	%	N	%
1. Research	43	74.14	19	12.5	03	5.76	65	24.80
2. Teaching & Training	03	5.17	108	71.05	02	3.85	113	43.13
3. Policy, Planning	02	3.44	06	3.94	11	21.15	19	7.25
4. Administration & Management	05	8.62	09	5.92	25	48.07	39	14.88
5. Self-improvement	02	3.44	04	2.63	07	13.46	13	4.96
6. Scholarly Writing	03	5.17	06	3.94	04	7.69	13	4.96
Total	58	100.0	152	100.0	52	100.0	262	100.0

One hundred eight teacher educators (71.05%) sought information for teaching and training purposes, while only three educational researchers (5.17%) and two educational administrators (3.85%) had sought information for teaching and training; twenty-five educational administrators (48.08 percent) and eleven (21.15%) sought information for the purposes of administration and policy-making respectively. Thirteen respondents (4.96%) sought information for self-improvement, and the rest thirteen respondents (4.96%) sought information for scholarly writing. Respondents by level of purposes of information use are shown in the Figure: 5.7.

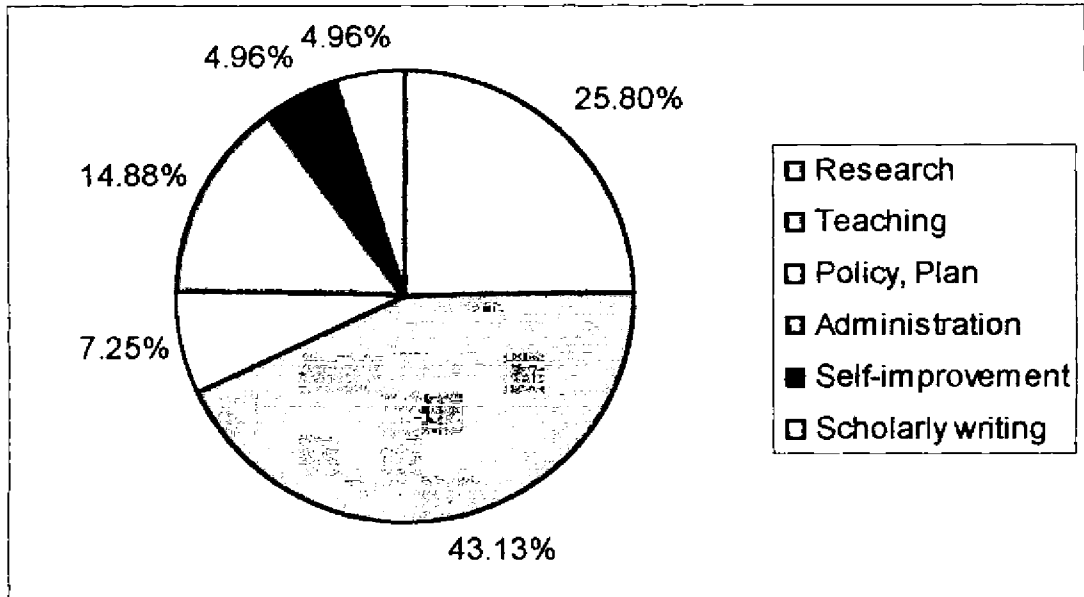


Figure 5.7: Respondents' information seeking purposes

Use of Sources of Assistance

It is seen in the Table 5.9 that 43 respondents (16.41%) sought information-materials through discussions with colleagues; 26 respondents (9.98) sought through discussion with subject specialists; 79 respondents (30.15%) with the help of library personnel; and 114 respondents (43.51%) sought information directly using the LDI Centres' collection. In seeking information materials, it is revealed that most of the respondents depend on LDI Centres and LDI personnel services.

Table 5.9: Materials and information sought by trying the sources

Sources Used	Educational Researcher N= 58		Teacher Educator N=152		Educational Administrator N=52		Total N %	
	N	%	N	%	N	%	Total N	%
1. Discussion with colleagues	09	15.51	22	14.47	12	23.07	43	16.41
2. Discussion with Subject Specialists	14	24.13	05	3.29	07	13.46	26	9.98
3. Discussion with Library Personnel	16	27.58	46	30.26	17	32.69	79	30.15
4. Direct use of LDI Centre	19	32.20	79	51.97	16	30.76	114	43.51
Total	58	100.0	152	100.0	52	100.0	262	100.0

(99.99)

Use of materials written in various languages

useful to

Table 5.10: Information materials used in the language of-

Language	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=52		Total N %	
	N	%	N	%	N	%	Total N	%
1. Materials in English Language	32	55.17	49	32.23	15	28.85	96	36.64
2. Materials in Bengali Language	14	24.13	78	51.32	29	55.76	121	46.18
3. Materials in both Languages	12	20.70	25	16.45	08	15.39	45	17.17
Total	58	100.0	152	100.0	52	100.0	262	100.0

(100.01)

It is observed in the Table 5.10 that 96 respondents (36.64%) used the information materials written in English language; 121 (46.18%) respondents used materials in Bengali language; and 45 respondents (17.17%) used materials written in both languages; it is revealed from this table that 29 respondents (55.76%) of educational administrators and 32 respondents (55.17%) of education researchers are the two larger groups of user of the materials written in Bengali and English language respectively and also it is seen that 45 respondents (17.17%) used materials in both languages equally.

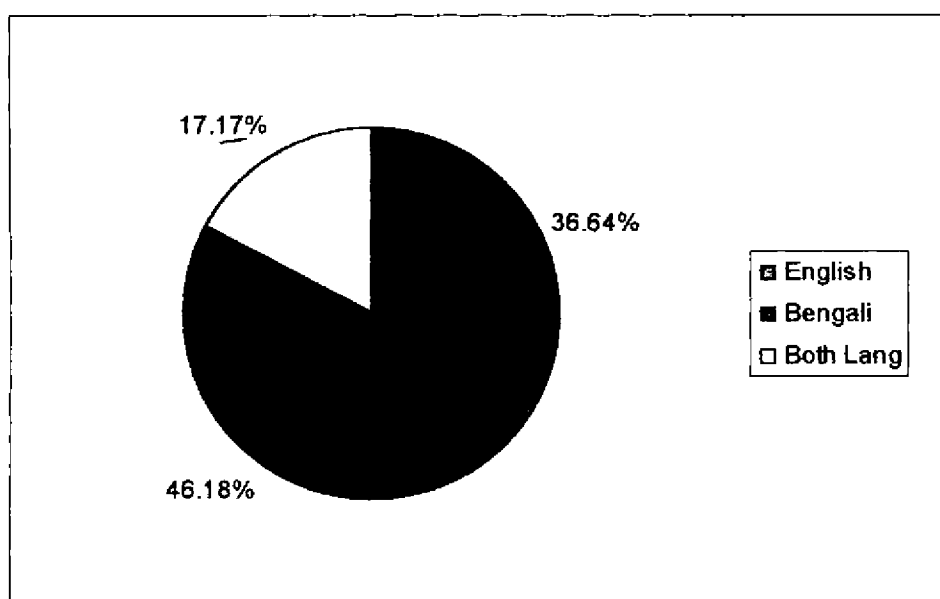


Figure 5.8: Information materials used in the languages

Users' behaviour in getting needed materials

(Which materials are not available in his/her LDI Centres)

It is seen in the Table 5.11 that in case of getting needed material, 58 respondents (22.14%) ask the library authority to collect the material (s) from other LDI Centres where it is available; 142 respondents (54.19%) ask the library authority to collect the needed material through purchase; 23 respondents (8.77%) go to other LDI Centres to meet their needs; and

the rest 39 (14.88%) use other personal means to meet their needs. It is revealed from the table that total of 239 respondents (91.22%) depend on the LDI services directly and indirectly.

Table 5.11: Opinions in getting needed material

Media Used	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=52			
	N	%	N	%	N	%	Total N	%
1. Ask the Librarian to collect the Material from other LDI Centre	13	22.41	33	21.97	12	23.08	58	22.14
2. Ask the librarian to purchase the materials	26	44.82	87	57.23	29	55.77	142	54.19
3. Go to other LDI Centre	05	8.62	13	8.55	05	9.61	23	8.77
4. Use other personal means	14	24.13	19	12.50	06	11.54	39	14.88
Total	58	100.0	152	100.0	52	100.0	262	100.0

(100.01)

(100.01)

Use of various types of materials

Use of Journal Articles, Books and Monographs

It is observed in the Table: 5.12 that 32 respondents (12.21%) use journals and journal articles frequently and among the three groups; 63 respondents (24.05%) use journal articles sometimes; 50 respondents (19.08%) use journal articles occasionally, and the rest 117 respondents (44.66%) never use the journal articles. Data relating to using of journal

articles show the poor reading habit of the respondents. It is seen that all of the respondents of three groups use books and monographs frequently than journals.

Use of Research Reports, Conference Reports, Thesis, etc.

38 respondents (13.01%) used research reports frequently; 62 respondents (23.66%) used sometimes; 46 respondents (17.5%) used occasionally; and the rest 116 respondents (44.27%) never used research reports. It shows the poor reading habit of research reports by the respondents.

27 respondents (10.31%) read conference reports frequently; 59 respondents (22.52%) read sometimes; 55 (21.0%) read occasionally; and the rest 121 respondents (46.18%) never read conference reports.

37 respondents (14.12%) used dissertations/thesis reports frequently; 51 respondents (19.46%) used sometimes; 44 respondent (16.79%) used occasionally; and the rest 130 respondents (49.62%) never used this type of material (Table 5.12).

Use of Statistical Reports

It is seen that 62 respondents (23.66%) used statistical reports frequently; 57 respondents (23.51%) used sometimes; 54 (20.61%) used occasionally; and 89 respondents (33.96%) never used statistical reports. It is revealed that most of the respondents used statistical reports (Table 5.12).

Table 5.12: Trend of use of various informative materials

Item	Educational Researcher N=58				Teacher Educator N=152				Educational Administrator N=52				Total N of Respondent in 3 Groups			
	F	S	O	N	F	S	O	N	F	S	O	N	F	S	O	N
1. Journal Article	13	17	16	12	19	37	29	67	-	9	5	38	32	63	50	117
													(12.21)	(24.05)	(19.04)	(44.66)
2. Books/Monographs	54		04	-	121	19	12	-	43	9	-	-	218	32	12	-
													(83.21)	(12.21)	(4.59)	
3. Research Reports	14	18	16	10	21	39	27	65	03	05	03	41	38	62	46	116
													(13.01)	(23.66)	(17.56)	(44.27)
4. Conference Proceeding	07		16	18	20	38	27	67	-	05	10	37	27	59	55	121
		17											(10.31)	(22.52)	(20.99)	(46.18)
5. Dissertation/Thesis	15		17	12	22		30	28	-	04	04	43	37	51	44	129
		14				72							(14.12)	(19.49)	(16.79)	(49.24)
6. Statistical Report	29		11	18	24	28	29	51	9	18	07	24	62	57	54	75
													(23.66)	(21.75)	(20.61)	(28.62)
7. News-paper Clipping	19	06	03	30	29	18	19	124	07	14	19	12	55	38	41	166
													(20.99)	(14.50)	(15.64)	(63.36)
8. Organization-Document	16		11	08	29	21	28	71	07	11	13	27	52	43	49	121
		23											(19.85)	(16.41)	(18.70)	(46.18)
9. Microfiche	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. CD-ROM	06	05	04	43	05	11	13	123	03	07	14	28	14	23	31	194
													(5.34)	(8.78)	(11.83)	(74.04)

[F-means frequently; S-means sometimes; O- means occasionally; and N-means never]

Use of Newspaper-Clippings

55 respondents (20.99%) used newspaper clippings frequently; 38 respondents (14.50%) used sometimes; 41 respondents (15.64%) occasionally; and 128 respondents (48.84%) never used newspaper clippings and it is the largest group (Table 5.12).

Use of Organizations' Report

52 respondents (20.99%) used organization-reports frequently; 43 respondents (16.61%) used sometimes; 49 respondents (18.70%) used occasionally; and 118 respondents (45.39%) never used the organizations report and it is the largest number (Table 5.12).

Use of Microfiche

None of the respondents of 262 used microfiche (Table 5.12).

Use of CD-ROMs

Only 14 respondents (5.34%) frequently used CD-ROMs; 23 respondents used sometimes; 31 used occasionally; and 194 respondents (74.05%) never used them and this is the largest number (Table 5.12).

Causes for occasional use and non-use of some of materials by the users

A question was asked to the respondents for knowing the causes for occasional use and non-use of some of informative materials by the user groups. The respondents' reports (the causes of occasional and non-use) are stated in the Table 5:13 in the following.

Table 5.13: Causes for occasional use and non-use of some of materials

Item	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=52		Total Responded & %	
	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials
1. Journal Article	24	04	67	29	43	10	134 (50.76) 51.14	43 (16.41)
2. Books/ Monographs	21	05	64	28	44	12	129 (49.24)	45 (17.18)
3. Research Reports	26	11	65	29	47	14	138 (52.67)	54 (20.61)
4. Conference Proceeding	19	07	67	33	47	17	133 (50.76)	57 (21.76)
5. Dissertation/ Thesis	07	11	41	39	31	08	79 (30.15)	58 (22.13)
6. Statistical Report	07	12	73	41	03	07	83 (31.67)	60 (22.90)
7. News-paper Clipping	22	09	56	43	40	11	118 (45.04)	63 (24.05)
8. Organization Document	21	10	67	32	23	17	95 (36.25)	75 (28.62)
9. Microfiche	0	0	0	0	0	0	262 (100.0)	
10. CD-ROM	43	4	123	13	28	14	194 (74.04)	31 (11.83)

Regarding the use of journals, 134 respondents (51.14%) noted that journals were not available in their LDI Centres and 43 respondents (16.41%) noted lack of up-to-date journals in their LDI Centres.

No analysis of data on this point

In case of use of research reports, 138 respondents (49.24%) noted that research reports were not available in their LDI Centres and 54 respondents (20.61%) noted lack of up-to-date research reports in their LDI Centres.

In case of conference reports/proceedings, 133 respondents (50.76%) noted that conference reports were not available in their LDI Centres and 57 respondents (21.7%) noted lack of up-to-date conference reports in their LDI Centres.

In respect of use of dissertations/theses, 79 respondents (30.15%) noted that dissertations/theses were not available in their LDI Centres and 58 respondents (22.1%) noted lack of up-to-dated dissertations/theses in their LDI Centres; 125 respondents (47.70%) did not respond this question.

In respect of use of statistical reports, 83 respondents (31.67%) noted that statistical reports were not available in their LDI Centres and 60 respondents (22.90%) noted lack of up-to-date statistical reports in their LDI Centres.

Regarding the use of newspaper-clipping, 118 respondents (45.04%) reported that newspaper clippings were not available in their LDI Centres and 63 respondents (24.05%) reported lack of up-to-date newspaper clippings in their LDI Centres.

In respect of use of organization reports, 95 respondents (36.25%) mentioned that organization reports were not available in their LDI Centres and 75 respondents (28.62%) mentioned lack of up-to-date organization reports in their LDI Centres.

In respect of use of microfiche, 262 respondents (100%) reported that microfiche were not available in their LDI Centres.

Regarding the use of CD-ROMs, 194 respondents (74.04%) mentioned that CD-ROMs were not available in their LDI Centres and 31 respondents (11.83%) mentioned lack of up-to-date CD-ROMs in their LDI Centres.

Need, and availability of various types of Materials in the LDI Centres

It is revealed in the Table 5.14 that all of 262 respondents (100%) opined in favour of need for all types of information materials mentioned in Table 5.12 in their LDI Centres.

Table 5.14: Need and availability of information materials in LDI Centre

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	Total Respondents & %
Yes	√	√	√	262
No	0	0	0	0
Total	58 100.0	152 100.0	52 100.0	262 100.0

Use of Information-products

Use of Education Abstract

It is observed in the Table 5.15 that none of the respondents frequently or sometimes used education abstract; only 28 respondents (10.69%) occasionally used education abstract; and 234 (89.31%) never used education abstract.

Use of Education Index

None of the respondents frequently or sometimes used education index; only 35 respondents (13.36%) occasionally used education index and 227 respondents (86.64%) never used education index (Table 5.15).

Use of Bibliography on Education

None of the respondents frequently used bibliography; only 9 respondents (3.44%) sometimes used bibliography on education; 30 respondents (11.45%) occasionally used; and 223 respondents (85.11%) never used (Table 5.15).

Use of Social Science Citation index, Current Content in Social Science and Sociological Abstract

None of the respondents ever used the above information products (Table 5.15).

Table 5.15: Respondents consult information products

Products Used	Educational Researcher N=58				Teacher Educator N=152				Educational Administrator N=52				Total Responded & %				
	F	S	O	N	F	S	O	N	F	S	O	N	F	S	O	N	
1. Educational Abstract	-	-	11	47	-	-	12	140	-	-	5	47	-	-	28	234	
															(10.69)	(89.31)	
2. Education Index	-	-	15	43	-	-	13	139	-	-	7	45	-	-	35	227	
															(13.36)	(86.64)	
3. Bibliography of Education/ Dissertation/Thesis	-	9	11	38	-	-	19	133	-	-	-	52	-	9	30	223	
															(3.44)	(11.45)	(85.11)
4. Social Science Citation Index	-	-	-	58	-	-	-	152	-	-	-	52	-	-	-	262	
																(100.0)	
5. Current Content in Social Science	-	-	-	58	-	-	-	152	-	-	-	52	-	-	-	262	
																(100.0)	
6. Sociological Abstracts	-	-	-	58	-	-	-	152	-	-	-	52	-	-	-	262	
																(100.0)	

Causes for occasional use and non-use of information products

In mentioning the causes of occasional use and non-use of some of the information products (cited in Table 5.16), 229 respondents (87.40%) noted that educational abstracts were not available in their LDI Centres and 33 respondents noted lack of up-to-date education abstracts in their LDI Centres.

223 respondents (85.11%) answered that educational indexes were not available in their LDI Centres and 39 respondents (14.89%) answered lack of up-to date education indexes in their LDI Centres.

224 respondents (85.50%) reported that bibliographies were not available on educationⁱⁿ LDI Centres and 39 respondents (14.89%) reported lack of up-to-date bibliographies in their LDI Centres.

Table 5.16: Causes of occasional use and non-use of some of the information products

Item	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=52		Total Responded & %	
	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials	Not Available In LDI Centre	Lack of up-to date materials
1. Educational Abstract	44	14	139	13	46	06	229 (87.40)	33 (12.60)
2. Education Index	41	17	137	15	45	07	223 (85.11)	39 (14.89)
3. Bibliography of Education/ Dissertation/Thesis	42	07	141	21	41	11	224 (85.50)	39 (14.89)
4. Social Science Citation Index	58	-	152	-	52	-	262 (100.0)	-
5. Current Content in Social Science	58	-	152	-	52	-	262 (100.0)	-
6. Sociological Abstracts	58	-	152	-	52	-	262 (100.0)	-

Need and availability of Information Products in LDI Centres

A question was asked to the respondents for knowing the need for the information-products cited in the Table 5.15. The Table 5.17 shows that all respondents mentioned the needs of the above information products which should be available in an educational LDI Centre.

Table 5.17: Needs of the Information products in a LDI Centre

	Educational Researcher N=58		Teacher Educator N=152		Educational Administrator N=58		Total Respondents & %	
Yes	58		152		52		262	
No	0	0	0		0		0	
Total	58	100	152	100.0	52	100.0	262	100.0

Procedures of Up-to-dateness

The Table 5.18 shows that only 36 respondents (13.74%) mentioned that their LDI Centres circulate current awareness lists/new addition lists; 55 respondents (20.99%) receive subject bibliographies; 40 respondents (15.27%) receive SDI services; 41 respondents (15.65%) receive documentation list to keep them up-to-date with information relevant to their works. These statistics show the poor condition of services provided by the LDI Centres.

Table 5.18: LDI Centres' procedures to keep the users up-to date

Information	Educational Researcher N=58			Teacher Educator N=152			Educational Administrator N=52			Total Responded & %			
	Yes	No.	Nm.	Yes	No.	Nm.	Yes	No.	Nm.	Yes	No.	Nm.	
1. Circulation of Current awareness List/New Addition	12	46	-	16	136	-	08	44	-	36	226	-	(13.74) (86.26)
2. Keeping Subject Bibliography Up-to date	17	41	-	29	123	-	09	43	-	55	207	-	(20.99) (79.01)
3. Providing SDI Services	21	37	-	19	-	133	-	-	52	40	37	185	(15.27) (14.12) (70.61)
4. Documentation List	18	27	13	23	101	28	-	-	52	41	128	93	(15.65) (48.85) (35.50)

Fulfillment of educational information needs

It is seen in the Table 5.19 that no one of the respondents' answer that meeting of their educational information resources needs was excellent. Only 33 respondents (12.60%) mentioned that their information needs were well met by their LDI Centres' services; 55 respondents' (20.99%) answers were average, 96 respondents' (36.64%) answers were below average, 78 respondents' (29.77%) answers were poor. It is revealed from the above analysis of data that the need of educational information resources of the education personnel is not met adequately.

Table 5.19: Fulfillment of educational information resources services and needs

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	Total Respondent & %	
1. Excellent	0	0	0	0	0
2. Good	11	22	0	33	12.60
3. Average	15	28	12	55	20.99
4. Below Average	18	59	19	96	36.64
5. Poor	14	43	21	78	29.77
Total	58	152	52	262	(100.0)

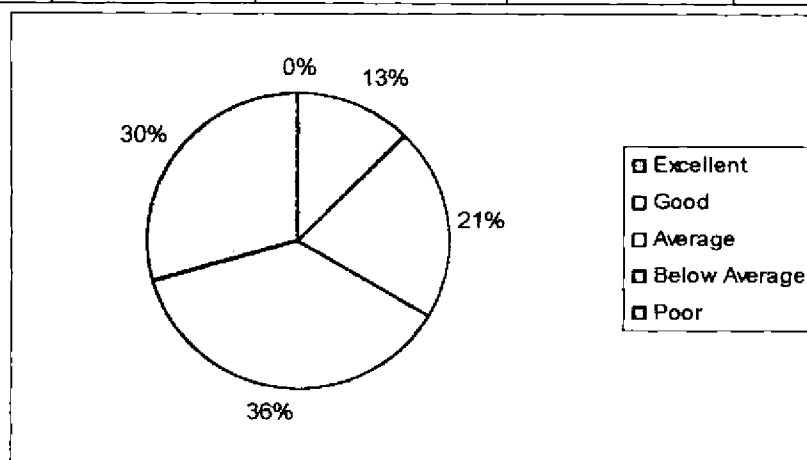


Figure 5.9: Fulfillment of educational information resources needs

Evaluation of users' own LDI Centres

On the status of the input (collection, budget, manpower, space, furniture, equipment, etc.) provided to the LDI Centres, only 08 respondents' (3.05) answers were excellent, 38 respondents' (14.50%) answers were good; 56 respondents' (21.37%) were average, 105 respondents' (40.07%) answers were below average and 55 respondents' answers (20.99%) were poor. It is revealed from this analysis that the educational LDI Centres are not properly equipped with all types of input of resources (Table 5.20).

Table 5.20: Evaluation of users' own LDI Centre in terms of input provided, i.e., collection, manpower, space, furniture, equipment, budget, etc.

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	Total Respondents & %
1. Excellent	02	6	0	08 3.05
2. Good	12	26	0	38 14.50
3. Average	13	29	14	56 21.37
4. Below Average	19	58	28	105 40.07
5. Poor	12	33	10	55 20.99
Total	58	152	52	262 (100.0)

(99.9%)

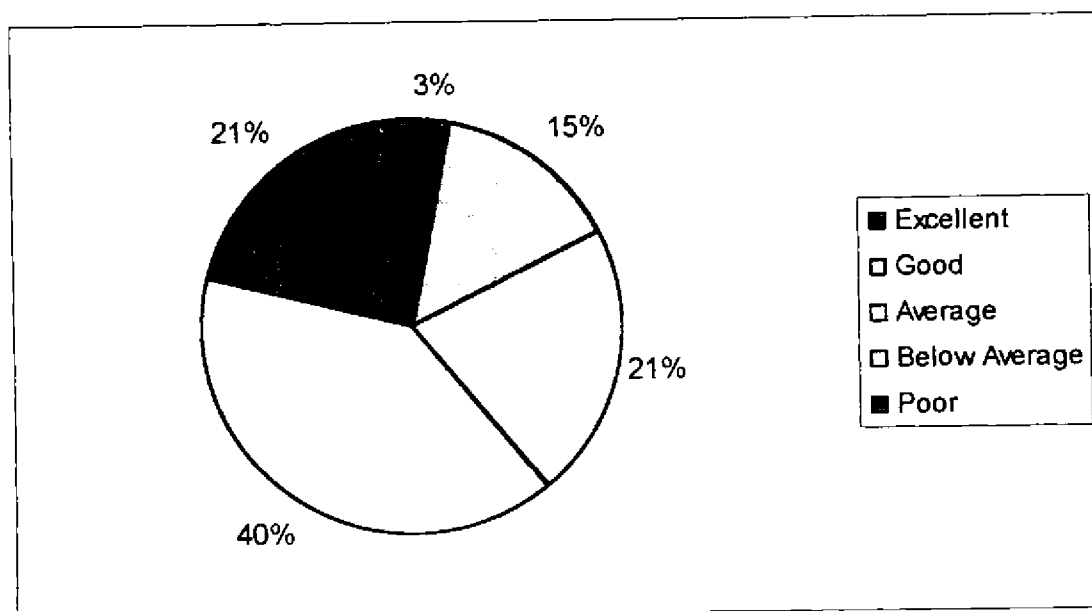


Figure 5.10: Evaluation of users' own LDI Centre

Ways and Means in fulfillment of information needs

Regarding the ways and means in meeting educational information needs of the users, 69 respondents (26.33%)⁴ mentioned the need for improvement of the present educational LDI Centres by providing adequate input of resources; 97 respondents (37.02%) mentioned the need for participation in educational libraries-networking / educational information system; 96 respondents (36.64%) mentioned both the two above measures. It is revealed from the analysis that most of the respondents emphasized the need for educational information system/network in adequately meeting their information needs (Table 5.21).

Table 5.21: Opinion regarding ways and means in fulfillment of Educational information resources needs of the users

Information	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	Total Respondents & %
	Yes	Yes	Yes	
1. Through the improvement of the existing Educational LDI Centres by providing various input at optimal level	13	43	13	69 26.33 4
2. Through the participation of the LDI centres in Educational Information System/LDI Centres Network	14	57	26	97 37.02
3. Both 1 & 2	31	52	13	96 36.64
Total	58	152	52	262 100.0

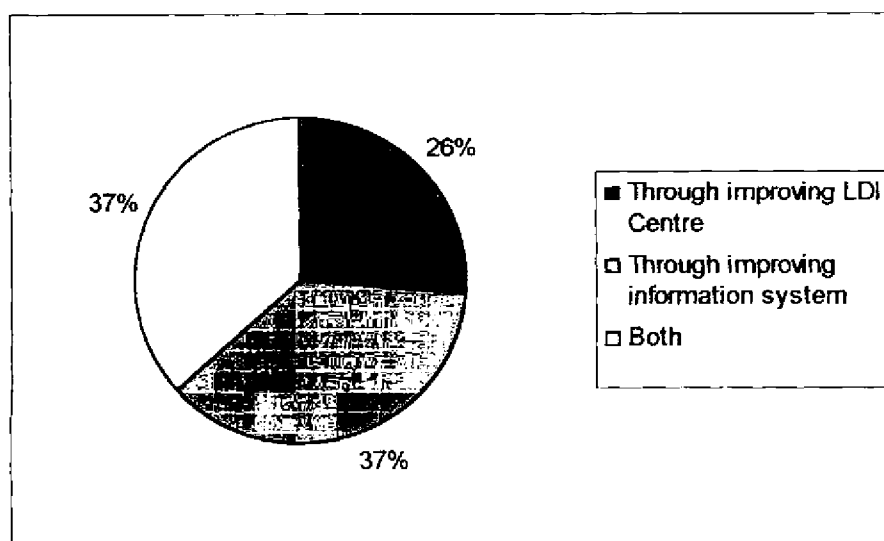


Figure 5.11: Ways and means for fulfillment of information needs

Part Two

Presentation and Analysis of Data Based on Instrument-II (Components A, B, C, D) of the Key Educational LDI Centres

A. Basic Data and Information on Key Educational LDI Centres as participant-members/or to be participant-members in NATEIS in Bangladesh

Classification of the LDI Centres

For investigation the status of key educational LDI Centres, which are participant-members/or to be participant-members of NATEIS, the Questionnaire-II (components A, B, C, D) was mailed to 85 LDI Centres. Out of 85, 58 (68.23%) LDI Centres of the country responded. Among these, 7 (87.50%) LDI Centres from educational research and specialized organizations; 45 (63.38%) LDI Centres from teacher education and training organizations; and 6 (100.0%) LDI Centres from educational administration, management responded (Table 6.22).

Table 5.22: Classification of Target Groups of Educational LDI Centres

Key Educational LDI Centres in the following areas	Questionnaire-II (Components A, B, C, D) Mailed	Total Respondents	Percentage of Response
G.1 Educational Research & Specialized Institutes	8	7	87.50
G.2 Teachers Education & Training	71	45	63.38
G.3 Edl. Administration, Management & Planning	06	06	100.00
Total	85	58	68.23

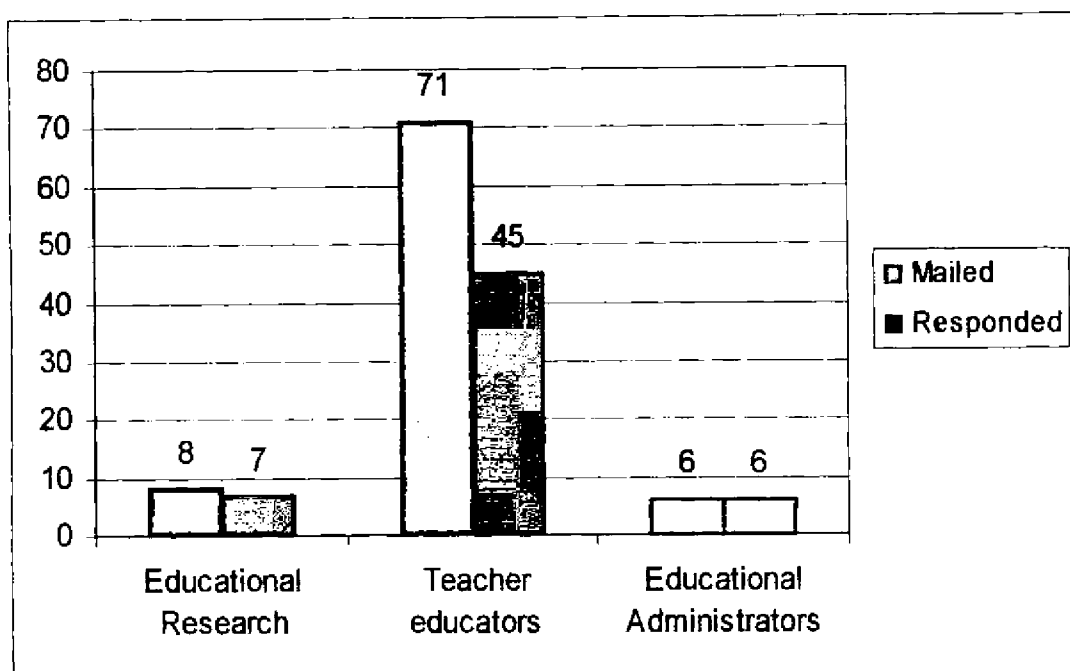


Figure 5.12: Classification of Target Groups of Educational LDI Centres

Professional qualification of the LDI personnel responded

It is seen in the Table 5.23 that 32 respondents (55.17%) are Master Degree holders in Library and Information Science; 9 respondents (15.52%) are Degree/Diploma holders in Library and Information Science; 4 respondents (6.90%) are Certificate Course holders in Library and Information Science; and the rest 13 respondents (22.41%) are instructors/teachers/In-charge of the Library (in absence of the Library Professional). It is revealed that about 80% respondents have education in Library and Information Science.

Table 5.23: Bio-data of the Respondents by Level of Education

Education	Educational Research LDI Centres	Teachers Education LDI Centres	Educational Administration & Management LDI Centres	Total & %
Master Degree & above (in Lib. Sc.)	6	24	2	32 55.17
Degree/Diploma (in Lib. Sc.)	1	08	0	09 15.52
Certificate Course in Lib. Sc.	0	02	02	04 6.90
Teacher /Librarian in charge (Master in other Subject)	0	11	02	13 22.41
Total	07	45	06	58 100.0

B. Basic Data and Information of LDI Centres-Group 1 (relating to service areas, year of establishment, location, etc.)

The Table 5.24 shows that there are 8 key educational LDI Centres working in the area of educational research and special field in education and out of 8, 7 LDI Centres responded. It is seen in the table that all the institutes/organizations except 1 (the National Academy of Primary Education's LDI Centre, Mymensingh) are located in Dhaka city and all institutes and LDI Centres were established during the period of 1959-83. The Institute of Education and Research (IER), University of Dhaka has the highest number of educational information users, followed by NAEM LDI Centre and NCTB Library. The other LDI Centres have minimum number of users. Among 7 LDI Centres, 4 are the autonomous organizations and the rest 3 are government organizations. It is specially noted that the BANBEIS's LDI Centre, national focal point of NATEIS is a government organization.

Table 5.24: Basic Data and Information of LDI Centres of educational research and specialized organizations-Group 1

Group & Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Users per day Own+Others=Total
G.1.1 Bangladesh Educational Information and Statistics (BANBEIS) LDI Centre, Dhaka, 1977	Govt. Org.	Providing educational information services (bibliographical & statistical) and acting as National Educational Documentation Centre (as National Focal Point of NATEIS)	33 + 50 = 83
G.1.2. National Academy for Educational Management (NAEM) LDI Centre, Dhaka, 1959	Govt. Org.	Educational information resources services in educational administration, management, training and research in secondary and higher (college) education and it also acts as National Clearing House in these fields	300 + 45 = 345
G.1.3 National Curriculum and Textbook Board LDI Centre, Dhaka, 1962	Auto-nomous Org.	Educational information resources services in the field of curriculum at primary, secondary and higher secondary education levels and also population education.	180 + 25 = 205
G.1.4 The University Grant Commission, Bangladesh's Library., 1973	Auto-nomous Org.	Provide educational information services in higher education, especially university education in the country	40 + 30 = 70
G.1.5 National Academy for Primary Education (NAPE), Mymensingh, 1979	Govt. Org.	Provides educational information services in the training and research in primary education in the country	35 + 60 = 95
G.1.6 Institute of Education and Research, University of Dhaka, 1961	Auto-nomous Org.	Provides educational information resources services to the teachers and students of B.Ed (hon.), M. Ed., and Ph.D students and also the researchers in education.	640 + 50 = 690
G.1.7. Bangladesh Technical Education Board (BTEB), Dhaka, 1961	Auto-nomous Org.	Provides educational information resources services to the faculties, consultants in vocational and technical education and also the researchers in technical education in the country.	36 + 20 = 56
G.1.8 Bangladesh Madrasah Education Board (BMEB), 1973, Dhaka	Auto-nomous Org.	Data not provided	Not responded

Basic Data and Information of LDI Centres-Group 2 (relating to service areas, year of establishment, location, etc.

It is observed in the Table 5.25 that in the area of teacher education (Group-2) there are four types of institute with a library in each. These are- 1 School of Education within a University, an autonomous organization; 11 Teachers' Training Colleges Library, government organizations; 54 Primary Training Institutes Library, government organizations; 1 Technical Teachers Training College Library, government organization; and 5 Higher Secondary Teachers' Training Institutes Library, government organizations. The Table shows the working areas of each type of institutes. Among all the TTCs, TTC of Dhaka and Rajshahi have the highest number of users, because they have M. Ed. programme. Each PTI Library has 150-200 users and the HSTTI has 30-40 users. Each type of institute works at different level in teacher education. 27 PTI libraries responded out of 54 (Table 5.25).

Table 5.25: Basic Data and Information of LDI Centres of teacher education colleges/ Institutes: Group 2

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
G.2.1. Bangladesh Open University Library, Gazipur 1992	Auto-nomous Org	Provide educational information services to the faculty members and students of B.Ed and M. Ed. Programmes	150 + 40 = 190
G.2.2 Teachers' Training Colleges Library (11)	Govt. Orgs.	Provide educational information services to the faculty members and students of B.Ed and M. Ed. Programmes	
01. Dhaka Teachers Training College Library 1909	..	..	600 + 10 = 610

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
02. Rajshahi Teachers Training College Library 1997	600 + 10 = 610
03. Rangpur Teachers' Training College,	300 + 10 = 310
04. Comilla Teachers Training College	300 + 10 = 310
05. Mymensingh (women) Teachers' Training College	300 + 10 = 310
06. Mymensingh (Male) Teachers' Training College	300 + 10 = 310
07. Jessore Teachers' Training College	300 + 10 = 310
08. Feni Teachers' Training College	300 + 10 = 310
09. Khulna Teachers Training College	300 + 10 = 310
10. Chittagong Teachers' Training College Library	300 + 10 = 310
11. Barishal Teachers' Training College Library	300 + 10 = 310
12. Technical Teachers' Training College Library (1)	..	Provides educational information services to the faculty members and students of B.Ed (Technology) programme	200 + 10 = 210
G.2.4 Primary Training Institute Libraries (54)	All are Govt. Orgs.	Provide educational information services to the faculty members and students of C. Ed programmes and action research in education	Each Institute has 150-200 library users per day
01. Manikganj PTI PO. & Dist. Manikganj 1964

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
02. Munshiganj PTI PO. & Dist. Munshiganj 1952	''	''	''
03. Raypura PTI PO. Raypura, Dist. Narshindi 1953	''	''	Not responded
04. Mymensingh PTI PO. & Dist. Mymensingh 1951	''	''	150-200 users per day
05. Jamalpur PTI PO. & Dist. Jamalpur 1963	''	''	''
06. Natrokona PTI PO. & Dist- Natrokona 1964	''	''	Not responded
07. Kishoreganj PTI PO. & Dist. Kishoreganj 1953	''	''	150-200 users per day
08. Faridpur PTI PO. & Dist. Faridpur 1951	''	''	Not responded
09. Madaripur PTI PO. & Dist. Madaripur 1963	''	''	Not responded
10. Tangail PTI PO. & Dist. Tangail 1953	''	''	150-200 users per day
11. Joydevpur PTI PO. & Dist. Gazipur 1985	''	''	Not responded
12. Thagoregaon PTI PO. & Dist. Thagoregaon 1952	''	''	Not responded
13. Dinajpur PTI PO. & Dist. Dinajpur 1963	''	''	150-200 users per day
14. Rangpur PTI PO. & Dist. Rangpur 1964	''	''	''

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
15. Nilphamari PTI PO. & Dist. Nilphamari 1964	''	''	''
16. Kurigram PTI PO. & Dist Kurigram 1963	''	''	Not responded
17. Gaibandha PTI PO. & Gaibanda 1964	''	''	Not responded
18. Bogura PTI PO. Bogura 1953	''	''	150-200 users per day
19. Sonatola PTI PO. Sunatola, Bogra 1966	''	''	Not responded
20. Rajshahi PTI PO. Rajshahi 1962	''	''	150-200 users per day
21. Natore PTI PO. & Dist. Natore 1962	''	''	Not responded
22. Nowgaon PTI PO. Nowgaon 1951	''	''	150-200 users per day
23. Nobabganj PTI PO. Nababganj 1976 (84)	''	''	Not responded
24. Dadanchak PTI PO. & Dist Nababganj 1938 (1984)	''	''	Not responded
25. Pabna PTI PO. & Dist. Pabna 1953	''	''	150-200 users per day
26. Sirajganj PTI PO. & Dist. Sirajganj 1962	''	''	''
27. Jaypurhat PTI PO. & Dist. Jaypurhat 1985	''	''	Not responded

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
28. Khulna PTI PO. & Dist. Khulna 1952	150-200 users per day
29 Satkhira PTI PO. & Dist. Satkhira 1966	150-200 users per day
30 Bagherhat PTI PO. & Dist. Bagherhat 1953
31. Jessore PTI PO. & Dist. Jessore 1952
32. Jenahdah PTI PO. & dist. Jenahdah 1966	Not responded
33. Magura PTI PO. & Dist. Magura 1964	Not responded
34. Komlapur PTI PO. Kamlapur Dist. Chawdanga 1962	Not responded
35. Pirojpur PTI PO. Dist. Pirozpur 1966	150-200 users per day
36. Bhola PTI PO. & Dist. Bhola 1952	Not responded
37. Shagordi PTI PO. & Dist Barishal 1962	Not responded
38. Patuakhali PTI PO. Dist. Patuakhali 1952	Not responded
39. Kustia PTI PO. & Kustia 1984	150-200 users per day
40. Chittagong PTI PO. & Dist. Chittagong 1962	150-200 users per day

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
41. Patia PTI PO Patia Dist Chittagong 1962	Not responded
42. Cox's Bazar PTI PO. & Dist. Cox's Bazar 1966	Not responded
43. Rangamati PTI PO. & Rangamati 1985	Not responded
44. Comilla PTI PO. & Comilla 1951	150-200 users per day
45. Bramanbaria PTI PO. & Dist. Bramanbaria 1966
46. Aliganj PTI PO. Aliganj Dist. Chandpur 1953	Not responded
47. Maijdi PTI PO. Maijdi Dist. Noakhali 1963	Not responded
48. Laxmipur PTI PO. Dist. Laximpur 1953	150-200 users per day
49. Feni PTI PO. & Dist Feni 1952
50. Sylhet PTI PO. & Dist. Sylhet 1952
51. Maulovibazar PTI PO. & Dist. Moulvibazar 1962	Not responded
52. Habiganj PTI PO. & Dist. Habiganj 1952	150-200 users per day
53. Sunamganj PTI PO. & Dist. Sunamganj 1962	Not responded

Name of the Library, Location, Yr. of Est.	Status	Areas Covered and Served	Total Users per day Own+Others =
54. Birisiri PTI PO.Birisiri Dist.Natrokona	Non- Govt.	..	Not responded
G.2.5 Higher Secondary Teachers' Training Institute Libraries (5)	All are Govt. Org.	Provide educational information resources services to the faculty members and trainee teachers in higher secondary level and action research.	Each HSTTI has 37 users of own faculty members and 10-15 outsides users of education personnel
01. Mymensingh Higher secondary Teachers Institute LDI Centre	..	..	..
02. Rajshahi Higher Secondary Teachers Institute LDI Centre	..	..	..
03. Comilla Higher Secondary Teachers Institute LDI Centre	..	..	..
04. Khulna Higher Secondary Teachers Institute LDI Centre	..	..	..
05. Barishal Higher Secondary Teachers Institute LDI Centre	..	..	..

Basic Data and Information of LDI Centres-Group 3 (relating to service areas, year of establishment, location, etc.)

The Table 5.26 shows that there are 6 Libraries in Group-3 in the educational administration, management, policy and planning areas. All the libraries are located in Dhaka. Most of the libraries were established during the period of eighties and nineties.

Table 5.26: Basic Data and Information of LDI Centres of educational administration and management- Group 03

Name of the Library	Status	Areas Covered and Served	Own Users	Outsider	Total
G.3.1 Ministry of Education Library Dhaka, 1991	Govt. Org.	Policy, planning and administration in secondary, madrasah, technical, college and university education	130	30	160
G.3.2 Primary and Mass Education Division Library, Dhaka, 1992	„	Educational policy, planning and administration in primary and non-formal education as central level	120	20	140
G.3.3 Directorate of Non- Formal Education Library, Dhaka, 1996	„	Management and implementation of mass and non-formal education within the PMED	45	15	60
G.3.4 Directorate of Secondary and Higher education Library, Dhaka, 1983	„	Management and implementation of secondary, madrasah and college education within the MOE	190	20	210
G.3.5 Directorate of Technical Education Library Dhaka, 1960	„	Management and implementation of Vocational and technical education within the MOE	40	15	55
G.3.6 Directorate of Primary Education Library, Dhaka, 1983	„	Management and implementation of primary education within the PMED	190	60	250

Table 6.28: Floor space (as input) provided in the LDC Centres

Floor Space	Research & Speialised LDI Centres	Teachers Education LDI Centres	Administration & Management LDI Centres	Total & %
Adequate	2	18	0	20 (34.48)
Inadequate	5	11	2	18 (31.02) ³
Poor	0	16	4	20 (34.48)
Total	7	45	6	58 (100.0)

Furniture

It is seen in the Table 5.29 that furniture provided in 13 LDI Centres (22.41%) are adequate, in 12 LDI Centres (20.69%) are inadequate and in 33 LDI Centres (56.90%) are poor.

Table 5.29: Furniture (as input) provided in the LDC Centres

Furniture	Research & Speialised LDI Centres	Teachers Education LDI Centres	Administration LDI Centres	Total & %
1. Adequate	2	11	0	13 (22.41)
2. Inadequate	5	5	2	12 (20.69)
3. Poor	0	29	4	33 (56.90)
Total	7	45	6	58 (100.0)

Reprographic Facility/Photocopier

The Table 5.30 shows that only 4 LDI Centres (6.90%) have photocopier machine for reprographic work in their libraries, 32 LDI Centres (55.17%) have facilities of using photocopier sharing with their parent-offices. and 22 LDI Centres (37.92%) have no photocopier for reprographic facilities.

Table 5.30: Reprographic facilities/Photocopier

Photocopier	Research & Specialised LDI Centres	Teachers Education LDI Centres	Administration LDI Centres	Total & %
1. Using for LDI Centre only	02	02	0	04 (6.90)
2. Using for parent office & LDI centre	5	25	02	32 (55.17)
3. No Facility	0	18	04	22 (37.92)
Total	07	45	06	58 (100.0)

Computer Facility

It is seen in the Table 5.31 that none of the LDI Centres have computer facilities of IBM brand, only 7 LDI Centres (12.07%) have computer facilities in their libraries with IBM Compatible brand, and 51 LDI Centres (87.93%) have no computer facilities. These data show the very poor use of IT in the educational LDI Centres in Bangladesh.

Table 5.31: Facilities for use of Computer

Computer	Research & Specialised LDI Centres	Teachers Education LDI Centres	Administration LDI Centres	Total & %
IBM	0	0	0	0
IBM Compatible	5	2	0	07 12.07
No Facility	2	43	06	51 87.93
Total	7	45	06	58 100

Manpower Employed

The Table 5.32 shows that 157 personnel are employed in 58 LDI Centres. Among them 47 (29.94%) are fully professional (Master in Library Science), 49 (31.21%) are sub-professional (Degree/Diploma passed), 19 (12.10%) are para-professional (Certificate course passed) and 42 (26.75%) are non-professional. The average number of library staff is 2.81. It is revealed that the Educational LDI Centres in the country are under-staffed.

Table 5.32: LDI Personnel working (as input) in the LDI Centres

Group of LDI Centres	Professional Post-Graduate & above	Sub-Professional Degree/ Diploma	Para-Professional Certificate Course	Non-Professional Support Staff	Total
01. Research & Specialised (N=7)	12	10	14	18	54
02. Teachers Education (N=45)					
a. BOU Lib (N=1)	06				06
b. TTC & TTTC (N=12)	12	12	0	24	48
c. PTI (N=27)	06	22	0		28
d. HSTTI (N=5)	05	05	5		15
03. Administration (N=6)	06	00	0	00	06
Sub-total (1,2,3) & %	47 (29.94)	49 (31.21)	19 (12.10)	42 (26.75)	157 (100.0)

Status of the Professional

Regarding the status of the heads of LDI Centres/units, the Table 5.33 shows that only 1 Head of LDI Centre in teacher education group is getting the high status, equivalent to a professor or director, 1 Head of a LDI Centre in research and specialized group is getting the status,

equivalent to Associate professor or Deputy director, 3 Heads of LDI Centres (2 of educational research and specialized group and 1 of educational administration group) are getting the status equivalent to Assistant Professor/Assistant Director, 21 Heads of LDI Centres (2 of research, 16 of teacher education and 3 of administration group) are getting the status equivalent to Lecturer or Class I officer, 4 Heads of LDI Centres (2 of educational research, 1 of teacher education and 1 of educational administration) are getting the status of Class II Officer and 28 Heads of LDI Centres (27 of teacher education and 1 of educational administration) are getting the status of Class III staff (not Officer). These data show that there are very limited numbers of higher professional posts in our educational LDI Centres and this situation also proves that there are very limited promotion facilities above the status of Lecturer or Class I post.

Table 5.33: Status of the heads (professional personnel) of LDI centres/units in comparison with the following levels:

	Research & Specialised LDI Centres	Teachers Education LDI Centres	Administration & Management LDI Centres	Total & %
Professor/Director	0	01	0	01
Asso. Prof/ Deputy Director	01	-	0	01
Assist. Prof/ Assit. Dir	02	-	1	03
Lecturer/ Class I Officer	02	16	3	21
Class II	02	01	01	04
Class III	0	27*	01*	28 (48.28%)
Total	07	45	06	58 (100.0)

Notes: 27* Primary Training Institute Libraries; 01* Directorate of Technical Education Library

Staff Development Programme

In managing information resources in the modern LDI Centres, the use of IT/computer technology is a pertinent tool. So, information personnel working in the LDI Centres need staff development programmes with continuing education and training. In connection to staff development programmes, the Table 6.34 shows that only 4 educational LDI Centres/Units (6.89%) have staff development programmes like training courses, refresher courses etc. and the rest 54 LDI Centres (93.11%) have no staff development programmes.

Table 5.34: Staff development Programmes

Staff Development Programme	Research & Speialised LDI Centres	Teachers Education Ins. Libraries	Administration & Management LDI Centres	Total & %
Yes	1	1	2	4 6.89
No	6	44	04	54 93.11
Total	7	45	06	58 100

Collection of Group-1

It is observed in the Table 6.35 that the National Academy for Education Management (NAEM) LDI Centre has the largest collection of books and monographs (39000), followed by IER Library (38120), BANBEIS LDI (23000) Centre (National Educational Documentation Centre as Focal Point of NATEIS), the NAPE LDI Centre (17000), the NCTB Library (15000). The Bangladesh Technical Education Board Library (4600) has the lowest collection of books and monographs.

Table 5.35: Collection: Group-1 (as on December 2002)

G.1 Research and Specialised Org.	Books/Monographs, Research Reports, Govt. Publications, Organizational Reports & Bound Journal & non-print materials (in thousand)			Total Collection	Volumes Added Per Year
	Printed Books/ Monographs	Microfiche	CD-ROM		
G.1.1 BANBEIS LDI Centre	23000	-	-	23000	500
G.1.2 NAEM LDI Centre	39000	-	-	39000	1200
G.1.3 NCTB LDI Centre	15000	-	-	15000	350
G.1.4 UGC Library	14300	-	-	14300	360
G.1.5 NAPE LDI Centre	17000	-	-	17000	300
G.1.6 IER Library	38120	-	-	38120	500
G.1.7 BTEB LDI Centre	4600	-	-	4600	50

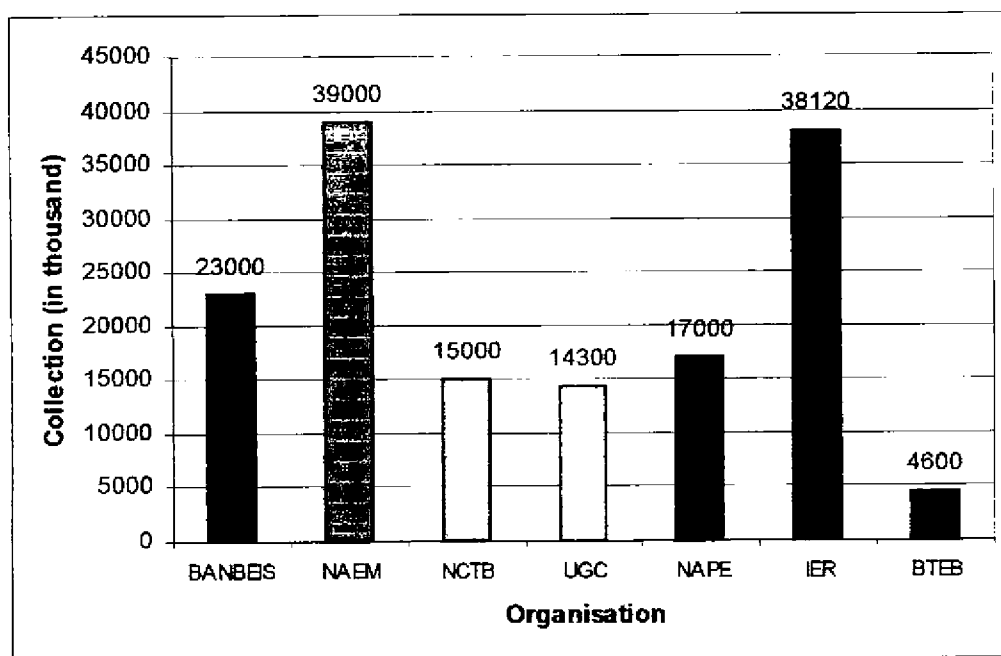


Figure 5.13: Collection of Group-1

Collection of Group-2

In the group of teacher education libraries the Table 6.36 shows that the BOU Library has the largest collection of books and monographs, followed by the Technical Teachers Training College Library (13500), the Teachers Training College (10145). The HSTTI's Library (average: 5100) has the lowest collection, followed by PTI Libraries (Average: 5600).

Table 5.36: Collection: Group-2 (as on December 2002)

G.2 Teachers Education & Training Institutes with no. of institutes in bracket N=45	Books/Monographs, Research Reports, Govt. Publications, Organizational Reports & Bound Journal & Non-print materials (in thousand)		Vol added in a LDI Centre Per Year
	Books/Monographs	Average	
G.2.1 BOU Library (N=1)	21400	21400	1500
G.2.2 TTCs Library (N=11)	111595	10145	150
G.3.3 TTTC Library (N=1)	13500	13500	250
G.2.4 PTIs Library (N=27)	151200	5600	130
G.2.5 HSTTI's Library (N=5)	25500	5100	100

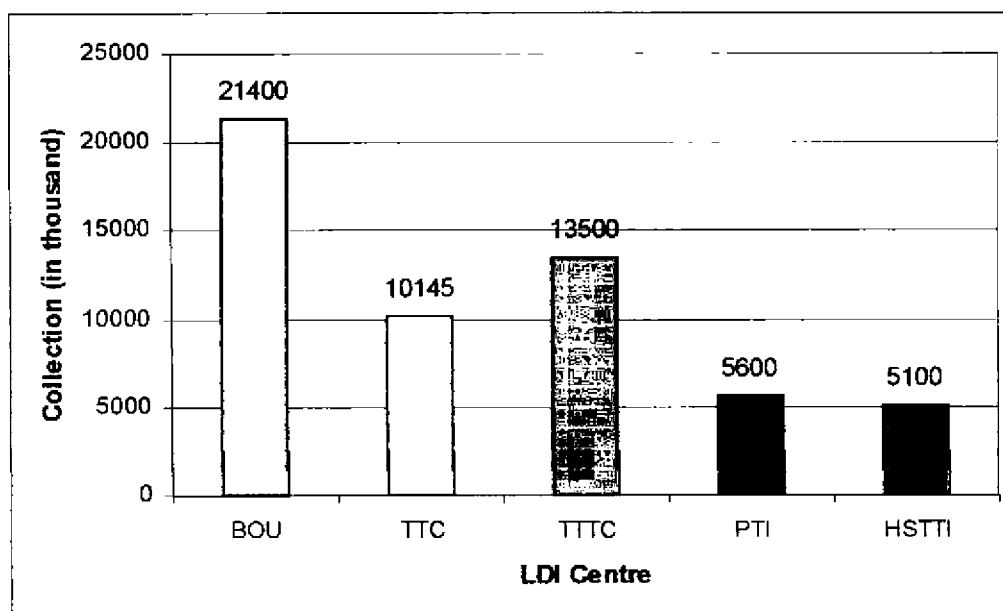


Figure 5.14: Collection of Group-2

Collection of Group-3

In Group- 3, it is observed in the Table 5.37 that the MOE Library has the largest collection of books and other printed materials (11000), followed by the PMED Library (10400), the DPE Library (9900), the DNFE Library (9800). The DTE has the lowest collection (3200), followed by the DSHE Library (3900)

Table 5.37: Collection: Group-3 (as on December 2002)

G.3 Educational Administration & Management N=6	Books/Monographs, Research Reports, Govt. Publications, Organizational Reports, Bound Journal & non-print materials			Total Collection	Vols Added Per Year
	Books/Monograph	Microfiche	CD-ROM		
G.3.1 MOE Library	11000	-	-	11000	300
G.3.2 PMED Library	10400	-	-	10400	280
G.3.3 DNFE Library	9800	-	-	9800	300
G.3.4 DSHE Library	3900	-	-	3900	150
G.3.5 DTE Library	3200	-	-	3200	150
G.3.6 DPE Library	9900	-	-	9900	200

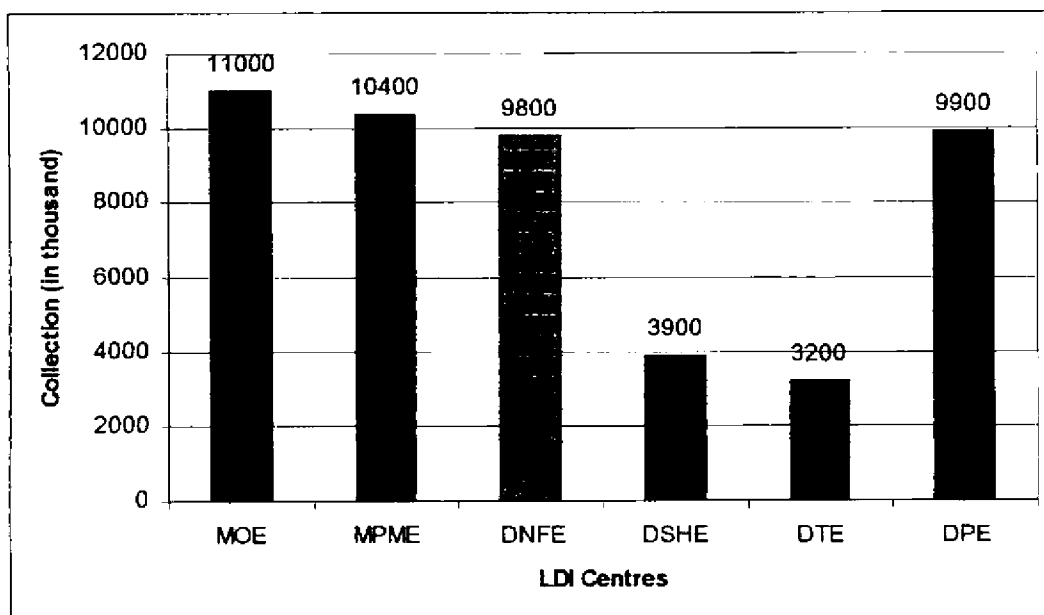


Figure 5.15: Collection of Group-3

Periodicals/Journals Received in the LDI Centres

The Table 5.38 shows that 58 Educational LDI Centres in the country receive only 1.52 (average) foreign journals on education and education related fields by subscription and free of cost. Among these, 7 research and specialized educational LDI Centres (Group-1) receive 6.28⁸ foreign journals (average), the highest average number; 45 teachers education's LDI Centres (Group-2) receive only 0.55⁹ journals (average), the lowest average in number; and 6 educational administration and management LDI Centres (Group-3) receive 3.16⁷ foreign journals (average).

Table 5.38: Periodicals/Journals literature received in the LDI Centres

Periodical/ Journals Received	Research & Specialised LDI Centres N=7		Teachers Education LDI Centres N=45		Administration & Management LDI Centres N=6		G.Total	Average
	Total	Ave	Total	Ave	Total	Ave		
1. No. of foreign educational periodicals/journals (also allied fields) received	44	6.28	25	0.55	19	3.16 ⁷	88	1.52
2. No. of local educational journals (and also allied fields) received	48	6.85 ⁶	79	1.75 ⁹	31	5.16	158	2.72

*Ave means Average; G. means Grand

All 58 LDI Centres receive 2.72 local educational and allied journals (average). Among these, Group 1 receives 6.85⁶ (average), the highest number; Group-2 receives 1.75 (average), the lowest number, and Group-3 receive 5.16 (average).

It is revealed from this data analysis that the collection rate of periodical publication in the educational LDI Centres in Bangladesh is very poor and teacher education LDI Centres are in the lowest position.

Sources of Finance

It is observed in the Table 5.39 that 56 (96.55%) LDI Centres (2 LDI Centres did not supply the data) out of 58 receive money from the revenue budget of the government and among these, 37 LDI Centres (63.79%) also receive money from the development budget if the procurement of books and other materials are included under any development project of the parent organization. 7 LDI Centres (12.06%) also receive money from the foreign donors if the LDI Centre is included in the foreign aided development projects. Beside government budget, 12 LDI Centres in teacher education group receive money from the students.

Table 5.39: Sources of Financing

	Research & Specialised LDI Centres N=7	Teachers Education LDI Centres N=45	Administration & Management LDI Centres N=6	Total & %
1. Government Revenue Budget	7	45	4	56 (96.55)
2. Government Dev. Budget	4	29	4	37 (63.79)
3. Donors/Foreign Grant	2	5	0	7 (12.06%)
4. Students Fees	0	12	0	12 (20.69%)

C. Organization and processing of information resources

Catalogue Rules

In cataloguing method, it is seen in the Table 6.40 that 10 LDI centres of teacher education group (17.24%) follow the American Library Association (ALA) Cataloguing Rules; no one follows the Anglo American Cataloguing Rules (AACR) version-1; and 44 LDI Centres follow the Anglo American Cataloguing Rules (AACR) version-2, 4 LDI centres do not follow any cataloguing rules. It is revealed that majority LDI Centres use AACR2. It may be the cataloguing rules to be followed by the all members of NATEIS in future.

Table 5.40: Use of Cataloguing Rules

	Research & Specialised LDI Centres	Teachers Education Ins. Libraries	Administration & Management	Total & %
ALA	0	10		10 17.24%
AACR1	0	0		0
AACR2	7	35	2	44 75.86
No cataloguing	0	0	4	04 6.90
Total	7	45	6	58

Classification Scheme

54 LDI Centres (93.10) follow the Dewey Decimal Classification (DDC) Scheme. It may be the classification scheme to be followed by the all members of NATEIS in future.

Table 5.41: Use of Classification Scheme

	Research & Specialised LDI Centres N=7	Teachers Education Ins. Libraries N=45	Administration & Management N=6	Total & %
DDC scheme	7	45	2	54 93.10
UDC scheme	0	0	0	0
Other scheme	0	0	0	0
No classification	0	0	4	4
Total	7	45	2	58

Subject Heading/Descriptors

The Table 5.42 shows that 54 LDI Centres (93.10) use the Sears List of Subject Headings in their catalogue work. It may be selected as ^{the} Subject Heading ^{list} for the participants of NATEIS.

Table 5.42: Use of Subject-heading/Descriptors

	Research & Specialised LDI Centres N=7	Teachers Education Ins. LDI Centres N=45	Administration & Management LDI Centres N=6	Total & %
Sears List of Subject Heading	7	45	2	54 93.10
Social and Economic Thesaurus	0	0	0	0
UNESCO Thesaurus	0	0	0	0
Total	7	45	4	54

Other Processing Works

Table 5.43 shows that only 5 LDI Centres (8.62%) prepare abstract for providing abstracting services to their users at institutional level; 9 (15.51%) prepare index for providing indexing services; 18 (31.03%) prepare bibliography for providing bibliographical services; 10 LDI Centres (17.24%) prepare documentation lists; and 12 (20.68%) current awareness list. So it is revealed from these statistics that required processing works for providing information services are very unsatisfactory.

Table 5.43: Other processing work in providing information Services

	Research & Specialised LDI Centres N=7	Teachers Education Ins. LDI Centres N=45	Administration & Management LDI Centres N=6	
1. Preparation of Abstract	2	2	1	5 8.62
2. Preparation of Index	3	5	1	9 15.51
3. Preparation of Bibliography	4	11	3	18 31.03
4. Documentation List	3	5	2	10 17.24
5. CAS List	4	6	2	12 20.68

Services provided

In modern age, various types of information services are provided by the educational LDI Centres to their users. But, it is observed in the Table of 5.44 that only loan (100%) and reference services (95.55%) provided are satisfactory, while the other services provided are not satisfactory. It is seen in the table that only 18 LDI Centres (31.03%) provide bibliographic services; 10 LDI Centres (17.24%) provide documentation listing services; 9 LDI Centres (15.51%) provide indexing services; 5 LDI Centres (8.62%) provide abstracting services; only one LDI Centre provides translation services; 32 LDI Centres (55.17%) provide photocopy services; and 42 LDI Centres (72.41%) provide non-formally inter-library co-operation services.

Table 5.44: Services provided

Services Provided	Research & Specialised LDI Centres	Teachers Education Ins. LDI Centres	Administration & Management LDI Centres	Total & %
1. Loan	7	45	6	58 100.0
2. Reference	7	45	4	56 96.55
3. Bibliographic	4	11	3	18 31.03
4. Documentation	3	5	2	10 17.24
5. Indexing	3	5	1	9 15.51
6. Abstracting	2	2	1	5 8.62
7. Translation (Req)	1	0	0	1 1.72
8. Reprographic	5	25	2	32 55.17
9. Interlibrary co-operation (non-formal)	7	31	3	42 72.41

Use of Computer

The Table 5.45 shows that none of the 58 LDI Centres use computer technology in the accessioning work of the library. Only 3 LDI Centres (5.17%) use computer in preparing library databases; there is no use of computer in lending services and E-mail; and 4 LDI Centres (6.89%) use computer in house keeping tasks. These statistics show the very unsatisfactory position of use of IT, i.e. computer technology in the different tasks of LDI Centres activities.

Table 5.45: Use of IT, especially computer in LDI functions, activities and services

Use of Computer in various tasks	Educational Research LDI Centres N=7	Teacher Education LDI Centres N=45	Educational Administration LDI Centres N=6	Total Respondents & %
Accessioning	0	0	0	0
Preparation of Database & Retrieve	2	1	0	3 (5.17)
Lending System	0	0	0	0
E-Mail Services (of office)	1	0	0	0
In House Keeping tasks	3	1	0	4 (6.89)

Fulfillment of Information Needs

In mentioning the users' needs fulfillment of educational information resources, all respondents of library personnel (100.0%) opined that needs fulfillment of the users were not met excellently; only 4 respondents (6.89%) stated as good; 6 (10.34%) stated as average; 15

(25.86%) stated as below average; and the rest 33 (56.89%) stated as poor. These statistics prove that users' information needs are not met by the existing key LDI Centres with NATEIS.

Table 5.46: Opinions of LDI personnel on users' fulfillment of educational information needs

Opinions	Educational Research LDI Centers N=7	Teacher Education LDI Centers N=45	Educational Administration LDI Centers N=6	Total Responded & %
1. Excellent	0	0	0	00 0.0
2. Good	2	2	0	04 6.89 90
3. Average	1	5	0	06 10.34
4. Below Average	2	11	2	15 25.86
5. Poor	2	27	4	33 56.89 90
Total	7 (100.0)	45 (100.0)	06 (100.0)	58 (100.0)

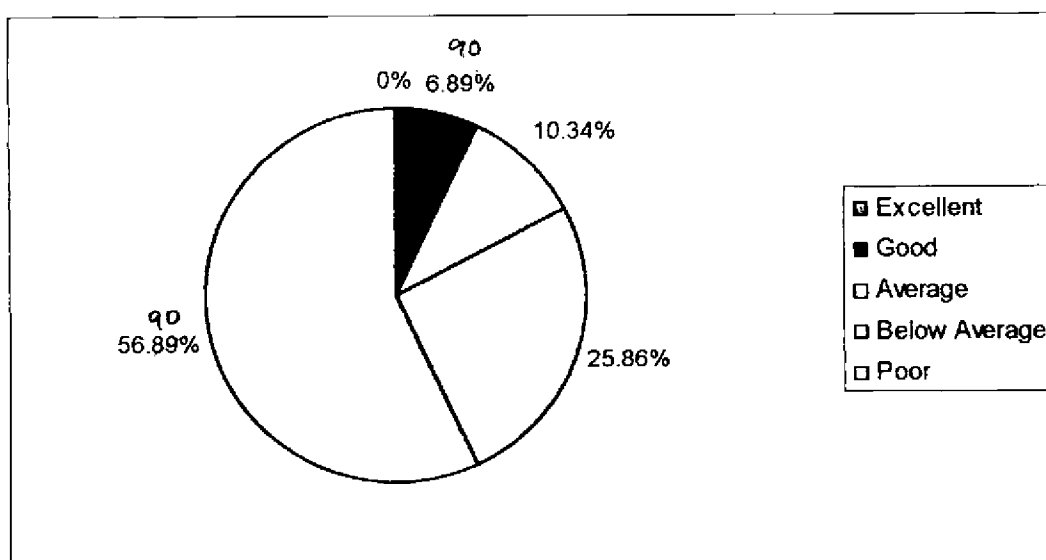


Figure 5.16: Opinions of LDI personnel on users fulfillment of needs

Ways and Means in the fulfillment of Information Needs

It is observed in the Table 5.47 that all 58 respondents (100.0%) opined that ^{needs for} information resources needs of the education personnel will be met adequately if the educational LDI centres are properly equipped with required input, and effective educational LDI Centres network/ educational information system is established at national level in the country.

Table 5.47: Opinion regarding ways and means in fulfilling the users' information resources needs

Opinions	Educational Research LDI Centres N=7	Teacher Education LDI Centres N=45	Educational Administration Centres N=6	Total Responded & %
	Yes	Yes	Yes	
1. Through the improvement of the existing Educational LDI Centres by providing various input at optimal level	√	√	√	√
2. Through the participation of the LDI centres in Educational Information System/LDI Centres Network	√	√	√	√

Part Three

Presentation and Analysis of Data of the Status of

National Educational Information System (NATEIS) of Bangladesh

(Based on Components D of Instrument-I, component E of Instrument-II and component B of Instrument-III)

Classification of Respondents

This part three is consisted of component D of the Instrument-I, component E of the Instrument-II and component B of Instrument-III. The total number of respondents in part-one was 262 from 3 groups of educational information users. In part-two, total number of respondents was 58 from LDI personnel working in the educational LDI Centre. These (262+58) or 320 respondents were also included in this part for the study of NATEIS. In addition, 22 respondents (out of 40) from LDI expert group in the country were included in this part. So, the total number of respondents stood at (320+22) or 342 for this part. Table 5.48 shows the classification of various types of respondents.

Table 5.48: Classification of Target Groups

Respondents with Group No	Questionnaire Mailed to Users	Questionnaire Mailed to LDI Personnel	Total Mailed	Responded Users	Responded LDI Personnel	Responded Per Group with %	Total Respondents %
1. Educational Research & Specialized Institutes	120	08	128	58	07	65 (50.78)	
2. Teachers Education & Training	310	71	381	152	45	197 (51.70)	
3. Edl. Administration, Management & Planning	120	06	126	52	06	58 (46.03)	
4. Senior LDI Specialists (Ex Educational LDI Personnel and other Information System Experts)	-	40	40	-	22	22 (55.00)	
Total	550	125	675	262	80	342	50.66

Participation in Information systems/Networks at international, regional levels

In the field of educational information system/LDI network, International Bureau of Education (IBE), International Institute of Educational Planning (IIEP), UNESCO's Regional Educational Information Programmes, etc are very prominent organizations at international and regional levels. In this connection, a question was asked to the respondents to know their participation in those organizations for resource sharing and co-operation.

Table 5.49 shows that educational LDI Centres of Bangladesh (100%) do not formally participate in any educational information systems at international and regional levels organized by IBE, IIEP, UNESCO's Regional Educational Information Programmes, etc.

Table 5.49: LDI Centre's participation in the educational LDI Centres' network/Information system for resource sharing at international and regional levels

Nature of participation	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
1. Formal Participation	0	0		0	0
2. Non-formal participation	19	24	08	12	63 18.42
3. Not-participation	39	128	44	68	279 81.58
Total	58	152	52	80	342 100.0

Only 63 respondents including 12 library professional (18.42%) mentioned that they non-formally participate with those educational organizations and the rest 279 respondents (81.58%) do not participate in any educational information system at international and regional levels.

Participation in the activities of NEDC of BANBEIS

It is observed in the Table 5.50 that all 342 respondents of the 4 groups (100%) reported that his/her LDI Centre's do not formally participate in the NEDC of BANBEIS. Only 76 respondents (22.22%) mentioned that his/her LDI Centre; in-formally participates with BANBEIS and 266 respondents (77.78%) mentioned that their LDI Centres do not participate formally or informally in BANBEIS activities. It is revealed from the data that there is no formal institutional participation of any Educational LDI Centre in the activities of National Educational Documentation Centre of BANBEIS.

Table 5.50: LDI Centre's participation in the activities of NEDC of BANBEIS for resource sharing in meeting educational information needs)

Opinions	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
1. Formal Participation	0		0	0	0
2. Informal participation	13	23	21	19	76 22.22
3. Not-participation	45	129	31	61	266 77.78
Total	58	152	52	80	342 100.0

Services received from NEDC of BANBEIS, National Focal Point of NATEIS

It is observed from the Table 5.51 that 167 respondents including the library personnel (48.83%) informally receive very irregular statistical report and bibliography from BANBEIS and the rest 175 respondents (51.17%) do not receive any services from the BANBEIS. It indicates the unsatisfactory informal services of NEDC of BANBEIS, national focal point of NATEIS.

Table 5.51: Educational information products and services (index, abstract, bibliography, statistical report, etc.) received from the present NEDC of BANBEIS.

Services received	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
Very Irregular Statistical Report	58	17	52	40	167 48.83
Very irregular Bibliography	58	17	52	30	167 48.83

Comments on information services provided by NEDC of BANBEIS

In the Table 5.52, 113 respondents (33.04%) mentioned that the information services provided by NEDC of BANBEIS were inadequate; and 229 respondents (66.96%) mentioned as poor. These data prove that the education personnel information needs are not met adequately by the services provided by the NEDC of BANBEIS.

Table 5.52: Opinions on meeting the users' educational information needs by the services provided by the NEDC of BANBEIS

Opinions	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
1. Adequate	0	0	0	0	0
2. Inadequate	23	58	21	11	113 33.04
3. Poor	35	94	31	69	229 66.96
Total	58	152	52	80	342 100.0

Causes of Non-participation of the LDI Centres in NATEIS

In mentioning the cause (s) of non-participation in NEDC, 295 respondents (86.26%) mentioned that BANBEIS had no initiative to connect the Educational LDI Centres to NATEIS managed by BANBEIS; 47 respondents (13.74%) mentioned that their LDI Centres had no initiative to join the NATEIS. It is revealed from these data that BANBEIS or the authority did not take any initiative in establishing effective NATEIS in the country (Table 5.53).

Table 5.53: Opinions regarding the causes of non-participation in the activities of NEDC of BANBEIS

Opinions	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	LDI Personnel N=80	Total %
1. BANBEIS had/has no initiative to connect the Educational LDI Centres to the NATEIS	45	131	39	80	295 86.26
2. Institute's LDI Centre has not taken initiative to join to NATEIS	13	21	13	0	47 13.74
Total	58	152	52	342 80	342

Evaluation of BANBEIS's Services as National Focal Point of NATEIS

A question was asked to the respondents for evaluating the role NEDC, BANBEIS as national focal point of the NATEIS. It is observed in the Table 6.54 that 118 respondents (34.50%) mentioned the BANBEIS's role as inadequate; 160 respondents (46.78%) mentioned as poor; and 64 respondents (18.72%) mentioned as very poor and none of them mentioned as adequate.

Table 5.54: Evaluation of role of National Educational Documentation Centre (NEDC) of BANBEIS as National Focal Point

Opinions	Educational Researcher N=58	Teacher Educator N=152	Educational administrat or N=52	LDI Personnel N=80	Total %
Adequate	0	0	0	0	0
Inadequate	19	48	24	27	118 34.50
Poor	21	86	21	32	160 46.78
Very poor	18	18	7	21	64 ¹ 18.72
Total	58	152	52	80	342 100.0

Causes of Non-effective NATEIS in Bangladesh

A question was asked to the target groups for knowing the causes for non-effective NATEIS in Bangladesh. In this connection, 46 respondents (13.45%) mentioned lack of policy for NATEIS; 42 respondents (12.28%) mentioned the lack of proper planning for NATEIS; 40 respondents (11.69%) mentioned the lack of legal framework for the

system; 55 respondents mentioned the lack of adequate input of resources in the system; and 159 respondents (46.49%) mentioned all the above causes (Table 5.55).

Table 5.55: Causes of non-effective NATEIS in Bangladesh

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
1. Lack of policy	09	19	07	11	46 13.45
2. Lack of Planning	08	21	04	09	42 12.28
3. Lack of Legal frame-work	05	13	08	14	40 11.69 ⁷⁰
4. Lack of adequate resources input	06	27	05	17	55 16.08
5. Lack of all the above	30	72	28	29	159 46.49
Total	58	152	52	80	342 100.0

Need for Effective NATEIS

The Table 5.56 shows that all the 342 respondents (100.0%) mentioned very urgent need to improve and redesign the NATEIS in Bangladesh.

Table 5.56: Users and LDI personnel's opinion on need for development and designing of NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. Very urgent need	√	√	√	√
2. Urgent need	0	0	0	0
3. Need	0	0	0	0
4. No need	0	0	0	0

Objectives of NATEIS in Bangladesh

The target groups were asked what should be the objectives of the proposed effective NATEIS in Bangladesh. It is observed in the Table 5.57 that all the 342 respondents (100.0%) agreed with the objectives cited in the following table.

Table 5.57: Opinion regarding the objectives for NATEIS of Bangladesh

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. Easy access to educational information resources	√	√	√	√
2. Ensuring the proper process & location of information resources	√	√	√	√
3. Maintaining Adequate mechanism and media for dissemination of information	√	√	√	√
4. Maintaining linkage with other information systems, sub-systems within the Country	√	√	√	√
5. Establishing linkage with other national, regional & international educational information systems/networks	√	√	√	√
6. Developing the information-personnel to handle the management of NATEIS	√	√	√	√

Services are to be provided by NATEIS

The all of 342 respondents of the 4 groups (100.0%) agreed to provide the information services cited in the Table 6.58 by the NATEIS in Bangladesh.

Table 5.58: Opinion regarding information services to be assigned for the education personnel

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. Bibliographical Services	√	√	√	√
2. Documentation Services	√	√	√	√
3. State-of-the-Art <i>Rep</i>	√	√	√	√
4. Data Services	√	√	√	√
5. Reprographic Services	√	√	√	√
6. Translation Services	√	√	√	√
7. Union Catalogue	√	√	√	√
8. Computerized Database Services	√	√	√	√
9. Inter-Library Loan Services	√	√	√	√
10. Co-operative Acquisition Services	√	√	√	√
11. Newsletter/ Bulletin Services	√	√	√	√
12. Indexing Services	√	√	√	√
13. Abstracting Services	√	√	√	√

Information Products are to be produced

A question mentioning the name of major information products was asked to the target groups for determining the information products to be produced by the NATEIS. In the analysis of the Table 5.59 it is revealed that all 342 respondents (100%) mentioned Education Index, Education Abstract, Education Bibliography as major information products of the NATEIS

Table 5.59: Opinion regarding information products by NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. Education Index	√	√	√	√
2. Education Abstract	√	√	√	√
3. Bibliography	√	√	√	√

Language (s) of the System

342 respondents (100%) mentioned English and Bengali as languages of information products and none mentioned any other language.

Table 5.60: Opinion regarding language of information products

Language	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. English for materials written in English	√	√	√	√
2. Bengali for materials written in Bengali	√	√	√	√
3. Other language	0	0	0	0

Organizational Structure/Tier of the System

Each and every information system/network has certain tiers in connecting the related LDI centres of the country. In this connection all of respondents (100%) mentioned 4 tiers in the organization of NATEIS. These are-National level; Sub-national level; District level and Institutional level (Table 5.61).

Table 5.61: Opinion on the Tier of the System

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
National level	√	√	√	√
Sub-Sectoral level	√	√	√	√
District level	√	√	√	√
Institutional level	√	√	√	√
Other level	0	0	0	0

Selection of National Focal Point and its Status

In establishing a national information system, the role of its national focal point as its organiser is very important aspect. In this connection, a question mentioning five alternative answers was asked to the target groups for selecting a LDI Centre as the national focal point for the NATEIS. For this the collected data has been analysed in the Table 6.62.

The Table 5.62 shows that only 28 respondents (8.18%) mentioned the existing NEDC/ Library of BANBEIS (a government organization) as the national focal point for the NATEIS.

88 respondents (25.73%) mentioned the NEDC/Library of BANBEIS, after transforming BANBEIS into an autonomous organization as national focal point of NATEIS.

157 respondents (45.90%) mentioned the NEDC/Library of BANBEIS as national focal point of NATEIS, but transforming it (BANBEIS) into Central Library of Education/National Library of Education with autonomous status.

23 respondents mentioned the name of IER Library, DU, as new national focal point; and 46 respondents mentioned the name of NAEM LDI Centre as a new national focal point.

It is observed from the data analysis that majority respondents mentioned the BANBEIS Library as the national focal point of NATEIS by transforming BANBEIS into the Central Library/National library of Education as autonomous body.

Table 5.62: Development of the National Focal Point of NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
1. The existing NEDC/Library of BANBEIS as govt. organization	5	16	4	3	28 8.18
2. The existing NEDC/Library of BANBEIS, but by transforming it (BANBEIS) into an autonomous organization	19	28	16	25	88 25.73

Contd. of Table 5.62

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
3. The existing NEDC/Library of BANBEIS, but by transforming it (BANBEIS) into the Central Library of Education/National Library of Education as an autonomous organization.	24	77	22	34	157 45.90
4. The IER Library, Dhaka University (autonomous org.) as new national focal point of NATEIS	4	9	3	7	23 6.72
5. The NAEM LDI Centre (Govt. org.) as national Focal Point	6	22	7	11	46 13.45
Total	58	152	52	80	342 100.0

3

Selection of Sectoral Focal Points

It is observed in the Table 5.63 that all respondents (342) mentioned the following LDI Centres as Sectoral focal points for specific area of education. These are: NAEM's LDI Centre for educational administration, training and research in secondary and higher education(college); NCTB' LDI Centre for curriculum and textbook development and research at primary and secondary levels; NAPE's LDI Centre for training and research on primary education; UGC's Library for higher education management; BANBEIS's LDI Centre for educational

data and information; BTEB' Library for technical and vocational education; Bangladesh Madrasah Education Board Library for Muslim religious education; DNFE Library for non-formal and adult education and all respondents mentioned the library of BRAC as representative of all NGOs of Bangladesh as sub-national focal point of non-formal and in-formal education.

Table 5.63: Opinion on Selection of some Educational LDI Centres as Sectoral Focal Points on specific area of education in the NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
1. NAEM's LDI Centre (Educational Administration Training and Research in Secondary & College education)	√	√	√	√
2. NCTB's LDI Centre (in Curriculum and Textbook Production at Primary to Higher Secondary Levels)	√	√	√	√
3. NAPE's LDI Centre (in primary education Training and Research)	√	√	√	√
4. IER Library, Dhaka University (teacher education and research)				
5. UGC's Library (in higher education (University)	√	√	√	√
6. BANBEIS's LDI Centre (in educational data and information)	√	√	√	√
7. BTEB's LDI Centre (in technical education at undergraduate level)	√	√	√	√
8. BMEB's Library (in Madrasah Education)	√	√	√	√
9. DNEF (in non-formal & Adult Education)	√	√	√	√
10. BRAC Library	√	√	√	√

Selection of District Focal Points in the System

For District Focal Point of NATEIS, the Table 5.64 shows that 8 respondents (2.34%) mentioned the District Primary Education Office, 8 respondents (2.34%) opined District Secondary Education Office; 192 respondents (56.14%) mentioned a library of teachers' education institute located at each district headquarter, 114 respondents (33.33%) mentioned a government college library located at district headquarter, and 20 respondents (5.85%) mentioned a new library to be established in each district. It is revealed that the first choice is the teachers' education institute as District Focal Point in each district for NATEIS.

Table 5.64: Selection of District LDI Centre as a District Focal Point

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80	Total %
District Primary Education Office	5	0	3	0	08 2.34
District Education Officer's (Secondary) Office	5	0	3	0	08 2.34
A Library of Teacher Education Institute at District Headquarter	27	89	27	49	192 56.14
A Library of Govt. Colleges at District Headquarter	18	51	17	28	114 33.33
Establishing New Education Library as District Focal Point	3	12	2	3	20 5.85
Total	58		52	80	342 100.0

Selection of Departmental Participant-Member LDI Centres

It is observed in the Table 5.65 that all of 342 respondents mentioned the libraries of MOE, PMED, DTE, DSHE, and DPE as departmental participants of NATEIS.

Table 5.65: Selection of educational departments' LDI Centre as Participant-Member in NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
MOE Library	√	√	√	
PMED Library	√	√	√	
DSHE Library	√	√	√	
DPE Library	√	√	√	
DTE Library	√	√	√	

Selection of Institutes Library^s as Participants

The Table 5.66 shows that all of 342 respondents (100%) mentioned the libraries of all TTCs, all PTIs, all HSTTIs, BOU, and two national NGOs as participant- members of NATEIS.

Table 5.66: Selection of Educational Institute LDI Centres as participant-members in NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
All Teachers' Training College Libraries	√	√	√	√
All HSTTI's LDI Centre	√	√	√	√
All Primary Training Institutes' Library	√	√	√	√
All Primary Training Institutes' Library	√	√	√	√
IER, University of Dhaka Library	√	√	√	√
Bangladesh Open University Library	√	√	√	√
NGOs (Proshika, Ahsania Mission for informal education)	√	√	√	√

Level of Co-operation in the system

The Table 5.67 shows that all of 342 respondents (100%) wanted to make co-operation at the national, regional, and international level in the system.

Table 5.67: Level of co-operation of the system

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	LDI Personnel N=80
International	√	√	√	√
Regional	√	√	√	√
National	√	√	√	√
Inter-State level	√	√	√	√

Focal Points at International, and Regional Levels

It is observed in the Table 5.68 that all of 342 respondents expressed their views to make co-operation with the International Bureau of Education, International Institute of Educational Planning, UNESCO, UNICEF, etc. at international level; and PROAP, SAARC, ESCAP etc., at regional level.

Table 5.68: Opinion on Selection of Focal Points at International, regional levels

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	LDI Personnel N=80
International level				
IBE	√	√	√	√
IIEP	√	√	√	√
UNESCO	√	√	√	√
UNICEF	√	√	√	√
Regional level				
PROAP (UNESCO)	√	√	√	√
SAARC	√	√	√	√
ESCAP	√	√	√	√

Sources of Finance of the System

The Table 5.69 shows that all of respondents (100.0%) mentioned that the sources of income of NATEIS are: (a) grant from Government of Bangladesh; (b) subscription from member-participants of NATEIS; (c) grants from other national, international donor agencies; and (d) also local government agencies of Bangladesh.

Table 5.69: Opinions on the sources of financing the NATEIS

	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
Government of Bangladesh	√	√	√	√
Subscription of Participant-Member Institutes	√	√	√	√
International donor Groups	√	√	√	√
Local Governments	√	√	√	√

Operation of the System

Table 5.70 shows that in operating the NATEIS in Bangladesh all 342 respondents (100%) mentioned manual and computerized operation system.

Table 5.70: Opinion regarding operation of NATEIS

Respondents with Group Nos	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
Manually	0	0	0	0
Fully Computerized	0	0	0	0
Manually and Computerized	√	√	√	√

Need for Policy, Planning and Legal Framework

For developing and implementing the System properly, all of respondents mentioned that it needs legal basis, government policy, short-term and long-term strategic planning and development project (Table 5.71)

Table 5.71: Opinion on Legal-framework, national policy, planning and Development programme for NATEIS

Respondents with Group Nos	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	LDI Personnel N=80
1. Should have legal framework	√	√	√	√
2. Should form a policy by the MOE	√	√	√	√
3. There should be long term and short term strategic planning	√	√	√	√
4. Should take a development programme	√	√	√	√

Need for Council/Board of Governors for the System's Management

It is revealed in the Table 5.72 that all of respondents mentioned the need to have a National Council or Board of Governors for managing the NATEIS at central level; a Committee at District level for better management of the focal points of NATEIS in Bangladesh. None of respondents mentioned the need of committee for sub-national focal points.

Table 5.72: Opinion regarding National Council or Board of Governors for policy-making, planning, co-ordinating and advising the NATEIS at different levels

Respondents with Group Nos	Educational Researcher N=58	Teacher Educator N=152	Educational administrator N=52	LDI Personnel N=80
	Yes	Yes	Yes	Yes
National Council/Board of Governors for NATEIS	√	√	√	√
Council/Committee for Sectoral Focal Point	0	0	0	0
Committee for District Focal Point	√	√	√	√

Distribution of power, authority, and responsibility in the System

The important aspect of management of a system is to determine the organizational set-up. Respondents were asked to suggest one from the three types of organizational set-up reflected in the Table 5.73. Seventy respondents (20.46%) expressed their views in favour of centralization of the system; one hundred ninety-nine respondents expressed their views in favour of centralization in policy, planning, monitoring and evaluation of the system and decentralization of collection, processing and dissemination of information resources; and seventy three respondents expressed their views in favour of centralization of co-ordination and advisory services only and decentralization of all activities of the system. It is revealed that maximum respondents liked centralization-decentralization set-up of organization of the system.

Table 5.73: Distribution of power, authority in the system

Organizational set-up	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=52	LDI Personnel N=80	Total & %
1. Centralization in all activities of management, and decentralization in dissemination of information only (fully centralized)	11	29	19	11	70 20.47
2. Centralization in policy planning, monitoring, evaluation and decentralization implementation and in collection, processing and dissemination (centralized-decentralized)	38	88	27	46	199 58.19
3. Centralization in only coordination and advisory functions and decentralization in all other functions (fully decentralized)	09	35	6	23	73 21.35
Total	58	152	52	80	342 100.0

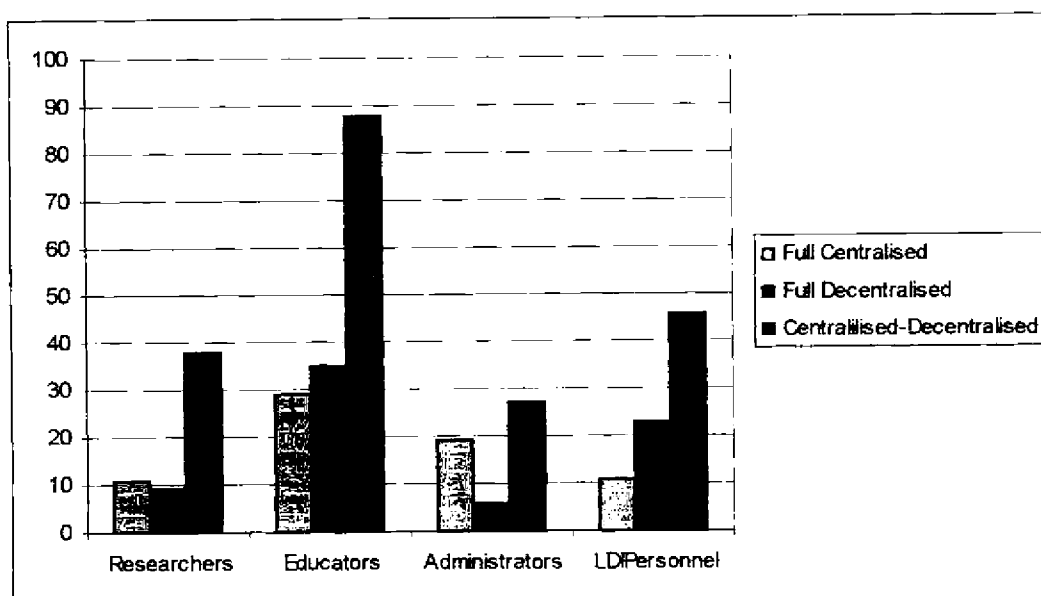


Figure 5.17: Distribution of power, authority in the system

Status of the LDI Professional

All of respondents were asked to express their views on the status of LDI personnel. They mentioned that status, the salary structure, and promotion facilities of the LDI personnel should be the same as the teaching/research staff/management staff if they have equal qualification (See Table 5.74).

Table 5.74: Opinion on the status of the LDI personnel

	Educational Researcher N=58	Teacher Educator N=152	Educational Administrator N=152	LDI Personnel N=80	Total Respondents & %
	Yes	Yes	Yes	Yes	
Status, the salary structure, and promotion facilities should be the same as the teaching/research/management staff if they have equal qualification	√	√	√	√	342 (100.0)

Data gathered by some extra questions to LDI Personnel

The LDI Personnel taken as sample for this study were asked some questions related to functional divisions of National Focal Point, staffing pattern of NATEIS and participant-member libraries, standard of technical tasks, etc. to make some valuable suggestion in designing the system.

Functional Divisions within the National Focal point of NATEIS

Sixty nine respondents (86.25%) out of eighty respondents of LDI personnel expressed their views for creation of seven functional divisions for the National Focal Point of NATEIS; these are- Library Division; Documentation Centre; Information Analysis Centre; Data Centre; Referral Centre; Clearinghouse and System Management and Coordination Division and the other thirteen respondents did not respond (Table 5.75)

Table 5.75: Functional Divisions of National Focal Point in NATEIS

Items	Working Educational LDI Personnel (N=58)			LDI Expert Group (N=22)			Total	%
	Yes	Nm*	Total	Yes	Nm	Total		
1. Library Division	45	13	58	22	-	22	69	86.25
2. Documentation Centre	45	13	58	22	-	22	69	86.25
3. Information Analysis Centre	45	13	58	22	-	22	69	86.25
4. Data Centre	45	13	58	22	-	22	69	86.25
5. Referral Centre	45	13	58	22	-	22	69	86.25
6. Clearinghouse	45	13	58	22	-	22	69	86.25
7. Management & Co-ordination Div.	45	13	58	22	-	22	69	86.25

* Nm means not mentioned

Standard of Technical Tasks

It is observed in the Table 5.76 that 61 to 69 respondents (76.25% to 86.25%) mentioned the standard for technical tasks of the information system/network. These are: Dewey Decimal Classification Scheme for classification of the materials; Anglo-American Cataloguing Rules-version 2 for the catalogue entry; Sears List of Subject Headings for the Descriptors or subject headings to be used; IBM Compatible brand as computer Hardware; Computerized-Documentation System/of Integrated Set of Information Systems (CDS-ISIS) of windows version as Computer Software for making databases and a digital telephone line for internet in each library and a home page for BanNATEIS .

Table 5.76: Standard for Technical Tasks of the System and its participant members

	Working Educational LDI Personnel N=58			Information Expert Group N=22						
	Yes	Nm/Other	Total	Yes	Nm/other	Total	Yes	Nm/other	Total	%
DDC Scheme	47	11	58	22	0	22	69	11	80	86.25
AACR2	45	13	58	22	0	22	67	13	80	83.75
Sears List of Subject Heading	47	11	58	22	0	22	69	11	80	86.25
Computer Hardware: IBM Compatible	41	17	58	22	0	22	63	17	80	78.75
Computer Soft-ware: CDS-ISIS Windows Version	39	19	58	22	0	22	61	19	80	76.25
A Digital Telephone Line for Internet	45	13		22	0	22	67	13	80	83.75
Home Page for BanNATEIS	45	13	58	22	0	22	67	13	80	83.75

Staffing Pattern

All of 69 LDI personnel (86.25%) out of 80 expressed their views to create minimum 60 posts for National Focal Point, at least 13 posts for each sub-national focal point, 9 for district focal points in each, and 6 for participants libraries in each except the university library, because they have essential manpower. In addition, the respondents expressed their views to create extra 5 IT professional posts for the central host (Table 5.77).

Table 5.77: Staffing Pattern for different levels

Levels	80 LDI Personnel responded on Staffing Pattern (Average)			Total
	Professional	Semi-professional	Support staff	
1. National Focal Point: Central/National Library of Education	15	15	30	60
2. Sectoral Focal Point & Participant	2	2	9	13
3. District Focal Point and Participant	1	2	6	9
4. Institute Participant Library (except university)	1	1	4	6
5. IT Specialist for Host Centre	5	0	0	5

Part Four

Testing of Hypothesis

Evaluation of Assumptions

- a. “That an adequate and effective educational information system for education personnel is an integral component of any education system of a country.”

From the presentation and analysis in the Chapter One (importance of educational information system), Chapter Three (importance of information in the present society), it is observed that an effective educational information system for meeting of educational personnel’s information needs is an integral component of any educational system of a country in the era of globalization.

- b. “The key Educational LDI Centres with the National Educational Information System of Bangladesh are not meeting the educational information resources need of the educational researchers, teacher educators, educational policy-makers, planners, administrators, managers and teachers”.

The presentation of data and analysis of Table 5.14, 5.15, 5.16, 5.17, 5.18, 5.19 (users’ opinions) and Table 5.46 (LDI personnel opinions) prove that the key Educational LDI Centres with the existing NATEIS in Bangladesh are not meeting the educational information resources needs of the education personnel of the country. Hence, the assumption is correct.

- c. “The LDI Centers in the field of education in Bangladesh, which are participating and/or willing to participate in the existing national educational information system or the system to be developed are not equipped with essential input of resources (manpower, money, materials, information resources, policy and planning) in playing their proper role in meeting the educational information needs (through various information services and products) of the different types of user groups in education”;

The presentation of data and analysis of the Table 5.13, 5.16, 5.20 (users’ opinions) and the Table 5.27, 5.28, 5.29, 5.30, 5.31, 5.32, 5.33, 5.34, 5.45, and 5.46 (LDI personnel opinions) prove that the key Educational LDI Centres including the NEDC, national focal point of NATEIS are not properly equipped with essential input of resources, like manpower, money, materials, equipment, information resources collection, etc. So, the assumption is absolutely correct.

- d. “National Educational Documentation Center (NEDC) as central focal point, responsible for creating National educational Information System (NATEIS) of Bangladesh is now existing in the paper document only, because no adequate measures in terms of legal framework, policy and planning has been taken by that organization or the authority (Department of Education) to operate the system properly”;

The presentation of data and analysis of the Table 5.49, 5.50, 5.51, 5.52, 5.53, 5.54, and 5.55 (users and LDI personnel opinions) prove that NEDC within the BANBEIS as national focal point, responsible for creating effective NATEIS in Bangladesh is existing in the paper document only. So, the assumption is absolutely correct.

- e. “There is a strong need for National Educational Information System (NATEIS) in Bangladesh”;

Table 5.21, 5.47 and 5.56 reveal that there is a very urgent need to make the existing National Educational Information System (NATEIS) of Bangladesh effective.

- f. “National Educational Information System (NATEIS) operated by a National Educational Documentation/Information Center as Central Focal Point working in developed and developing countries in the world is very useful”.

From the presentation of information in the Chapter Three, it is observed that national educational information services and systems of various countries, like United States of America, India, and United Kingdom, etc., have been playing very important and significant role by providing various information services and products in the activities of educational research, teacher education, educational policy, planning and management in their countries. So, the assumption for this study is absolutely correct.

Testing of Basic Hypothesis

An effective National Educational Information System (NATEIS) does not exist in Bangladesh.

From the presentation and correctness of the assumptions made in a, b, c, d, e, and f, it is revealed that “An effective National Educational Information System (NATEIS) does not exist in Bangladesh”. Hence, the hypothesis taken for this research study is absolutely positive/correct.

=====

Chapter Six

Chapter Six

Summary of Findings

The following findings are drawn from the analysis of data and information obtained from the investigation of the National Educational Information System comprising key educational LDI Centres of Bangladesh.

A. Findings relating to users needs and fulfillment

1. Regarding the responses, 49.03% teachers' educators (highest number), 48.33% education researchers and 43.33% education administrators responded.
2. Regarding the sex of respondents, 77.10% males, 22.90% females responded. In educational administrators group, the numbers of female respondents were only 13.38% (the lowest number among the respondents of all three groups).
3. In case of range of age of the respondents, the most of the respondents were the members of 40-49 years old group.
4. In experiences, most of the respondents had 10 to 19 years work-experiences.
5. In educational qualification, most of the respondents (75%) hold post-graduation degree and a few (13%) hold M.Phil. and Ph.D degree in general education.
6. In respect of professional education and training, 73.28% respondents had B. ed., M. Ed. and M.Phil/Ph.D. in education, but a few of the

educational administrators (28.85%) had professional education. So, the educational administrators were less advanced in professional education than the teachers-educators and educational researchers.

7. Among the educational personnel working in different fields of education in Bangladesh, 24.80% respondents seek information resources for the purposes of research; 43.13% for teaching and training (the largest group); 7.25% for policy and planning; 14.88% for educational administration and management; 4.96% for self-improvement and 4.96% for scholarly writing.
8. Majority of the education information resources users (75%) seek information with the assistance of the LDI personnel and other 25% users seek information in other ways and means.
9. Almost all users equally use and consult information resources materials written in English and Bengali language.
10. Most of the information users depend on LDI Centres, only 14.88% users depend on other personal means.
11. Almost all users are more interested in use of journal articles, research reports, organisations reports, etc. But these types of materials are not available in most of the educational LDI Centres in Bangladesh.
12. Almost all the users do not use information products like Education Index, Education Abstract, Education Bibliography, Social Science Citation Index, etc, because these are not available in the educational LDI Centres in the country.

13. Majority of the educational LDI Centres do not provide educational information services like CAS, SDI, Documentation List, etc to keep the users up-to-date.
14. Almost all the users-respondents hold the views that educational LDI Centres in the country can not adequately meet their educational information resources needs.
15. Regarding the present status of the educational LDI Centres, the majority of the respondents hold the views that LDI Centres are not equipped with required input of resources like collection, budget, manpower, space, equipment, etc.
16. Almost all the users-respondents strongly hold the view that their educational information needs can be met only by establishing educational LDI Centres network/educational information system and improvement of the existing educational libraries in the country.

B. Findings relating to the status of LDI Centres

17. Majority of the educational LDI Centres (68.23%) responded. Among the respondents, LDI Centres from educational administration group (100%) was the largest group followed by educational research group (87.50%) and then teachers' education (63.38%).
18. Majority of the respondents (55.17%) working in the LDI Centres are professional holding Master's degree in Library and Information Science, 15.52% are sub-professionals holding Diploma, 6.90% are Para-professional holding Certificate Course in the same and 22.41% are non-professional.

19. There are eight key educational LDI Centres in the educational research and special field of education serving in specific areas and these were established during the period of 1959-83 and all are located in Dhaka except one in Mymensingh.
20. There are eleven Teachers' Training College Libraries, one technical Teachers' Training College Library, five Higher Secondary Teachers' Training Institute Library, 53 Primary Training Institute Library and one Institute Library of a University in the field of education in the country.
21. There are six educational directorate/departmental library in education under the MOE.
22. Majority of the institutes/organizations have no policy, planning and operation manual for the management and development of their LDI Centres.
23. Library's floor space is inadequate in the majority educational LDI Centres.
24. Furniture is inadequate in the majority educational LDI Centres in the country.
25. Only a few LDI Centres have computer facilities for preparing databases and house keeping works.
26. The educational LDI Centres are under-staffed.
27. Higher posts and promotion facilities in the educational LDI Centres are very limited.

28. Almost all educational organization/institutes have no staff development programme for the professional development of the LDI personnel in the country.
29. The overall status of collection of print materials in the educational LDI Centres is not adequate and the collection of non-print materials is nil.
30. As primary sources of knowledge the collection of educational journals in the educational LDI Centres are very poor.
31. Almost all the LDI Centres receive money from the government's revenue and development budget.
32. In processing materials, all educational LDI Centres follow the AACR-2 (Anglo American Cataloguing Rules: Edition 2) in cataloguing.
33. Educational LDI Centres follow the Dewey Decimal Classification Scheme of different editions in classification of materials.
34. Almost all Libraries follow 'Sears List of Subject Heading' for preparing subject entry
35. A few LDI Centres use computer in making bibliographical database and house-keeping works.
36. Majority of the working LDI personnel are holding the view that the existing LDI Centres in the field of education do not meet educational information needs of the education personnel.
37. All LDI personnel hold the view that only educational LDI Centres' network/educational information system can meet the educational

information resources needs of the users working in different areas of education in the country.

38/All the respondents hold the view that information needs of the users can be met through the improvement of the existing LDI Centres and their participation in the NATEIS.

C. Findings relation to the status of NATEIS

39.The educational LDI Centres do not formally participate in the NATEIS of foreign countries and also educational information systems at international, regional level.

40. The educational LDI Centres of the country do not formally participate with the National Educational Documentation Centre/Library of BANBEIS.

41.About fifty percent users of the educational LDI Centres of the country very irregularly receive bibliography and statistical reports from the BANBEIS.

42.The informal information services through very limited information products by the BANBEIS is very inadequate and poor.

43.The user-respondents and LDI personnel hold the view that no initiatives have been taken by the BANBEIS for ensuring participation of the educational LDI Centres with the NEDC of BANBEIS.

44.Almost all the user-respondents and LDI personnel hold the view that the informal services provided by the BANBEIS are very poor due to very limited information products.

45. The majority user-respondents hold the view that lack of policy, planning, legal-framework and adequate resources of input in the system are the causes of non-effective NATEIS in Bangladesh.
46. All the user-respondents feel very urgent need for establishment of effective NATEIS in Bangladesh.
47. The user-respondents and LDI personnel hold the view that the objectives of the NATEIS should be: easily accessible for all, maintaining proper technical process, location of the educational information resources, adequate media for dissemination, linkage with other systems, and professional development programmes for the information personnel.
48. The user-respondents and LDI personnel hold the view that the services to be provided by the system should be: bibliographic, documentation, state-of-the-art, data, reprographic, translation, union catalogue/databases, inter-library loan, co-operative acquisition, indexing, and abstracting and newsletter/bulletin services.
49. The majority respondents suggest that the major information products for the system should be Education Index and Education Abstract.
50. The majority respondents suggest that language of information products and services of the system should be English and Bengali equally.
51. All the respondents suggest four tiers or levels for the system, namely institutional, district, sectoral, national levels.
52. The majority user-respondents and LDI personnel recommend the present NEDC/Library of BANBEIS as national focal point of the

system by transforming/reorganizing it as National Library of Education/Central Library of Education as an autonomous organization under the MOE.

53. All respondents recommend the LDI Centres-NAEM, NCTB, NAPE, IER, UGC, BTEB, BMEB, DNFE, BRAC as sectoral focal points for a specific area of education.
54. Majority of the respondents suggest a teacher's education institute library located at district headquarters should be the district focal point in the system.
55. Respondents (100%) suggest that the departmental libraries of MOE, PMED, DSHE, DPE, DTE should be the special participant-member libraries in the system.
56. Respondents (100%) suggest that the libraries of PTI, TTC, TTTC, HSTTI in the government sectors and PROSHIKA, Ahsania Mission, etc. in the N-GO sector will be the institutional participant-member libraries in the system.
57. Respondents (100%) suggest that the system should make a linkage for co-operation at national, regional and international level.
58. Respondents (100%) recommend that UNESCO, UNICEF, IBE, IIEP, SAARC, PROAP, etc., should be the focal points at international and regional level.
59. Respondents (100%) suggest that finance should come from the GOB, members' subscription and international donor groups for operating the system and participant-member libraries.

60. The majority respondents suggest that the system should be operated by manual and computerized method.
61. Majority respondents think that the concerned authority should formulate legal framework, policy, long-term and short-term strategic plan and should take development programme for making the system more effective.
62. It should have a council or governing board at national, sectoral and district focal points for operating the system effectively.
63. The majority of the respondents suggest that the proposed system should be the synthesis of centralization and decentralization in administration, management and planning.
64. The status of the educational LDI professional should be equal to the status of research and management staff in their organizations.
65. Majority respondents of LDI personnel recommend that the system should have functional divisions, namely- library, documentation centre, information analysis centre, data centre, referral centre, clearing house and management unit, etc.
66. Majority respondents suggest that the system should use DDC for classification, AACR-2 for cataloguing, CDS-ISIS for database work as standard for technical works.
67. Majority respondents suggest that the system/NATEIS should have a Homepage.

=====

Chapter Seven

Chapter Seven Recommendations

Part One

A Model of Effective National Educational Information System (NATEIS) for Bangladesh

7.0 Establishment of an effective National Educational Information System (NATEIS), a library-network comprising of the key education libraries, documentation and information centres of the country to render educational information services to all educational catalysts, especially in the field of teaching-learning, teacher education, educational research, educational policy-making, planning and administration is an integral and a corner stone of the national programmes of the education system in the country.

7.1 Name of the Proposed NATEIS

The name of the National Educational Information System (NATEIS) for Bangladesh may be ‘Bangladesh National Educational Information System (Ban-NATEIS)’.

7.2 Mission and Objectives of the Proposed Ban-NATEIS

Mission of the Proposed Ban-NATEIS

The mission of the Ban-NATEIS will be (a) to improve the teaching-learning process, teacher education and training, educational research, educational policy and decision-making process, educational planning, administration and management of Bangladesh; (b) to improve the overall quality of Bangladesh education, and (c) to develop and maintain the National Educational Information System along with related activities.

Objectives of the Proposed Ban-NATEIS

The Ban-NATEIS to be designed to accomplish the following objectives:

- [1] to act for educational information resource-sharing and co-operation as its principal activity
- [2] to provide users with ready access to an extensive body of education related literature.
- [3] to act as co-ordinating central agency of nationwide education information network for dissemination of educational information.
- [4] to create opportunity for information users access to educational information resources available in the key educational LDI Centres in the country
- [5] to facilitate ready access to the world's English-language and Bengali-language literature related to education;
- [6] to generate new information products by reviewing, summarizing, and interpreting current information products on priority topics.
- [7] to collect information about educational developments, research findings, and outcomes of exemplary development programmes of educational planning of Bangladesh and abroad.
- [8] to develop new information resources, such as databases, network services, user-friendly interfaces, and knowledge synthesis;
- [9] to provide leadership in the effective use of technology in all aspects of planning and operation of the system.

- [10] to play a strong role ^{to} ~~to~~ promote ^{and} greater cooperation and resource sharing among education and library professionals, policy makers, the public, and other providers and repositories of education information in Bangladesh;
- [11] to minimize the cost to give a positive effect to the library, documentation and information users for access to more information resources and information services at the least cost by sharing the burden of purchasing of reading materials; sharing the burden of processing the materials; sharing of human expertise; and increasing use of communication and information technology;
- [12] to bring a change in the attitude of participant-member LDI Centres from a 'local collection' attitude to a 'shared access' orientation.
- [13] to improve services to patrons of participants-member LDI Centres by filling up the existing lacunae and establishing new services;
- [14] to develop linkages with other related information services system within the country and other educational information services system and organizations existing in other parts of the world;
- [15] to develop the necessary infrastructure for the development of manpower to effectively handle the information on education;
- [16] to develop internationally compatible national standards for information techniques and methods; and
- [17] to introduce and develop modern information technology and managerial methods in information work.

7.3 Functions and Services of the Ban-NATEIS

The information system/network's administration and management depends on its functions and creation of information services. These functions and services grow as the network grows and become effective if the network is governed effectively.

Functions of the Ban-NATEIS

The major functions of the system will be:

- [1] Management functions in relation to information system/network operation and financial accounting
- [2] Administrative functions to support policy-making, planning, control, co-ordination, resource allocation, and funding;
- [3] Acquisition functions to procure packages of information;
- [4] Cataloguing and catalogue production function;
- [5] Processing/preparation function;
- [6] Information retrieval function;
- [7] Circulation functions;
- [8] Serials control function;
- [9] Inter-library loan function;
- [10] Delivery functions for transmission or transportation of a package of information;
- [11] Storage function;
- [12] Referral function;

- [13] Communication function;
- [14] Education and training function;
- [15] Standardization function;
- [16] Marketing function; and
- [17] Systems development and support

Services of the Ban-NATEIS

On the basis of above functions the proposed Ban-NATEIS will provide the following services:

[A] Catalogue –based Services

- [1] Shared cataloguing
- [2] Preparation of union catalogue
- [3] Switching over to online cataloguing as fast as possible
- [4] Full screen editing
- [5] Listing of the latest additions
- [6] Retrospective conversion
- [7] Maintenance of authority files, and
- [8] Approved standards for input of Bangladeshi materials:

Production of catalogue should be confined in the beginning to floppies, and later extended for commercial purposes to:

- (a) Card form; (b) Book form; (c) Magnetic tapes; (d) Optical discs; and microfiche

[B] Database Services

The following services will be essentials ones:

- [1] Subject, author and title searches
- [2] Retrospective searches aimed at old and special collections
- [3] Electronic mail
- [4] Bulletin board
- [5] File transfer
- [6] Database of projects, specialists, institutions, etc.
- [7] Document delivery
- [8] Connections to external networks
- [9] Referral services
- [10] SDI services
- [11] Current Awareness Services
- [12] Abstracts of articles
- [13] Book review; and
- [14] Non-bibliographic information

Among the above network services, Sl. no.14 should get less priority as this is being provided by specialized organizations

In addition, the following services should be incorporated when the Ban-NATEIS is fully operational:

- [1] Tele-facsimile
- [2] Tele-conferencing
- [3] Offering of databases on CD-ROMs
- [4] Simple user interface
- [5] Availability of special display formats for different types of libraries and users
- [6] Community information and information system/network news.

7.4 Management and Organization of the Proposed Ban-NATEIS

7.4.1 Policy, Planning, Co-ordination and Control

The Ban-NATEIS is to be planned considering the proposed objectives, functions, and services. For this the international standard norms to be applied. The opinions of the majority respondents, reflected in Chapter Five (Presentation, Analysis of Data and Summary of Findings) indicate that the administration and organization of the 'Ban-NATEIS' should be based on the mixed-approaches of centralization-decentralization.

Bangladesh is a unitary and also a parliamentary form of democratic country. So, full centralization approach does not suit the system (for its bureaucratic nature). On the other hand, the full decentralization system does not also suit the system on account of Bangladesh being a developing and newly democratic country (public administration is not

yet fully decentralized). Moreover, the full decentralization does not suit it on account of the government's involvement in educational administration and also financial support of the existing functional agencies, like departments, directorates, institutes, etc. in the field of education. So, the proposed Ban-NATEIS will be mixture of centralization and decentralization approaches, i.e., centralization in policy, planning, co-ordination, and advisory services, and decentralization in managing the individual focal points, clearinghouses, and LDI Centres (participant-members), their collection development, processing and dissemination of information resources. So, a creative synthesis of the two approaches, centralized and decentralized will be followed in administering and managing the proposed system.

The management and organization of the Ban-NATEIS should be developed on the basis of the above approaches.

7.4.2 Organizational Structure of the Ban-NATEIS

The presentation and analysis of data in chapter Five (Finding's Chapter) indicate that the NATEIS should be of four tiers, i.e., national, sectoral, district, and institutional levels in our country.

The organization structure of the proposed system has been shown in **Figure 7.1** on the next page.

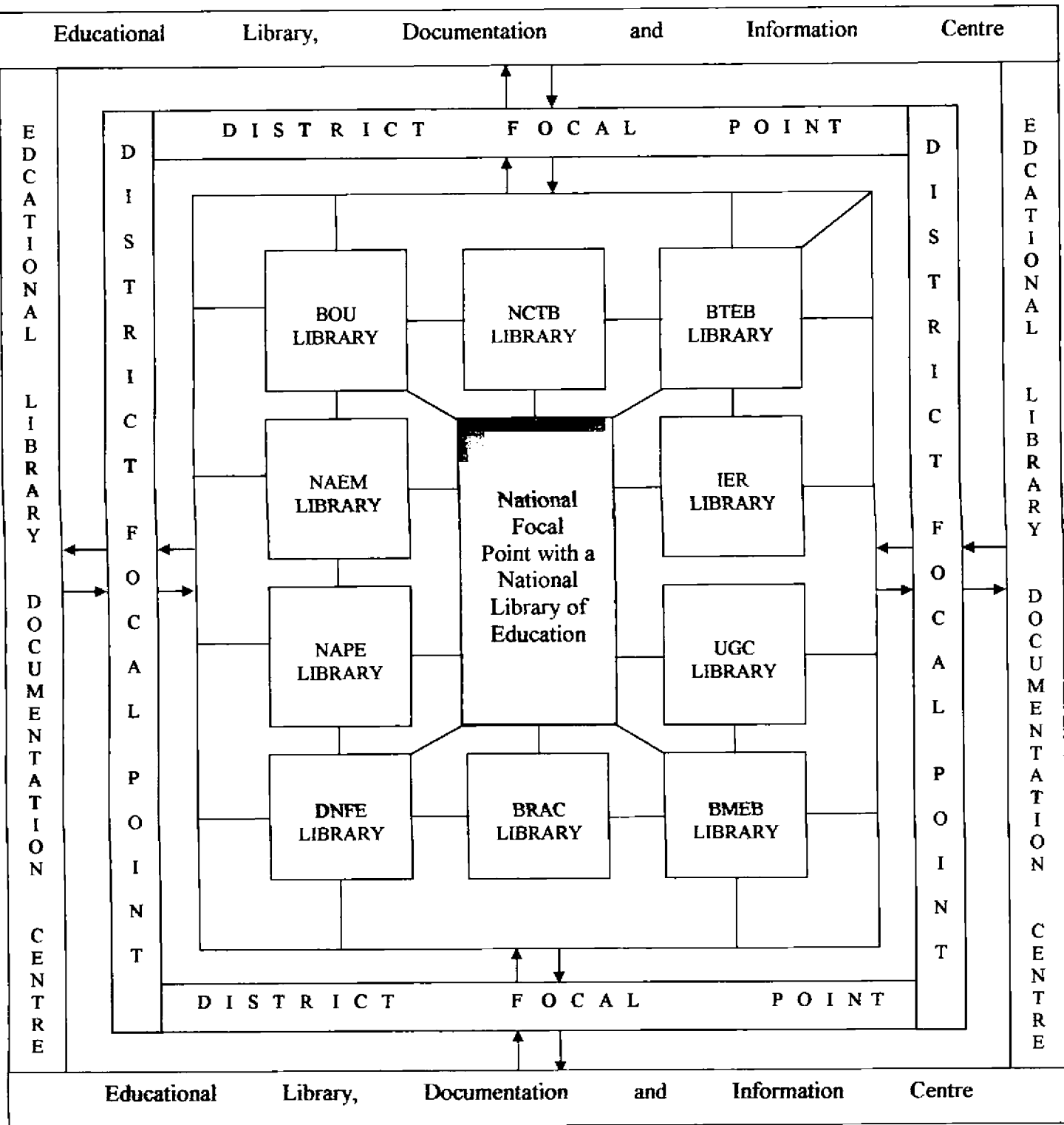


Figure 7.1: The organisational structure of the Ban-NATEIS

The organizational structure of the system is elaborately explained in the following.

A. National Focal Point of the Ban-NATEIS

Office of the National Library of Education and Ban-NATEIS

Majority of the educational information users, LDI personnel working in the key Educational LDI Centres and also information experts of the country holds the view that the existing Division of Library, Documentation, and Publication (DLDP) of the BANBEIS should be the National Focal Point of the system. But BANBEIS should be transformed as an autonomous body naming the National Library of Education or the Central Library of Education under the Ministry of Education and it should be responsible only for the function of educational bibliographical activities. Quite a good number of respondents recommended that among the existing educational LDI Centres at national level, the NAEM or IER should be the national focal point of the system. But, none of these two organizations can be considered the national focal point of the system. Because, the NAEM's programme is only limited to training and research in educational administration at secondary and college education; on the other hand, the IER's programme is mainly limited to the secondary teachers' education and research. So, the NAEM or the IER cannot fulfill the objectives and functions of the system.

The majority respondents hold the view that the existing DLDP of the BANBEIS should be the national focal point as National Library of Education/Bangladesh Central Library of Education, but it (BANBEIS) should be transformed from government organization to an autonomous organization. This NFP will act as the Secretariat of the Ban-NATEIS system.

Organizational Structure of the National Focal Point

[1] Library Division, National Library of Education

[2] Documentation Centre

[3] Information Analysis Centre

[4] Referral Centre

[5] Clearing House (s)

[6] Data Centre

[7] System Management and Co-ordination Wing

The organizational structure of the National Focal Point of Ban-NATEIS has been shown in the Figure 6.2 on the next page.

[I] Library Division

This Library Division (LD) of NLE will be the Encyclopedic Depository House of all types of information resources collected on education and related fields. The Library Division (LD) of the National Library of Education (NLE) will ensure that there exists within the system at least one accessible copy of each significant publication of the country and also notable educational literature of the developed and developing countries, mainly published in English and Bengali language. The major functions will be:

- a) The Library Division of NLE will have a co-operative acquisition programme for relevant materials for the various research and other organizations in the field of education and it may be integrated through a national union catalogue/Ban-NATEIS database centrally located and regionally (Sectoral Focal Points and District Focal Points) distributed through Production and Reproduction Services Unit.

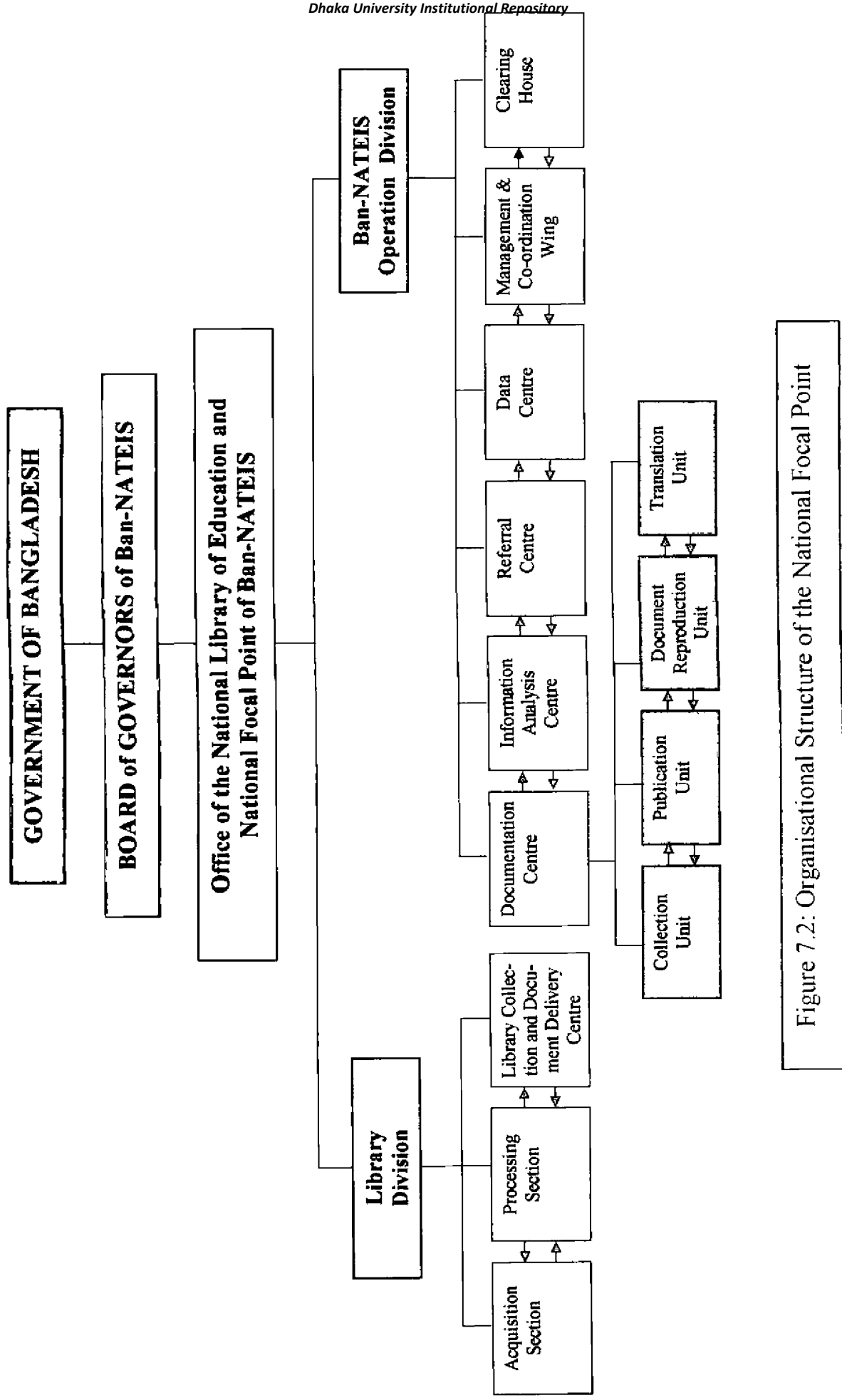


Figure 7.2: Organisational Structure of the National Focal Point

- b) The LD will act as depository house in the system;
- c) It will make a special effort to collect books on Bangladesh education and periodicals in English and Bengali language;
- d) It will handle all inter-library loan functions;
- e) It will assist in the implementation of the programmes of the Ban-NATEIS.

[II] Documentation Centre

The objectives of the Documentation Centre of the Ban-NATEIS:

- (a) To act as comprehensive source to identify current, significant education documents on any topic or interest;
- (b) To assist the users to obtain desired documents quickly;
- (c) To create opportunity for users access to local educational literature.

Functional Units of Documentation Centre

Collection Unit

This unit will take steps for comprehensive, systematic acquisition of the documents/reports, both published and unpublished from thousands of information resources in Bangladesh and abroad, and selection of current, significant documents/reports for dissemination. This unit will perform its task with consultation of Library Division of NLE. The LD of NLE will preserve and maintain all of the Documentation Centre's collection. The Documentation Centre will process all collected information upon request from outside, or on its own initiative, foreseeing the immediate and long-

range national requirements for educational documentation and information.

Publication Unit

This unit will take steps to publish (1) the Abstract Journal in Education (AJE), (2) Current Index to Periodicals in Education (CIPE), Bibliographies, Abstracts, Index, Reviews, Catalogues, Reference Works, Serials and other Ban-NATEIS products brought out by Information Analysis Centre, Data centre of the NATEIS.

On behalf of Ban-NATEIS, 'Bangladesh Forms and Publication Office' with the assistance of 'Bangladesh Government Printing Press' will publish AJE, CIPE and other Ban-NATEIS products.

Document Production and Reproduction Services Unit

This unit will reproduce the materials/documents cited in AJE so that users can obtain copies of any documents they want; and this unit will also produce and sell print materials, microfiche, and electronic copies of documents listed in the Ban-NATEIS database.

Translation Unit

This unit will provide translating service to help the users when the educational information is published in a language that users cannot understand and for this a panel of translators will be engaged.

[III] Information Analysis Centre (IAC)

The prime function of the IAC is to answer the questions of the education information seekers. In this connection the AIC of the Ban-NATEIS will do the following functions:

- (a) collecting everything known about the subject field of education;
- (b) analysing and evaluating information on education;
- (c) condensing and storing the educational information in files, data-sheets, and reviews, and
- (d) Communicating it to others through current awareness services, publication, and responses to enquiries.

To perform the above functions the AIC will adopt the following specific tasks:

[1] to collect, maintain, store, and retrieve information and data on education and education related fields;

[2] to analyse, synthesise and evaluate those collected information and data for developing various information products and devices to communicate the information to the user groups of education field. The major information products and devices will be:

Bibliographies and References; State-of-the-art Reports; Critical Compilations; Critical Reviews, Monographs, Reports, and/ or Correlations; Abstracts, Indexes, Extracts; Accession Lists, Bulletins, Newsletters, Summaries, and/ or Directories; Handbooks or Manuals; Dissemination of Latest Information; Selective Dissemination of Information; Seminars, Workshops, Demonstrations, and Briefings; Films, Maps, Charts, and/or Similar Graphics, etc.

[IV] Referral Centre

The functions of the Referral Centre within the Ban-NATEIS will be:

- a) to collect (on a world-wide basis) information about educational information resources and also data;
- b) to prepare a comprehensive inventory of the kinds of information resources, services, and data available from these sources with a detailed subject index for access; and
- c) to guide educational information and data user groups to the appropriate sources of the required information or data.

Appropriate information will be supplied from such a referral service to other dissemination centres, including those in other countries and this information about information will be disseminated through the directory services. Specialised card-index files and also databases have to be kept on the following:

- a) research studies, dissertations, expert reports, bibliographies, surveys, research evaluation, and other documents of on education and related fields;
- b) government-sponsored programmes/projects, private, and international development projects on education and related fields;
- c) authorities, organizations, institutions or agencies carrying out or giving assistance to development aid measures on education;
- d) events (conferences, seminars, exhibitions) which directly or indirectly concern the development of the country; and
- e) data on training programmes for experts, volunteers, post-graduates.

[V] Data Centre

A data centre is a unit handling raw or partially processed data or partially processed results. The following three functions are needed to make data accessible:

- a) data evaluation and compilation service;
- b) data dissemination services; and
- c) data referral service.

[VI] Clearing House (s)

The clearinghouse activities within the Ban-NATEIS should include:

- a) collection of special types of documents on education in order to redistribute these upon request or voluntarily;
- b) compilation of union catalogues, lists, and databases, etc., for this specific purpose;
- c) making link between groups engaged in research in education and related fields;
- d) compilation of unpublished materials and seeking out users instead of waiting to be approached by them; and
- e) evaluation of available information, and process it to meet the needs of potential users.

The Central Clearing house will be located at the national focal point and the LD of NLE will support this. The other clearing houses will be on

specific content-area of the education discipline as Sectoral Focal Points in the system.

[VII] System Management and Co-ordination (SMC) Wing

SMC Wing will perform the responsibilities through the following units:

- 1) Implementation, Monitoring, Evaluation, Extension and Advisory Unit
- 2) System Analysis, Design and Maintenance Unit
- 3) Human Resource Development Unit
- 4) Finance, Budget, and Accounts Unit
- 5) Office Administration Unit

B. Sectoral Focal Points

The Ban-NATEIS will be organized with the National Library of Education under the MOE and it will consist of 10 Sectoral Focal Points (SFP) on different content areas of education discipline as clearinghouses. In addition, the system may have a number of affiliated SFPs/clearinghouses, and additional support components. These SFPs/clearinghouses will collect, abstract, and index education materials for the Ban-NATEIS database; respond to requests for information in their subject areas; and produce special publications on current research, programs and practices. The Sectoral Focal Points/Clearinghouses are:

1. NAEM LDI Centre for the area of training and research on educational administration, management, planning, policy
2. NCTB LDI Centre for the area of curriculum, textbook development and research

3. IER Library for teacher education and research at secondary level.
4. UGCB Library for higher education and research
5. NAPE Library for teacher education and research at primary level
6. BTEB LDI Centre for vocational and technical education
7. BMBE Library for Islamic education at primary, secondary and higher education
8. DNFE LDI Centre for non-formal and adult education.
9. BOU Library for distance education and educational technology
10. BRAC LDI Centre for NGOs activities on non-formal, in-formal and adult Education.

Role of the Sectoral Focal Points/Clearinghouses

Each clearinghouse will focus on a major educational field or topic. In Ban-NATEIS, the clearinghouses will share in the acquisition of documents based upon their own prominent positions in education. The clearinghouses will be solely responsible for the selection of materials for national dissemination and for the operation of an independent information program. Clearinghouse also will be encouraged to develop information dissemination programme with professional and other private organizations. But each clearinghouse will participate in a general system in fulfilling its documentation functions in the system.

The Ban-NATEIS programme will strengthen the institutes and professional organizations in disseminating information; where necessary, Ban-NATEIS will develop new sources. Ban-NATEIS will

conduct most of its document-processing and dissemination activities at decentralized and relatively autonomous clearinghouses, while maintaining centralized management for overall coordination of the system.

C. District Focal Point

The survey indicates that an LDI Centre of a teachers' education institutes located at district headquarter² should be the District Focal Point of Ban-NATEIS. A good number of respondents recommended a good government library as a district focal point, but the majority of them showed interest in favour of Teachers Education institute library for district focal point. The major functions of a District Focal Point should be:

- [1] to maintain a good library for use of their own faculties and to serve as District Focal Point of the Ban-NATEIS.
- [2] to open a documentation unit within the library for special collection of all types of educational reports, documents with reprographic facilities.
- [3] to develop its own database/union catalogue

D. Participant-Member LDI Centres of the System

In the field of education, potential participant-members of Ban-NATEIS are easily identifiable. These are the key Educational LDI Centres of various departments, line directorates, attached organizations, specialized organizations, research organizations and institutions working under the administrative control of the Ministry of Education (Education Division, and Primary and Mass Education division).

- [1] The LDI Centres (research, specialized organizations) at different sectoral and sub-sectoral levels are: Bangladesh Bureau of Educational Information and Statistics (BANBEIS); National Academy for Educational Management (NAEM); National Curriculum and Textbook Board (NCTB); The University Grant Commission of Bangladesh, National Academy for Primary Education (NAPE), Bangladesh Technical Education Board, Bangladesh Madrasah Education Board (BMEB), and Institute of Education and Research (IER).
- [2] The LDI Centres at institutional level are: School of Education Library (BOU), Teachers' Training College Libraries (11), Technical Teachers' Training College Library (1), Primary Training Institutes Library (54), Higher Secondary Teachers' Training Institutes LDI Centres (5), Bangladesh Madrasah Teachers' Training Institute (1).
- [3] The LDI Centres at departmental and management levels are: MOE Library, PMED Library, DSHE Library, DPE Library, DTE Library, DNFE Library
- [4] The key LDI Centres at non-government level are: The BRAC Library, PROSHIKA Library and Ahsania Mission Library

The total number of participant-member LDI Centres in the BANERIC-System may be maximum 90.

E. Funds, Budget Control and Financing of the System

Sound administration and tight control on the income and expenditure are important for the growth of an information system/network. The Ban-

NATEIS will need funds for the purposes of: (a) design-systems analysis and feasibility studies to determine the most appropriate configuration for network organization and services; (b) implementation –the cost of starting up; (c) operation –annual cost of staff, overheads, hardware; (d) expansion of services, including production of co-operation tools (i.e., union lists), training cost; and up-grading the quality of the network by acquiring new hardware and software and hiring a skilled management. The data presented in the previous chapter indicates that funds can be generated internally and externally, i.e., internally through support from parent organization, GOB grant of revenue and development budget, membership charges, services fees, and externally from foreign and international donors' grant, etc. In allocation of fund, in addition to own parent organizations' recurring allocation, the key participant-members, sub-national focal points and district focal points will get special grant as system-support both in cash and kinds from the Ban-NATEIS's headquarter.

F. Manpower Requirement for the System

Manpower recruitment for the running of the Ban-NATEIS can be classified into the following:

- (a) that needed at National Focal Point for the system
- (b) trained staff needed at SFP, DFP, and participant-member LDI Centre for creation of databases and use of Ban-NATEIS facilities. The manpower requirement for the system will be:

National Focal Point

Grade -I: National Education Librarian/Director -General-1 for NLE & Ban-NATEIS

Grade II: Director-2 (for LD, NLE)-1, Director (for Ban-NATEIS)-1

Grade III: Chief-7 (for 7 centres and 1 for each Centre)

Grade IV: Deputy Chief-7(for 7 centres and 1 for each Centre)

Grade V: Officer (Professional/Sub-professional)-14 (for 7 centres and 2 for each)

Supporting Staff: Total- 35 for 7 Centres

For the System Analysis, Design and Maintenance Unit under the SMC Wing, the following manpower will be needed:

Database Analyst-1, Programmer-1, Hardware Specialist-1, Software Specialist-2.

Sectoral Focal Point and District Focal Point

Generally, the Ban-NATEIS will not require recruitment of additional manpower to run the LDI Centres of Sectoral Focal Point and District Focal point for the system. Because, there already exists manpower in each LDI Centre employed by their parent organizations. But, in case of lack of at least one professional person having adequate background knowledge and skill in information system and computer operation, one person with adequate qualification will be recruited.

G. Standards for operation of the System

Format Standards

Common Communication Format (CCF) incorporates necessary sufficient fields, and conversion of databases in this format is possible at international levels. It is observed that DELNET and other Networks of India have been successfully using the Common Communication Format (CCF). So, it is recommended that Ban-NATEIS should use CCF.

Bibliographic Standards

- (a) AACR2 should be used as the code for cataloguing. It will assist in creation of standard records.
- (b) The latest edition of Sears List of Subject Headings should be used as a guide for creating subject descriptors. LCSH, UNESCO Thesaurus could also be used whenever needed and finally, a Ban-NATEIS Thesaurus will be constructed.
- (c) The IAC will maintain authority and thesaurus data.
- (d) The Dewey Decimal Classification Scheme will be used as a guide for classification number building. The extension of DDC will be encouraged and finally, a Ban-NATEIS Classification number schedule will be constructed.

H. Hardware, Software and Reprographic Facilities

Hardware

LDI Services' Centre hardware consists mainly of mainframe, mini-computers, and microcomputers. The difference lies in the capacity of their main and back-up memories, the speed of processing data and the

number of terminals they can accommodate at a time. Increasing in chip power is compressing computer size, while increasing their power. A good LDI Centre network should have:

- a) Minimum hardware redundancy;
- b) Scope for up gradation;
- c) Provision for additional terminals;
- d) High computing facilities;
- e) Capacity to get along with the best available software on LDI networking; and
- f) Compatibility with mini and microcomputers to suit all types of LDI Centres.

Hardware configurations may be divided into:

- a) Essential for LDI Centres; and
- b) Additional ones that is essential for networking.

So, the hardware for Ban-NATEIS must be selected keeping in mind:

- a) Applications areas;
- b) Data volumes;
- c) Future growth; and
- d) Information processing needs.

The recommended configurations, however, have been grouped under the LDI Centres classified merely on the basis of the number of books in each one of them. Configurations are shown in the next pages.

Hardware Recommended for Small, Medium, Big LDI Centres

Items	Small LDI Centre as Network-member (collection below 30000)	Medium LDI Centre as Network member (collection below 100000)	Big LDI centre as Network member (collection above 200000)
Processor	Intel Pentium 4 1.8GHz/400 Bus	Intel Pentium 4 2.4GHz/533 Bus	Intel Pentium 4 3.06GHz/Hyper Treading
Mother board	Gigabyte GA8S650	Gigabyte Intel 845DDR	Gigabyte GA-8IE800
Standard RAM	128MB DDR PC-266	256MB DDR PC-266	256MB DDR PC-266
Floppy Disk Drive	1.44MB (3.5")	1.44MB (3.5")	1.44MB (3.5")
Hard Disk Drive	40GB Maxtor	60GB Maxtor (7200RPM)	80GB Maxtor (7200 RPM)
Creative Multimedia	52X CD-ROM Drive Integrated Sound Card SBS 230 Speakers	52X CD-ROM Drive SB Live DE 5.1SE Sound Card SBS- 2.1 Speakers	Cosmo Drive SB Live DE 5.1SE Sound Card Inspire 4.1 Speakers
Graphics	Integrated AGP with AGP Slot	64MB AGP (GeForce-2)	64MB AGP (GeForce-2)
Color Monitor	15" SAMSUNG Digital Control	17" SAMSUNG Flat Color Monitor	17" SAMSUNG Flat Color Monitor
Terminals	2	2-4	8
Backup processor	-	-	Yes
Line printer(heavy duty)	-	1	2
Dot matrix printer (heavy duty)	1	1	2

Items	Small LDI Centre as Network-member (collection below 30000)	Medium LDI Centre as Network member (collection below 50000)	Big LDI centre as Network member (collection above 200000)
Letter quality printer	1	1	2
Mag. Tape drive	-	1	1
Cartridge tape drive	1	1	1
Fax	1	1	1
Communication Interface with X pad	Yes	Yes	Yes
Telephone Lines	1	1	1
Satellite earth station	1	1	1
IBM PC compatible	Yes	Yes	Yes
Voltage stabilizer	1	-	-
Uninterrupted power supply		Yes	Yes
Separate earthing	-	Yes	Yes
Generator	-	-	1
No. of asyrich controller	0-1	1- ½	1
Disk controllers		SCSI/SMD	SCSI/SMD

For Central-host of BanNATEIS

The central host of BanNATEIS does need computer peripherals at least like big libraries suggested above. In addition central host must have 2 good printers, minimum 40 terminals, minimum 4 input-output control channels, communication protocol support and other network peripherals.

Source: 1. "Flora PC Personal Computer", an Office Document of Flora Limited, Dhaka, Bangladesh, 2 August 2003, and 2. Kaul, H.K., Library Networks: An Indian Experience, New Delhi, Virgo Publications, C.1992, p.94-116

Software

Software required by the LDI Centres in Ban-NATEIS may be grouped under System Software, Applications Software, and Networking Software. Software is largely determined by hardware configuration. System Software controls computers and peripherals. Application software is created in different programme languages keeping in view the limitations of operating systems. System Software is part of hardware and is offered by the hardware vendor, but application software, including operating software, could be obtained from different vendors or created in-house.

Among the library software that are available in Bangladesh reference may be made to CDS/ISIS software developed and promoted by UNESCO. It has remarkable success, especially in many institutes' LDI Centres in Dhaka city. However, CDS/ISIS has still proved a great help to LDI Centres in Bangladesh that undertook bibliographic card catalogue creation in machine readable form. It has been used for various purposes including current awareness and SDI services. It may be noted here that now LDI Centres of Bangladesh have started use of CDS/ISIS Win Version with web site creation.

Reprographic Equipment

Each focal point and LDI centre should have at least one Microform Readers, one Photocopier Machines, one Stencil duplicating Machine, etc. In addition to these, the central office of the Ban-NATEIS should have printing facilities.

I. Governance of Ban-NATEIS

Board of Governors (BOG)

The data presented in the previous chapter clearly indicate that Ban-NATEIS will be an Autonomous Organization and it will be governed by a “Board of Governors (BOG)”. The members of the BOG other than the ex-officios members will be selected/elected for three years. The meeting of the BOG may be held at least twice a year. The BOG will consist of 33 members representing the department of education, line directorates, specialized organizations, and participant members of different categories.

1. Chairman- The Minister of Education, Government of Bangladesh
2. Vice Chairman- Secretary, Ministry of Education
3. Executive Vice Chairman- Librarian/Director General of National Library of Education.
4. Member-Secretary- Director (Ban-NATEIS Operation)
5. Director (Library Division, NLE), Member
6. Joint Secretary, Ministry of Finance, Member
7. Director-General, NAEM, Member
8. Director-General, DSHE, Member
9. Director-General, DPE, Member
10. Chairman, BTEB, Member
11. Chairman, BMEB, Member

12. Librarian, NAEM, Member
13. Deputy Director (Lib. & Publication), UGC, Member
14. One Principal from TTCs, Member
15. One Superintendent from PTIs, Member
16. One Director from HSTTIs, Member
17. One representative from District Focal Points, Member
18. Chief Librarian/Director, Department of Public Libraries, Member
19. One ICT Expert of the country, Member
20. One representative from Library Association of Bangladesh, Member
21. One representative from the Department of Information Science and Library Management, University of Dhaka

Functions of the BOG

- (1) to formulate policy for the Ban-NATEIS;
- (2) to prepare the strategic planning for the system;
- (3) to make adequate funds available;
- (4) to look after the operation of nation-wide educational information resources services;
- (5) to ensure a comprehensive national collection on education and education related fields through the LD of NLE;

- (6) to assist sub-national focal LDI Centres, district focal LDI Centres and educational institute libraries of the country in establishing inter-connection for educational information dissemination under the Ban-NATEIS;
- (7) to encourage the creation of new educational LDI centres and the improvement of existing services through the participation in Ban-NATEIS;
- (8) to introduce communication and information technology in educational LDI Centres;
- (9) to prepare a standard for educational LDI centres for participation in Ban-NATEIS;
- (10) to reduce barriers to the free flow of published materials;
- (11) to approve the annual plan prepared by the working committee of the system;
- (12) to approve the annual budget for the system;
- (13) to arrange annual general meeting for the system's participants - members;

Members' Conference

An Annual General Meeting (AGM) with the participation of all types of members of the system will be held once a year. Decisions taken in the annual general meeting will be important input to BOG in policy formulation and taking future plan for the system.

Working Committee for the System

The Ban-NATEIS will have a Working Committee (WC) comprising of the following ex-officios:

The National Education Librarian will be the Chief Executive of the system. The other executive members will be the Director (Ban-NATEIS), Director (Library Division, NLE) and 6 Division/Centres' Chiefs (Documentation Centre, Information Analysis Centre, Data Centre, Central Clearing House, Referral Centre and System Management and Co-ordination Division). The System Management and Co-ordination Division of the system will act as the secretariat of the Ban-NATEIS.

Functions of the Working Committee (WC)

The WC shall be responsible to the Board of Governors. The functions of WC will be:

- (1) The WC shall prepare detailed plan of action and time-line for each approved activity, prepare financial budget, approve specific expenditure, supervise implementation of programmes, oversee routine administration, and conduct formative and summative evaluation
- (2) The WC shall prepare annual report for the BOG and submit recommendations regarding next year's activities related to Ban-NATEIS policy and planning.
- (3) The WC shall normally meet once a month to review all activities

Part Two

Recommendations

On the basis of the findings the following recommendations are made for the proper implementation of the proposed model- “Ban-NATEIS” (to be effective and functional).

A. Recommendations relating to policy and planning

1. The Ministry of Education (MOE), Government of Bangladesh should formulate policy for the development of National Educational Information System including the educational LDI Centres of the country.
2. The MOE should have provision of strategic planning (Long-term and short term) for continuous development of the NATEIS and educational LDI Centres of the country.
3. The MOE should formulate an “Act of Establishing Ban-NATEIS with National Library of Education in Bangladesh” mentioning its objectives, responsibilities, functions and services, and governance, etc in details and finally that formulated act should be passed by the Parliament.
4. The present National Educational Documentation Centre as national focal point within the BANBEIS should be transformed into the National Library of Education with autonomous status as new national focal point for Ban-NATEIS for providing only educational bibliographical services in the country.

5. The MOE should identify the Sectoral Focal Points/Clearinghouses for the system on the basis of criteria set.
6. The MOE should identify the District Focal Points for the system on the basis of criteria set.
7. The MOE should select the educational LDI Centres as participant-member library in the system on the basis of criteria set.
8. Memorandum of Understanding (MOU) in the light of the Act with the approval of the MOE for the participant-members in the system should be developed.
9. The MOE should take a development project for 10 years long for implementing the proposed Ban-NATEIS and this project will be completed in two phases, 5 years each phase, and after completion of the project period it will be a permanent set up in the recurring revenue budget of the government.
10. The government will finance the system like other autonomous bodies in the country.

B. Recommendations relating to input

11. Required space facilities should be provided to the NLE and Ban-NATEIS to operate the system.
12. Required space for sub-national focal points, district focal points, and institutions for participation in the Ban-NATEIS should be provided.
13. The collection of books, monographs, research reports, education organizations' reports and related materials in the educational LDI Centres should be increased in order to meet the educational

information resources needs of the education personnel working in the field of educational research, teachers' education and educational policy, planning, administration and management.

14. The regular subscription of education and education related foreign journals should be increased in order to meet the needs of the users' groups.
15. The regular subscription to educational information products like Education Index, Education abstracts, etc., published in the developed and also developing countries should be increased in order to inform the latest development in the field of education to the users.
16. A collection of non-print materials like microfilms, microforms, microfiches, CD-ROMs, etc should be developed in the BANERIC and also key participant-member LDI Centres in the country.
17. CD-ROM data-bases should be developed at national, district and institutional levels.
18. The educational LDI Centres of the country should be equipped with adequate supply of communication and information technology like computer and its related devices.
19. The participant-member LDI Centres should be equipped with the reprographic equipment like microfiche readers, photocopiers, etc to serve the users.
20. The professional manpower provision in educational LDI Centres should be in accordance with the international standard like ERIC, USA, NISE, India.

21. Each educational LDI Centres should be provided with adequate money to meet the institutional users needs and to make them (LDI Centres) able to participate in the Ban-NATEIS.

22. The pay scale, promotion facilities of the LDI personnel should be revised.

C. Recommendations relating to standard for processing works

23. All of the participant-member LDI Centres and the Ban-NATEIS at headquarter should adopt uniform Scheme of Classification and Cataloguing Rules, Bibliographical description, Common Communication Format for preparing union catalogue and databases.

24. All of the participant-member LDI Centres and the Ban-NATEIS at headquarter, should prepare index, abstract, bibliography, documentation list, CAS List, SDI, etc.

25. CDS- ISIS, Windows Version can be used for preparing data-bases in each participant LDI Centres and Ban-NATEIS.

26. For lending services (LYBSIS library software) of India can be used in all participant-member LDI Centres of the system.

D. Recommendations relating to information products and services

27. Each participant-member LDI Centre should provide the services of CAS, documentation, bibliographies, etc to their own users at institutional levels.

28. Each participant-member LDI Centres within own district must participate in the preparation of union catalogue/database at district level.

29. Each participant-member LDI Centres must participate in the preparation of Ban-NATEIS-Database.

E. Recommendations relating to information products and publication

30. The Ban-NATEIS should quarterly publish an "Abstract Journal in Education (AJE)" and a "Current Index to Periodicals on Education (CIPE)".

31. The Ban-NATEIS should publish a monthly "Ban-NATEIS Newsletter" for creating information awareness among the users and also information professionals.

F. Recommendations relating to co-operation

32. The Ban-NATEIS should ^{cooperate} make co-operation with the existing national information systems of other sectors, sub-sectors and subject discipline in the country.

33. The Ban-NATEIS should ^{cooperate} make co-operation with the international organizations like IBE, IIEP, and regional organizations like UNESCO's Regional Office of Asia and Pacific region, SARRC Office and other national information system organizations like ERIC of USA, NISE of India, etc.

34. The BANERIC-System should ^{cooperate} make co-operation with the LDI professional organizations in the country and abroad for the development of the Ban-NATEIS.

35. The Ban-NATEIS will organize seminars, workshops, ^{etc.} ^{the} with/ co-operation of similar organizations for the development of the system.

G. Recommendation relating to training

36. The Ban-NATEIS will arrange training programmes for the development of the LDI personnel of the participant-member LDI Centres.

37. The Ban-NATEIS will arrange orientation-training programmes on using information for the information users.

38. The Ban-NATEIS will arrange special training programmes on Communication and Information Technology for the technical personnel working in the LDI Centres and Ban-NATEIS.

H. Recommendation relating to monitoring, follow-up and evaluation

39. The System Management and Coordination (SMC) Wing of the Ban-NATEIS will continuously follow-up, monitor and evaluate the system operation and always report to the Working Committee for the development of the system.

40. The SMC Wing will arrange discussion meetings, workshops, etc with the user groups at district, institutions level for solving system related problems and their solutions.



Appendixes

APPENDIX-A

Instrument (Questionnaire-I)

(For Educational Information Users)

BE SURE TO ANSWER ALL QUESTIONS

Status of National Educational Information System of Bangladesh

A. Particulars of Informant

01. Name:

02. Age:

03. Sex: Male Female

04. Academic Qualifications:

05. Professional Qualifications:

B Ed. M Ed. Diploma Certificate Course

06. Present Designation:

07. Institute/Official Address:

08. Experience in present organization in years:

09. Previous experiences in other organization(s):

10. Your field(s) of specialization:

Educational Policy Educational Planning

Educational Admin Educational Research

Teacher Education & Training Non-formal & Adult Education

Curriculum. & Text Book Dev. Educational Information

Ednl. Evaluation & Measurement Educational Technology

Others:

11. Present field of work/area of research:

12. Publication, if any: Books Journal Articles Others

B. Educational Information Seeking Behaviour

13. For what purposes do you primarily seek educational information in Library, Documentation & Information (LDI) Centre?

1) Research 2) Teaching & Training

3) Policy & Planning 4) Self Improvement

5) Scholarly Writing

6) Others.:

14. When seeking materials and information, which sources do you generally try?
Please mark as 1, 2, 3, etc., maintaining order of priority:

1) Discussion with colleagues

2) Discussion with subject specialists

3) Discussion with Librarian

4) Use of your institute's LDI Center

5) Discussion with EMIS personnel

6) Others

15. Which language(s) materials do you use?

.....% English % Bengali % Others

16. When any book/document/article is not available in the library what do you do?

1) Do you ask the librarian to get it from other library on inter-library loan:

YES NO

2) Go to other library

YES NO

3) Use any other means :

17.a. How do you use the following documents? Pl. tick the appropriate ones ('F' for frequently; 'S' for sometimes; 'O' for occasionally; 'N' for never:

	Items	Use
1)	Journal Articles	(F) (S) (O) (N)
2)	Books/Monographs	(F) (S) (O) (N)
3)	Research Reports	(F) (S) (O) (N)
4)	Conference Proceedings	(F) (S) (O) (N)
5)	Dissertation/Thesis	(F) (S) (O) (N)
6)	Statistical Publication	(F) (S) (O) (N)
7)	Newspaper Clippings	(F) (S) (O) (N)
8)	EMIS Database	(F) (S) (O) (N)
9)	Org./Govt. Document.	(F) (S) (O) (N)
10)	Microfilm/Microfiche	(F) (S) (O) (N)
11)	CD-ROM	(F) (S) (O) (N)
12)	Database (Text) Search by Internet	(F) (S) (O) (N)

b. If the answer is 'N' in any case, what is the reason?

1) Not available in the LDI center: YES NO

2) Lack of up-to date materials in the LDI Centre Yes No

3) Others:

c. Do you think that an educational LDI center should have above items?

YES NO

18.a. How often do you consult the following? PL. tick ('F' for frequently; 'S' for sometimes; 'O' for occasionally; 'N' for never :

	Information Products	Consult
1)	Educational abstract	F / S / O / N /
2)	Educational Index	F / S / O / N /
3)	Bibliography of Dissertation	F / S / O / N /
4)	Social science Citation Index	F / S / O / N /
5)	Current Contents in Social Sc	F / S / O / N /
6)	Sociological Abstract	F / S / O / N /
7)	Others	F / S / O / N /

- b. If the answer is 'N' in any case, what is the reason?
- 1) Not available in the library :
 - 2) Lack of up-to date materials in the LDI Centre Yes No
 - 3) Others:
- c. Do you think that an educational Library should have the above information products? YES NO

C. Regarding fulfillment of educational information needs

19. How does your LDI Centre keep you up-date with information relevant to your work?
- 1) Circulation of Current Awareness List/New Addition of library collection:
YES NO
 - 2) Keeping subject bibliography up-to-date : YES NO
 - 3) Providing SDI services : YES NO
 - 4) Providing documentation list- YES NO
 - 5) Others :

20.a. How do you evaluate the fulfillment of educational information needs?
Excellent Good Average Below average Poor

b. How do you evaluate your LDI Centre in terms of input (i.e., collection, organization, manpower, space, furniture, equipment, budget) and services?
Excellent Good Average
Below Average Poor

21. What is your opinion regarding ways and means in fulfillment of educational information resources needs of the users?
- 1) Through the improvement of the existing Educational LDI Centers by providing various input at optimal level. Yes No
 - 2) Through the participation of the LDI Centres in Educational Information System/LDI Centres Network Yes No
 - 3) Both 1 & 2 Yes No

D. Status of National Educational Information System (NATEIS) of Bangladesh.

22. Do your LDI Centre participate in educational LDI Centres' network/Information system for resource-sharing at international and regional levels?
 Formal participation Non-formal participation No participation
23. Do your LDI Centre participate in the activities of NEDC of BANBEIS for resource-sharing in meeting educational information needs?
 Formal participation Non-formal participation No participation
24. What type of educational information products and services (index, abstract, bibliography, statistical report, etc.) do your LDI Centre receive from the present NEDC of BANBEIS?
- a) Index : Very Regular Very Irregular
- b) Abstract : Very Regular Very Irregular
- c) Bibliography : Very Regular Very Irregular
- d) Statistical report: Very Regular Very Irregular
- e) Other information product (if any pl mention):
25. What is your opinion on meeting the educational information needs by the services provided by NEDC of BANBEIS?
 Adequate Inadequate Poor
26. What is the cause not to participate your LDI Centre in the activities of NEDC of the BANBEIS?
- a) BANBEIS had/has no initiative to connect the library to the NATEIS
- b) My institute/organisation's library has not taken initiative to join to NATEIS
- c) Any other cause:
27. How do you evaluate the role of NEDC, BANBEIS as national focal point of NATEIS?
 Adequate Inadequate Poor Very poor
28. What is your opinion about the causes of non-effective NATEIS in Bangladesh?
- a) Lack of policy b) Lack of planning
- c) Lack of legal frame work d) Lack of adequate resource input
- e) All causes mentioned above

29. What is your opinion for having an effective NATEIS for Bangladesh?

- 1) Very urgent need 2) Urgent need
3) Need 4) No need

30. If it is needed, do you agree with the following proposed objectives of the system?

- 1) To provide all the educational personnel with easy access to educational information resources
2) To ensure that all reliable and required educational resources are located and processed
3) To generate and maintain adequate media for the dissemination of educational information
4) To have linkage with other related especially, social science and university based information sub-system or system within the country
5) To have linkage with other national regional and international educational information services and system of the world
6) To develop the manpower to handle the management of educational information effectively

31. What kind of information services do you suggest for the NATEIS?

- | | | | |
|------------------------------|--------------------------|----------------------------|--------------------------|
| (1) Bibliographical services | <input type="checkbox"/> | (2) Documentation services | <input type="checkbox"/> |
| (3) State of -the-art | <input type="checkbox"/> | (4) Data services | <input type="checkbox"/> |
| (5) Reprographic services | <input type="checkbox"/> | (6) Translation services | <input type="checkbox"/> |
| (7) Union catalogue/database | <input type="checkbox"/> | (8) Inter library loan | <input type="checkbox"/> |
| (9) Cooperative acquisition | <input type="checkbox"/> | (10) News letters/Bulletin | <input type="checkbox"/> |
| (11) Others | <input type="checkbox"/> | | |

32. What types of information products do you suggest for the NATEIS?

- | | | | |
|--|--------------------------|-----------------------|--------------------------|
| (1) Educational Abstract | <input type="checkbox"/> | (2) Educational Index | <input type="checkbox"/> |
| (3) Up-to-date Ednl statistical Report | <input type="checkbox"/> | (4) Others | <input type="checkbox"/> |

33. What should be the medium of information system and services?

- English Bengali Others :

34. What is your opinion about the tiers to be created for the proposed system?

- 1) National level 2) Sectoral level
3) District level 4) Institutional level
5) Other:

35. BANBEIS has been working as National Educational Documentation/Information Center for bibliographic information services through its Library and Documentation Division. Do you agree that the National Focal Point of NATEIS of Bangladesh should be-

- 1) the existing NEDC/Library, BANBEIS as an government organization
2) the existing NEDC/Library, BANBEIS transforming it into autonomous organisation
3) the existing NEDC/Library, BANBEIS but transforming it into the central library/National Library of Education as an autonomous organisation:
4) a new national focal point from one of the following:
NAEM NCTB DPE DTE DNFE UGC DSHE

36. Which educational LDI Centrs should be Sectoral Focal Points? PI tick the appropriate(s):

- 1) NAEM (a national institute working in the educational management research and training)
2) NCTB Library (curriculum and textbook production at primary to higher secondary education)
3) NAPE (a national institute working in primary education training and research)
4) IER Library, Dhaka University (teacher education and research)
5) UGC Library (a national body working for higher education)
6) BANBEIS Library (working for educational information)
7) BTEB Library (technical education at undergraduate level)
8) BMEB Library (Madrasah/Islamic education)
9) DNFE Library (non-formal & adult education)
10) BRAC Library (non-government organisation)
11) TTTC Library (technical teachers education)
12) BOU Library (open education)
13) Other:

37. Which educational LDI Centrs should be District Focal Points? PI tick the appropriate(s):
- 1) District Primary Education Office
 - 2) District Secondary Education Office
 - 3) A library of teachers education institute at district head quarte
 - 4) Establishing new education library as District Focal Point
38. Which LDI Centrs should be the departmental participant member? PI tick the appropriate(s) excluding the LDI Centres mentioned as Sectoral Focal Points:
 MOE PMED DSHE DPE DTE DNFE
39. Which LDI Centrs of institution should be the participant member in the NATEIS? PI tick the appropriate(s)
 TTC HSTTI PTI TTTC
 Institutes/Deptt. of education of universities BISE Others:
40. What levels for co-operation should be in the NATEIS?
- 1) International
 - 2) Regional
 - 3) National
 - 4) Inter state level
41. With organization(s) should the focal point(s) be connected in the following levels?:
- 1) International level:
 - (a) International Bureau of Education (IBE), UNESCO
 - (b) International Institute of Educational planning
 - (c) UNESCO
 - (d) UNICEF
 - 2) Regional level:
 - (1) Regional Office of UNESCO for Asia and Pacific:
 - (2) SAARC's Secretariat :
 - (3) ESCAP
 - (4) Other:

42. If the NEDC, NATEIS is an autonomous body who should it be financed by?

Govt. of Bangladesh Int. Donor Groups

Participating Member Institutes Others(Pl. specify):

43. How should the system be operated?

Manually Semi-manually-Semi computerized

Fully computerized

44. Do you agree that for developing an effective NATEIS we should have:

1) Legal framework 2) National policy

3) Long term and short term planning at all levels (MOE,

4) development project

5) other:

45. Whatever may be the status (Govt. or Autonomous) of the National Educational Documentation/Information Center (National Focal Point, NATEIS), do you agree that NATEIS should have a National Council /Board of Governors at different levels for policy-making, planning, coordinating and advising for educational information activities of Bangladesh?

1) National level 2) Sectoral level

3) District level 4) other:

46. What will be the distribution of power, authority in the NATEIS?

1) Centralisation in all activities of management, and decentralisation in dissemination of information (fully centralised)

2) Centralisation in policy, planning, implementation monitoring, evaluation and decentralisation in collection, processing and dissemination (centralised-decentralised)

3) Centralisation in only coordination and advisory functions and decentralisation in all other functions (fully centralised)

47. What will be the functional division within the National Focal Point of NATEIS?

1) Library Division 2) Documentation Centre

3) Information Analysis Centre 4) Data Centre

5) Referral Centre 6) Clearinghouse

7) Management and Coordination Division 8) Other:

48. What will be the standard of technical tasks? please mention:

- 1) Classification Scheme:
- 2) Cataloguing Code:
- 3) Subject heading:
- 4) Computer hardware (IBM/IBM compatible):
- 5) Computer software:
- 6) Telephone line (Analogue/Digital)
- 7) Internet:

49. What will be the staffing pattern of the NATEIS?

Types of Focal Point/Library	No. of semi- Professional staff	No of professional staff	No of support staff
------------------------------	------------------------------------	-----------------------------	------------------------

- 1) National Focal Point Library:
- 2) Sectoral Focal Point Library:
- 3) District Focal Point Library :
- 4) Institute Participant Library:
- 5) IT Specialists for host Centre:

50. What will be the status of the LDI professional?

- 1) Like bureaucratic personnel:
- 2) Like academic and research personnel:
- 3) Other:

51. For developing an effective NATEIS, if you have more suggestions, please specify.

Signature of the Informant with date

16. Other officers working in the noted division (according to the order of status and scale)

<u>SL. No.</u>	<u>Designation</u>	<u>Scale</u>
----------------	--------------------	--------------

a.

b.

c.

17. Designation of the head (professional) of LDI Centre & status in scale:

18. Objectives and functions of the LDI Centre: (please attach separate sheet)

19. Total No. & Types of users group:

No. of own faculty users:.... No of other users.....

Types of users:

Educationist Policy-makers Administrators

Teachers Trainers Teachers Educational Researchers

Teachers Trainers Other

20. No of users use the LDI Centre per day : Own users..... Outside users.....

Component-C: Input Facilities, Process and Services

C.1. Input Facilities of the LDI Centres

21. Legal Framework:

a. Do you have organisational /institutional policy for administering and managing?
the LDI Centre ? YES NO If Yes, please attach copy:

b. Do you have organizational/ institutional long-term and short term planning for
the management and development of LDI Centre?

YES NO

c. Do you have LDI Centre's "Operational Manual"?

YES NO

22. Floor Spaces

- a. Total Space (in sq. meter) :
- b. Stack room area : YES NO
- c. Reading room area : YES NO
- d. Head of LDI office room : YES NO
- e. Other officers office room : YES NO
- f. Staff room area : YES NO
- g. Processing room : YES NO
- h. Toilet : YES NO
- i. Corridor : YES NO
- j. Counter Area : YES NO
- k. Other Areas if you have :
- l. Do you think that space facilities is:
 Adequate Inadequate Very poor

23. Furniture and equipment

23.1 Furniture

- a. Reading tables : Total No.....
- b. Reading chair : Total No.....
- c. Book shelves : Total No.....
- d. Periodical rack : YES NO
- e. Newspaper rack/stand : YES NO
- f. Catalogue cabinet : YES NO
- g. Display board : YES NO
- h. Notice board : YES NO
- i. Book trolley : YES NO
- j. Other furniture if you have : YES NO
- k. Do you think that furniture is :
 Adequate Inadequate Very poor

23.2 Equipment

- a. Personal computer with facilities of internet connection :
 IBM IBM Compatible No Facility
- b. Type writer : YES NO
- c. Photocopier
- 1) Using for office and library
- 2) Using for library only
- 3) No facility
- d. Microfilm, Microfiche reader : YES NO
- e. Binding equipment : YES NO
- f. Paper cutting machine : YES NO
- g. Duplicating Machine : YES NO
- h. Do you think that equipment is :
 Adequate Inadequate Very poor

24. Personnel resources

a. Professional (Masters Degree & above in Library & Information Sc.): Total No:

<u>Design</u>	<u>Rev./Porj.Post</u>	<u>Qualificn.</u>	<u>Training</u>	<u>Scale</u>	<u>Next Promotion</u>
---------------	-----------------------	-------------------	-----------------	--------------	-----------------------

b. Professional (Diploma in Library & Information Sc.): Total Nos.....

<u>Design</u>	<u>Rev./Porj.Post</u>	<u>Qualificn.</u>	<u>Training</u>	<u>Scale</u>	<u>Next Promotion</u>
---------------	-----------------------	-------------------	-----------------	--------------	-----------------------

c. Para-professional (Certificate in L & L Sc.): Total Nos.....

<u>Design</u>	<u>Rev./Porj.Post</u>	<u>Qualificn.</u>	<u>Training</u>	<u>Scale</u>	<u>Next Promotion</u>
---------------	-----------------------	-------------------	-----------------	--------------	-----------------------

d. Non-professional staff: Total Nos.....

<u>Design</u>	<u>Rev./Porj.Post</u>	<u>Qualificn.</u>	<u>Training</u>	<u>Scale</u>	<u>Next Promotion</u>
---------------	-----------------------	-------------------	-----------------	--------------	-----------------------

e. Posts vacant: Toal Nos.....

<u>Design</u>	<u>Rev./Porj.Post</u>	<u>Qualificn.</u>	<u>Scale</u>
---------------	-----------------------	-------------------	--------------

f. Do you have staff development programme? YES NO

25. Collection of Information Resources

25.1 Books, documents, bound journals, research reports, organizational reports, statistical reports, reference books etc.

- a. No. of total collection :
- b. No. of Microfilm, microfiche, CD, etc.;.....

25.2 Journals (please enclose list)

- a. No. of foreign educational journals subscribed & exchanged:
Subscribed: Exchanged:
- b. No. of Bangladeshi educational journal subscribed & exchanged:
Subscribed: Exchanged:
- c. No. of other journals subscribed and exchanged:
Subs: Exchan:

d. No. of journals received free of cost:

<input type="text"/>	Foreign Educational. Journal	<input type="text"/>	Bangladeshi Educational Journal
<input type="text"/>	Foreign other Journal	<input type="text"/>	Bangladeshi other Journal

26. Mention the sources of fund:

- 1) Government revenue budget :
- 2) Government development budget :
- 3) Donors/foreign grant :
- 4) Students fees :
- 5) Other :

C.2 Processing Works in the LDI Centres (please mention)

- 27.a Cataloguing code followed :
- 27.b Classification scheme followed :
- 27.c Subject heading list/ thesaurus followed :

28. Other Processing Works

- 28.1 Do you prepare index ? : YES NO
- 28.2 Do you prepare bibliography ? : YES NO
- 28.3 Do you prepare abstract ? : YES NO
- 28.4 Do you prepare CAS list ? : YES NO
- 28.5 Do you prepare documentation list? : YES NO

C.3 Output and Services

29. Services provided

- 1) CAS Services : YES NO
- 2) SDI Services : YES NO
- 3) Bibliographical services : YES NO
- 4) Reference services : YES NO
- 5) Translation services : YES NO
- 6) Photocopy services : YES NO
- 7) Abstracting services : YES NO
- 8) Others:

30. If you use computer, please mention the areas with tick mark:

- 1) Accessioning work :
- 2) Preparation of database and retrieve :
- 3) Lending system :
- 4) E-mail services :
- 5) In-house keeping tasks :
- 6) Others (please write) :

Component-D: Fulfillment of Educational Information Needs

31.a. How do you evaluate the fulfillment of educational information needs?

Excellent Good Average
Below Average Poor

b. How do you evaluate your LDI Centre in terms of input (i.e., collection, organization, manpower, space, furniture, equipment, budget), process work and services?

Excellent Good Average
Below Average Poor

32. What is your opinion regarding ways and means in fulfillment of educational information resources needs of the users?

(1) Through the improvement of the existing Educational LDI Centers by providing various input at optimal level. Yes

(2) Through the participation of the LDI Centres in Educational Information System/LDI Centres Network Yes No

(3) Both 1 & 2 Yes No

Component-E: Status of National Educational Information System (NATEIS) of Bangladesh.

33. Do your LDI Centre participate in educational LDI Centres' network/Information system for resource-sharing at international and regional levels?

Formal participation Non-formal participation No participation

34. Do your LDI Centre participate in the activities of NEDC of BANBEIS for resource-sharing in meeting educational information needs?

Formal participation Non-formal participation No participation

35. What type of educational information products and services (index, abstract, bibliography, statistical report, etc.) do your LDI Centre receive from the present NEDC of BANBEIS?

f) Index : Very Regular Very Irregular

g) Abstract : Very Regular Very Irregular

h) Bibliography : Very Regular Very Irregular

i) Statistical report : Very Regular Very Irregular

j) Other information product (if any pl mention):

36. What is your opinion on meeting the educational information needs by the services provided by the NEDC of BANBEIS?

Adequate Inadequate Poor

37. What is the cause not to participate your LDI Centre in the activities of NEDC of BANBEIS?

d) BANBEIS had/has no initiative to connect the library to the NATEIS

e) My institute/organisation's library has not taken initiative to join to NATEIS

f) Any other cause:

38. How do you evaluate the role of NEDC, BANBEIS as national focal point of NATEIS?

Adequate Inadequate Poor Very poor

39. What is your opinion about the causes of non-effective NATEIS in Bangladesh?

a) Lack of policy b) Lack of planning

c) Lack of legal frame work d) Lack of adequate resource input

e) All causes mentioned above

40. What is your opinion for having an effective NATEIS for Bangladesh?

- 1) Very urgent need 2) Urgent need
3) Need 4) No need

41. If it is needed, do you agree with the following proposed objectives of the system?

- 1) To provide all the educational personnel with easy access to educational information resources
2) To ensure that all reliable and required educational resources are located and processed
3) To generate and maintain adequate media for the dissemination of educational information
4) To have linkage with other related especially, social science and university based information sub-system or system within the country :
5) To have linkage with other national regional and international educational information services and system of the world
6) To develop the manpower to handle the management of educational information effectively:

42. What kind of information services do you suggest for the NATEIS?

- | | | | |
|------------------------------|--------------------------|----------------------------|--------------------------|
| (1) Bibliographical services | <input type="checkbox"/> | (2) Documentation services | <input type="checkbox"/> |
| (3) State of -the-art | <input type="checkbox"/> | (4) Data services | <input type="checkbox"/> |
| (5) Reprographic services | <input type="checkbox"/> | (6) Translation services | <input type="checkbox"/> |
| (7) Union catalogue/database | <input type="checkbox"/> | (8) Inter library loan | <input type="checkbox"/> |
| (9) Cooperative acquisition | <input type="checkbox"/> | (10) News letters/Bulletin | <input type="checkbox"/> |
| (11) Others | <input type="checkbox"/> | | |

43. What types of information products do you suggest for the NATEIS?

- | | | | |
|--|--------------------------|-----------------------|--------------------------|
| (1) Educational Abstract | <input type="checkbox"/> | (2) Educational Index | <input type="checkbox"/> |
| (3) Up-to-date Ednl statistical Report | <input type="checkbox"/> | (4) Others | <input type="checkbox"/> |

44. What should be the medium of information system and services?

- English Bengali Others :

45. What is your opinion about the tiers to be created for the proposed system?

- 1) National level 2) Sectoral level
3) District level 4) Institutional level
5) Other:

46. BANBEIS has been working as National Educational Documentation/Information Center for bibliographic information services through its Library and Documentation Division. Do you agree that the National Focal Point of NATEIS of Bangladesh should be-

- 1) the existing NEDC/Library, BANBEIS as a government organization
2) the existing NEDC/Library, BANBEIS transforming it into autonomous organisation
3) the existing NEDC/Library, BANBEIS but transforming it into the central library/National Library of Education as an autonomous organisation:
4) a new national focal point from one of the following:
NAEM NCTB DPE DTE DNFE UGC DSHE

47. Which educational LDI Centrs should be Sectoral Focal Points? Pl tick the appropriate(s):

- 1) NAEM (a national institute working in the educational management research and training)
2) NCTB Library (curriculum and textbook production at primary to higher secondary education)
3) NAPE (a national institute working in primary education training and research)
4) IER Library, Dhaka University (teacher education and research)
5) UGC Library (a national body working for higher education)
6) BANBEIS Library (working for educational information)
7) BTEB Library (technical education at undergraduate level)
8) BMEB Library (Madrasah/Islamic education)
9) DNFE Library (non-formal & adult education)
10) BRAC Library (non-government organisation)
11) TTTC Library (technical teachers education)

12) BOU Library (open education)

13) Other:

48. Which educational LDI Centrs should be District Focal Points? Pl tick the appropriate(s):

5) District Primary Education Office

6) District Secondary Education Office

7) A library of teachers education institute at district head quarter

8) Establishing new education library as District Focal Point

49. Which LDI Centrs should be the departmental participant member? Pl tick the appropriate(s) excluding the LDI Centres mentioned as Sectoral Focal Points:

MOE PMED DSHE DPE DTE DNFE

50. Which LDI Centrs of institution should be the participant member in the NATEIS? Pl tick the appropriate(s)

TTC HSTTI PTI TTTC

Institutes/Deptt. of education of universities BISE Others:

51. What levels co-operation should be in the NATEIS?

1) International 2) Regional

3) National 4) Inter state level

52. With organization(s) should the focal point(s) be connected in the following levels?:

1) International level:

(a) International Bureau of Education (IBE), UNESCO

(b) International Institute of Educational planning

(c) UNESCO

(d) UNICEF

2) Regional level:

(1) Regional Office of UNESCO for

Asia and Pacific:

(2) SAARC's Secretariat :

(5) ESCAP

(6) Other:

53. If the NEDC, NATEIS is an autonomous body how should it be financed by?

Govt. of Bangladesh Int. Donor Groups

Participating Member Institutes Others(Pl. specify):

54. How should the system be operated?

Manually Semi-manually-Semi computerized

Fully computerized

55. Do you agree that for developing an effective NATEIS we should have?

1) Legal framework 2) National policy

3) Long term and short term planning at all levels (MOE,

4) development project

5) other:

56. Whatever may be the status (Govt. or Autonomous) of the National Educational Documentation/Information Center (National Focal Point, NATEIS), do you agree that NATEIS should have a National Council /Board of Governors at different levels for policy-making, planning, coordinating and advising for educational information activities of Bangladesh?

1) National level 2) Sectoral level

3) District level 4) other:

57. What will be the distribution of power, authority in the NATEIS?

4) Centralisation in all activities of management, and decentralisation in dissemination of information (fully centralised)

5) Centralisation in policy, planning, implementation monitoring, evaluation and decentralisation in collection, processing and dissemination (centralised-decentralised)

6) Centralisation in only coordination and advisory functions and decentralisation in all other functions (fully centralised)

58. What will be the functional division within the National Focal Point of NATEIS?

1) Library Division 2) Documentation Centre

- 3) Information Analysis Centre 4) Data Centre
5) Referral Centre 6) Clearinghouse
7) Management and Coordination Division 8) Other:

59. What will be the standard of technical tasks? please mention:

- 1) Classification Scheme:
- 2) Cataloguing Code:
- 8) Subject heading:
- 9) Computer hardware (IBM/IBM compatible):
- 10) Computer software:
- 11) Telephone line (Analogue/Digital)
- 12) Internet:
- 13) Homepage for BanNATEIS

60. What will be the staffing pattern of the NATEIS?

<u>Types of Focal Point/Library</u>	<u>No. of professional staff</u>	<u>No of semi-professional staff</u>	<u>No of support staff</u>
-------------------------------------	----------------------------------	--------------------------------------	----------------------------

- 1) National Focal Point Library:
 - 2) Sectoral Focal Point Library:
 - 3) District Focal Point Library :
 - 4) Institute Participant Library:
 - 5) IT Specialists for host Centre:
61. What will be the status of the LDI professional?
- 4) Like bureaucratic personnel:
 - 5) Like academic and research personnel:
 - 6) Other:

62. For developing an effective NATEIS, if you have more suggestions, please specify.

Signature of the Informant with date

APPENDIX-C

Instrument (Questionnaire-III)

(For LDI Experts)

BE SURE TO ANSWER ALL QUESTIONS

Status of National Educational Information System of Bangladesh

A. Particulars of Informant

01. Name:

02. Age:

03. Sex: Male Female

04. Academic Qualifications (in Lib. Sc.): MA M. Phil Ph. D.

05.a. Present Address (in job):

b, Retired (previous experiences in other organizations):

B. Status of National Educational Information System (NATEIS) of Bangladesh.

06. Do your LDI Centre participate in educational LDI Centres' network/Information system for resource-sharing at international and regional levels?

Formal participation Non-formal participation No participation

07. Do your LDI Centre participate in the activities of NEDC of BANBEIS for resource-sharing in meeting educational information needs?

Formal participation Non-formal participation No participation

8. What type of educational information products and services (index, abstract, bibliography, statistical report, etc.) do your LDI Centre receive from the present NEDC of BANBEIS?

k) Index : Very Regular Very Irregular

l) Abstract : Very Regular Very Irregular

m) Bibliography : Very Regular Very Irregular

n) Statistical report : Very Regular Very Irregular

o) Other information product (if any pl mention):

9. What is your opinion on meeting the educational information needs by the services provided by the NEDC of BANBEIS?

Adequate Inadequate Poor

10. What is the cause not to participate your LDI Centre in the activities of NEDC of BANBEIS?

g) BANBEIS had/has no initiative to connect the library to the NATEIS

h) My institute/organisation's library has not taken initiative to join to NATEIS

i) Any other cause:

11. How do you evaluate the role of NEDC, BANBEIS as national focal point of NATEIS?

Adequate Inadequate Poor Very poor

12. What is your opinion about the causes of non-effective NATEIS in Bangladesh?

a) Lack of policy b) Lack of planning

c) Lack of legal frame work d) Lack of adequate resource input

e) All causes mentioned above

13. What is your opinion for having an effective NATEIS for Bangladesh?

1) Very urgent need 2) Urgent need

3) Need 4) No need

14. If it is needed, do you agree with the following proposed objectives of the system?

1) To provide all the educational personnel with easy access to educational information resources

2) To ensure that all reliable and required educational resources are located and processed

3) To generate and maintain adequate media for the dissemination of educational information

4) To have linkage with other related especially, social science and university based information sub-system or system within the country :

5) To have linkage with other national regional and international educational information services and system of the world

6) To develop the manpower to handle the management of educational information effectively:

15. What kind of information services do you suggest for the NATEIS?

- | | | | |
|------------------------------|--------------------------|----------------------------|--------------------------|
| (1) Bibliographical services | <input type="checkbox"/> | (2) Documentation services | <input type="checkbox"/> |
| (3) State of -the-art | <input type="checkbox"/> | (4) Data services | <input type="checkbox"/> |
| (5) Reprographic services | <input type="checkbox"/> | (6) Translation services | <input type="checkbox"/> |
| (7) Union catalogue/database | <input type="checkbox"/> | (8) Inter library loan | <input type="checkbox"/> |
| (9) Cooperative acquisition | <input type="checkbox"/> | (10) News letters/Bulletin | <input type="checkbox"/> |
| (11) Others | <input type="checkbox"/> | | |

16. What types of information products do you suggest for the NATEIS?

- | | | | |
|--|--------------------------|-----------------------|--------------------------|
| (1) Educational Abstract | <input type="checkbox"/> | (2) Educational Index | <input type="checkbox"/> |
| (3) Up-to-date Ednl statistical Report | <input type="checkbox"/> | (4) Others | <input type="checkbox"/> |

17. What should be the medium of information system and services?

English Bengali Others :

18. What is your opinion about the tiers to be created for the proposed system?

- | | | | |
|-------------------|--------------------------|------------------------|--------------------------|
| 1) National level | <input type="checkbox"/> | 2) Sectoral level | <input type="checkbox"/> |
| 3) District level | <input type="checkbox"/> | 4) Institutional level | <input type="checkbox"/> |
| 5) Other: | | | |

19. BANBEIS has been working as National Educational Documentation/Information Center for bibliographic information services through its Library and Documentation Division. Do you agree that the National Focal Point of NATEIS of Bangladesh should be-

- 1) the existing NEDC/Library, BANBEIS as an government organization
- 2) the existing NEDC/Library, BANBEIS transforming it into autonomous organisation
- 3) the existing NEDC/Library, BANBEIS but transforming it into the central library/National Library of Education as an autonomous organisation:
- 4) a new national focal point from one of the following:
- NAEM NCTB DPE DTE DNFE UGC DSHE

20. Which educational LDI Centrs should be Sectoral Focal Points? Pl tick the appropriate(s):

- 1) NAEM (a national institute working in the educational management research and training
- 2) NCTB Library (curriculum and textbook production at primary to higher secondary education
- 3) NAPE (a national institute working in primary education training and research)
- 4) IER Library, Dhaka University (teacher education and research)
- 5) UGC Library (a national body working for higher education)
- 6) BANBEIS Library (working for educational information)
- 7) BTEB Library (technical education at undergraduate level)
- 8) BMEB Library (Madrasah/Islamic education)
- 9) DNFE Library (non-formal & adult education)
- 10) BRAC Library (non-government organisation)
- 11) TTTC Library (technical teachers education)
- 12) BOU Library (open education)
- 13) Other:

21. Which educational LDI Centrs should be District Focal Points? Pl tick the appropriate(s):

- 1) District Primary Education Office
- 2) District Secondary Education Office
- 3) A library of teachers education institute at district head quarter
- 4) Establishing new education library as District Focal Point

22. Which LDI Centrs should be the departmental participant member? Pl tick the appropriate(s) excluding the LDI Centres mentioned as Sectoral Focal Points:

MOE PMED DSHE DPE DTE DNFE

23. Which LDI Centrs of institution should be the participant member in the NATEIS? Pl tick the appropriate(s)

TTC HSTTI PTI TTTC

Institutes/Deptt. of education of universities BISE Others:

24. What levels co-operation should be in the NATEIS?

1) International 2) Regional

3) National 4) Inter state level

25. With organization(s) should the focal point(s) be connected in the following levels?:

1) International level:

(a) International Bureau of Education (IBE), UNESCO

(b) International Institute of Educational planning

(c) UNESCO

(d) UNICEF

2) Regional level:

(1) Regional Office of UNESCO for

Asia and Pacific:

(2) SAARC's Secretariat :

(3) ESCAP

(4) Other:

26. If the NEDC, NATEIS is an autonomous body who should it be financed by?

Govt. of Bangladesh Int. Donor Groups

Participating Member Institutes Others(Pl. specify):

27. How should the system be operated?

Manually Semi-manually-Semi computerized

Fully computerized

28. Do you agree that for developing an effective NATEIS we should have:

1) Legal framework 2) National policy

3) Long term and short term planning at all levels (MOE,

4) development project

5) other:

29. Whatever may be the status (Govt. or Autonomous) of the National Educational Documentation/Information Center (National Focal Point, NATEIS), do you agree that NATEIS should have a National Council /Board of Governors at different levels for policy-making, planning, coordinating and advising for educational information activities of Bangladesh?

1) National level 2) Sectoral level

3) District level 4) other:

30. What will be the distribution of power, authority in the NATEIS?

1) Centralisation in all activities of management, and decentralisation in dissemination of information (fully centralised)

2) Centralisation in policy, planning, implementation monitoring, evaluation and decentralisation in collection, processing and dissemination (centralised-decentralised)

3) Centralisation in only coordination and advisory functions and decentralisation in all other functions (fully centralised)

31. What will be the functional division within the National Focal Point of NATEIS?

1) Library Division 2) Documentation Centre

3) Information Analysis Centre 4) Data Centre

5) Referral Centre 6) Clearinghouse

7) Management and Coordination Division 8) Other:

32. What will be the standard of technical tasks? please mention:

1) Classification Scheme:

2) Cataloguing Code:

3) Subject heading:

4) Computer hardware (IBM/IBM compatible):

5) Computer software:

6) Telephone line (Analogue/Digital)

7) Internet:

8) Homepage for BanNATEIS

33. What will be the staffing pattern of the NATEIS?

<u>Types of Focal Point/Library</u>	<u>No. of professional staff</u>	<u>No of semi-professional staff</u>	<u>No of support staff</u>
-------------------------------------	----------------------------------	--------------------------------------	----------------------------

1) National Focal Point Library:

2) Sectoral Focal Point Library:

3) District Focal Point Library :

4) Institute Participant Library:

5) IT Specialists for host Centre:

34. What will be the status of the LDI professional?

1) Like bureaucratic personnel:

2) Like academic and research personnel:

3) Other:

35. For developing an effective NATEIS, if you have more suggestions, please specify.

Signature of the Informant with date