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LAW, POLICY AND ORGANIZAION IN BANGLADESH**

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History and Development of Environmental Law, Policy and Organization in Bangladesh

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I further affirm that the work reported in this thesis is original and no part or whole of the dissertation has been submitted to any form in any other university or institution for any degree.

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I further affirm that the work reported in this thesis is original and no part or whole of the dissertation has been submitted to any form in any other university or institution for any degree.

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CONTENTS

ACKNOWLEDGEMENTS		V
ABSTRACT		VII-XI
GLOSSARY		XII
TABLES		XIII
ILLUSTRATIONS/MAPS		XIII
ABBREVIATIONS		XIV-XVI
PART I:	INTRODUCTION	
Chapter: 1	Introduction of the Dissertation	1-18
Chapter: 2	Environmental Law & Policy in Ancient Bengal (From early to 1204)	19-45
Chapter: 3	Environmental Law & Policy in Medieval Bengal (1204 to 1757)	46-70
PART II:	EVOLVEMENT	
Chapter: 4	Environmental Law & Policy in British Era (1757 to 1947)	71-91
Chapter: 5	Environmental Law & Policy in Pakistan Era (1947 to 1971)	92-106
Chapter: 6	Environmental Laws during the Post-Independence Era in Bangladesh	107-153
PART III:	DEVELOPMENT	
Chapter: 7	Environmental Policies during the Post-Independence Era in Bangladesh	154-186
Chapter: 8	Institutional Development of Environmental law in Bangladesh	187-230
Chapter: 9	Environmental Issues in Bangladesh and its Legal Mechanism	231-262
CONCLUSION		
Chapter: 10	Concluding remark	263-278
BIBLIOGRAPHY		279-287
APPENDIX		288-295

Abstract:

History and Development of Environmental Law, Policy and Organization in Bangladesh

History is a witness to the fact that the human beings have been struggling continuously to manage their surrounding environment by imposing some regulations to improve their well being. Over the centuries and decades, the modes and manners of regulations on environment have changed and improved. An examination of these modes and manners of regulation from the historical point of view is extremely important not only to understand why they have grown but also to guide their future course of development for the benefit of mankind.

This thesis aims to examine the historical development of environmental laws, policies and institutions in Bangladesh in the global context. Laws, policies and institutions in any area do not grow over a year or two. It is a result of interactions of various factors over a long period of time. Therefore, proper understanding of policies, rules and institutions on environmental laws of any country require a historic sense of earlier scientific, political and legal developments. This study, ranging from early (Ancient period) to 2010 A.D, mostly focuses on historical events that gradually helped develop a modern environmental law for Bangladesh. This study reveals that environmental laws in some form existed in ancient (from early to 1204 A.D.) and medieval Bengal (1204 to 1757 A.D.). Although the motivation was duty based and revenue collection by the ruling class was the incentive, they served the purpose of conservation of natural resources in the environmental sense. In the modern period, this research shows that, before the creation of Environmental Conservation Act in 1995 in Bangladesh, there were around 200 laws

that had direct or indirect bearing on our environment. Numerous laws were created during the British era (1757-1947 AD). It also shows that religious faiths, customs and social practices historically played important role in protecting environment in ancient and medieval Bengal.

This study also examines the historical developments on international plane. During the last few decades many Conventions and Protocols have been signed by the members of the world community to protect our global environment. Bangladesh has also played important role in the negotiation of many of these Treaties. These international developments have had an important impact on our national development of environmental laws, policies and institutions in Bangladesh. In 1989, the Ministry of Environment and Forest (MoEF) was established to address the emerging environmental issues. The Government started to take measures, drafted the National Conservation Strategy, adopted the National Environment Policy, 1992 and revised the old law by enacting the Bangladesh Environment Conservation Act, 1995 which has also restructured the Department of Environment (DoE). Moreover, National Environment Management Action Plan has also been prepared is being implemented. These national developments were mostly influenced by the international developments of 1970s and 1990s.

It is not only historical survey of developing environmental law in Bangladesh but also time framework and institutional evolution. This dissertation is comprised of ten chapters. The following paragraphs give an overall account of historical development and evaluation of environmental law, policy and organization in Bangladesh.

- 1) **Chapter 1** : In Introduction, chapter one the research topic is examined broadly with its academic importance. The objectives of the research work have been set

up. This chapter also describes the methodology used in the research work. A brief literature review, scope and limitation of this study have been described in chapter one. The end of this chapter also keeps the international context background throughout and provides valuable comparative analysis.

- 2) **Chapter 2** : Environmental Law and Policy in Ancient Bengal (From early to 1204 A.D.). This chapter examines whether environmental law and policy existed in ancient Bengal or not. The historical background to environmental protection in Bengal would indicate that forests & wildlife were considered as vital ingredients of the global system. Here, the entire scheme of environmental preservation was essentially duty-based. In this sense, the ancient sub-continent society accepted the protection of the environment as its duty to do so. It is described how environment protection has been an important aspect of Hindu way of life. It is also described that under the Mauriyan, Gupta, Pala, Sena regime and Ashoka's rule, forest conservation and wildlife protection received the utmost attention.
- 3) **Chapter 3** : Environmental Law and policy in Medieval Bengal (From 1204 to 1757 A.D.). This chapter describes environmental conservation in Islam and contributions of few empires in Bengal delta. It is described that the teachings of Islam about environmental conservation following the Islamic jurisprudence played an important role in medieval Bengal. It is also described that moral injunctions to act as guidelines towards environmental preservation during the medieval period were also crucial. Such injunctions were initially propagated by the religious faiths and customs as well as later enforced by the legend rulers.
- 4) **Chapter 4** : Environmental Law and policy in British rule (From 1757 to 1947 A.D.). This chapter has two parts: East India Company reign (1757-1857 A.D.) and British rule in sub-continent from 1857 to 1947 A.D. This focus is: when and

why the British considered environment to be protected and preserved in Indian Sub-continent?

- 5) **Chapter 5** : Pakistani rule in Bengal from 1947 to 1971 A.D. Few environmental protection and preservation laws were enacted during the Pakistani period. It is also described in this chapter. These laws were mostly put in place to ensure better revenue collection through conservation of natural resources.
- 6) **Chapter 6** : This major focus of this chapter is the developments that took place in Bangladesh in the post-independent era. When and how the environmental laws, policies and institutions have developed in Bangladesh is the main thrust of this chapter. When and how case laws have been incorporated in the judicial process is also examined. The salient features and objectives of Environmental Conservation Act (1995), Environmental Conservation Rules (1997), Environmental Court Act (2000) etc. and subsequent amendments are described in this chapter. This chapter involves a critical examination of the provisions of Environmental Court Act (2000 & 2010).
- 7) **Chapter 7** : Environmental policy during the post-independent era in Bangladesh (1971-2010). This chapter attempts to examine how the government of Bangladesh gradually incorporated the environment conservation issues in the national policy regime. The concerns for environment protection were reflected in the national planning process as 1st, 2nd, 3rd, 4th, 5th and 6th Five Year Plans. The concern about environmental issues, however, has been reflected in different policy initiatives taken by the government of Bangladesh. The major policy initiatives, strategies and plans emphasized environment and natural resources management to achieve sustainable development. This chapter examines all these aspects from a critical perspective including the environmental policy of 1992 which lays emphasis on abatement of pollution and conservation of natural resources. An attempt has been made to study the environmental policy of Bangladesh right from the post-independence period to the present (2012).

- 8) **Chapter 8** : This chapter examines how to develop gradually environmental law related government and non-government organizations in Bangladesh. Specially selected organizations are the Department of Environment (DoE) and the Bangladesh Environmental Lawyers Association (BELA), as they directly deal with the environmental laws and policies in Bangladesh. This chapter examines critically the implementation aspect of environmental laws. It also describes how many cases were filed by DoE and Public Interest Litigation (PIL) by BELA. This chapter analyses the response of the Bangladesh Supreme Court and High Court on public interest litigation and their interpretation of environment protection as an extension of the fundamental right to life.
- 9) **Chapter 9** : This chapter has described environmental issues in Bangladesh and the legal mechanisms put in place to address them. It has also described how to relate sectoral environmental issues in legislations. This chapter deals with the causes, sources and effects of environmental pollution. The chapter, though of scientific interest, cannot be ignored in legal studies. It will help us in identifying various pollutants which have a direct relation with the legislative as well as other regulatory measures designed to control and abate pollution. The chapter makes an in-depth study of the major environmental concern areas like water, air, noise, land, forests.
- 10) **Chapter 10** : The last chapter is a summary of the discussion and incorporates a few findings and suggestions for strengthening the efficacy of the existing legal mechanism for environmental pollution control. This study concludes with a summary of recommendations for practioners and future policy makers.

GLOSSARY

Ad hoc	: Made for a particular purpose only
Beel	: Low marsh Land
Char	: Strip of sandy land rising out of a river bed
Drama	: Silver Coin
Fauna	: The total animal population that inhabits a given area
Flora	: The total plant population that inhabits in given area
Haors	: Extensive marsh
Heritage	: Something that is transmitted or acquired from a predecessor or possessed as a result of ones birth (i.e. a birthright) or as a result of ones natural.
Inter alia	: Over all
Jaigir	: A grant of land
Jalmahal	: Government owned water estate
Khal	: Canal
Khas	: Vested in the Government and managed by various government agencies
Locus Standi	: Standing Court Order
Pana	: Old coin
Raiyat	: Right to hold land for the purposes of cultivation
Rule Nisi	: Show cause
Vice versa	: On the same kind
Zamindari	: Feudal System

LIST OF TABLES

1. Chronology of events toward creation of DoE	165
2. Case filed in Environment Court (2002- May, 2012)	170
3. DoE serve notices (2002- May, 2012)	172
4. National Environment Committee (NEC)	178
5. Executive Committee of National Environment Committee	180
6. A selection of PIL cases filed by BELA	186

LIST OF FIGURES

1. Case filed in Environment Court (2002- May, 2012)	170
2. Gradually developed the environment cases in Bangladesh	171
3. DoE serve notices (2002- May, 2012)	172
4. Gradually developed PIL cases filed by BELA	191

LIST OF MAPS

1. Rennel's Map of Bengal	20
2. Bengal under the Murgu regime	29
3. Ancient Forest Divisions	30
4. Land use pattern (Approximate) in India 629-642 A.D.	33
5. Ancient Bengal under Gupta regime	34
6. Land use pattern (Approximate) in India in 1561 A.D.	54

LIST OF ACRONYMS AND ABBREVIATIONS

AD	: anno Domini (in the year of the Lord)
AD	: Appellate Division
ADB	: Asian Development Bank
AQMP	: Air Quality Management Project
BAPA	: Bangladesh Paribesh Andolon
BBS	: Bangladesh Bureau of Statistics
BC	: Before Christ
BCAS	: Bangladesh Centre Advanced Studies
BELA	: Bangladesh Environment Lawyers Association
BEMP	: Bangladesh Environment Management Project
BEP	: Bangladesh Environment Project
BIWTA	: Bangladesh Inland Water Transport Authority
BLD	: Bangladesh Legal Decisions
BUET	: Bangladesh University of Engineering and Technology
BUP	: Bangladesh Unnayan Parishad
CAMS	: Continuous Air-quality Monitoring System
CASE	: Clean Air Sustainable Environment
CBD	: Convention on Biological Diversity
CDM	: Clean Development Mechanism
CF	: Community Forestry
CFC	: Chlorofluoro Carbon
CHT	: Chittagong Hill Tracts
CIDA	: Canadian International Development Agency
CNG	: Compressed Natural Gas
CPC	: Civil Procedure Code, 1908
CrPC	: Criminal Procedure Code
CSD	: Centre for Sustainable Development
DANIDA	: Danish International Development Agency
DEPC	: Department of Environment Pollution Control
DFO	: Divisional Forest Officer
DG	: Director General
DLR	: Dhaka Law Report
DOE	: Department of Environment
DOF	: Department of Forest
DCA	: Environment Conservation Act/ Ecologically Critical Area
DPHE	: Department of Public Health Engineering
ECA	: Environment Conservation Act/ Ecologically Critical Area
ECC	: Environmental Clearance Certificate
ECR	: Environment Conservation Rules
e.g.	: Example given
EIA	: Environment Impact Assessment
EPCC	: Environment Pollution Control Cell

EQS	: Environment Quality Standard
<i>et. al.</i>	: Others
FAO	: Food and Agricultural Organization
FAP	: Flood Action Plan
FD	: Forest Department
FFYP	: First Five Year Plan
FFYP	: Fourth Five Year Plan/ Fifth Five-Year Plan
EIA	: Environmental Impact Assessment
ETP	: Effluent Treatment Plant
GoB	: Government of Bangladesh
GDP	: Gross Domestic Product
GEF	: Global Environment Facility
HCD	: High Court Division
HYV	: High Yielding Variety
i.e.	: This is
ICJ	: International Court of Justice
ICTPs	: International Conventions, Treaties and Protocols
IEE	: Initial Environmental Examination
ILR	: International Law Reports
IPCC	: Intergovernmental Panel on Climate Change
IUCN	: International Union for Conservation of Nature and Natural Resources
JRC	: Joint Rivers Commission
LGED	: Local Government Engineering Department
MDG	: Millennium Development Goal
MOEF	: Ministry of Environment & Forest
MoU	: Memorandum of Understanding
MT	: Metric Tonnes
NAP	: National Action Programme
NCS	: National Conservation Strategy
NEC	: National Environment Committee
NEMAP	: National Environment Management Action Plan
NEP	: National Energy Policy
NFMP	: New Fisheries Management Policy
NGOs	: Non-governmental Organizations
NP	: National Park
NPFP	: National Poverty Focal Point
ODS	: Ozone Depleting Substances
PF	: Protected Forest
PIEL	: Public Interest Environment Litigation
PIL	: Public Interest Litigation
POPs	: Persistent Organic Pollutants
RF	: Reserved Forest
PRSP	: Poverty Reduction Strategy Paper
SAT	: State Acquisition and Tenancy Act, 1950
SEHD	: Society for Environment and Human Development
SEMP	: Sustainable Environment Management Program

SFYF	: Second Five Year Plan
SFYF	: Sixth Five Year Plan
SIDA	: Swedish International Development Agency
TFYP	: Third Five Year Plan
UN	: United Nations
UNCED	: United Nations Conference on Environment and Development
UNCHE	: United Nations Conference on Human Environment
UNDP	: United Nations Development Programme
UNEP	: United Nations Environment Program
UNESCO	: United Nations Educational Scientific and Cultural Organization
USAID	: United States Agency for International Development
USF	: Unclassified State Forests
WARPO	: Water Resources Planning Organization
WB	: World Bank
WP	: Writ Petition



Abstract of PhD Dissertation

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History is a witness to the fact that the human beings have been struggling continuously to manage their surrounding environment by imposing some regulations to improve their well being. Over the centuries and decades, the modes and manners of regulations on environment have changed and improved. An examination of these modes and manners of regulation from the historical point of view is extremely important not only to understand why they have grown but also to guide their future course of development for the benefit of mankind.

This thesis aims to examine the historical development of environmental laws, policies and institutions in Bangladesh in the global context. Laws, policies and institutions in any area do not grow over a year or two. It is a result of interactions of various factors over a long period of time. Therefore, proper understanding of policies, rules and institutions on environmental laws of any country require a historic sense of earlier scientific, political and legal developments. This study, ranging from early (Ancient period) to 2010 A.D, mostly focuses on historical events that gradually helped develop a modern environmental law for Bangladesh. This study reveals that environmental laws in some form existed in ancient (from early to 1204 A.D.) and medieval Bengal (1204 to 1757 A.D.). Although the motivation was duty based and revenue collection by the ruling class was the incentive, they served the purpose of conservation of natural resources in the environmental sense. In the modern period, this research shows that, before the creation of Environmental Conservation Act in 1995 in Bangladesh, there were around 200 laws

that had direct or indirect bearing on our environment. Numerous laws were created during the British era (1757-1947 AD). It also shows that religious faiths, customs and social practices historically played important role in protecting environment in ancient and medieval Bengal.

This study also examines the historical developments on international plane. During the last few decades many Conventions and Protocols have been signed by the members of the world community to protect our global environment. Bangladesh has also played important role in the negotiation of many of these Treaties. These international developments have had an important impact on our national development of environmental laws, policies and institutions in Bangladesh. In 1989, the Ministry of Environment and Forest (MoEF) was established to address the emerging environmental issues. The Government started to take measures, drafted the National Conservation Strategy, adopted the National Environment Policy, 1992 and revised the old law by enacting the Bangladesh Environment Conservation Act, 1995 which has also restructured the Department of Environment (DoE). Moreover, National Environment Management Action Plan has also been prepared is being implemented. These national developments were mostly influenced by the international developments of 1970s and 1990s.

It is not only historical survey of developing environmental law in Bangladesh but also time framework and institutional evolution. This dissertation is comprised of ten chapters. The following paragraphs give an overall account of historical development and evaluation of environmental law, policy and organization in Bangladesh.

- 1) **Chapter 1** : In Introduction, chapter one the research topic is examined broadly with its academic importance. The objectives of the research work have been set

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- 8) **Chapter 8** : This chapter examines how to develop gradually environmental law related government and non-government organizations in Bangladesh. Specially selected organizations are the Department of Environment (DoE) and the Bangladesh Environmental Lawyers Association (BELA), as they directly deal with the environmental laws and policies in Bangladesh. This chapter examines critically the implementation aspect of environmental laws. It also describes how many cases were filed by DoE and Public Interest Litigation (PIL) by BELA. This chapter analyses the response of the Bangladesh Supreme Court and High Court on public interest litigation and their interpretation of environment protection as an extension of the fundamental right to life.
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- 10) **Chapter 10** : The last chapter is a summary of the discussion and incorporates a few findings and suggestions for strengthening the efficacy of the existing legal mechanism for environmental pollution control. This study concludes with a summary of recommendations for practioners and future policy makers.

Chapter 1 :

Introduction

1.1 Introduction:

Environmental law is one of the first growing fields of national and international law. It is a new phenomenon in the history of jurisprudence. Environmental law in Bangladesh, being an emerging field, attracts cross disciplinary studies, like law, environmental science, history, sociology, international relations, political science, economics etc. The sources of environmental law are moral, social, economic, political, and even spiritual beliefs and obligations. Since last few decades, environmental law has been evolving rapidly both nationally and internationally. In 1990s, Bangladesh formulated environmental policy, enacted environmental law, rule and established environmental court. The year 1990 was observed as “Year of Environment” and the following decade has been identified as “The Decade of Environment”. United Nations declared 1990s as “Environmental Decade”. One of the reasons for this was that significant development took place in the decade. Many treaties, conventions, protocols, declarations were signed among the states of UN. Bangladesh, as a member of world family, signed numerous environmental treaties, conventions, protocols, declarations and participated in the negotiation of these instruments. In this decade Bangladesh enacted national rules and regulations in order to protect environment. This study examines the historical background of the gradual development of environmental laws, policies and institutions of Bangladesh. This study is a new of its kind, covering both law and history on Bangladesh perspective. This study provides a comprehensive analysis of history,

environmental policy, environmental law and regulation, case law relating to environmental protection, and environmental organization in Bangladesh.

1.2 Importance of this topic:

Bangladesh gained her independence on December 16, 1971 after a bloody liberation war with Pakistan. Since her independence, Bangladesh is a member of world family. Bangladesh has a responsibility, along with all other nations, to adopt, implement and enforce policies that protect and restore the global commons. Many international conventions, treaties and protocols were evolved to protect the world environment, and Environmental law is one of the most rapidly expanding areas of study. Appropriate laws both at the national and the international levels are necessary for the protection of environment. Bangladesh has taken some measures to protect our environment. This research shows that before the creation of environmental law in 1995, there are around 200 laws directly and indirectly to protect and preserve our environment. Numerous laws create during the British rule in sub-continent (1757-1947 AD). Many customs and religious faiths protect and preserve our environment in ancient (from early to 1204 A.D.) and medieval (1204 to 1757 A.D.) Bengal. Various Government organizations and Non-government organizations came up with different activity package with the aim of the protection and conservation of environment. Bangladesh has a rich historical perspective as far as environmental law and policy is concerned.

History is a witness to the fact that the man has been endlessly struggling to manage his environment by imposing environmental law to improve his well being. Man is degrading its natural environment while trying to gain materialistic development on its physical environment. Proper understanding of policies and rules of environmental law requires a historic sense of earlier scientific, political and legal developments. This thesis ranges from early (Ancient period) to 2010. This study carries out a historical investigation to trace out whether environmental law and policy in any form existed in the ancient and medieval Bengal.

1.3 Justification of this topic:

Environmental law and policy play an important role touching various aspects of our national life, health, economy, security etc. A historical perspective of environmental law and policy may help us not only to understand why these laws and policies have developed but also to influence their future course of development.

History may have many points of emphasis depending on whether the historian is primarily interested in political, social, economic, artistic, scientific, or philosophical matters. All of these various approaches to history will have at least one thing in common; they will all be concerned with change- with when, how, and why changes takes place. In some eras of history man's ideas and institutions change with great speed and produce major alterations in the values of society. Such periods are described as revolutionary. The principle focus of this thesis is to highlight these revolutionary eras of the development of environmental law and policy in Bangladesh.

History writing has been evolving and changing. From the stories of kings and battles, we moved to political history, then to social history. Core subjects would also include industrialization, globalization, the shaping of the modern world, agrarian or economic history. Now we write about the history of mentality. And more recently some have written history almost in the style of fiction, bringing into sharp relief the lived experiences of people at different times...the presentation of historical material through the personal experience of people and countries. Such material experience can be fascinating for students as access to comprehension may be easier. The role of the teacher would be ensuring that such knowledge is counterbalanced through re-reading of original texts and corroborated from the works of other scholars.¹

History is concerned with the past, whether the idea or the event in question occurred one minute or a thousand years ago. Moreover, though history may appear to be a simple

¹ Tazeen Murshid, "Teaching history: lessons from Europe", Star Literature, *The Daily Star*, Dhaka, March 3, 2012.

subject to the uninitiated, the past is not simple but rather very complex and elusive.² To the question, “What has happened in the world in second half of twentieth century?” there is not one, but a variety of different answers. The physical scientist will not give the same answer as the biologist. The anthropologist, the political scientist, the sociologist, the humanist, the environmentalist will reach his own answer and his own emphasis. Answers to more specific questions may tend to coincide, but, since each answer is drawn from a specialized background, its point of emphasis may reveal an aspect of reality or history overlooked or belittled by other intellectual disciplines.³

The teaching of history has been greatly influenced by multi-disciplinary approaches. The historian interprets the past and through that process makes the past relevant to the present, and gives it meaning in the contemporary context. If, however, he insists that his opinion is the only truth, we are faced with a potentially conflicting situation. Essentially, there are many interpretations possible for the same set of events. Recognition of this diversity is important in the teaching and learning of history so that students can learn that historical truths are multifaceted. Proper understanding of policies and rules of environmental law requires a historic sense of earlier scientific, political and legal developments of Bangladesh.

1.4 Objectives:

The major objectives of this thesis are as follows:

- 1) To examine the historical perspective of the development of environmental laws and policies in Bangladesh.
- 2) To examine the chronological development of environmental laws, policies and organizations in Bangladesh.
- 3) To provide time framework basis analysis.

² Paul H. Clyde & Burton F. Beers, *The Far East: A History of western Impacts & Eastern Responses, 1830-1975*, New Jersey, USA: Prentice- Hall, Inc. Englewood Cliffs, 1975, p-2.

³ Ibid, p-2.

4) To examine the reasons of the development of environmental laws and policies in Bangladesh.

5) To find out environmental laws were in existence or not in ancient and medieval Bengal.

1.5 Literature Review on this topic:

An extensive literature review on “History & Development of Environmental law, policy and organization in Bangladesh” has developed over the past two decades, although the first textbooks appeared only as last decade as *Laws Regulating Environment in Bangladesh (1996)*, *A Compilation of Environmental Laws Administered by the Department of Environment, (BEMP-2002)*, *Bangladesh State of Environment Report* of several years. The following academic and practitioners journals provide sources of information on important national and international legal developments and articles on specific aspects of environmental law in Bangladesh. DoE reports, yearbooks, souvenirs, BELA’s books, newsletters are especially useful source for recent developments, including judgment of Supreme Court. State practice in the field of environmental law is found in the traditional sources, including national legislation, law reports etc. Useful specialized sources include the yearbook of international environmental law; the country reports submitted to the 1992 UN conference on Environment and Development, national reports to the UN commission on sustainable development and pursuant to reporting requirements of international environmental treaties. Beyond the general sources of environmental law a specialized literature or books now addresses the primary sources of environmental law in Bangladesh. Apart from the useful collection of selected materials, the works were edited by Mohiuddin Farooque and S. Rizwana Hasan (*Laws Regulating Environment in Bangladesh-1996*). All kinds of environmental law books and literatures have depicted only rules and regulations of environment preservation or protection. But no body does in-depth investigation into the rules and regulations of the historical

perspectives. This gap creates the scope for my research work. So, this study is different from other works.

1.6 Research Methodology

The study has been conducted in accordance with the following methodology.

i) Historians, seeking to be credible, try to establish the facts in a value free manner by using objective criteria that can be verified. The process of verification of historical evidence requires text analysis; corroboration from other sources, including archaeological findings, relics, monuments and tombs; socio-economic data from surveys and studies, land records, census data; eye witness accounts in the form of diaries, memories; and scientific evidence such as carbon dating, etc. Even so, the selection of criteria and the questions asked determine the outcomes. Methodology of history is about contextualization to time and place in relation to the events that define us, our perspectives of the self and the other. ‘The question is’ “what”, “how” and “when” to teach controversial historical issues.

ii) Using historical realist approach, this thesis has been built upon several environment related literatures, books, journals, reports, newsletters and documents, which evolved and established environmental law and institutional framework. Therefore, both primary and secondary data have been used for this thesis. I have taken interview of environmental activities like lawyers, journalists, teachers, NGO activities legend environmentalists. History means research and in-depth investigation of any event. History analyses cause and effect of every event as well as importance, scope and significance of every event. This thesis also analyses cause and effect of evolving and developing environmental law, policy and organization in Bangladesh.

iii) Proper understanding of policies and rules of environmental law requires a historic sense of earlier scientific, political and legal developments. According to historic methodology, time framework is a vital matter. This thesis also ranges from early (Ancient) to 2010. In this period, this thesis enquires how the environmental laws and policies were developed in Bangladesh.

iv) The present research is mainly a qualitative work for which data have been collected from both primary and secondary sources. Discussion, interview of the key persons involved in government and special service authorities have been conducted for collecting primary data where a paper of structured questions is used to collect the key information about various organizations. A brief literature review on different books, dissertation, articles, newspapers, posters, leaflets, internet, website etc. related to environmental law is used as the secondary sources of data. Information extracted from both the primary and secondary sources were analyzed in simple method and thus manage manually by the researcher.

v) All laws and bye-laws including executive orders or guidelines relevant to environment protection and conservation have been examined. The examination was further supported by policy analysis. All these aspects have also been examined from their historical perspectives including the objectives that led to formulation of laws and policies including the underlying purposes. Before 1947, both India and Bangladesh have the same legal history. And before 1971, both Pakistan and Bangladesh had the same legal history. Therefore, literature having similar historical perspective has been used for this study.

vi) Existing literatures on the subject have been surveyed including relevant materials from the books, journals, newspapers, relevant websites etc. Two seminar papers have been presented on the study subject for general discussion by the experts of various disciplines.

1.7 Structure of the Thesis:

This study concentrates on how to evolve and develop environmental law and organizations gradually in Bangladesh. It is not only historical survey of developing environmental law in Bangladesh but also time framework and institutional evolution. This dissertation would be comprised of an introduction followed by ten chapters including conclusion.

- 1) **Chapter 1** : In Introduction, chapter one the research topic is examined broadly with its academic importance. The objectives of the research work have been set up. This chapter also describes the methodology used in the research work. A brief literature review, scope and limitation of this study have been described in chapter one. The end of this chapter also keeps the international context background throughout and provides valuable comparative analysis.
- 2) **Chapter 2** : Environmental Law and Policy in Ancient Bengal (From early to 1204 A.D.). This chapter examines whether environmental law and policy existed in ancient Bengal or not. The historical background to environmental protection in Bengal would indicate that forests & wildlife were considered as vital ingredients of the global system. Here, the entire scheme of environmental preservation was essentially duty-based. In this sense, the ancient sub-continent society accepted the protection of the environment as its duty to do so. It is described how environment protection has been an important aspect of Hindu way of life. It is also described that under the Mauriyan, Gupta, Pala, Sena regime and Ashoka's rule, forest conservation and wildlife protection received the utmost attention.
- 3) **Chapter 3** : Environmental Law and policy in Medieval Bengal (From 1204 to 1757 A.D.). This chapter describes environmental conservation in Islam and contributions of few empires in Bengal delta. It is described that the teachings of Islam about environmental conservation following the Islamic jurisprudence played an important role in medieval Bengal. It is also described that moral injunctions to act as guidelines towards environmental preservation during the medieval period were also crucial. Such injunctions were initially propagated by the religious faiths and customs as well as later enforced by the legend rulers.
- 4) **Chapter 4** : Environmental Law and policy in British rule (From 1757 to 1947 A.D.). This chapter has two parts: East India Company reign (1757-1857 A.D.)

and British rule in sub-continent from 1857 to 1947 A.D. This focus is: when and why the British considered environment to be protected and preserved in Indian Sub-continent?

- 5) **Chapter 5** : Pakistani rule in Bengal from 1947 to 1971 A.D. Few environmental protection and preservation laws were enacted during the Pakistani period. It is also described in this chapter. These laws were mostly put in place to ensure better revenue collection through conservation of natural resources.
- 6) **Chapter 6** : This major focus of this chapter is the developments that took place in Bangladesh in the post-independent era. When and how the environmental laws, policies and institutions have developed in Bangladesh is the main thrust of this chapter. When and how case laws have been incorporated in the judicial process is also examined. The salient features and objectives of Environmental Conservation Act (1995), Environmental Conservation Rules (1997), Environmental Court Act (2000) etc. and subsequent amendments are described in this chapter. This chapter involves a critical examination of the provisions of Environmental Court Act (2000 & 2010).
- 7) **Chapter 7** : Environmental policy during the post-independent era in Bangladesh (1971-2010). This chapter attempts to examine how the government of Bangladesh gradually incorporated the environment conservation issues in the national policy regime. The concerns for environment protection were reflected in the national planning process as 1st, 2nd, 3rd, 4th, 5th and 6th Five Year Plans. The concern about environmental issues, however, has been reflected in different policy initiatives taken by the government of Bangladesh. The major policy initiatives, strategies and plans emphasized environment and natural resources management to achieve sustainable development. This chapter examines all these aspects from a critical perspective including the environmental policy of 1992 which lays emphasis on abatement of pollution and conservation of natural

resources. An attempt has been made to study the environmental policy of Bangladesh right from the post-independence period to the present (2012).

- 8) **Chapter 8** : This chapter examines how to develop gradually environmental law related government and non-government organizations in Bangladesh. Specially selected organizations are the Department of Environment (DoE) and the Bangladesh Environmental Lawyers Association (BELA), as they directly deal with the environmental laws and policies in Bangladesh. This chapter examines critically the implementation aspect of environmental laws. It also describes how many cases were filed by DoE and Public Interest Litigation (PIL) by BELA. This chapter analyses the response of the Bangladesh Supreme Court and High Court on public interest litigation and their interpretation of environment protection as an extension of the fundamental right to life.
- 9) **Chapter 9** : This chapter has described environmental issues in Bangladesh and the legal mechanisms put in place to address them. It has also described how to relate sectoral environmental issues in legislations. This chapter deals with the causes, sources and effects of environmental pollution. The chapter, though of scientific interest, cannot be ignored in legal studies. It will help us in identifying various pollutants which have a direct relation with the legislative as well as other regulatory measures designed to control and abate pollution. The chapter makes an in-depth study of the major environmental concern areas like water, air, noise, land, forests.
- 10) **Chapter 10** : The last chapter is a summary of the discussion and incorporates a few findings and suggestions for strengthening the efficacy of the existing legal mechanism for environmental pollution control. This study concludes with a summary of recommendations for practioners and future policy makers.

1.8 Scope and Limitation of Research

Although it is an Environmental Law's study, but it has some limitation. Owing to research title I have mentioned some laws and regulations. It is completely a historical development of environmental law, policy and organization. Numerous traditional laws were existence before Bangladesh Environment Conservation Act, 1995. All the laws have not been described in this study. Important and popular laws objectives and key provisions have been described in this study, not details. Eventually it is written through historical methodology, not laws perspective.

1.9 History of Environmental Law in Bangladesh in World Context

World environment today faces a grave crisis. Grossly polluted environment trends to create threat to human existence. Without collective efforts undertaken by the states worldwide, this crisis would be difficult to overcome. Appropriate laws both at national level and at international levels are necessary to protect the environment. It is encouraged that environmental consciousness is increasing day by day and the states at large are adopting laws and concluding treaties to prevent environment from falling into disaster.⁴

The conflict between development and environment still remains unresolved. Industrial revolution in the 1780s, Green revolution in the 1960s gave great prosperity to humankind but snatched away many things of importance and in some cases caused irreversible damages. England first had the industrial revolution and Edwin Chadwick in 1842; 70 years after the industrial revolution submitted the world's first famous report on water pollution to the British Parliament. The industrial revolution and its deep

⁴ M Shah Alam, 'Environment, Environmental Law and Justice', *Chittangong University: Law Vision* issue: 8, December 2002-2003.

connection with strongly infectious diseases such as Cholera and Dysentery gave birth to “Public Health Act (1848)” in England.⁵ This was the first environmental law in England. Scientific research and study of the sixties and seventies of twentieth century have discovered that world environment is fast losing its natural qualities and its balance is being seriously impaired.⁶ The environment has always been critical to life but concerns over the balance between human life and the environment assumed international dimensions only during the 1950s. Paradigm-breaking books and articles such as Rachel Carson’s *Silent Spring*⁷ indicated the toxicity of insecticides such as DDT in 1962 and Garrett Hardin’s *The Tragedy of the Commons*⁸ galvanized individual countries and the international community into action. These views were encapsulated in the most famous study of the time, The Club of Rome’s⁹ computer model of the global future, which attracted worldwide attention, published as *The Limits to Growth*.¹⁰ In the early 1970s, attention was focused first on the biophysical environment, for example, on issues of wildlife management, soil conservation, water pollution, land degradation and desertification and people were considered as the root cause of such problems. In the west, there were two principal schools of thought about the causes of environmental degradation: one school blamed greed and the relentless pursuit of economic growth; the other blamed population growth. As one commentator put it, ‘Unabated pollution and

⁵ Md. Sohrab Ali, The development-environment conflict: Lesson learnt, *The Daily Star*, Dhaka, 13 February, 2010. p-13.

⁶ M Shah Alam, Supra Note-4, p-13

⁷ R. Carson, *Silent Spring*, Houghton Mifflin (1962), New York.

⁸ ‘*The Tragedy of the Commons* as a food basket is averted by private property, or something formally like it. But the air and waters surrounding as cannot readily be fenced, and so the tragedy of the commons as cesspool must be prevented by different means, by coercive laws or taxing devices that make it cheaper for the polluter to treat his pollutants than to discharge them untreated.’ G. Hardin, *The Tragedy of the Commons*, *Science* (1968) 162, 1243-48.

⁹ The Club of Rome was a group of some 50 self-appointed ‘wise men (and women) who met regularly to try to put the world to rights, much as did the Pugwash group of scientists in relation to the Cold War.

¹⁰ D. Meadows, *The Limits to Growth: A Report for the Club of Rome’s Project on the predicament of Mankind*, New York, (1972), Universe Books.

unstable population are real threats to our way of life and to life itself".¹¹ In the communist world, the relentless destruction of the environment is the name of industrialization continued unabated. In developing countries, environmental concerns were regarded as western luxuries.

The widening of the "environment movement" in the second half of the twentieth century brought three developments of major importance. First, the scientific and nature protection components grew together, especially under the influence of professional ecologists. Second, appreciation of the environment grew in many countries outside Europe and North America. Third, and the most important, character of the approach changed. A much broader conception of the environment was adopted. The movement became concerned with literally all aspects of the natural environment: land, water, minerals, all living organisms and life processes, the atmosphere and the climate, the polar icecap and the remote ocean deeps, and even the space. It also turned towards the human situation, at the level both of whole communities and of individual needs for housing and living, and emphasized the relationship between the man-made and natural environments.¹²

This trend must stop to keep our planet habitable. The environment has been harmfully affected through pollution of the atmosphere and of maritime, coastal and inland waters, through degradation of rural, through destruction of ecological balance of natural areas, through the effect of biocides upon animal and plant life, and through the uncontrolled depletion and ravaging of the world's natural resources, partly by reason of the explosive

¹¹ Romania Sianai, Stanley Foundation (1972), *Sixth Conference of the United Nations of the Next Decade*, Conference held 20-29 June 1971.

¹² United Nations Environmental Program, *The State of the Environment 1972-1982*, Nairobi, Kenya: UNEP, 1982, p-4-5.

growth of human populations and partly as a result of the demands of industrial technology. The problems involved in the environmental crisis, and the various causes and factors which brought it about were analyzed in detail more than forty four years ago by the Secretary-General of the United Nations in a report on the Problems of the Human Environment, dated May 26, 1969, prepared in relation to the summoning of the Stockholm Conference of June 1972 on the Human Environment, pursuant to a Resolution of the United Nations General Assembly of December 3 1968. It was the timely initiative of the United Nations that focused the world attention on the problem of environment. Since then, the United Nations has organized three conferences (1972, 1992, 2002) which have made solemn declarations, proclaimed policies and principles, given guidelines, worked out action plans- all for the protection and preservation of environment. The Stockholm Declaration can be rightly hailed as the 'Magna Carta on Human Environment'. 'Man is both the creature and moulder of his environment and [that he] has [got] the fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well being.'¹³ The United Nations has also initiated negotiations and conclusion of various environment related treaties amongst the states. All these have set the standards and norms of the emerging environmental law. This law seeks to provide for environmental justice between the individuals as well as between the communities and the states, rich or poor, developed or underdeveloped.¹⁴

Bangladesh faces serious problems of overpopulation, extreme poverty, illiteracy and environmental pollution. Over the decades, she has undergone processes of

¹³ See Principle 1 of the Stockholm Declaration, 1972.

¹⁴ M Shah Alam, *Supra Note- 4*.

environmental degradation with natural resources depletion at a faster rate. All those factors combine to multiply the scale of socio-economic setbacks, imposed by recurring natural disasters, often of exceptional magnitude. From 1960 onward, green revolution accompanied by HYV (High Yielding Variety) crops, high dose of chemical fertilizers and pesticides subsequently brought stagnation in yield of crops. Improper and increased use of agrochemicals, disposal of industrial waste into water bodies contributed to fisheries habitat degradation. Till 1962 the number of industries in Dhaka was about 100, most of them of small to medium scale and located mostly in present old Dhaka area. Establishment of so many industries started mostly after the independence in 1971. The important industries in the country are textile & dyeing, leather, paper and pulp, fertilizer, sugar, steel, oil refining, chemical and pharmaceuticals and other small scale agro-based and agro-allied industries and of course the readymade garments.

Many industries are located on the banks of natural streams or rivers while many others in the residential areas causing air and water pollution through smoke emission and dumping of untreated effluent. In 1986, DoE identified 903 industries as most polluting that increased to 1176 industries in 1997.

The concern about environmental issues, however, has been reflected in different policy initiatives taken by the government of Bangladesh. Major policy initiatives, strategies and plans emphasized environment and natural resources management to achieve sustainable development. The National Environment Policy 1992, National Forest Policy 1994, National Water Policy 1999, National Agriculture Policy 1999, National Land Use Policy 2001 all aimed at ensuring development in harmony with the natural environment.

National Environment Management Action Plan (NEMAP) 1995 was the major policy document that recognized links among environmental degradation, poverty, and population growth. National Biodiversity Strategy and Action Plan 2004 put due priority on the recovery and conservation of degraded ecosystems. Following the National Environmental Policy 1992, the Bangladesh Environment Conservation Act, 1995 and the Environment Conservation Rules, 1997 and Environment Court Act, 2000 were promulgated aiming at systematic industrialization to ensure sustainable development keeping the environmental cost minimal.

1.10 Conclusion:

This study consists of three main parts. Part I is introduction of environmental law and policy. It has three chapters. It is proved that whether environmental laws and policies existed or not in ancient and medieval Bengal. During the periods, environment was protected and preserved through the religious faiths, customs and moral injunctions. Mentioned religious faiths, customs and moral injunctions are the main and old sources of environmental law. Chapter two and three of this thesis give an overall account of the historical development of environmental policy in ancient and medieval Bengal. Part II is evolvement of environmental law and policy. It has three chapters. It is analyzed how to evolve and gradually develop environmental laws and policies during the British and post British era. The chapter four and five of this thesis critically analyzes and discusses the evolution and development of environmental law and policy from a historical perspectives. Part III is development of environment law and policy. It has also three chapters. It reviews and critically analyzes the development process of environmental

laws, policies and institutional development in post independence era of Bangladesh. This study concludes through few findings and recommendations.

The environment offers one of the clearest examples that all human activities on our planet are interconnected. Just as one person's depletion or degradation of a common resource, like water or forests, affects either the quality or quantity of what is left to others, so one country's degradation of the global commons degrades the global environment of all countries. All of these problems have global consequences: acid rain, depletion of the stratospheric ozone layer, global warming (and eventual ocean level rising from the burning of coal and oil and the proliferation of greenhouse gases); the loss of the diversity of species; tropical deforestation (which contributes to loss of species as well as global warming); and pollution of the oceans. The international legal regime is not yet secure enough to deal with these global issues. Concerted international action is sometimes possible through international treaties and agreements, such as the *Montreal Protocol*, but the principal instrument for preventing global pollution and degradation is domestic law and policy.

Accordingly, Bangladesh has a responsibility, along with all other nations, to adopt, implement and enforce policies that protect and restore the global commons. Bangladesh is a party to the major environmental treaties like *Ozone Convention*, 1985; *Montreal Protocol*, 1987; *Climate Change Convention*, 1992; *Biodiversity Convention*, 1992 etc. It has been signed, ratified, acceded to more than 50 multilateral environmental treaties, conventions and protocols. The people and the ecosystem of the South, particularly southern and coastal areas of Bangladesh are extremely vulnerable to adverse change of climate and rise of sea-level. Further the northwestern Bangladesh is going to be more drought-prone due to the rise of temperature.

Bangladesh has also shown some initiatives and took a few concrete actions. The main action has been taken by Bangladesh in identifying problems and some institutional development. Bangladesh, for example, declared national environmental policy-1992,

and established environmental conservation act-1995, environmental conservation rules-1997, environmental court act-2000 etc. Environment Conservation Act, 1995 that has been enacted in Bengali as mentioned in its preamble to control and mitigate pollution and environmental conservation demands specific mentioned above. This act of 1995 has replaced the earlier Environment Pollution Control Ordinance, 1977 and has come into force all over Bangladesh through a Notification of the Ministry of Environment and Forest dated 31 May, 1995 since 5 June 1995. However, there are laws enacted earlier to deal with pollution and conservation. For example, the Penal Code of 1860 has provision to check pollution to the atmosphere; preserve forest by Forest Act, 1927, the protection and Conservation of Fish Act, 1950 provides for measures to ensure undisturbed spawning grounds; the Bangladesh Wild life (Preservation) Order, 1973 prohibits certain dealings with specified species of wildlife, etc. Besides, various others legislation contains provisions to address pollution of air, soil, water, and other component of the environment.

There are institutions and individuals who have the competence to undertake world class research programme, advocacy, policy formulation, and the activities regarding the issues of some of the NGOs of Bangladesh like IUCN, BCAS, BELA, BIDS, BUET, BUP etc are comparable with the best in the world.

Chapter 2 :

Environmental Law and Policy in Ancient Bengal (From early to 1204 A.D.)

2.1 Introduction: In the second half of the twentieth century it was widely recognized that the planet faces a diverse and growing range of environmental challenges which can only be addressed through international cooperation.¹ Acid rain, ozone depletion, climate change, less of biodiversity, toxic and hazardous wastes, pollution of rivers and depletion of fresh water resources are some of the issues which international law is being called upon to address.² International environmental law evolved late eighteenth and nineteenth centuries through the conservation of wildlife (fisheries, birds and seals) and, to a limited extent, the protection of rivers and seas.³ Before nineteenth century there was no environmental law in the world.⁴ But to protect flora and fauna many bilateral treaty signed among many countries. Examples bilateral fisheries conventions between France and Britain in 11 November 1867 were adopted in the mid-nineteenth century to halt over-exploitation.⁵ The first whaling convention was adopted in 1931.⁶ Above the title of this dissertations have attempted to analyze how to grow up environmental law in ancient and medieval period of Bangladesh in the context of the world. It is incorporated

¹ United Nations Environmental Program, *The State of the Environment 1972-1982*, Nairobi, Kenya: UNEP, 1982, p-4.

² Philippe Sands, *Principles of international environmental law 1: Frameworks, Standards and Implementation*, Manchester, UK: Manchester University Press, 1995, p-9

³ Sands, Ibid, p-26

⁴ Public Health Act (1848)" in England. It was first environmental law in the world.

⁵ Include a convention to protect oysters by prohibiting fishing outside certain dates and instruments to protect fisheries, usually in rivers or lakes or in or around territorial waters, from over exploitation. See Sands, Supra Note 2, p-26

⁶ Sands, Ibid, p-27

institutional development and policy development. It has also justified whether the environmental law and custom was in existence or not in ancient and medieval Bengal⁷.

2.2 The territory of Bangladesh

Up to 1947 Bangladesh means historical Bengal and since then it means former East Bengal and East Pakistan. It is from the date of the declaration of independence that Bangladesh means the territory and people of the present People's Republic of Bangladesh.⁸ A region whose core was formed by the physical area called the Bengal delta, the largest of its kind in the world. The Bengal delta proper, a region bounded by the Bhagirathi River in the west and the Padma in the east, is a part of a much bigger region known as the Bengal Basin, the other components of which are the North Bengal Basin and the Sylhet Basin. The huge region is unique not only in size and complexity, but particularly in the development of thousands of rivers and canals which have largely determined the evolution and nature of the region's system of transportation. The Basin is so flat and low that it hardly rises anywhere to more than 20 feet (six meters) above the sea level.⁹ '...the Geography of Bengal¹⁰, as given in the *A'in-i-Akbari*,¹¹ substantially agrees with that of pre-partition Bengal. The mountain ranges of the Himalayas run along the northern side of Bengal. Its south is washed by the Bay of Bengal. The Sundarban, a

⁷ Bengal means non-partition Bengal, which existed before 1947.

⁸ Sirajul Islam, ed., *History of Bangladesh (1704-1947)*, By quoted in Preface by Dr. A. R. Mallick, pp. viii.

⁹ See, Sunil Kumar Muni, *Geography of Transportation in Eastern India Under the British Raj*, KP Bagchi, 1980, P-7

¹⁰ A. M. Chowdhury, "Geography of Ancient Bengal- An Approach to its Study," *Bangladesh Historical Studies*, II, 1977, p-31-53, And A. M. Chowdhury, *Prachin Banglar Itihas O Sanagskriti (History and Culture of Ancient Bengal)*, Dhaka: Bornayan, March-2002, p-11-50, Anisuzzaman ed., *Bangla Shahittar Itihas (History of Bengali Literature)*, 1st part, Bangla Academy, Dhaka, 19.

¹¹ *Ain-i-Akbari* wrote by Abul Fazl (1551-1602), he was a principal secretary cum-minister to Akbar, the Mughal emperor. He was an accomplished man of learning and was the author of two celebrated works, 'Ain-i-Akbari and Akbar-nama,' the former being a description of Akbar's administrative system and later a chronicle of the events of his reign. More detail 'Encyclopedia of Muslim Biography', edited by Nagendra Kr. Singh, page-216.

vast tract of dense forests, the home of the Royal Bengal tigers and other wild animals, sheets up the province from that side and also causes much rainfall, which contributes to its productivity. The Garo, Khasia, Jaintia, Tippera and Chittagong hills bound it east. In its western border, there are the swift-flowing Ganges, the Mahananda and their tributaries as well as the hills of Rajmahal, the high table-lands and jungles of Jharkhand, Birbhum, the Santhal Parganas, Singbhum, Manbhum and Mayurbhung.¹²

Bangladesh is defined as the territory comprising ancient Eastern India¹³, *Suba Bangla*, *Shahi Bangalah*, *Mughul Suba Bangla*, Bengal Presidency, Bengal Province, East Bengal, East Pakistan, and the independent Bangladesh, in historical succession. The geographical boundary of Bengal has changed from time to time due to changes in the political situation of the Sub-continent.¹⁴ The making of Suba Bangla, as an administrative unit under the Mughal imperial system, began with Akber's partial conquest of Bengal and achieved its maturity at the close of the eighteenth century. During the time there were remarkable changes both in the political geography of the suba as well as in its internal administration and relationship with the centre.¹⁵ Abul Fazal gives the extent of the Suba as follows:

¹² Muhammad Abdur Rahim, *Social and Culture History of Bengal*, vol. 1, Pakistan Historical Society, 1963, pp. 7-8.

¹³ Greek and Latin sources (3rd century BC- 1st century AD) refer to an eastern Indian nation/state called 'Gangaridac' (Greek)/ 'Gangaridai' (Latin) which was very strong militarily. Scholars have located 'Gangaridai' in parts of Southern and Southeastern Bengal, adjacent to the mouths of the Ganges (Bhagirathi and Padma) See details, A. M. Chowdhury, "Geography of Ancient Bengal- An Approach to its Study," *Bangladesh Historical Studies*, II, 1977, p-31-55, And A. M. Chowdhury, *Prachin Banglar Itihash O Sanagskrit (History and Culture of Ancient Bengal)*, Dhaka: Bornayan, March-2002. p-22-23.

¹⁴ Ashit Boran Paul & Dara Shamsuddin, "Geographical Provenance of the Find Places of the Inscriptions of Bengal", *Journal of the Asiatic Society of Bangladesh*, vol-46, no-1, (June-2001),p-2.

¹⁵ Abdul Karim, "Suba Bangla : Government and Politices", *History of Bangladesh 1704-1971*, ed., Sirajul Islam, vol-1, Dhaka: Asiatic Society of Bangladesh, 1997, p-35

“Its length from Chittagong to Garhi is four hundred kos. Its breadth from the northern range of mountains to the southern frontier of the Sarkar of Mandaran., is two hundred kos.”¹⁶

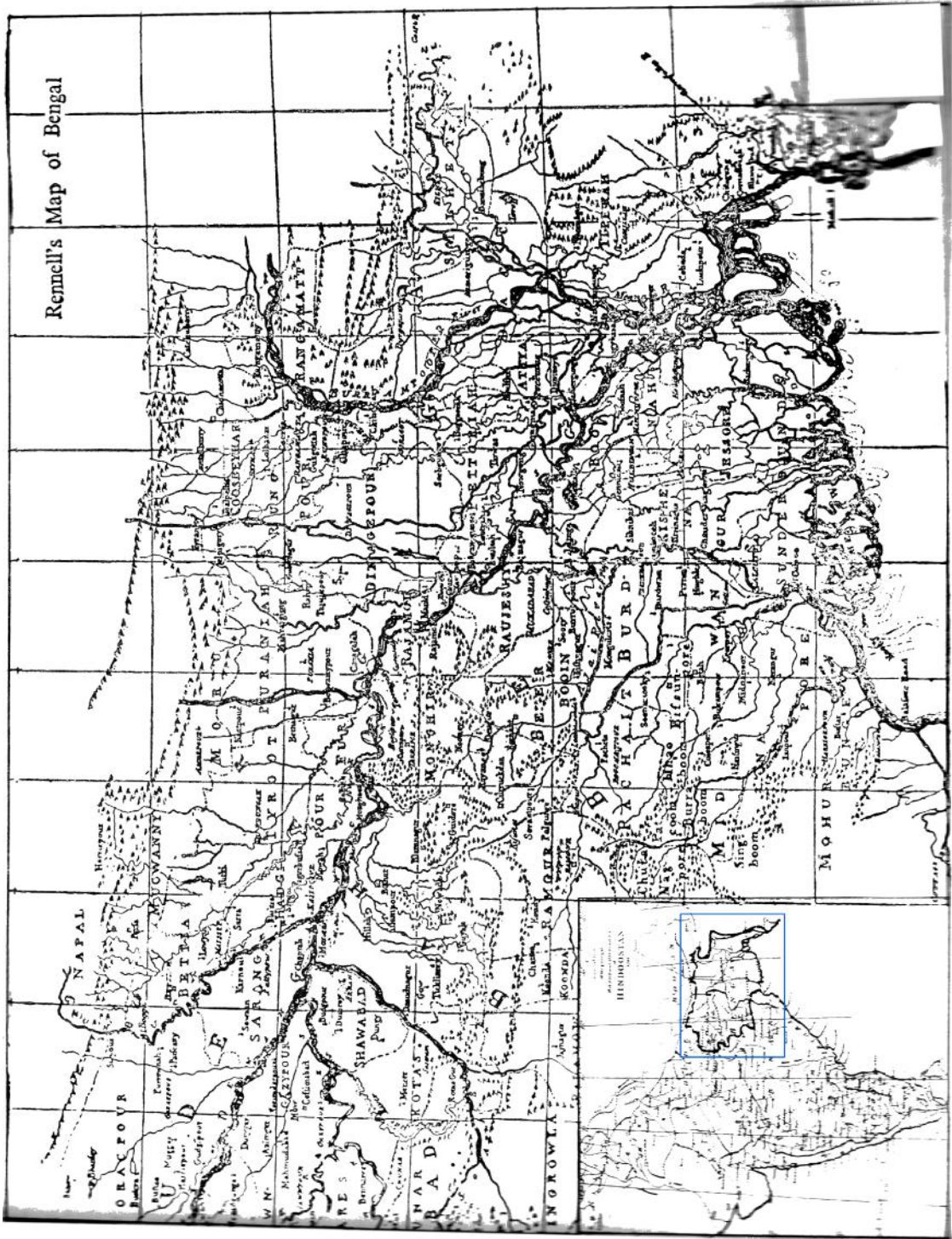
The boundary of the Suba Bangla came to be fixed as follows: mountains in the north, Hazo of Assam in the north-east, Tippera in the east, the sea in the south, Arakan in the south-east, Orissa in the south-west, and Bihar in the west. Geographically, the Mughal Suba Bangla differed a little from the British province of Bengal. During the battle of Palashi (1757 A.D.), Bengal, Bihar and Orissa were under the same authority. In the British provincial structure, north-eastern portion including Sylhet went to Assam; Bhagalpur and portions of Purnia to Bihar.¹⁷

Map: Rennel’s Map of Bengal is illustrated in the next page.

¹⁶ Quoted in *Ain-i-Akbari*, vol. II, trns. By H. S. Jarrett, corrected and further annotated by J. N. Sarkar, 3rd edition, 1978, 129-132.

¹⁷ Abdul Karim, *Supra Note-15*, p-41-42

Map- 1



Source: Sirajul Islam (ed.), *History of Bangladesh 1704-1971*, Vol-1, Dhaka: Asiatic Society of Bangladesh, Second edition, 1997, p-731.

It is difficult to explore the environmental policy in sub continent past to British invention of this area. Such exploration has to be done largely from ancient India theology, Writings of foreign tourists as Hiuen Tsang visited India during 629-645 A.D., writings on ancient Bengal and Indian History and writings of the colonial administrators. These writings provide an insight into the policy perspectives on resource conservation in Bengal and India. The environmental law and policy in pre-independence era of Bangladesh can be studied under four sub-heads:

- a) Environmental Law & policy in Ancient Bengal (From early to 1204 A.D.);**
- b) Environmental Law & policy in Medieval Bengal (1204 to 1757 A.D.);**
- c) Environmental Law & policy During the British Era (1757 to 1947 A.D.);**
- d) Environmental Law & policy During the Pakistan Era (1947 to 1971 A.D.).**

Environmental history is about human interaction with the natural world or the interaction between culture and nature. The principal goal of environmental history is to study the interaction between humans and the environment in the past and the relationships between humans and the surrounding world; we must try to understand how the interaction between the two works. Donald Worster's definition states: "Environmental history is the interaction between human cultures and the environment in the past." It is the history of the mutual relations between humankind and the rest of nature"¹⁸ Environmental history investigates the interactions between society and its physical environment, on symbolic, material and organizational levels. It opens new perspectives for deciphering contemporary issues related to modifications of landscape,

¹⁸ "Environmental History of India and Canada: Pre-Colonial, Colonial and Post-Colonial period- Trends, Sources and Historiography" <http://legal-articles.deysot.com/environmental-law/environmental-history-of-india-and-canada-pre-colonial-colonial-and-post-colonial-period-trends-sources-and-historiography.html>.

for understanding reoccurring conflicts over the allocation and protection of natural resources, as well as for grasping the complexity and historicity of the social representations and uses of the environment. Man exploits nature for the sake of economic development. There is a growing conflict between economic and technological development on one side and the quality of the environment on the other.

The environmental policy before 1947 era is principally reflected in the resource conservation, particularly, the forest conservation and wildlife.¹⁹ Many customs were in existence to protect and preserve natural environment. This customs come from religious faith. Now I have attempted to examine whether environmental laws or customs were in existence or not in ancient Bengal?

2.3 Environmental Law & policy in Ancient Bengal (From early to 1204 A.D.):

Sources of Environmental Law & policy in Ancient Period of Bengal:

The real environmental policy history of a country is the daily life and thought and activities of its inhabitants in the past ages. The reconstruction of the Environmental policy history in ancient Bengal in the pre Muslim period is so difficult due to scarcity of sources. The difficulty is felt more acutely for the earlier period, down to the 4th century AD, when Bengal came under the Imperial Guptas (4th century AD). For this period we have to depend on very inadequate references in the Vedic, Epic and Puranic literature as well as on the available archaeological evidence. From the Gupta period onwards we get written records in the form of epigraphs and literature which contain information on the

¹⁹ Kailash Thakur, *Environment Protection Law and Policy in India*, (New Delhi: Deep & Deep Published-2003) p- 101.

history of the ‘region’ of Bengal.²⁰ The historical background to environmental protection in sub-continent would indicate that forests & wildlife were considered as vital ingredients of the global system. Here, the entire scheme of environmental preservation was essentially duty-based. In this sense, the ancient Bengal society accepted the protection of the environment as its duty to do so.

2.4 Environment consideration of religion of ancient Bengal:

In ancient Bengal, the part of eastern India²¹ protection and cleaning up of environment was the essence of Vedic culture. The environment conservation formed an ardent article of faith, reflected in the daily lives of the people and also enshrined in myth folklore, art, culture and religion. In Hindu theology forest, trees and wildlife protection held a place of special respect. The theology prescribed for temple forests²² and trees were worshipped as a ritual.²³ The Vedas, Upanishads, Puranas and other scriptures of Hindu religion give a detailed description of trees, plants and wildlife and their importance to be community. The *Rigveda* highlights the potentialities of nature in controlling the climate, increasing fertility and improvement of human life emphasizing for intimate kinship with nature. *Atharva Veda* considers trees abode of various Gods and Goddesses. *Yajurveda* emphasizes that relationship with nature and animals should not be that of dominion and subjugation but of mutual respect and kindness.²⁴

²⁰ For the background of Gupta and its subsequent development see RC Majumdar, *History of Ancient Bengal*, Kolkata, 1971.

²¹ Europeans gave the name Bengal to the eastern province of British India.

²² In Hindu theology there are seven types of temple forests. Shiva Panchayathana, Star forests, Nine planet forests, Zodiac forests, Vrata garden, Ashoka garden and Kadamba garden. For further details see, S. K. Sharma, “Temple Forestry”, *The Tribune*, Saturday Plus, July 24, 1993 at I.

²³ For the religious importance of trees under Hindu Culture, see, B.N. Tiwari, “Hindu Culture and Ecology in Gautam Sharma” ed., *Environment Man and Nature* (New Delhi: Reliance, 1989) p- 23-27.

²⁴ Ibid at 24.

Similarly in *Narsimha Puran* trees have been personified as God (Brahma) Himself.²⁵ It is said in *Skandpuran* that Peepal is supreme to all other trees as Lord Vishnu is to all other Gods.²⁶ *Varahpuran* advocates regular plantation as a means to achieve heaven.²⁷ In *Matsyapuram* plantation of a tree has been equated with progeny of ten sons.²⁸ *Mahabhasya* says by giving water to a mango tree our ancestors are pleased.²⁹ While *Vishnudharmasutra* says that if you plant a tree it will be your son in the next generation.³⁰ The plantation of tree was treated in Hindu culture not only as a sacred ceremony or a religious activity but regular protection and patronage was also prescribed. Cutting green trees was prohibited and punishment was prescribed for such acts. For example, in *Skandpuran*, a long list of trees in given the cutting of which is prohibited. Further, in *Yagyavalkya Smriti*, cutting trees and forests was a punishable offence and a penalty of twenty to eighty pana (old coin) was prescribed.³¹ Even in *Ramayana* and *Mahabharata* where in we find reference of beautiful forests of Dhandakaranya, Nandavana and Khandavana, destruction of forests was considered to be a great sin. Hindu society, in the Vedic era, was conscious of adverse pollutional effects of indiscriminate destruction of plants and forests. For example, in *Charak Samhita* destruction of vegetation was treated to be the cause of ruin of a state.³² In *Devi Karacham* of *Durga Saptasi* it has been clearly said that so long as the earth has mountains, forests, trees, plants, etc. human race will continue to survive. In *Srimadbhagavatam*, it has been appropriately said that a man who with exclusive

²⁵ Ibid citing Narsimha Puran, 15: 7 at 24.

²⁶ Ibid citing Shakndpuran, chapter 189, verse 65 at 24.

²⁷ Ibid citing Varahpurana chapter 172, verse 39 at 25.

²⁸ Ibid citing Matsyapuram, 154/512 at 26.

²⁹ Ibid citing Mahabhasya at 26.

³⁰ Ibid citing Vishnudharmasutra, 19.4 at 26.

³¹ Ibid citing Yagyavalkya Smiriti V 227 at 26.

³² Ibid citing Charak Samhita, Vimansthan, Ch. 3, 3, verse 11 at 26-27.

devotion offers respect to sky, water, earth heavenly bodies, living beings, trees, rivers and seas and all created beings and considers them as a part of the body of the Lord attains the state of supreme peace and God's grace.³³

Under the Hindu culture moral injunctions acted as guidelines towards environmental preservation and conservation. Such injunctions were propounded and propagated, in addition to scriptures, by the seers as well. *Manu*, for instance, warned the people not to take rotten food which may cause diseases. To maintain the quality of water and to avoid the water pollution, he advised not to contaminate water by urine, stool or coughing, impious objects, blood and poison. *Tattariya Aranyak*, advocated environmental ethics and advised not to cause pollution of waters by urinating and defecating, spitting in water or taking bath with clothes on. *Yagyavalkya Smriti* and *Charak Samhita* give many instructions for the use of water for maintaining its purity. Kautilya in his *Arthashastra* highlights the importance of forestation for the progress of a nation. In its second canto it is said:

“On non-agricultural land of about 4 crosh size, a forest should be caused with a single door trees of fruits, beautiful groves and attractive flowers should be planted. Trees should not be any cactus type trees. A small pond should also be there. Deer and other such animals should be familiar to people. Nails and teeth of hunting animals, should have been extracted. Elephants male, female, children should be there.”³⁴

In addition to forests and other components of nature under the Hindus theology, animals stood to human beings in a relationship of mutual respect and kindness. As given in *Yajurveda*, they have been worshiped by Hindus.³⁵ There are various stories regarding the peaceful co-existence of beasts and other animals in rishis Ashramas. *Bridha Smriti*

³³ Ibid citing Sri Madbhagavatam, verse 41-43 at 27.

³⁴ Ibid citing Kautilya Arthashastra, Adhyaksha Prachar, Ch. 2 Para 20 at 31.

³⁵ Ibid, at 27

advises every Hindu to respect Vedas, deities and cows.³⁶ Ancient Hindu scriptures strictly prohibited the killings of birds and animals. In *Yajurveda* it is said no person should kill animals, but being helpful to all and by serving them, should obtain happiness. In *Yagyavalka Smriti* it is said, “The wicked person who kills animals which are protected has to live in Ghor Narak (hell-fire) for the days equal to the number of hair on the body of that animal. In *Vishnu Samhita*, it is told that “he who for his own pleasure, kills harmless beasts, should be regarded as dead in life; such a man shall know no happiness, here or hereafter. He who desists from inflicting pain on any animal either of death or confinement is really the well wisher of all the creatures; such a man enjoys extreme felicity. Similarly, in *Skandhapuran* it is said:

“How wonderful it is that a person who cuts trees, kills animals and create bloodshed, aspires for Svarga only offering oblations in fire. The same, almost is said in Narsimhapuran: ‘O wicked man if you roasted a bird then your bathing in sacred rivers, pilgrimage, worship and Yajanas are useless.’”³⁷

Thus, as is obvious from the teachings of the Hindu scriptures, we see that environment protection has been an important aspect of Hindu way of life.

2.5 Environment consideration of sub-continent civilization:

This Ancient tradition has been followed in the civilizations of *Mohenjodaro*, *Harappa*, *Channudaro*, and *Dravidian* civilization, which flourished and perished in India in between 2000 and 5000 B.C. Archaeological discoveries during the 1960s have furnished evidence of a much higher degree of civilization in certain parts of Bengal even at such a remote period as the beginning of the first millennium B.C., perhaps even earlier. The discoveries at PANDU RAJAR DHIBI in the valley of the Ajay river (near Bolpur) in Burdwan district and in several other sites on the Ajay, Kumar and Kopai rivers have

³⁶ Ibid.

³⁷ Ibid, citing Narsimha Puran, Chapter XIII verse 44.

thrown fresh light on Bengal's prehistory.³⁸ There is no record to tell us as to what exact environment protection policy in the above civilizations had been. But it seems that these civilizations lived in consonance with its ecosystem and the harmony with the environment and maintained by their small populations and their needs.³⁹

2.6 Environment consideration of Maurya period:

The period of history before Chandra Gupta Maurya's (3rd century B.C.) reign, also does not provide us a precise idea of environmental conservation. It is, however, known that before Chandra Gupta Maurya established a relatively big empire about 300 B.C., the territory in India was divided among various rulers whose regimes extended to small geographical units. In an early Buddhist text we have a list of sixteen great nations that occupied the territory from the Kabul valley to the banks of the Godavari shortly before the rise of Buddhism.⁴⁰ They were far too occupied fighting wars against each other, to evolve any pattern of resource management in their respective kingdoms. This period was marked by destruction rather than any attempt on conservation of nature, particularly the forests. The losers in wars took refuge in previously undisturbed forests and cleared them to create new abodes for them and therefore every war took a toll of a new forest. The civilization though was dominated by natural resources but the settlers regarded the forest an obstacle in their way and tried to remove them in their urgent need for a few acres of

³⁸ For details, Abdul Momin Chowdhury, *Prachin Banglar Itihash O Sanagskrit (History and Culture of Ancient Bengal)*, Dhaka: Bornayan, March-2002. p- 103-04, And Sirajul Islam, ed. *Banglapedia-National Encyclopedia of Bangladesh*, quoted in History, Dhaka: Asiatic Society of Bangladesh-2003.

³⁹ <http://www.radford.edu/~wkovarik/envhist/Iancient.html>

⁴⁰ The name of these states are Anga (East Bihar), Magadha (South Bihar), Kasi (Benares), Kosala (Oudh), Vriji (North Bihar), Malla (Gorakhpur district), Chedi (Between the Jumana and the Narmada), Vatsa (Allahabad region), Kuru (Thanesar, Delhi and Meerut districts), Panchala (Bareilly, Budaun and Farrukhabad districts), Matsya (Jaipur), Surasena (Mathura), Asmaka (on the Godavari), Avanti (in Malwa), Gandhara (Peshawar and Rawalpindi districts), and Kamboja (south-west Kashmir and parts of Kafiristan), For further details see, R C Majumder, H. C. Raychaudhuri & Kalikinkar Datta, *An Advanced History of India*, 4th ed. Delhi: Macmillan & Company Ltd., 1978, Chapter I, p-54.

cleared land for carving out fields. Migratory cultivators did a great deal of forest damage.⁴¹

The early historic period of Bengal begins with the advent of the Mauryans (c. 319 B.C.). Chandragupta Maurya, the founder of this dynasty, consolidated his power at Magadha and extended his rule both towards the east and the west.⁴² The Maurya period was perhaps the most glorious chapter of the Indian and Bangladesh history from environment protection point of view. In inscription written in the Brahmi script, found in an excavated site of the old Pundranagar, now represented by the ruins at MAHASTHANA⁴³ in Bogra district, bear evidence to Maurya rule (3rd century BC) in parts of Bengal. This inscription, the earliest epigraphic record in Bangladesh, seems to have establishes the identification of ancient Pundranagar with modern Mahasthanagarh (Mahasthanagad) of Bogra district. Pundranagar is thus the earliest urban settlement in Bangladesh.⁴⁴

Archaeological excavations prove the existence of this urban administrative and cultural centre through out the ancient period, up to the 12th century AD.⁴⁵ It was in this period that we find detailed and perceptive law provisions found in Kautilya's *Arthashastra* written between 321 B.C. and 300 B.C.⁴⁶ The necessity of forest administration was realized in this period by Chanakya, the witty Prime Minister to Chandra Gupta Maurya and the process of administration was actually put into action with the appointment of a

⁴¹ For an historical account of state of environmental policy in ancient India; see J.B. Lal, *India's Forests: Myth and Reality* (Natraj, Dehradun, 1989) p- 15-17

⁴² Ashit & Shamsuddin, *Inscriptions of Bengal*, p-2.

⁴³ Mahasthan stone plaque inscriptions provide us with valuable information regarding Mauryan rule over Bengal.

⁴⁴ See, A. M. Chowdhry, *Supra Note- 8*, p-39.

⁴⁵ For further details see RC Majumder (ed), *History of Bengal*, vol-1, Dhaka University, 1948.

⁴⁶ For environmentally related provisions enshrined in *Arthashastra* see V. K. Gupta, *Kautilyan Jurisprudence* (Delhi, 1987) p- 155-56

superintendent of forest and classification of forests on a functional basis. The pattern of functional classification of forests was:

- 1) Forests set apart for the study of religion,
- 2) Forests reserved for the supply of forest produce,
- 3) Forests set apart for grazing of royal elephants,
- 4) Forests reserved for hunting by the royalty,
- 5) Forests open to public for hunting.⁴⁷

State assumed the functions of maintenance of forests, regulation of forest produce and protection of wildlife during the Mauryan reign. The forests came under the supervision of the State more effectively and a number of rules were framed. Later, the forests of India were perceived in terms of eight Forest Divisions⁴⁸ covering huge areas. The forests were also called *gaja-vanas* or “elephant forests” as elephants were living in all these forests. The Angireya- vana refers to the forests in ancient Bengal. Since the Ganda (Gaur) and the Vangala Country (East Bengal) have found special mention in the description of the forest region, it is expected to comprise the forests situated in North and South Bengal including the Sunderban.⁴⁹

Under the *Arthashastra* various punishments were prescribed for cutting trees, damaging forests, and for killing animals, fish, deers, etc.⁵⁰ For cutting the tender sprouts of trees in city parks that bore flowers or fruits or yielded shade the fine was six panas (old coin), for cutting small branches twelve panas and for cutting solid branches twenty-four panas. For destroying trunk the fine prescribed was the first amercement and for uprooting the

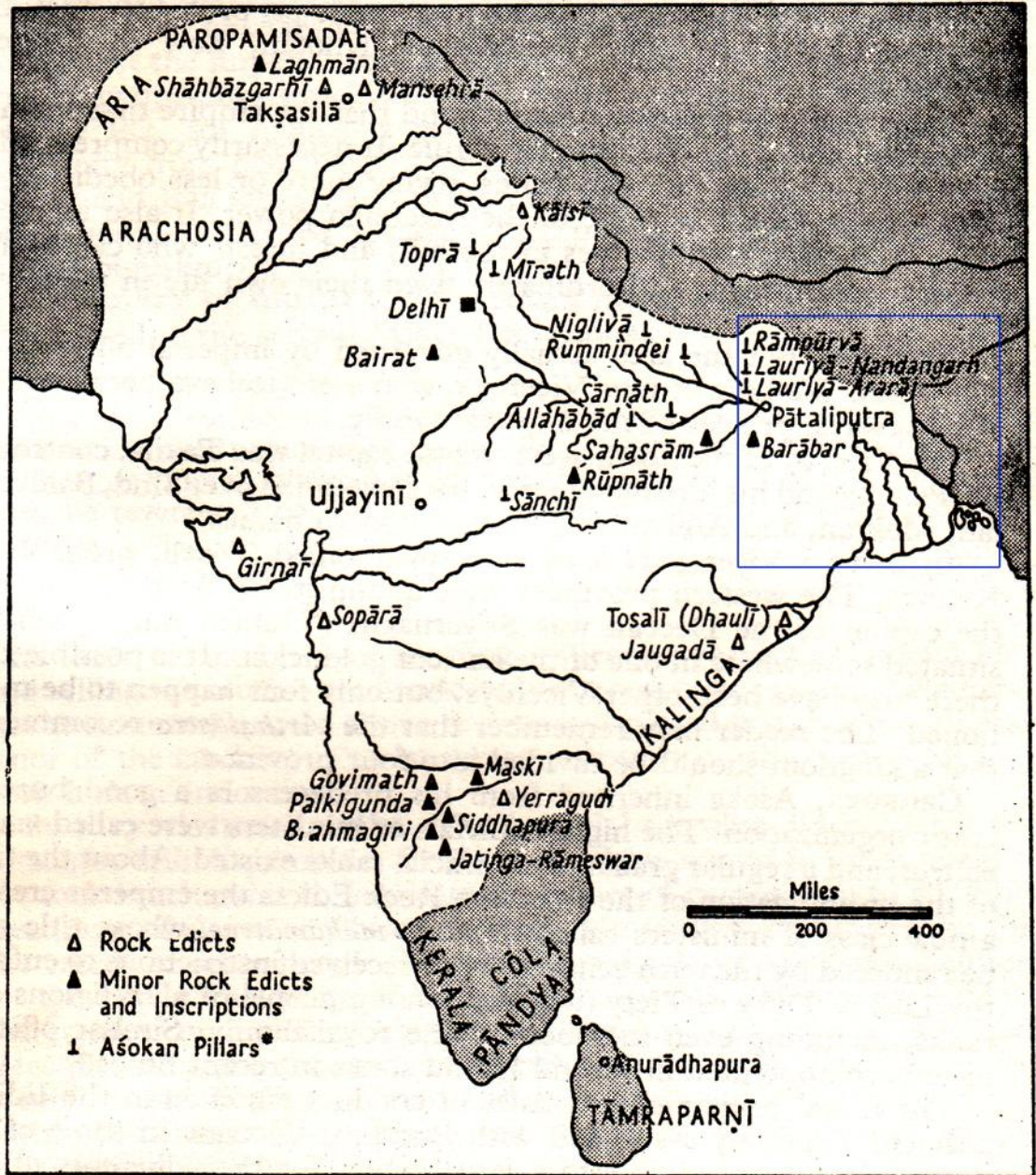
⁴⁷ J.B. Lal, *Supra Note 33*, p 15- 17

⁴⁸ i) Prachya- vana, ii) Karusha- vana, iii) Dasarnaka- vana, iv) Vamana- vana, v) Kalesa- vana, vi) Aparantaka- vana, vii) Saurashtra- vana, viii) Panchanada- vana.

⁴⁹ See details, C. D. Chatterjee, “Forest in Ancient India”, in Government of West Bengal, *West Bengal Forests*, Centenary Commemoration volume, 1964, p-13.

⁵⁰ For environmentally related provisions enshrined in *Arthashastra* See V. K. Gupta, *Kautilyan Jurisprudence* (Delhi, 1987), p- 155.

Map- 2

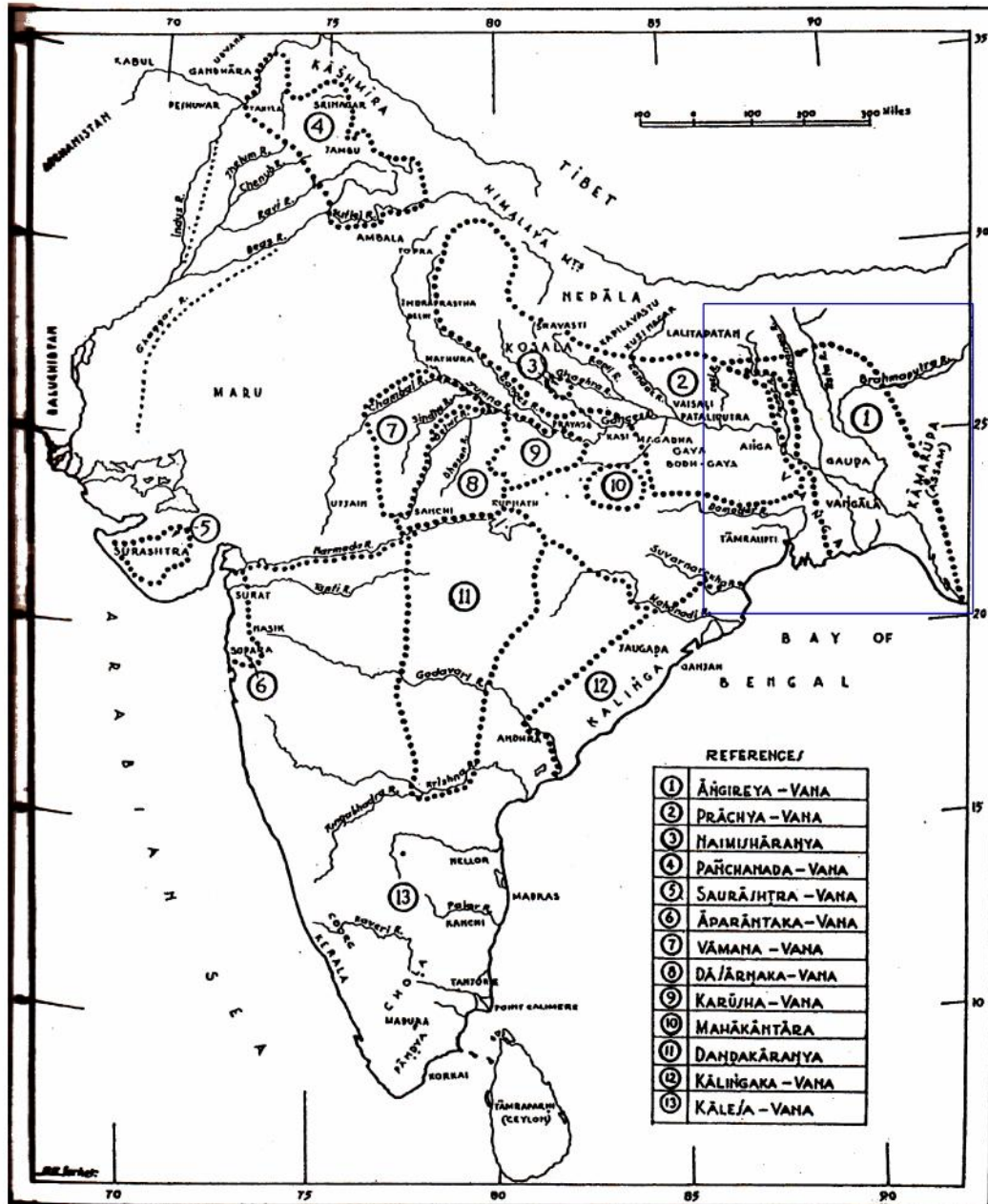


-Bengal Under the Maurya regime.

Source: Vincent A. Smith, *The Oxford History of India*, Fourth Edition, Percival Spear (ed.), Delhi: Oxford University Press, 1981, p-127.

Map- 3

ANCIENT FOREST DIVISIONS
(APPROXIMATE AREAS)



Source: Prof. C. D. Chatterjee, 'Forestry in Ancient India', in Government of West Bengal, *West Bengal Forests*, Centenary Commemoration volume, 1964, p-13.

tree the middle most amercement. Similarly, for cutting of plants which bore flowers or fruits or provided shade forests of hermits and trees or pilgrimage or of cremation grounds the fine imposed was half of the above fine.

Whereas destruction of trees at the boundaries or that were worshiped or in sanctuaries, entailed a penalty double the above fines.⁵¹

2.7 Institutional Development of Maurya:

The first regularly constituted Forest Department was introduced by the Mauryas. This department functioned independently and was called Department of Forest Product headed by a *Kupyadhyaksha* or superintend with duties of conservator. The administration was assisted by *Vanasपालs* or Forest Guards.⁵²

The superintendent of forest was authorized to cause forest produce to be brought in by 'guards in produce-forests'; to establish factories for forest produce and fix adequate fines and compensation for damage to any productive forests. Timber forest and elephant forests were permitted to be exploited by none other than the ruler. Spies in the guise of traders were entrusted with a duty to ascertain the quantity and price of the royal merchandise obtained from forests.⁵³

As regards the protection of wild life, there were prohibition on killing of animals and birds. The officer in charge (Superintendent of slaughter house), was authorized to impose a fine up to one thousand panas on those who were found guilty of killing deers, birds and fish declared to be under state protection. One-six of live animals and birds were required to let off in forests under states protection. Care was taken that animals

⁵¹ Ibid

⁵² Mohiuddin Farooque, *Law and Custom on Forests in Bangladesh: Issues & Remedies*, (Dhaka: Bangladesh Environmental Lawyers Association (BELA) 1997), p- 2.

⁵³ V. K. Gupta, *Supra Note 42*, at 155.

from reserved parks or protected areas if found grazing in a field, were to be driven out without being hurt or killed, after intimating the forest officer. For causing injury to them, the fine was imposed. Wild life in sanctuaries enjoyed complete protection from being killed except when they turned harmful.⁵⁴

*Arthashastra*⁵⁵ also prescribed punishment for causing pollution and uncivic sanitation. It provided that the officer in charge should punish those who throw dust on the roads by one-eight pana for causing muddy water one-fourth pana, and if both acts were committed, the punishment should be double. If faecal matter is thrown or caused to be piled up near temple, well or pond, sacred place or state building, then the punishment was to increase gradually by one pana in each case. For urinating in such places the punishment prescribed was only half of the above punishments.⁵⁶

The environmental conservation, as it existed during *Mauryan* period continued more or less unchanged in subsequent reigns until the end of Sena Empire in 1204 A.D. Prohibitions for forest destruction and animal killing were announced by other Hindu kings. Emperor Ashoka viewed the nature conservation particularly the wildlife animals and plants as one of the sacred duties of the king.⁵⁷ For example, the king Ashoka, in Pillar edict expressed his view point about the welfare of creatures in his state. He prescribed various financial punishments for killing animals which included even ants,

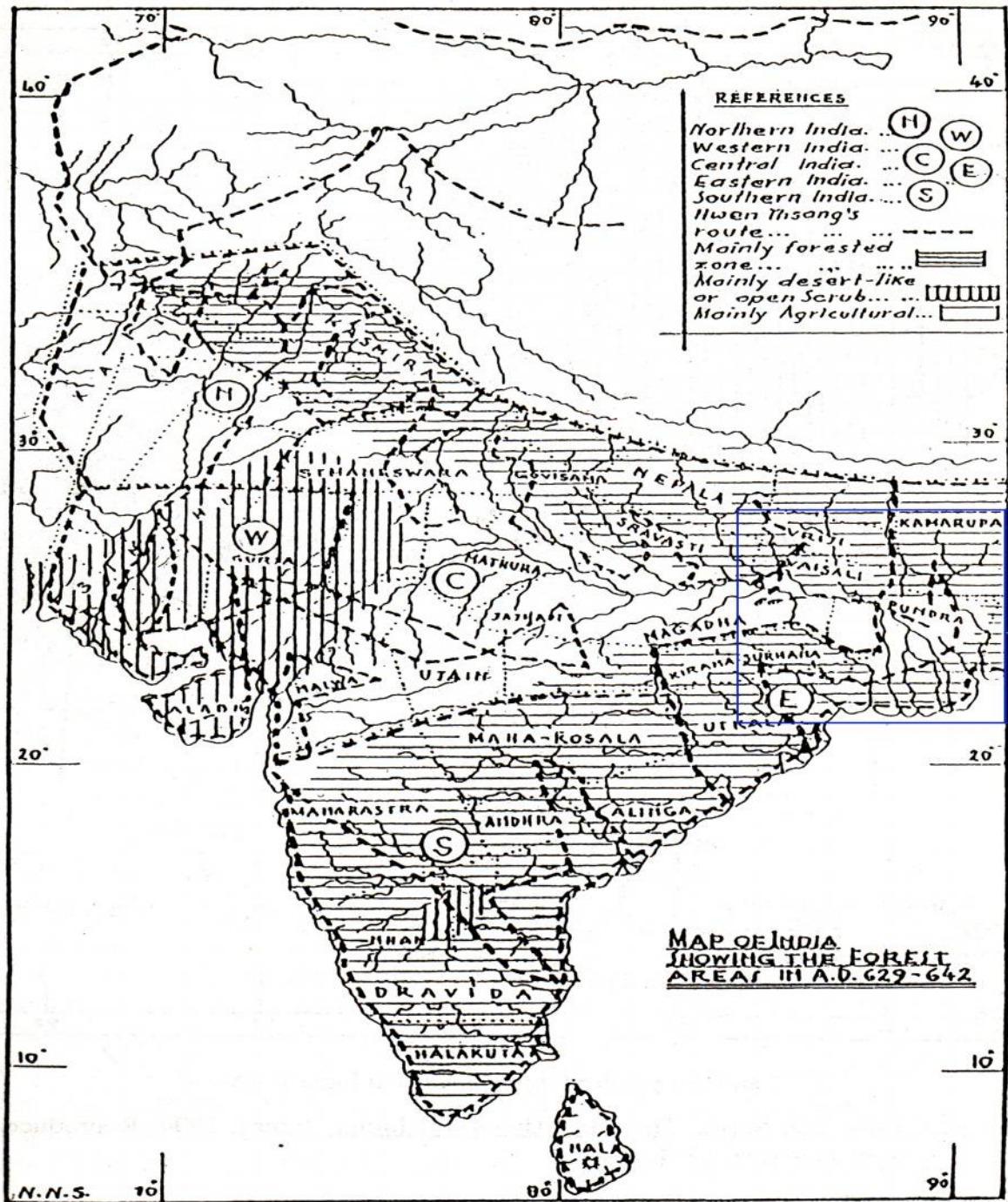
⁵⁴ V. K. Gupta, *Supra Note 42*, p-156.

⁵⁵ The *Arthashastra* is an ancient Indian treatise on statecraft, policy and military strategy which identifies its author by the names Kautilya and Vishnugupta, who are traditionally identified with Chanakya (c.350-283 B.C.), who was a scholar at Takshashila and later the prime minister of the Maurya Empire.

⁵⁶ V. K. Gupta, *Supra Note 42*, p- 28

⁵⁷ Gurdip Singh, *Indian Environmental Jurisprudential Perspectives*, Global Environmental Change and International Law, Chppter-5, p-109.

Map- 4

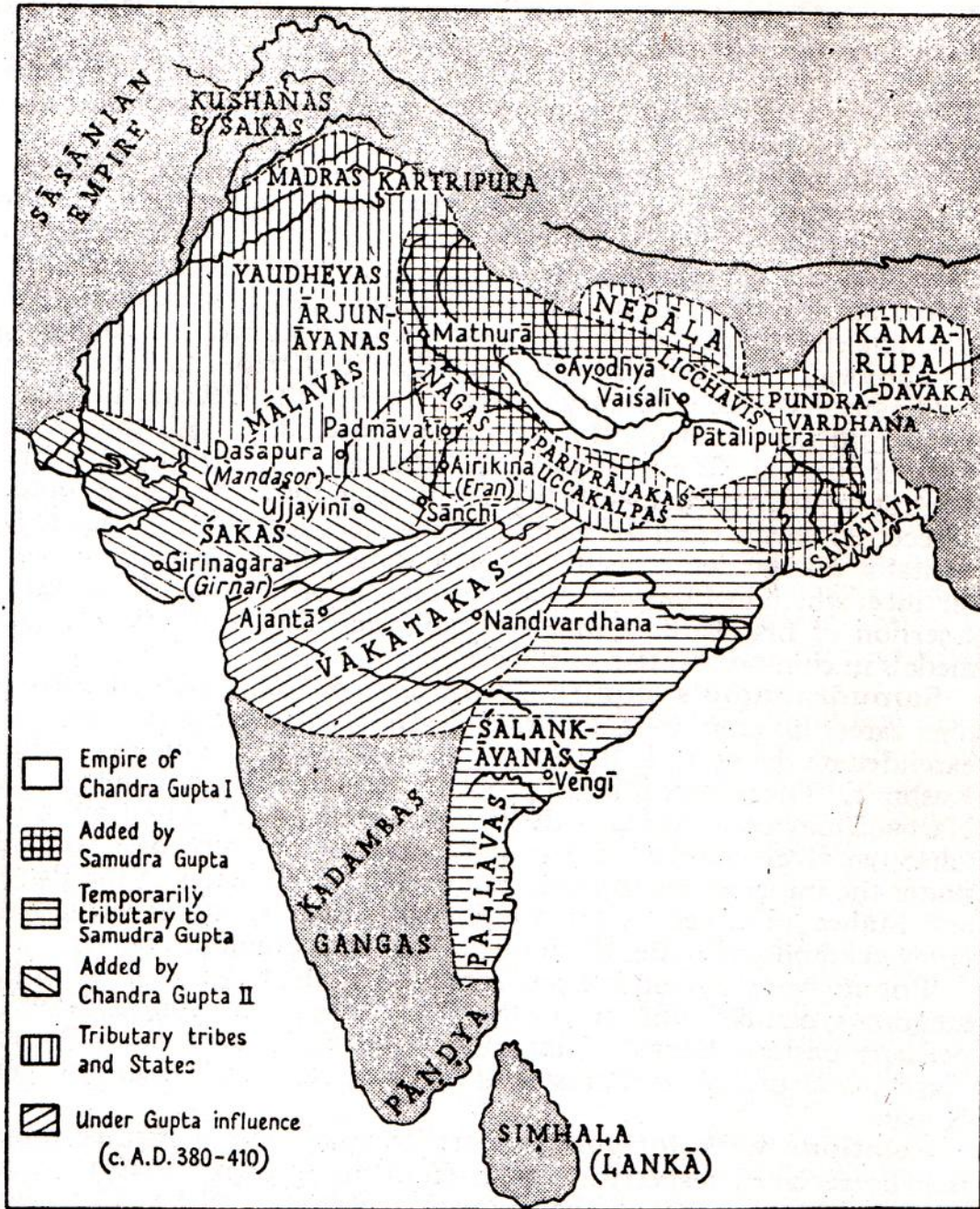


Land use pattern (Approximate) in India in 629-642 A.D.

Source: S. M. Sastri, (ed.), *Cunnigham's Ancient Geography of India*, Calcutta, 1924. Reproduced from Ajit Banerjee, *Indian Forests Through the Ages*, in Government of West Bengal, *West Bengal Forests*, Centenary Commemoration volume, 1964, p-46.

Map- 5

THE GUPTAS



-Ancient Bengal under Gupta Regime

Source: Vincent A. Smith, *The Oxford History of India*, Fourth Edition, Percival Spear (ed.), Delhi: Oxford University Press, 1981, p-165.

squirrels, parrots, red headed ducks, pigeons, lizards and rats as well.⁵⁸ This is the first documented case of legislation on environmental protection anywhere in the world.⁵⁹

2.8 Environment consideration of Guptas rulers:

The history of Bengal from the fall of the Mauryas (2nd century BC) to the rise of the Guptas (4th century AD) is obscure.⁶⁰ From the beginning of 4th century A.D. down to 6th century A.D., Bengal was ruled by the Imperial Guptas. Under Gupta rule Bengal was an important province.

The period of the Imperial Guptas is generally considered to be the golden age of Indian history. During this period India was under a strong benevolent central government, which brought peace, wealth and prosperity for a considerable time. Bengal enjoyed the benefit of being a part of the All-Indian empire, in which there prevailed efficient administration and political stability. This period is remarkable for its trade and commerce, in which Bengal had her due share. Fa-hsien, the Chinese traveler, states that in the east Tamralipti was the great emporium of trade. The discovery of a large number of Gupta coins and imitation Gupta coins in Bengal prove the economic prosperity of the region under the Guptas.⁶¹

There were three main categories land in ancient Bengal as Bastu, Khetro and Khilketro. Water logged waste, wetland were in Sylhet area under Khilketro, Kings of this period preserved wetlands. Every out of village had a cattle grassing field. It was called *Gobath*,

⁵⁸ See, R. Thaper, *Ashoka and the Decline of the Mauryas* (2nd ed. 1973) New Delhi: Oxford University Press, p- 264.

⁵⁹ P. B. Sahasranaman, *Handbook of Environmental law*, New Delhi: Oxford University Press, 2009, p-1.

⁶⁰ See details, Abdul Momin Chowdhury, *Dynastic History of Bengal*, Dacca: Asiatic Society of Pakistan, 1968.

⁶¹ Sirajul Islam, ed., *Banglapedia- National Encyclopedia of Bangladesh*, Dhaka: Asiatic Society of Bangladesh-2003, p- 110

Gopath, Gochar etc. It was a common property of people from the ancient period.⁶² They had formed an essential attachment to an agricultural village since the Vedic age and were used in common by the villagers for the grazing of their cattle.⁶³ According to the Kautilya's *Arthashastra*, forest, jungle etc. were state property.⁶⁴

Hiuen Tsang visited India during 629-645 A.D. He recorded detailed memories for each of the places he visited. His movement, shown by Cunningham, and distribution of forest shown in

Historically, the Sal Forest of the Madhupur Tract covered more than one *Pargana*⁶⁵. The Sal forest resources of Bengal were spreading over Bangladesh and the state of West Bengal in India. Sal had been the principal natural forest tree in Bengal. It had been existing in greater or less abundance in all of the government forests of Bengal⁶⁶ and in private forests with the exception of the maritime swamp forests in the Sundarbans and the hills forests. It has an old history partly based on religious belief and partly on facts. There are places and historical relics in the area that bear the signs of popular beliefs. The prominent among the beliefs of most ancient history is the Gupta-Brindaban.

The Gupta-Brindaban is a *mouza* situated three miles east of Sagardighi. A tract within this *mouza* contained a forest entirely different from all other parts of forest with no undergrowth. Rare tree called *tamal* were also found in the area which is a holy tree to the Hindus. The forest of Gupta-Brindaban was held in great reverence by the Hindus on

⁶² Niharranjan Roy, *Bangalir Itihas: Adiparba, (A History of the Bengali People : Early Period)* Calcutta: Dey's Publishing, 2004. p-183-85

⁶³ Kamrun Nesa Islam, *Aspects of Economic History of Bengal*, Dhaka: Asiatic Society of Bangladesh, 1984, P.67

⁶⁴ See N. Roy, *Supra Note-54*, p-183-85

⁶⁵ A Pargana was a fiscal divisions which could cover vast tracts. It consisted of groups of villages. It had a headquarter. However, administratively, parganas were under district.

⁶⁶ Mohiuddin Farooque, *Law and Custom on Forests in Bangladesh: Issues & Remedies*, Dhaka: BELA, April, 1997, Chapter IX, p-122.

the belief that the *leela* (love-sport) of Radha and Krishna, two Hindu deities, had taken place in this forest. The mythological legend which had been woven round this forest is romantic as well as attractive.⁶⁷

The Buddhist rule of life was generally observed by Fa-hien, Chinese traveler. He spent two years at Tamralipti, now represented by Tamluk in the Midnapore District of Bengal. He says, 'no one kills any living thing, or drinks wine, or eats onions or garlic... they do not keep pigs or fowls; there are no dealings in cattle, no butchers' shops or distilleries in their market-places throughout the country'.⁶⁸

The end of the Gupta Empire in 673 A.D. saw reversion of the environment conservation movement as established in Mauryan era to the situation prior to it.⁶⁹ Political instability as caused by local conflicts, division of the country into many small states, foreign invasions led to a great deal of destruction to forests and wildlife.

2.9 Environment Consideration in the Pala, Sena Dynasty:

Palas⁷⁰, Chandras⁷¹, Devas and Comboje dynasty of ancient Bengal were Buddhism and Senas⁷² and Varmans⁷³ religious was Brahamana.⁷⁴ The Devas were Buddhists and under

⁶⁷ For more on Gupta-Brindaban, See Govt. of Bengal, *The Forest of Bengal*, 1935, Calcutta, p-57-58. All these facts had been depicted from 'kali-puran'.

⁶⁸ Vincent A. Smith, *The Oxford History of India*, 4th edition, Delhi: Oxford University Press, 1995, p-171.

⁶⁹ Kailash Thakur, *Supra Note 11*, at 106.

⁷⁰ The Pala Dynasty founded by Gopala in the middle of the 8th century AD, ruled Bengal for about four hundred years through many vicissitudes. During this long period of eighteen generations of kings ruled the dynasty. For further details see, Abdul Momin Chowdhury, *Dynastic History of Bengal*, Dhaka: Asiatic Society of Pakistan, 1968.

⁷¹ The Chandras followed the Harikela rules and from the beginning of the 10th century AD five generations of Chandra rulers ruled for about 150 years (c 900-1050 AD). Details Banglapedia- National Encyclopedia of Bangladesh, (ed) Sirajul Islam, Asiatic Society of Bangladesh-2003.

⁷² Sena Dynasty (c 1097-1223). The first three kings of the dynasty were important figures. The last two held on to power in a very limited area in southeastern Bengal. see, Abdul Momin Chowdhury, *Dynastic History of Bengal*, Dhaka: Asiatic Society of Pakistan, 1968.

⁷³ In the last quarter of the eleventh century AD the Varman Dynasty, taking advantage of the Kaivarta rebellion in the Pala empire, established their independent rule in southeastern Bengal. Five generations of

their patronage the Mainamati area rose into prominence as an important Buddhist cultural centre. Four generations of rulers ruled Sumatata and they were contemporaries of the early Pala kings.⁷⁵ The Sena rulers were Hindus and their rule is considered to be a period of revival of Hinduism in Bengal.⁷⁶ On the view point of religious all were preserved environment. It was religious faith and customs. Likewise, all major religions have references to the environment and its intricate link to God.⁷⁷ Gautama Buddha, Mahavira, and Prophet Mohammad (Pubh), had all echoed the same thought of love and harmony between man and environment.

The value of the *Ramacharitam*⁷⁸ also lies in the detailed description of Varendra provided in the first 18 Verses of the third canto. The flora and fauna of Varendra, situated in between the Ganges (on the West) and the Karatoya (on the east), places and gardens, places of pilgrimage, cities (specially Ramavati) and institutions (specially Jagaddala Mahavihara) had been recorded.⁷⁹ During the 10th Century the Pala and Sena dynasty ruled the Sal Forest of the Madhupur Tract. The Madhupur area was ruled by Palaraj Bhagodatta and the Bhawal forest was under Shishupala. Later the area came under the rule of Ballal Sena.⁸⁰

the Varmans ruled for less than a century (c 1080-1150 AD) before they were toppled by the Senas. The Varmans were Hindus and their capital was also at Vikramapur. Details Banglapedia- National Encyclopedia of Bangladesh, (ed) Sirajul Islam, Asiatic Society of Bangladesh-2003

⁷⁴ Ibid, page-542-43.

⁷⁵ A. M. Chowdhury, Supra Note 58

⁷⁶ Ibid

⁷⁷ P. B. Sahasranaman, Supra Note 51, p- 1

⁷⁸ The Ramacaritam, is a unique Sanskrit *Kavya* written by Sandhyakara Nandi and its importance lies in the fact that it throws light on the condition of Bengal in the period between the second half of the 11th and the first half of the 12th century AD. The *Ramacharitam* is the only Sanskrit text, composed in Bengal by a poet of VARENDRA (north Bengal), which had a contemporary historical event as its main theme. As such it is considered to be an authentic source for the history of the late Pala period. See, R C Majumdar et al (ed), Ramacarita, Rajshahi, 1939.

⁷⁹ Ibid

⁸⁰ Shri Kedarnath Majumder, *The History of Mymensing* (in Bengali), 1904.

The long list of state officials, found in the Pala copperplates, clearly indicate that the administration was taking care of every aspect of public life- from the ferry *ghats* to the river ways, land routes, trade and commerce, towns and ports, and law and order in the country. Even forest or market management was not left out.⁸¹

The basis of their long rule was the efficient administrative system. The most glorious aspect of Pala rule was their policy of public welfare. The Pala rulers were Buddhists, but majority of their subjects were Hindus, Jainas, demi-gods, Krsna legend etc.⁸² Dharmapala (c 781- 821 AD) had adopted the policy of religious toleration as the state policy. This policy was followed by his successors.⁸³

This social peace over a long period of time must have contributed to developments in other fields. There are instances of welfare activities of the Pala rulers. Dharmapala is known to have excavated a few tanks by spending several thousands of *dramma* (silver coin). The Bodh-Gaya inscription of his (Dharmapala) 26th regal year records the consecration of a ‘Caturmukha Mahadeva’ and the excavation of a tank at the expense of 3000 *drammas* (silver coins) by one Kesava at the famous Buddhist site of Mahabodhi.⁸⁴ Mahipala-1 (c 995- 1043 AD) had occupied a place in the hearts of the people of Bengal by his welfare activities- digging tanks and establishing towns, which bear his name.⁸⁵ Mahipala was better known for his peaceful pursuits. A number of towns and large tanks still bear his name. Mahipaladighi (tank) in Dinajpur and Mahipala’s Sagardighi in Murshidabad- all these still bear testimony to his deeds and the high esteem in which the

⁸¹ Abdul Momin Chowdhury, *Banglapedia- National Encyclopedia of Bangladesh* (ed) Sirajul Islam, Dhaka: Asiatic Society of Bangladesh-2003, vol-7, p-410-414.

⁸² Shahanara Hussain, *Everyday Life in Pala Empire*, Dhaka: Asiatic Society of Pakistan, 1968, p-70

⁸³ Abdul Momin Chowdhury, *Dynastic History of Bengal*, Dhaka: Asiatic Society of Pakistan, 1967, p-31-32

⁸⁴ *Ibid*, p-31-32.

⁸⁵ *Ibid*, at 87

people held him.⁸⁶ In ancient time, India, Burma and Ceylon were densely covered with jungles because these areas had been situated within monsoon-belts endowed with seasonal rains and damp heat. In the early geological periods Bengal, Assam and the eastern part of Bihar were all covered with dense forests.⁸⁷

2.10 Conclusion:

To sum up, ancient Bengal and India offer a philosophy of environmental management principally enshrined in old injunctions as they were contained in many scriptures and *smritis*. The Hindu mythology, the Vedas, Puranas, Upanishads and other ancient scriptures of the Hindu religion have given a detailed description of trees, plants, wildlife and their importance to people. *Yagyavalkya Smriti* prohibited the cutting of trees by prescribing punishment for such acts. Kautilya's *Arthashastra*, written in the Mauryan period, realized the necessity of forest administration and Ashoka's 5th Pillar Edict expressed his view about the welfare of creatures in the State. Kautilya classified the forests in four categories, viz. 1. Forest for Timber, 2. Reserve Forest, 3. Elephant Forest, 4. Forest for Hunting. The civilizations of Mohenjadaro and Harappa have further proved that the small population lived in consonance with the ecosystem and their needs maintained harmony with the environment. Thus, the Hindu society was conscious of the adverse environmental effects caused by deforestation and extinction of animal species. Abuse and exploitation of nature for immediate gains was considered unjust, irreligious against environmental ethics under the Hindu and Buddha culture. The environmental ethics of nature conservation were not only applicable to common man but the rulers and

⁸⁶ Ibid, at-87.

⁸⁷ Mohiuddin Farooque, Supra Note 44, p-1-2.

kings were also bound by them. Despite the injunctions in the scriptures and the preaching's of saints, resource conservation was not taken very seriously as the natural resources under a common belief were considered to be unlimited and too formidable for man and his tools to need any protection themselves. Under the Mauriyan, Gupta, Pala, Sena regime and Ashoka's rule, forest conservation and wildlife protection received the utmost attention. The first efforts to codify the aspect of environmental protection came from Kautilya, Prime Minister of Chandragupta Maurya. As early as 300 BC, he realized the significance of the environment and formulated rules which mandated the rulers to protect forests and animals. Penalties were also prescribed. This is the first documented case of legislation on environmental protection anywhere in the world.

Chapter 3

Environmental Law & Policy in Medieval Bengal (1204-1757 A.D.)

3.1 Introduction: Traditionally, the people of the medieval Bengal, lived with the flood plains of the huge deltaic ecosystem, in harmony with the nature as a result of which the values, life-style, customs, usage, proverb and idioms resound the tune of the cord of bond with the ecology.¹ The Muslim rule in Bengal had its beginning in the opening years of the thirteenth century (1204 AD). The Muslim rulers ruled in Bengal from 1204 to 1757 except Raja Ganesa and his son (1414-1418 AD).² In medieval Bengal, most of the rulers come from west Asia and central Asia. Islam was circulated in Bengal by Muslim saints and Sufis.³ It was propagated in the Bangladesh region by a large number of Muslim saints who were mostly active from the fourteenth to sixteenth centuries.⁴ Islam penetrated⁵ the sub-continent with their customs, religious faiths, and Islamic laws. The objective of Islamic law is the universal common good of all created beings, encompassing both our immediate welfare in the present and our ultimate welfare in the hereafter. This objective of the universal common good is a distinctive characteristic of Islamic law. It means that no specie or generation may be excluded from consideration in the course of planning and administration, but that each individual Muslim as well as the

¹ Mohiuddin Farooque, "Environment and Law", Presented in the *Fifth SAARC Law Conference*, 27-29th December, 1996, Dhaka, Bangladesh. P-1

² Abdul Karim, *Social History of the Muslim in Bengal (Down to A.D. 1538)*, Dacca: Asiatic Society of Pakistan, 1959, p-30.

³ Salahuddin Ahmed, *Itihasher Aloke* (a collection of essays), Dhaka: Mowla Brothers, 2008, p-18-33.

⁴ Among these missionaries Hazrat Shah Jalal, Rasti Shah, Khan Jahan Ali, Shaikh Sharafuddin Abu Tawamah, Shah Makhdoom Ruposh, Shaikh Baba Adam Shahid, Shah Sultan Mahisawar, Shaikh Alauddin Alaul Haq, Shah Ali Bagdadi etc. deserve special mention; Bangladesh Towards 21st Century, Published External Publicity Wing, Ministry of Information, GoB, Chapter-1, p-9; see details Dr. Abdul Karim, *Social History of the Muslim in Bengal*, p-84-138.

⁵ Abdul Karim, *Supra Note 2*, p-17.

Muslim community must honestly strive toward the welfare of the whole. Therefore the protection, conservation, and development of the environment and natural resources is a mandatory religious duty to which every Muslim should be committed. With the advent of Islam in this region, the life and culture acquired an epoch dimension.⁶

Environmental protection concern received a set back in the medieval Bengal as there had been a great deal of ecological loss due to frequent invasions and political instability. ‘During the Moghul period, after returning of political stability, the environmental policy did not take a precise shape and the natural resource management remained by and large a neglected field.’⁷ It is partially true but not absolutely true. Many Muslim rulers had awarded about environment conservation as Sher Shah, Akbar, Jhangeer, Aurangab and others. Many royal order/*farmans* were circulated by them to protect and conserve environment. This chapter attempts to review and analyze whether environmental preservation and protection law and policy were in existence or not in medieval Muslim Bengal. It also justified in the Islamic law and Islamic way of life. It examines bellow:

3.2 Environmental Law in the Islamic way of life:

In Islamic law, Allah (God) alone is the real owner of the earth and all that it contains. “People do not in fact own things, for the only real owner of things is their Creator, be He glorified and exalted. Indeed, people do not own anything but their uses in the manner permitted by the revealed law.”⁸ All properties and resources are held in trust by human beings, to be used only in accordance with their divinely ordained purposes. Therefore,

⁶ Mohiuddin Farooque, *Environmental Order the Security of Survival*, Dhaka: BELA, 2004, p-40.

⁷ Kailash Thakur, *Environmental Protection Law and Policy in India*, New Delhi: Deep & Deep Publication Pvt. Ltd., 2003, p-106.

⁸ Abu `I-Faraj `Abd ar-Rahman ibn Rajab, in al-Qawa`id, detail, *Environmental Protection in Islam*, IUCN *Environmental Policy and Law Paper* No.20 Rev., Cambridge, UK-1994, p-18.

while the right to hold private property is rigorously safeguarded in Islamic law, there are important restrictions on its use.⁹

Quranic injunctions also emphasize on the need to protect the environment. There are repeated warnings in the Quran that man should not corrupt the Earth, since it has implications for man's social and physical environment. The intent is that man should also develop a communal relationship with the flora and fauna as these are also communities like mankind:

“Although there is no beast that walks on earth and no bird that flies on its two wings which is not (Allah's) creature like yourselves: no single thing have. We neglected to our Decree. And once again Unto their Sustainer shall they (all) be gathered.”¹⁰

And Allah has caused you to grow out of the earth in (gradual) growth: (like vegetation).¹¹

The Prophet, peace and blessings be upon him, declared, “If any Muslim plants a tree or sows a field, and a human, bird or animal eats from it, it shall be reckoned as charity from him.”¹² “If anyone plants a tree, on human being or any of God's creatures will eat from it without its being reckoned as charity from him.”¹³ “If the day of resurrection comes upon any one of you while he has a seedling in hand, let him plant it.”¹⁴ So, we can say that any Muslim plants any tree or grows any agricultural product¹⁵ and if any bird or

⁹ Ibid

¹⁰ Al-Anam: 38, citing P. B. Sahasranaman, *Handbook of Environmental Law*, New Delhi: Oxford University Press, 2009, p-16.

¹¹ Nuh: 17, Verse 17 of 28 in chapter 71, P. B. Sahasranaman, Supra Note 7. p-16

¹² Hadith of sound authority, related by al-Bukhari and Muslim on the authority of Anas, Supra Note 5, p-3

¹³ Hadith related by the Imam Ahmad in the *Musnad*, and by at-Tabarani in *al-Mu'jam al-Kabir*, on the authority of Abu ad-Darda', Supra Note 5, p-3

¹⁴ Hadith of sound authority, related on the authority of Anas ibn Malik by the Imam Ahmad in the *Musnad*, and by al-Bukhari in *al-Adab al-Mufrad*, and by Abu-Dawud at-Tayalisi in his *Musnad*.

¹⁵ P Hamidul Islam, (collected and translated), *The immortal words of the Last Prophet (Sallallahu Alaihi Wa Sallam) of Islam*, Jessore: Darul Kitab, 2011, p-111.

man or animal eats from it, then it will be counted as his charity and even if the produce is stolen by a thief the planter will surely get recompense in the hereafter.¹⁶

In another tradition reported by Hazrat Aisha in *Kanz-ul-Amal* the Holy Prophet said, ‘If you are sure that doomsday has arrived and you have a sapling in your hand that can be planted, do plant it.’¹⁷

The approach of Islam toward the use and development of the earth’s resources was put thus by ‘Ali ibn Abi-Talib, the fourth Caliph, to a man who had developed and reclaimed abandoned land: “Partake of it gladly, so long as you are a benefactor, not a despoiler; a cultivator, not a destroyer.”¹⁸

This positive attitude involves taking measures to improve all aspects of life: health, nutrition, and the psychological and spiritual dimensions, for man’s benefit and the maintenance of his welfare as well as for the betterment of life for all future generations.

And as is shown in the Prophetic declarations above, the aim of both the conservation and development of the environment in Islam are the universal good of all created beings.

“Or Allah, the Beneficent and the Merciful shows kindness to the kind. So if you show kindness to the inhabitants of the earth, the power in the heavens will shower kindness upon you. (Abu Daud & Tirmiji)”¹⁹

Islam emphasizes all measures for the survival and perpetuation of these creatures so that they can fully perform the functions assigned to them. The absolute destruction of any species of animal or plant by man can in no way be justified; nor should be harvested at a

¹⁶ Al-Munami, Fayd al- Qadir, iii, 30. Extracted from the Doctoral Research paper titled *An Islamic Approach to the Environment* by Ibrahim Ozdemir, 2002.

¹⁷ Vol-6, p-81.

¹⁸ Athar related by Yahya ibn Adam al-Qurashi in *Kitab al-Kharaj*, on the authority of Sa’id ad-Dabbi. Supra Note-5

¹⁹ Hamidul Islam, Supra Note 12, p-164.

rate in excess of its natural regeneration. This applies to hunting and fishing, forestry and wood-cutting for timber and fuel, grazing, and all other utilization of living resources. It is imperative that the genetic diversity of living beings be preserved- both for their own sake and for the good of mankind and all other creatures.

God's wisdom has ordained that His creatures shall be of service to one another. The divinely appointed measurement and distribution of all elements and creatures, each is performing its ordained role and all of them valuable, makes up the dynamic balance by which the creation is maintained. Overexploitation, abuse, misuse, destruction, and pollution of natural resources are all transgressions against the divine scheme. Because narrow-sighted self-interest is always likely to tempt men to disrupt the dynamic equilibrium set by God, the protection of all natural resources from abuse is a mandatory duty.²⁰

Furthermore, all human beings, and indeed livestock and wildlife as well, enjoy the right to share in the resources of the earth. Man's abuse of any resource is forbidden, and the best use of all resource, both living and lifeless, is prescribed.²¹

There is no doubt that conservation of this vital element is fundamental to the preservation and continuation of life in its various forms, plants, animals, and human. It is therefore obligatory in Islamic law, whatever is indispensable to fulfill the imperative obligation of preserving life is itself obligatory. Any action that obstructs or impairs the biological and social functions of this element, whether by destroying it or by polluting it with any substance that would make it an unsuitable environment for living things or otherwise impair its function as the basis of life; any such action necessarily leads to the

²⁰ *Environmental Protection in Islam, IUCN Environmental Policy and Law Paper No.20 Rev.*, Cambridge, UK-1994, p-19.

²¹ *Ibid*, p-19

impairment or ruin of life itself. And the juristic principle is, “What leads to the prohibited is itself prohibited.”²²

On the basis of the Prophetic commands and prohibitions, Muslim legal scholars have ruled that God’s creatures possess inviolability (*hurmah*) which pertains even in war: The Prophet, peace be upon him, forbade the killing of bees and any captured livestock, for killing them is a form of corruption included in what God has prohibited in His saying, “And when he turns away, he hastens through the land to cause corruption therein and to destroy the crops and cattle: And God loves no corruption.”²³ For, they are animals with the spirit of life, so it is not lawful to kill them in order to gall the enemy idolaters...Any they are animals possessing inviolability just as do women and children.²⁴

It is a distinctive characteristic of Islamic law that all animals have certain legal rights, enforceable by the courts and by the office of the **hisbah**. The following statement of the rights of animals was formulated over seven centuries ago on the basis of the Prophetic traditions:

“The rights of livestock and animals with regard to their treatment by man: These are that he spend on them the provision that their kinds require, even if they have aged or sickened such that no benefit comes from them; that he not burden them beyond what they can bear; that he not put them together with anything by which they would be injured, whether of their own kind or other species, and whether by breaking their bones or butting or wounding; that he slaughter them with kindness if he slaughters them, and neither flay their skins nor break their bones until their bodies have become cold and their lives have passed away; that he not slaughter their young within their sight; that he set them apart individually; that he make comfortable their resting places and watering places; that he put their males and females together during their mating seasons; that he not discard those which he takes in hunting; and neither shoot them with anything that breaks their bones nor bring about their destruction by any means that renders their meat unlawful to eat.”²⁵

²² Ibid, p-19

²³ Qur’an: Surat al Bagarah (2) ayah 205, Supra Note-5

²⁴ Muwaffaq ad-Din ‘Abd-Allah ibn Qudamah, in *al-Mughni*.

²⁵ ‘Izz ad-Din ibn ‘Abd-as-Salam, in *Qawa’id al-Ahkam fi Masalih al-Anam*. This passage falls within a discaussion of **huquu al-‘ibad**, the rights or legal and moral claims of human beings and other creatures

The ultimate objective of Islamic law is the universal common good of all created beings, encompassing both our immediate welfare in the present and our ultimate welfare in the hereafter. This objective of the universal common good is a distinctive characteristic of Islamic law. It means that no specie or generation may be excluded from consideration in the course of planning and administration, but that each individual Muslim as well as the Muslim community must honestly strive toward the welfare of the whole. Therefore the protection, conservation, and development of the environment and natural resources is a mandatory religious duty to which every Muslim should be committed. This commitment emanates from the individual's responsibility before God to protect himself and his community.

3.3 Teaching of Islam about Environment:

Islamic lifestyle is based on the Qur'an and the Sunnah. Islamic teaching offers an opportunity to understand the natural order and to define human responsibility. Clearly, Islam imposes four responsibilities to human beings. These are responsibility to the Creator (Allah), responsibility to oneself, responsibility to humanity, and responsibility to all creatures. How these responsibilities will be well executed, guidelines are given in the Qur'an and the Sunnah. The teaching of Islam about environment stands on three principles - Tawheed, Mizan and Khelafat.²⁶

upon each legally responsible person. The rights or legal claims of animals are less comprehensive than those of man, and are subject to limitations such as the defense of human life and property and the requirements of human beings of food. It is, however, significant that in Islam the concept of rights or legal claims enforceable by law applies to animals as well as human beings.

²⁶ Mohammed Abdul Baten, 'Incorporating Religious Institutions in Climate Change Adaptation : An Islamic Perspective', FORUM a monthly publication of *the daily star*, volume-5, issue-08, August 2011.

Tawheed is the main pillar of Islamic belief which states the oneness of the Creator (Allah) and His supremacy over everything on earth and it is to be believed that he is the creator of everything on the earth.²⁷

Allah says, "But to Allah belong all things in the heavens and on the earth; and he it is that encompasses all things" (Surah An-Nisaa, Ayat 126). Therefore, any abuse of creature is considered as sin in Islam.

Mizan is the principle of balance. Everything on the earth, the sun, the moon, the star and all the creations always follow a natural order, set by the Almighty. If they do not conform to the natural laws, it would be impossible for life to function on earth. Therefore, we have responsibility to abide by the natural order and take care of everything instead of violating their normal structure. In the Qur'an Allah says, "(Allah) Most Gracious! It is He Who has taught the Qur'an. He has created man: He has taught him speech (and Intelligence). The sun and the moon follow courses (exactly) computed; And the herbs and the trees both (alike) bow in adoration. And the Firmament has He raised high, and He has set up the Balance, in order that ye may not transgress (due) Balance" (Surah Ar-Rahman, Ayat 1-8).²⁸

Khelafat or the role of stewardship is the duty that the Almighty ascribed to human beings. Allah created humans as the best creature and it is their responsibility to take care of other creatures. In this regard, in the Qur'an Allah says, "It is He Who hath made you (his) agents, inheritors of the earth: He Hath raised you in ranks, some above others: that He may try you in the gifts He Hath given you: for The Lord is quick in punishment: yet

²⁷ Ibid.

²⁸ Ibid

He is indeed Oft-Forgiving, Most Merciful" (Surah Al-An'Am, Ayat 165).²⁹ He also declares, "There is not an animal (that lives) on earth, or a being that flies on its wings, but (forms part of) communities like you. Nothing have we omitted from the book, and they (all) shall be gathered to their lord in the end " (Surah Al-An'Am, Ayat 38).³⁰ The greatest Prophet Mohammed (Pubh) also believed that humans are the caretakers of all creatures, not owners.

In Islam, any kind of pollution is seen as illegal activity and the Almighty warned humankind not to do that. He announces, "Mischief has appeared on land and sea because of (the meed) that the hands of man have earned, that (Allah) may give them a taste of their Deeds: In order that they may turn back (from the Evil)" (Surah Ar-Rum, Ayat 41).³¹ Therefore, worldwide increased intensity of natural hazards is not wonder; it is the consequence of our irrational actions.³²

Now humanity is under threat of great devastation. Undoubtedly, we are responsible for the current situation as testified by Islam and science as well. To counter the impacts of climate change, everybody, from scientists to policy makers, is emphasizing on increasing adaptive capacity of humans. It is argued that increasing tree coverage, conservation of biodiversity, appropriate land management, rational use of water resources and changing our consumption behaviour overall could contribute positively to the current endeavours against climate change. In fact, Islam gives us clear guidelines about natural resources management to face the challenges of climate change.

The Prophet emphasizes on sustainable management of fertile land and tree plantation.

²⁹ Ibid

³⁰ Ibid

³¹ Ibid

³² Ibid.

Water is considered as a gift from Allah for human being. In the holy Qur'an, water is described as basis of life on earth, "Don't the Unbelievers see that the heavens and the earth We are joined together (as one Unit of Creation), before we clove them asunder? We made from water every living thing. Will they not then believe? " (Surah Anbiya, Ayat 30).³³ Science has also come to the consensus that water is the primary source of life on the earth. Islam has given great importance on water, and in the Qur'an the word 'Water' (Arabic-Ma) is used 63 times.³⁴

Mohammed (Pubh) was concerned about sustainable management of water resources. He declared the vicinity of water sources as protected area (Arabic-Haram zone) for safeguarding its purity and ensuring continuous supply. Influenced by this principle, many countries have declared the natural water sources as 'protected areas' like the starting point of rivers. Namaj is one of the pillars of Islam, and for it one has to be clean and sanctified through Wudu for which is required pure and clean water. "Or Hazrat Jaber (R) reports: Rasulullah Sallallahu A'laihi Wa Sallam has said: The key to paradise is Salat (Prayer) and the key to Salat is cleanliness or purity. (Ahmad)³⁵ The prophet was very conscious about water pollution and its controlled use. Even though water is abundant, He advocated for thriftiness. In the Hadith, it is given that Mohammed (Pubh) used only 0.65 litre of water after urinating and 2-3.5 litres of water for bathing.³⁶ He was very strict about water pollution and forbade his followers from urination in stagnant water.

³³ Ibid

³⁴ Supra Note 17

³⁵ Hamidul Islam, Supra Note 12, p-38

³⁶ Supra Note 17

Inevitably, we have no alternative but the sustainable use of natural resources to protect ourselves from harsh natural calamities aggravated by climate change. We have to change our reckless resource use pattern.

In this respect the holy Qur'an declares, "It is He Who produceth gardens, with trellises and without, and dated, and tilth with produce of all kinds, and olives and pomegranates, similar (in kind) and different (in variety): eat their fruit in their season, but render the dues that are proper on the day that the harvest is gathered. But waste not by excess: For Allah love not the wasters" (Surah Al An'Am, Ayahat 141).³⁷

3.4 Consideration of Environmental law in Muslim Bengal:

Muslims were governed by the Islamic law and other communities including the Hindus were governed by their own personal laws.³⁸ If one of the parties was Muslim and the other non-Muslim then principle of Islamic law was applied by the *Quazi* in deciding cases.³⁹ Administration of criminal justice was regulated mainly according to the principles of Islamic law allowing the non-muslims to be judged by their own laws in deciding civil disputes among them. Decrees of the Emperor (*Badshahi Farmans*) formed the bulk of secular laws of the country applicable to all the people mainly regulating the administration of revenue and those at times mitigated the rigours of the customary or the divine laws governing the society.⁴⁰ The process of Muslim expansion in Bengal began with the military exploits of Bakhtiyar Khalji. After his conquest of Bihar in 1203 AD, Bakhtiyar Khalji went to Badaun to pay Qutabuddin Aibak, the viceroy of Sultan

³⁷ Mohammed Abdul Baten, Supra Note 23.

³⁸ Kazi Ebadul Hoque, "Law and Society", in *History of Bangladesh 1704-1971 : Social and Cultural History* ed., Sirajul Islam (Revised New Edition) vol.-3, Dhaka: Asiatic Society of Bangladesh, 1997, p-622.

³⁹ Ibid, p-624.

⁴⁰ Wahed Husain, *Administration of justice During the Muslims Rule in India*, (Calcutta, 1934) p-14-16.

Muhammad Ghuri in India, a courteous visit. The period from Bakhtiyar's death in 1206 to Iwaz's death in 1227 may be regarded as the initial period of Muslim rule in Bengal.⁴¹

3.5 Lakhnauti under Delhi Sultanate (1227-1287):

The period from Iwaz's death in 1227 till the establishment of Ilyas Shahi dynasty in 1342 was one of steady expansion and consolidation. Balban, Delhi sultan died in 1287 and Bugra Khan immediately declared independence at Lakhnuti. Bugra Khan and Kaikaus ruled Bengal independently from 1287 to 1301.

The three regions of Lakhnauti, Satgaon, and Sonargaon were governed for the following ten years (1328-1338) respectively by Qadar Khan, Izzuddin Yahya, and Bahram Khan. In 1338 Bahram Khan died. On his death at Sonargaon his armour bearer (Silhadar) Fakhruddin captured power, proclaimed independence and assumed the title of Sultan Fakhruddin Mubarak Shah. This acted as a signal for a new series of struggles for power which ultimately led to the establishment of Ilyas Shahi Rule in Bengal. It heralded the beginning of the Independent Sultanate that continued for two hundred years (1338-1538).⁴²

Sultan Ghiyasuddin Azam Shah was a capable ruler with a profound regard for the law. Shamsuddin Yusuf Shah's (1474-1481 AD) reign was distinguished feature that he strictly and impartially applied the Sharia laws in state affairs and charged the Ulama to see that the laws of Islam were followed in all spheres of life.⁴³

The administration of the Ilyas Shahi sultans opened a new chapter in the history of Bengal. Ilyas Shahi Sultans appointed some ministers and high officials and entrusted

⁴¹ Delwar Hossain, *Banglapedia- National Encyclopedia of Bangladesh*, vol.-5, (ed) Sirajul Islam, Asiatic Society of Bangladesh-2003, p-111-112.

⁴² Ibid, at 116

⁴³ Ibid, at-117.

them with the responsibility of different departments like finance, judiciary, military affairs etc.⁴⁴ There was the department of justice presided over by the Qazi. The Kotwal was the head of the police and was responsible for maintaining peace and order in the city. It was his duty to keep the sultan informed of all daily occurrences in his jurisdiction.

The smaller unit after *Iqlim* and *Arash* was the *Mahal*, an aggregate of many villages, and primarily a revenue unit. But later on, in order to enforce revenue regulations and to maintain law and order, some responsibilities for civil administration were also given to it.⁴⁵

Husain Shahi (1494-1538 AD) rule was characterized by territorial expansion, stabilization of administration and significant developments in religion, literature, the arts and the economy. Alauddin Husain Shah shifted his capital to Ekdala. It was a protected and environmentally sound place. The MINT TOWNS of the period, generally located on riverbanks, were not only administrative headquarters but also consideration of sound environment and commercial centers.⁴⁶ Abul Fazal said, the pre-Mughal Bengal and this old method were allowed by Akber and to continue.⁴⁷

The Husain Shahis were interested in public works of different kinds which are evidenced by the numbers inscriptions of this period. The tanks, shades for the supply of water, bridges and mosques which they constructed undoubtedly improved the means of communication and greatly facilitated the internal trade of the country.⁴⁸

⁴⁴ A B M Samsuddin Ahmed, *Bengal Under the rule of early Iliyas Shahi dynasty*, PhD thesis, unpublished, Dhaka university-1987, p-292

⁴⁵ Idid, A B M Shamsuddin Ahmed, p-118-119.

⁴⁶ Idid,, A M Chowdhury, p121-126.

⁴⁷ Abul Fazal, *Ain-E-Akbari*, vol-ii, p-134

⁴⁸ Momtazur Rahman Tarafdur, *Husain Shahi Bengal (1493- 1538 AD): A socio- political study*, PhD thesis, unpublished, Dhaka University-1987, p-85

Afghan Rule (1539-1576) started in Bengal in 1539 after the humiliation of Humayun at Chausa at the hands of Sher Khan and ended in 1576 with the Mughal victory at Rajmahal over Daud Karrani. Bengal ruled under the Sur governors (1539-53), Independent Sur Sultanate (1553-63) and Karrani dynasty (1563-76 AD).⁴⁹

‘It is noteworthy that the India peninsula suffered substantial ecological loss due to destruction of forests resulting from political instability that prevailed in the country for over nine centuries that elapsed between the fall of Gupta dynasty in the later years of the seventh century and consolidation of the Moghul Empire by Akbar about the close of the sixteenth century’.⁵⁰ It is partially true but not absolutely true. Many Muslim rulers were aware about environment conservation as Sher Shah, Akber, Jhangir, Aurangeb and others. They declared few royal (*farmans*) Ordinances to protect natural environment. The environmental preservation and conservation processes, as we know, had already started in the Sultanate period. The early Muslim conquerors of this land stood with their own religion, language and traditions, and yet with a close brotherhood with the local people, Hindus and Muslims alike.

3.6 Consideration of environment of Sher Shah:

Sher Shah⁵¹ (1540-45) was one of the first rulers of medieval period of Bengal, who considered environment and the welfare of the people as essential for the interests of the state. Besides, his (Sher Shah) standing instruction to the army “not to damage any crops and in case of any damage, to adequately compensate”, however exaggerated by the

⁴⁹ Idid, Mohammad Ibrahim, p-127-29.

⁵⁰ Kailash Thakur, *Environment Protection Law and Policy in India*, New Delhi: Deep & Deep Published-2003, p- 106

⁵¹ Sher Shah belonged to the Sur tribe of the Afghans, who were located near Peshawar. Farid alias Sher Shah was born in 1472 A.D. He joined Babar’s camp and fought for the Mughals in the battle of Panipath (1526). Sher Shah as “the first national monarch who wrought innovations in the administration of a magnitude that, gives longevity of reign, could have surpassed those of Akber”, does reflect a tribute, not without, exaggeration.

contemporary chronicles, nevertheless indicated his leanings towards the peasants'.⁵² Such instruction was given for the purpose of economic development, but environment was protected. He also made a big road from Sonargaon in Bengal through Agra in Delhi. Primarily planned for military purposes, it proved equally effective for the general people and the growth of trade and commerce. Along both sides of the road, Sher Shah ordered the planting of fruit trees and the sinking of fresh wells.⁵³

3.7 Environment Consideration of Mughul Rulers:

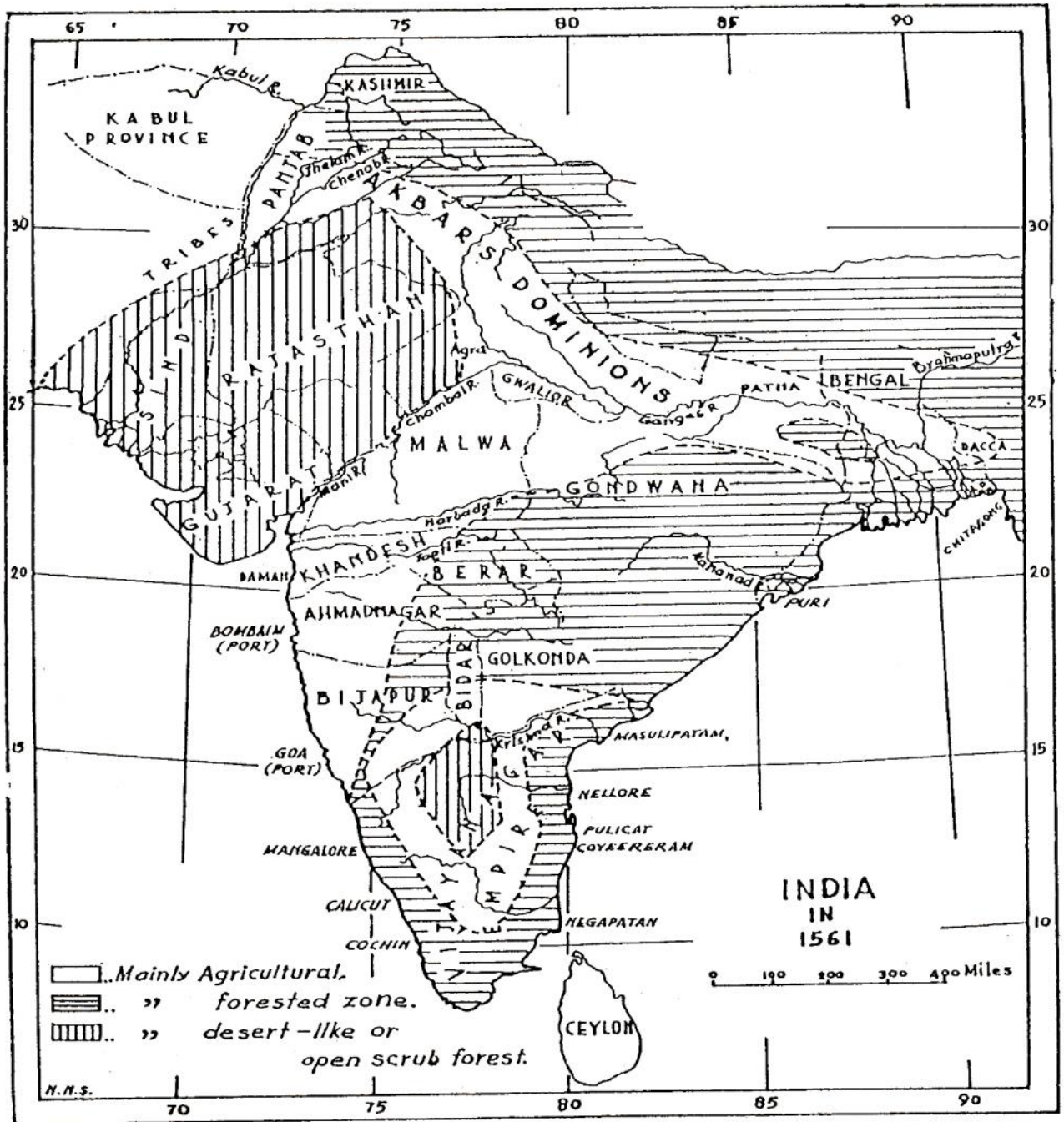
The first Mughal conquest of Bengal under Akbar was incomplete. Its full effect came to be felt only from Jahangeer's reign when the province was fully conquered and a government established by Islam Khan Chishti. Mughal imperial rule in Bengal marked the working of certain new forces which largely changed the life in Bengal and whose influence is felt even today in some form or other. Under the Mughals, Bengal lost its regional separatist polity and came under strong centralism. A period of regional independence came to be replaced by political integration and a centralized, unified rule that proved ultimately to be highly beneficial to Bengal.⁵⁴ During the Moghul era reclamation of land for agriculture took place at a fast pace. During this period the policy on forests was of indifference. Their invasion pushed a part of agricultural population into

⁵² See, Nirmala Verma, *History of India Mughal Period*, Jaipur : ABD Publishers- 2006, p- 136.

⁵³ Verma, p-138.

⁵⁴ Jagadish Narayan Sarkar, "Mughal Cultural Heritage" in *History of Bangladesh 1704-1971* (Social & Cultural History) ed., Sirajul Islam, vol.-3 Dhaka: Asiatic Society of Bangladesh, 1997, p-74.

Map- 6



-Land use pattern (Approximate) in India in 1561

Source: Vincent A Smith, *The Early History of India*, Oxford, 1904. Reproduced from Ajit Banerjee, *Indian Forests Through the Ages*, in Government of West Bengal, *West Bengal Forests*, Centenary Commemoration volume, 1964, p-44.

forests, hills and mountains where these people adopted shifting cultivation.⁵⁵ The Moghuls used forests as game preserves for sports, for gardening and avenue planting. In short they had an aesthetic and utilization approach without comprehensive considerations of problems and management of forestry from conservation perspectives.⁵⁶ During the Moghul period (1526 to 1858 AD) environment conservation did not receive much attention, They did not even realize the need of conservation of forest, said J B Lal pointed out his book '*Indian's Forests: Myth and Reality.*' The Moghul emperors though were great lovers of nature and took delight in spending their time in the lap of natural environment. To Moghul rulers, forests meant no more than wooden lands where they could hunt. To their governors the forests were properties which yielded some revenue. A few species of trees were specified in their reign, as 'royal trees' and enjoyed patronage from being cut except upon a fee. There was, however, no restriction on cutting of other trees. In the absence of any protective management, forests during this period shrank steadily in size on account of felling made for cultivation both shifting and settled.⁵⁷ The Moghuls used forests as game preserves for sports, for gardening and avenue planting. In short they had an aesthetic and utilization approach without comprehensive considerations of problems and management of forestry from conservation perspectives.⁵⁸

⁵⁵ Ajit Banerjee, "Indian Forests Through the Ages", in Government of West Bengal, *West Bengal Forests*, Centenary Commemoration volume, 1964, p-46. And Mohiuddin Farooque, *Law and Custom on Forests in Bangladesh : Issues and Remedies*, Dhaka: BELA, April, 1997, p-4.

⁵⁶ Ibid, See also M. Z. Hussain, "Forest Management Practices in Bangladesh : Traditional Practices and Alternative Approaches", in BCAS, *National Seminar on Forest Resources Management in Bangladesh : Issues Problems and Prospects*, 1990, p-14.

⁵⁷ See, J.B. Lal, *Indian's Forests: Myth and Reality* (Dehrandun: Natraj, 1989) p- 18

⁵⁸ R. A. Chowdhury and M. Z. Hussain, "Forest Management Practices in Bangladesh : Traditional Practices and Alternative Approaches", in BCAS, *National Seminar on Forest Resources Management in Bangladesh : Issues Problems and Prospects*, Dhaka: BCAS, 1990, p-14.

Even environment conservation point of view, a significant contribution of Mughal emperors has been the establishment of magnificent gardens, fruit orchards and green parks, round about their palaces, central and provincial headquarters, public places, on the banks of the rivers or places of retreat or temporary headquarters during the summer season. The famous Moghal gardens which spot every nook and corner of the country even today are thus a pleasant cultural heritage of the Imperial Moghals.⁵⁹

According to the Ain-E-Akbari of Abul Fazal, One-fifth of agricultural land was preserved for pasturage. Every piece of lands was preserved for interval to use pasturage that year. There were many water tanks in the side of roads. It was made by state.⁶⁰ Revenue collector or *Amil Guger* had to responsible to inspect the irrigation and drainage system of the state. If any parts of a village need irrigation or drainage, revenue collector had to do it by the state. State put up with all the expenditure.⁶¹

Additionally, the religious policy of Akbar based on the principle of complete tolerance also reflects concern for protection for birds and beasts in so much as endeavors were taken during his reign to stop their unnecessary killing. The religious policy of Akbar was pursued in principle but then was abolished during Jahangeer and Shah Jahan.⁶² Mughal emperor, Jhangir declared an ordinance that no slaughter animals two days a week on Sunday and Thursday. It was an initiative to protect and preserve of animals.⁶³

Jahangir promulgated twelve edicts, which were ordered to be observed as rules of conduct in his kingdom:-

⁵⁹ The famous Mughal gardens are Mughal garden at Agra, laid out by Babar and named as Hashal Bihisht or Nuri-Af Shan, Shalimar garden at Srinagar laid by Akber, Nishat Bagh of Srinagar laid out by Asaf Khan, the brother of Nur Jahan.

⁶⁰ Abul Fazal, Ain-E-Akbari, Translated by Pachcori Bandopadhyay, Dhaka: Dibya Prokash, 2008, p- 44.

⁶¹ Ibid, p- 148.

⁶² Supra Note 44, p-107

⁶³ Gazi Samsur Rahman, *History of Law of Bangladesh*, Dhaka: Bangla Academy-1997, p 77.

- 1) "Prohibition of cesses (*Zakat*), 2) Regulations about highway robbery and theft,
- 3) Free inheritance of property of deceased persons, 4) Prohibition of the sale of wine and of all kinds of intoxicating liquor, 5) Prohibition of seizure of houses and of cutting off the nose and ears of criminals, 6) Prohibition of forcible seizure of property (*Ghasbi*), 7) Building of hospitals and appointment of physicians to attend the sick. 8) Prohibition of the slaughter of animals on certain days. 9) Respect paid on Sunday, 10) General confirmation of *Mansabs* and *Jagirs*. 11) Confirmation of *aima* lands, 12) Amnesty to all prisoners in forts and in prisons of every kind."⁶⁴

A careful analysis of these ordinances shows Jahangir's genuine desire to ensure to his subjects freedom of person and security of life and property, and his solicitude for their material and moral welfare. The regulations are "remarkable for the humanity justice and political sagacity which pervades them."

It is best to let Jahangir speak for himself. "They should not make wine or rice spirit (*darbahra*) or any kind of intoxicating drug, or sell them. I forbade cutting off the nose or ears of any person, and I myself made a vow by the thrown of God that I would not blemish anyone by this punishment. They should found hospitals in the great cities, and appoint physicians for the healing of the sick; whatever the expenditure might be, it should be given from the *Khalisa* establishment.

In accordance with the regulations of my revered father, ordered that each year from the 18th of *Rabi' u-l-awwal* which is my birthday for number of days corresponding to the years of my life, they should not slaughter animals (for food). Two days in each week

⁶⁴ R C Majumder, H. C. Raychaudhuri & Kalikinkar Datta, *An Advanced History of India*, Delhi: Macmillan- 1978, Chapter III, p-456.

were also forbidden, one of them Thursday, the day of my accession, and the other Sunday, the day of my father's birth. (He held this day in great esteem on this account, and because it was dedicated to the sun also because it was the day on which creation began. Therefore, it was one of the days on which there was no killing in his dominions).⁶⁵

Aurangeb's: To "promote general morality", Aurangeb issued a number of regulations. He passed an ordinance prohibiting the production, sale, and public use of wine and *bhang*. Manucci tells us that the dancing girls and public women were ordered either to get themselves married or to leave the kingdom. The Emperor also passed strict orders against singing obscene songs, and stopped the burning of faggots and processions during certain religious festivals. It is mentioned in the official "guide books" of Aurangzeb's reign that he forbade *Sati* (December, 1663).⁶⁶

The reign of Jahangir forms a definite landmark in the history of the administration of Bengal. Jahangir, Shah Jahan and Aurangzib kept strict control and supervision over the administration of Bengal (as of other provinces), but after the death of Aurangzib, Mughal rule got weakened.

3.8 Institutional Development of Mughul Era:

Though the Mughul Emperors had absolute powers, they appointed a number of officers in the different departments of the Government for the transaction of its multitudinous affairs as the *Muhtasibs* or Censors or Public Morals looked after the enforcement of the

⁶⁵ Nirmala Verma, *History Of India Mughal Period*, Jaipur : ABD Publishers-2006, p-244

⁶⁶ R C Majumder, H. C. Raychaudhuri & Kalikinkar Datta, *An Advanced History of India*, Delhi: Macmillan- 1978, Chapter III, p-489.

Prophet's commands and the laws of morality. There was an officer of the *Mir Barr* or the Lord of the Admiralty, the *Mir Barr* or the superintendent of Forests.⁶⁷

In the cities and towns, all police duties, including the task of maintaining public order and decency, were entrusted to the *kotwals*, whose duties, as enumerated in the *Ain-i-Akbari*, were multifarious: i) to detect thieves, ii) to regulate prices and check weights and measures, iii) to keep watch at night and patrol the city, iv) to keep up registers of houses, frequented roads, and of citizens, and watch the movements of strangers, v) to employ spies from among the vagabonds, gather information about the affairs of the neighboring villages, and the income and expenditure of the various classes of people, vi) to prepare an inventory of, and take charge of, the property of deceased or missing persons who left no heirs vii) to prevent the slaughter of oxen, buffaloes, horses or camels, and viii) to prevent the burning of women against their will, and circumcision below the age of twelve.

The qazi was in charge of administering justice. Sometimes the office of Sadr and Qazi were united in the same person. No non-Muslim could be a judge over the Muslims. The Qazi was to be a man of great integrity and honesty and should have knowledge of Islamic Law and theology. The qazi's functions included as- "to supervise streets and buildings so that no one could disfigure streets and open spaces by erecting projecting roofs or unauthorized constructions."⁶⁸ There were Panchayet⁶⁹ in the villages which were formed by the people. The panchayet used to deal with local day to day problems.

⁶⁷ Ibid, at-551.

⁶⁸ Quoted in Abdul Karim, "Suba Bangla : Government and Politics", *History of Bangladesh 1704-1971*, ed., Sirajul Islam, vol-1, Dhaka: Asiatic Society of Bangladesh, 1997, p-58.

⁶⁹ They not only acted as arbitrators but also as courts to try petty offences. The punishments took the forms of public humiliation, fines and ostracism for periods conforming to the seriousness of the offence. I. H. Qureshi, *Administration of the Sultanate of Delhi*, (Lahore 1944), 197.

As regards the position of forest economy during the Moghul Empire the rural communities by and large enjoyed untrammled use of forests and wastes in their vicinity. The waste and forest lands were treated as open access resources.⁷⁰ The native rulers, however, did subject the produce of the forests (such as medicinal plants) to small cess as and when these were exported. The products of the forests conserved by the local people themselves were exempted from cess. Untrammled use of forests and other natural resources, however, did not mean that they could be used or misused by one and all without any restraints. Rather they were quite effectively managed with the help of a complex range of rules and regulations woven around the socio-cultural features as well as the economic activities of local communities.⁷¹ The people were left undisturbed in their traditional village life. Main concern of the servants of the government was to maintain law and order.

3.9 Environmental consideration of Nawabi Era:

The death of Aurangzed in 1707 did not adversely affect the Bengal polity. Rather, the beginning of the fall of Mughal empire was really the end of exploitation of Suba Bangla by the centre. Murshid Quli Khan and the subsequent Nawabs, Bengal was most efficiently governed upto Palashee. It was under Murshid Quli Khan (1704-1727), Shujauddin Khan (1728-1739) and Alivardi Khan (1740-1756) that Bengal had witnessed the rise of an indigenous state aristocracy hitherto unknown. *Ramsagar* is a large manmade water tank located at the village of Tejpur about 8 km south of Dinajpur town. It is considered to be the biggest man-made tank of Bangladesh. The tank was excavated

⁷⁰ Chatterpati Singh, *Common Property and Common Poverty: Indian's Forests, Forest Dwellers and the Law*, Delhi: Oxford University Press, 1986, p- 10.

⁷¹ Forestry In British and Post-British India: A Historical Analysis, *Economic and Political Weekly*, October 29, 1988.

by Raja Ram Nath on the eve of the battle of Palassey (1757 A.D.) after whom it is named. At that time Alivardi Khan was the nawab of Bengal. The tank was excavated to supply drinking water to the people living in the surrounding villages. It is said that there was a continuous Drought and Famine in this part of the country from 1750 to 1755 AD. Perhaps Ram Nath initiated to dig the tank on the basis of food for work and help to survive the famine stricken people. About 1.5 million labors worked for digging the Ramsagar and the total expense reached 30,000 Taka that period.⁷²

3.10 Environment Conservation as a tradition:

For long conservation practice in Bangladesh had been influenced by religious beliefs, superstitions and experience based on wisdom. The rural and traditional lives still stand as evidence. Environment friendly conservation practices are deeply rooted in the traditional life style of the people. Homestead forestry, fish culture and cattle and poultry rearing are typical household practices. Rotational cropping and seeds preservation had been an old agricultural practice. Herbal plants and medicines have been used and applied to cure or treat various ailments of human as well as the natural environment. Herbal medicines and treatment practices are still popular. Selective trees like *Neem* are planted on specific locations of the homestead for healthy environment, and the traditional attitude of building houses with ventilations for air and sun light are still prevalent. Extravagant living is scoffed at and austerity is socially appreciated as benevolence and pious simplicity. The traditional wisdom of environmental hazard coping is also in abundance.⁷³

⁷² Md. Muktedir Arif Mozammel, *Banglapedia- National Encyclopedia of Bangladesh*, vol.-5, (ed) Sirajul Islam, Dhaka: Asiatic Society of Bangladesh-2003, vol-8, p-358

⁷³ Mohiuddin Farooque, *Environmental Order The Security of Survival, Environment: 'Acting Locally'* (Selected Writings), Dhaka: BELA, 2004, p-40-41

3.11 Environment the pre-colonial phase in Bengal:

In pre-British Bengal, people lived with nature in such a way that the natural ecosystem was not disturbed. The rural areas then were the centre of power and wealth and equity developed along common concern and community lives. Each village had a large proportion of land, which was known as common land that was utilized not only for community uses such as graveyards, forests etc. but was a source of help to needy people in case of financial difficulty. In the latter case a piece of land was allotted to such persons for a temporary period till he got out of the difficult financial situation. The traditional society also had system of community self-help as well as mechanisms for conservation of resources whereby exploitation of resources such as forest beyond specified limit was punishable. The urban areas were also relatively small in size where again community organizations were strong and green areas such as parks and gardens were extremely important. In fact, Mughal gardens are some of the finest ones in Bengal even today. The overall environmental conditions were therefore healthy and balanced.⁷⁴

3.12 Conclusion:

In strict theory Islam is a religion of one Allah, one Prophet, one scripture, one law and one brotherhood. In Islam, there is close harmony between man and nature. Bangladesh has had an Islamic philosophy of environment management dating back to the medieval Muslim period. Under the Islamic law and Muslim philosophy we had a great tradition of environmental conservation which taught us to respect nature and to take cognizance of the fact that all forms of life, human, animal and plants are closely interlinked and the

⁷⁴ Environmental Profile of Pakistan, Government of Pakistan (Environment & Urban Affairs Division of Islamabad), December-1988, Chapter-XII, p-205

disturbance in one give rises to an imbalance in the other's. Moral injunctions acted as guidelines towards environmental preservation during the medieval period. Such injunctions were initially propagated by the religious faith and customs as well as later enforced by the legend rulers. However, during the medieval period, the contribution of Sultan, Shahi, Sur, Mughal emperors has been the establishment of magnificent gardens, fruit orchards and green parks, which were used as holiday resorts, palaces of retreat or temporary headquarters during the summer season. The common opinion of environmentalists has been that the Mughal emperors though were great lovers of nature and took delight in spending their spare time in the lap of natural environment. Under the Sultan Ghiyasuddin Azam Shah, Shamsuddin Yusuf Shah, Alauddin Husain Shah , Sher Shah, Akbar, Jahangir, Shahajan's regime, forest conservation and wildlife protection received the utmost attention.

Chapter 4 :

Environmental Law & Policy in British India and Bengal (1757- 1947)

4.1 Introduction: The colonial law and institutions are yet the central components in the management of environmental resources.¹ British arrived in India at 1600 A.D. with the mission of trading goods from India in the form of East India Company. The East India Company first established a factory in Bengal in the year 1650-51. A flourishing trade soon developed. The ill-advised attempts of the Company to free itself from Mughal control in 1686 by taking Chittagong, ended in the founding of Calcutta by Job Charnock in 1690 on the swamp-girdled site of Sutanati. A local rebellion provided a pretext for fortifying the factory in 1696 and four years later it became the seat of a presidency under the name of Fort William in Bengal. Though, the last of the three main centre of British trade to be established, the British establishments in Bengal soon became some of the most lucrative and important. They tapped a richer and extensive hinterland provided with excellent communications by water, and furnished with goods in rising demand in Europe. There was not only a flourishing trade in cotton goods, silk goods and yarn, and sugar, but also in saltpeter, for which the constant wars in Europe furnished a steadily growing demand.² But, after seeing the immense amount of natural resources and plunders of opportunity to exploit the resources present here, they changed their game plan and started applying coercion so as to complete their aim of exploiting natural

¹ Mohiuddin Farooque, "Some Quick Reflections on Environmental Legislation in Bangladesh", *Selected Writings of Mohiuddin Farooque: Environmental Order the Security of Survival*, Dhaka: BELA, December, 2004, p-16.

² Vincent A. Smith, *The Oxford History of India*, 4th edition, Percival Spear (ed.) Delhi: Oxford University Press, 1981, p-465.

resources in India. At the time when British arrived in India, India was divided into several princely states ruled by different rulers. It was quite an easy task for the British to establish itself gradually and cleverly. They very cleverly implemented the policy of Divide and Rule in India and took benefit of the diversity as on the basis of different rulers as well as due to multiplicity of religion in the country. They started exploiting the rich resources present India by employing the policy of imperialism. By around 1860, Britain had emerged as the world leader in deforestation, devastation its own woods and the forests in Ireland, South Africa and northeastern United States to draw timber for shipbuilding, iron-smelting and farming.³ Upon occasion, the destruction of forests was used by the British to symbolize political victory.

The invasion by the British and the establishment of their rule in India and Bengal ushered in an era of plunder of natural resources.⁴ At the same time, this regime saw the beginning of organized forest management. It was the forestry, wildlife and water pollution which attracted their attention in particular.⁵ There were several laws and policies introduced in British era to protect and conserve the environment and mitigating measures to minimize the environmental pollution and its impacts. Several laws were existed regarding environment passed during under the British rule, of them, one Act enacted between 1757 and 1857, around 57 Acts enacted between 1857 and 1947.⁶ This study examines the policy perspective on forest management during the British period at

³ Bharat Budholai, "Environment Protection Laws in the British Era", *Legal Service India.Com*, Under "settings" <http://www.legalserviceindia.com/articles/brenv.htm>, (accessed May, 2012)

⁴ See details, Iftexhar Iqbal, "Towards an environmental History of Colonial East Bengal: Paradigms and Praxis", *Journal of the Asiatic Society of Bangladesh (Hum.)*, Vol. 50, 2005, pp.501-518.

⁵ Kailash Thakur, *Environment Protection Law and Policy in India*, New Delhi: Deep & Deep Published, 2003, p- 108.

⁶ Noor Mohammad, "Environmental Problems In Bangladesh: An Appraisal", *The Journal of Local Government*, Vol. 31 No.1 (January-June 2002), pp-92-93

some length as it illuminates a much wider field of governmental policy and practice and provides an insight into the politics of resource conservation in British Bengal. This chapter attempts to review and analyze and development of environmental protection and preservation policies of British Bengal from historical perspectives.

4.2 Forest Conservation Policy and Law in the British Rule:

Bangladesh, India, and Pakistan have the same legislative history up to 1947 on the management and administration of forest in this sub-continent. The introduction of forest law and the institutional framework was introduced and developed by the British in the 19th Century.⁷ Even today, the basic forest laws of these three countries are same excepting a few national and provincial changes that have taken place in their respective legislative domains.⁸

The early days of British rule in Bengal were characterized by a total indifference to the needs of forest conservation. Unlike the Moghuls who simply took no steps to conserve forests, the British administrators proved predators-causing ‘fierce onslaught’⁹ on sub-continent’s forests. The onslaught on forests was primarily due to the increasing demands for military purposes. Royal Navy, supply of teak and sandal wood for export trade and extension of agriculture in order to augment revenue.¹⁰ A striking thing of this policy has been that the people’s rights in forests and wastes continued to be exercised unrestrictedly. The destruction of forests continued unabated and no concrete steps were taken for the management of forests. Very little information is available on the practice of

⁷ Mohiuddin Farooque, *Law and Custom on Forests in Bangladesh : Issues & Remedies*, Dhaka: BELA, 1997, p-20.

⁸ Ibid, p-20

⁹ Ramachandra Guha, *The Unquiet Woods- Ecological Change and Peasant Resistance in the Himalaya*, Delhi: Oxford University Press 1989, p- 87; and Forestry in British and Post British India: A Historical Analysis, *Economic and Political Weekly*, October 29, 1988, p-1883.

¹⁰ For an historical account of state of environmental policy in ancient India; see J.B. Lal, *India’s Forests: Myth and Reality*, Dehradun: Natraj, 1989, p-18.

forestry prior to 1800 A.D. Most forests were regarded as God-given and people had free access to most of their products.¹¹

The accelerated progress towards self-government in India significantly began with the introduction of the Reforms Act, 1919 by the British. The Government of India Act 1919 provided for appointment of ministers by the Provincial Government to deal with transferred subjects and increased the number of the members of Bengal Legislative Council to 125.¹² Under the new reform certain departments were *transferred* under the administration of India Ministers. Other subjects were *reserved*, like *forests* under the control of the Secretary of State for India in Great Britain. It was not until the introduction of the Government of India Act, 1935 passed by the British Parliament that *forests* became a transferred subject in all Provinces of India under the control of an elected Minister.¹³

The statement of Policy issued as Circular No. 22F, 19 October, 1894, remained valid throughout the British period. The policy was under continuous discussion and not always followed, particularly when forests were transferred subject. Political developments empowered several Provinces to draw up their own policies but none of them was formally issued.¹⁴

Their early treatment of the sub-continent forest also reinforces the claim that destructive energy of the British race all over the world was rapidly converting forest into desert. Until the later decades of nineteenth century, the British *Raj* carried out an immense

¹¹ Mohiuddin Farooque, *Supra Note-7*, p-9

¹² Kazi Ebadul Hoque, "Law and Society", in *History of Bangladesh 1704-1971 : Social and Cultural History* ed., Sirajul Islam (Revised New Edition) Dhaka: Asiatic Society of Bangladesh, 1997, p-640.

¹³ Mohiuddin Farooque, *Supra Note- 7* , p-9.

¹⁴ See, H. Champion and F. C. Osmaston, *The Forests of India*, ed., E. P. Stebbings, Oxford University Press, 1962, Vol. IV, P-19

onslaught on the subcontinent's forest. With the Oaks forest vanishing in England, a permanent supply of durable timber was required for the British Navy because the safety and defense of the British Empire depended primarily on its navy. In the period of fierce competition between the colonial powers, Indian teak, the most durable of shipbuilding, saved British during a war with Napoleon and the later maritime expansion. To tap the likely sources supply, search parties were sent to teak forests of India's west coast. Ships were built in the dockyards in the Surat and the Malabar Coast, as well as in England by importing teak from India.¹⁵

The revenue orientation of colonial land policy also worked towards the denudation of forests. As their removal added to the class of land assessed for revenue, forests were considered as an obstruction to agriculture and consequently a bar to the prosperity of the British Empire. The dominant thrust of agrarian policy was to extend cultivation and the watchword of the time was to destroy the forest with this end in view.

This process greatly intensified in the early years of the building of the railways network after about 1853. While great chunks of forests were destroyed to meet the demand for railway sleepers, no supervision was exercised over the felling operation in which a large number of trees was felled and lay rotting on the road. The sub-Himalayan forests of Garhwal and Kumaon, for example were all felled in even to desolation and thousands of trees were felled which were never removed, nor was their removal possible.¹⁶

As early as 1805, the British government requested the British East India Company, which already controlled large parts of the coastal regions, to investigate the feasibility of

¹⁵ Bharat Budholai, <http://www.legalserviceindia.com/articles/brenv.htm>.

¹⁶ Ibid

harvesting Malabar teak in Madras to meet the needs of British shipbuilding during the Napoleonic war. Although the East India Company was a private trading company commissioned in 1600, in India it functioned as a state entity, enjoying a monopoly of trade in the areas it ruled. Acting at the direction of the British parliament, it shared authority in India with government officials. The company appointed a former police officer, Captain Watson, as India's first conservator of forests in 1806.¹⁷ Watson's two-pronged plan involved placing a tax on teak in order to simultaneously slow its harvest by private interests and raise money for the government, and then purchasing the teak from the private dealers. Together, these measures would guard against over-exploitation and ensure a steady supply of teak.

On 3 August 1855, Lord Dalhousie, the governor general of India, reversed previous laissez-faire policy to establish the India Forest Department and annex large areas of sparsely populated lands in India. These lands were declared protected areas and staffed by foresters, forest-guards, rangers, and administrators. Over the next decades, forestry in India became an international profession with global specialists ruling an empire of trees and grasslands.

The new environmental policies served in turn to support British imperialism in India. Unlike the conservative French and English royal forests reserved for hunting by the privileged elite, or the later American concept of total protection in national parks, the new colonial environmentalism was intended to generate income for the imperial British state through strict control of India's natural resources. Lord Dalhousie's new forest policies greatly expanded British authority over the land and people of India, a colonial

¹⁷ Ibid

empire that the British had procured piecemeal over the course of several centuries of mercantile and military exploitation. Thus, environmentalism and imperialism have a shared past, and the newly protected forests marked a symbiotic alliance of environmental concern with expansion of state power in India.

After Napoleon's defeat at Waterloo in 1815, however, the navy had less need of teak, and a new governor of Madras, Thomas Munro, felt that the timber royalty unnecessarily raised the opposition of Indian princes who objected to the tax placed on forests under their authority. Munro also felt pressure from Indian merchants who objected strenuously to a tax that cut severely into their profits and from peasants who saw traditional access to the forest sharply curtailed. The new governor repealed the teak regulations, abolished Captain Watson's position, and allowed the free market to operate as it had before Lord Dalhousie's tenure as governor-general from 1848 to 1856 saw the acquisition of territory and implementation of administrative reforms for which posterity dubbed Dalhousie "the great Proconsul." Dalhousie's support for conservation was unapologetically imperialist. Upon reaching the capital at Calcutta for his inauguration in 1848, he proclaimed, "We are Lords Paramount of India, and our policy is to acquire as direct a dominion over the territories in possession of the native princes, as we already hold over the other half of India."¹⁸ The British government in India made it clear that "all the forests are the property of Government, and no general permission to cut timber therein will be granted to anyone."¹⁹

The process of state empowerment vis-à-vis people on the question of control over forest started only in 1806 when a commission was appointed to enquire into the availability of

¹⁸ Bharat Budholai, <http://www.legalserviceindia.com/articles/brenv.htm>.

¹⁹ *Ibid.*

teak in Malabar and Travancore by way of appointment of Conservator of Forests. This move failed to conserve forests as the appointed conservator plundered the forest wealth instead of conserving it. Consequently, the post so-called Conservator of Forests was abolished in 1823.²⁰

Thus, under the imperial considerations and in the absence of any conservation policy, the Indian forests were used for the supply of wood for export; for British Navy; for local construction (such as roads and railways) and development of agriculture and had to suffer a great deal of brunt till about the middle of the nineteenth century. Private contractors, Indian and European, were mainly responsible for the devastation of forests.

It was the second half of the nineteenth century which marked the beginning of an organized forest management in British India with some administrative steps taken to conserve forests; the formulation of forest policy; and the legislations to implement the policy decisions. In the time, Sir John (Lord) Lawrence (1864- 1869) was the Governor General and Viceroy of British India.²¹ The systematic management of forest resources began with the appointment of first Inspector General of Forests in 1864 A.D. Dietrich Brandis was the first Inspector General of Forest department in India-wide. He held the post from 1864 to 1883. The immediate task of Forest Department under the supervision of Inspector General was that of exploration of resources, demarcation of reserves, protections of forests from fire; and assessment of the growing stock in valuable reserve by sample enumeration and prescription of yields which could be sustained. The objective of management of forests thus, changed from obtaining of timber for various purposes to protecting and improving forests and treating them as a biological growing

²⁰ Ibid.

²¹ Appendix 2

entity.²² Also simultaneously, with the appointment of first Inspector General of Forests, the necessity of treating forests as state property was felt.²³

By the end of 1868, the Forest Department had administrators in every province of the sub-continent. In 1871, the Forest Department was placed under the newly established Department of Revenue and Agriculture, itself under the umbrella of the Home Department. Brandis was followed by Wilhelm Schlich (1883-88), Berthold Ribbentrop (1888-1900), and E. P. Stebbings (1900-1917).²⁴

Prior to 1865, most of the States of India having significant forests had their own rules for the management. The rules had no legislative enactment of the Government of India or the British Government. Therefore, the penal provisions were based mostly on the ordinary criminal laws on theft or mischief. During this period, no attempt was made in Bengal at establishing a regular code of forest rules although Provinces like Punjab, Madras, North-West Frontier Province etc. adopted their respective rules.²⁵

4.3 The Development of Forests Law in the British Bengal:

The facts surrounding all the forests in India were not similar nor were the physical qualities and quantities. Initially, it was difficult even to think of one forest law for the whole of India as the circumstances did not necessitate such juridical uniformity. However, for the first time, in 1865, the Forest Act was enacted on the Bill based on or

²² J. B. Lal, *India's Forests: Myth and Reality*, Dehradun; Natraj, 1989, p- 19.

²³ Forest conservators had already been appointed in Bombay (1847), Madras (1856), and the United Burma Provinces (1857); Brandis in turn appointed forest conservators to the Northwestern Provinces and Central Provinces in 1860, Oudh in 1861, Punjab in 1864, Coorg and Bengal in 1864, Assam in 1868, and Berar in 1868.

²⁴ Bharat Budholai, <http://www.legalserviceindia.com/articles/brenv.htm>.

²⁵ Mohiuddin Farooque, *Supra Note- 7*, p-20

legalizing the Rules proposed by the Chief Commissioner for Burma (now Myanmar).²⁶

The Act referred to preservation of the forests, regulation of the use of streams and canals as far as the transport of timber is concerned, protection of timber and the duties of the Government officers and establishments employed in the management of the forests. The purpose of the Act was to preserve the resources “for generations to come”. The Act provided for Government supervision of forests even if they were in lands made over the villages in proprietary right under the Settlement. It was further intended to extend the supervision over lands in the estates of *Zamindars* or large land holders. The Indian Forest Act of 1878 succeeded the 1865 Act. It provided a broader range of framework.

The enactment of the Forest Act, 1865 was the first step at asserting the state monopoly right over the forests. This facilitated the acquisition of forests by the state. The Act was revised after about thirteen years later in 1878 and extended to most of the territories under the British Rule. The provisions of the 1878 Act ensured that the state could demarcate tracts of forests, needed especially for railway purposes and retain enough flexibility over the remaining extent of forest land to revise its policy from time to time. Yet the latter act was passed only after a prolonged and bitter debate within the protagonist of the earlier debate put forth arguments strikingly similar to those advanced by participants in the contemporary debate about the environment of Sub-continent. The 1878 Act, directly or indirectly, had provided the model for corresponding Forest Acts of the majority of the Commonwealth Countries.²⁷ It was a much more elaborate piece of legislation which was subsequently amended in 1890, 1901, 1911, 1914, 1918 and 1919.

²⁶ See Report by Dr. D. Brandis, Inspector General of Forests, to accompany the Bill to give effect to Rules for the management and preservation of Government Forest, No. 120, dated Simla, 5 September, 1864, para 19.

²⁷ See Champion, et.al., (ed) E. P. Stebbing's *the Forests of India*, Vol. IV, 1962, p-26.

The 1878 Act revised in 1927 as Act XVI is still in force in Bangladesh, India, and Pakistan.²⁸

4.4 Development of Forests Policy in British Period:

Hurriedly drafted, the 1865 act was passed to facilitate the acquisition of those forest areas that were earmarked for railway supplies. It merely sought to establish the claims of the state to the forests in immediately required, subject to the condition that existing rights would not be shortened. Almost immediately, the search commenced for a more stringent and inclusive piece of legislation. A preliminary draft, prepared by Brandis in 1869, was circulated among the various presidencies. A conference of forest officers, convened in 1874, then went into defects of the 1865 act and the details of the new one.²⁹

The customary rights of rural communities to manage forests were also curtailed by the same Act. It also expanded the powers of the state by providing for reserved forests which were closed to the people and by empowering the forest administration to impose penalties for any transgression of the provision of the Act. The Forest Policy Statement of 1894 further consolidated the position of state by enabling it to forcibly take over all forests.³⁰ The first Forest Policy 1894 evolved from substantial revision of previous forest related legal instruments and custom.³¹ Agriculture was given priority over forestry within this forest policy and proposed that “demand for cultivable land can be, to some extent, met by clearing forest areas”.³²

²⁸ Mohiuddin Farooque, Supra Note-7, p-21.

²⁹ Bharat Budholai, <http://www.legalserviceindia.com/articles/brenv.htm>.

³⁰ J. B. Lal, Supra Note-22, p-20.

³¹ Mahbubul Alam, “Evolution of Forest Policies in Bangladesh: A critical Analysis”, *International Journal of Social Forestry (IJSF)*, 2009, 2 (2), p-153

³² Ibid, p-156

The first Forest Policy of 1894 made two major enunciations: first, permanent cultivation was to come before forestry, i.e. the claims of the former were considered stronger than the claims of forest preservation; and secondly, the public (material) benefit was the sole object of forest administration.³³ The policy had the following objectives:

- a) Promoting the general well-being of the people in the country;
- b) Preserving climatic and physical conditions in the country;
- c) Fulfilling the needs of the people.³⁴

The policy also suggested a rough functional classification of forests into the following four categories:

- a) Forests the preservation of which was essential on climatic or physical grounds;
- b) Forests which offered a supply of valuable timber for commercial purposes;
- c) Minor forests which produced only the inferior sorts of timber;
- d) Pastures which were forests only in name.³⁵

The policy suffered from many deficiencies. The important among them were: (1) The policy denied recognition to the legitimacy of conventional conservation practices of local communities and favoured regulation of the rights and privileges of people living in and around forests. This was done in the name of ‘public benefit’.³⁶ (2) It allowed unchecked diversion of forest land to agriculture and other uses. (3) The policy lacked: a) the minimum prescription of area under forests; b) the mention of concept of sustained yield which forms the core of scientific forest management; c) the mention of protection/preservation of wildlife, and d) the mention of private forests, forest education and training etc.³⁷

³³ *Ibid*

³⁴ L. C. Sharma, *Indian Economy and Environmental Pollution*, New Delhi: Interest Publication, 1989 p-118.

³⁵ J. B. Lal, *Supra Note-22*, p-20

³⁶ Dolly, Arora, “From State Regulation to People’s Participation: Case of Forest Management in India,” *Economic and Political Weekly*, March 19, 1994 p- 691.

³⁷ L. C. Sharma, *Supra Note-34*, p-118.

To provide teeth to the provision of the Forest Policy of 1894, the Forest Act of 1927 was enacted. That time Lord Irwin (1926-29) was the Governor General and Viceroy.³⁸ This act was very comprehensive and contained all the major provisions of the earlier act and amendments made thereto including those relating to the duty on timber. The Act of 1927 also embodied land-using policy whereby the British could acquire all forestland, village forest and other Common Property Resources. Section 26(i) of the Act makes it punishable if any person, who, in contravention of the rules made by the State Government, poisons water of a forest area. The State Government has been empowered under Section 32(f) to make rules relating to poisoning of water in forests.³⁹ This legislation specifically denied people any rights over the forest produce simply because they were domiciled there. The Act of 1927 also embodied land use policy whereby the British could acquire all forest land, village forest and other common property resources through simple notification, without getting into problems of compensation or equity.⁴⁰

An important document issued in 1944 was a Note by Sir Herbert Howard on “Post-War Forest Policy of India”. This Note reviewed the prevailing conditions in relation to the 1894 Policy Statement and suggested action which called for in the major fields, such as target acreage of forests, control of private forests, floods and erosion, research and education. However, these policy suggestions were not effected because India was approaching independence.⁴¹

The Forest Act, 1927 covers forests and forest management Availability of forest land in Bangladesh is one of the lowest in the world. Between the 18th and middle of the 19th

³⁸ Appendix- 2

³⁹ Bharat Budholai, <http://www.legalserviceindia.com/articles/brenv.htm>.

⁴⁰ Mohiuddin Farooque & S. Rizwana Hasan, *Laws Regulating Environment in Bangladesh*, Dhaka: BELA, 2004, The Forest Act-1927 (Act No. XVI of 1927), pp- 403-427.

⁴¹ Mohiuddin Farooque, *Supra Note-7*, p-10

century, different parts of Indian forests were subjected to exploitation on a huge scale under the rule of the English East India Company and, later, the British government. Forest areas shrank during British rule because of the extension of agriculture. The Sundarbans alone shrank by about 1000 sq miles.⁴²

By 1864, the conservation of forests in Bengal began with the appointment of Dr. T. M. Anderson as Conservator of Forests.⁴³ The first notification reserving forests came on 14 December 1864. By 1872, about 60,000 sq miles of forests were demarcated and proposed, through notification, as reserved forests in Bengal, Bihar, Orissa and Assam.⁴⁴

In 1868-69 proposals were made for the conservation of Sunderbans forest, but Government of Bengal considered that the question of introducing conservancy in Dhaka, Chittagong and the Sunderbans should wait until the Government of India had issued orders on question of additional establishments. In 1872-73, there were five forest divisions under the Conservator of Forest in Bengal, namely, a) Coach Bihar Division, b) Assam Division, c) Dacca (Dhaka) Division, d) Chittagong Division, e) Bhagalpur Division.⁴⁵

In 1874-75 the Dacca (Dhaka) Forest Division was abolished. From 1876, 3,390 sq. miles of forests were Gazetted as Government Reserved Forest. The Bengal Forest Department was then constituted with: a) Darjeeling Division, b) Jalpaiguri Division, c) Palaman Division, d) Sunderbans Division, e) Chittagong Division.

⁴² Ibid, p-4.

⁴³ Ibid, p-4.

⁴⁴ S. Rizwana Hasan, *Banglapedia- National Encyclopedia of Bangladesh* (ed) Sirajul Islam, Asiatic Society of Bangladesh-2003, vol-4, pp-20-22; Mohiuddin Farooque, *Supra Note-7*, p-4

⁴⁵ Ibid, p-4

In 1905-06, the Jalpaiguri, Buxa and Chittagong Divisions were transferred to the Eastern Bengal and Assam Circle with the partition of Bengal as East and West Bengal. In 1912 the Eastern Bengal Division was brought back under Bengal Circle.

The Cox's Bazar Division was formed in 1919-20 and the Dacca-Mymensingh Division in 1925-26. With effect from 16th November 1927, the Bengal Forest Circle was divided into two circles, namely, Northern and Southern Circles. The Southern Circle included:

- a) Sunderbans
- b) Chittagong
- c) Chittagong Hill Tracts
- d) Cox's Bazar
- e) Dacca-Mymensingh

In the year 1937, a permanent working Plans Division was established. New appointments of high forest officials took place at the end of the World War-II.⁴⁶

The changes in the Indian Forest Act, 1927 (hereafter 1927 Act) were small and consisted mainly in redrafting the 1878 Act and its amendments. The small changes included sec.30(b), permission to enclose portions of Protected Forest and suspended rights therein for a maximum period of 30 years compared with 20 years fixed in the 1878 Act. In sec. 79 the duties of the public to prevent and extinguish forest fires and help Forest or Police officers in preventing forest offences were clarified and made somewhat more extensive. New enactments and regulations or rules under the Act were made by several provisions in India. These enactments mainly referred to private forests, e.g., the Bengal Private Forest Act, 1945 (Act XI). The 1927 Act was amended in 1930 and 1933.

4.5 Laws relating to wildlife protection in British Rule:

⁴⁶ Mohiuddin Farooque, *Supra Note-7*, p-7. For a brief history, See S. P. Mullick, "History of Forest Organization in West Bengal", in *Govt. of West Bengal, op.cit.*, pp-73-78.

The forests of British India were rich in wildlife and biological diversity. It has served as a habitat for numerous varieties of species. Three major legislations on wildlife protection in British India have been enacted either to protect wild birds and animals as appropriate or to safeguard a specific species. As-

- a) The Elephant's Preservation Act, 1879, enacted for the preservation of wild elephants. In order to preserve wild elephants the Act prohibited all injurious activities against them unless licensed or in self defense.
- b) The Wild Birds and Animals Protection Act, 1912, enacted to make better provisions for the protection and preservation of certain wild birds and animals. The Act empowered the Government to take protective measures by prohibiting capture, killing, buying and selling of the species mentioned in the schedule of the Act.⁴⁷
- c) The Bengal Rhinoceros Preservation Act, 1932 designed to preserve wild rhinoceros.⁴⁸

Besides these enactments, the 1927 Act, provide provision conferring powers to the Government to regulate hunting, shooting and fishing within forests in which these legislations were applicable.⁴⁹

4.6 Pollution Control in British Rule

Apart from the management of forest resources through the formulation of Forest Policy and the Forest Laws, attempts were made during the nineteenth century to regulate water

⁴⁷The list of species in the schedule were further increased in 1959 and 1967.

⁴⁸ Although all prejudicial activities were prohibited, the Act failed to preserve the beast from extinction in Bangladesh.

⁴⁹ Mohiuddin Farooque, *Supra Note-7*, pp-31-32.

pollution, wildlife and land use by legislating laws by the British Government. These laws, however, had a narrow purpose and limited territorial approach.⁵⁰

Oriental Gas Company Act, 1857, the Indian Penal Code, 1860, Indian Easement Act of 1882, Indian Fisheries Act, 1897 were the relevant legislations containing provisions for the regulation of water pollution by providing penalties for the non-observance of the provisions thereof. Similarly, Bengal Smoke Nuisance Act of 1905 was the earliest law, enacted during the British *Raj*, aimed at controlling air pollution.

Under the Smoke Nuisances Act, 1905, the government may prohibit within any specified area (a) the erection or use of any specified class of brick tile or lime kilns; (b) clamps for making bricks, or the erection or use of furnaces; (c) the smelting of ores or minerals, or the casting, puddling or rolling of iron or other metals, or the conversion of pig iron into wrought iron; (d) the manufacture of coke in ovens or with special appliances; (e) the making of coke without ovens or special appliances. If smoke is emitted from any furnace in greater density, or at a lower altitude, or for a longer time than is permitted by the rules made under this Act, the owner of the furnace shall be liable to a fine which may extend, on a first conviction, to take 50, on a second conviction to taka 100, and on any subsequent conviction to taka 200. For the enforcement of this law, provision has been made for constituting a commission and appointing a chief inspector of smoke nuisance and assistant inspectors.⁵¹

In the field of wildlife protection, early legislations were limited to specific areas and species. The Elephants Preservation Act of 1879, the Forest Act of 1878 and Wild Birds and Animals Protection Act, 1912 were other legislations which introduced the practice

⁵⁰Kailash Thakur, *Supra Note-5*, p- 110

⁵¹ The Smoke Nuisance Act, 1905 (Bengal Act III of 1905)

of closed hunting seasons, bag limits and permits.⁵² The colonial state also established wild life preserves in Kaziranga in 1926.

As regard the land utilization policy, land was not properly utilized because of inadequate water resource management during the British rule. However, the British Government took initiative to consolidate land holding in 1920 with the help of cooperative consolidation societies and through enactment of Consolidation of Holding Act, 1920.⁵³

The Public Park Act, 1904 applies to any designated public park or garden. It empowers the government to make rules for the management and preservation of any park, and for regulating the use thereof by the public. Such rules may prohibit plucking or gathering of anything growing in the park, breaking trees, branches or plants, cutting names or marks on trees, disfiguring buildings, furniture or monuments, removing or disfiguring labels or marks attached to trees or plants. However, such rules are yet to be formulated for ensuring more open spaces for city dwellers.⁵⁴

4.7 The Explosive Substances Act, 1908

Any person who unlawfully or maliciously causes by any explosive substance and explosion of a nature likely to endanger life or to cause serious injury to person or property shall, whether any injury to person or property has been actually caused or not, be punishable with death, or with imprisonment for a term, which may extend to ten years and shall not be less than five years, to which fine may be added.

4.8 The Agricultural and Sanitary Improvement Act, 1920

⁵² Kailash Thakur, *Supra* Note 5, p- 111

⁵³ The consolidation process could achieve little success as only 112,000 ha. Were arranged between 1920 and 1950. See Gian Singh, *Environmental Deterioration- Causes and Control*, New Delhi: 1991, pp- 95-96

⁵⁴ The Public Park Act, 1904 (Act II of 1904); Dr. Mohiuddin Farooque & S. Rizwana Hasan, *Laws Regulating Environment in Bangladesh*, Dhaka: BELA-2004, p-645.

The Agricultural and Sanitary Improvement Act, 1920 was enacted to consolidate and amend the law relating to the construction of drainage and other works in certain areas. The statement of Policy issued as Circular No. 22F, 19 October, 1894, remained valid throughout the British period. This policy recognized the close relationship between forestry and agriculture. It argued that the justification for forestry activities was based on their direct and indirect contribution to the development of agriculture. Even if certain areas were suitable for growing good quality timber, they were not to be utilized for forestry if the area could support good agriculture.⁵⁵

4.9 The Boilers Act, 1923

This requires that, no owner of a boiler shall use the boiler or permit it to be used, unless it has been registered in accordance with the provisions of this Act. The Act mentions, among other things, that, the authorizing certificate ceases to be in force when any accident occurs to the boiler, when any structural alteration is made.

The punishment is Taka ten thousand and may be extendable to Taka two thousand per day for the period of violation. The boiler owner is to inform the inspector within 24 hours in case of any accident.

Against the traditional way of life, the British erected a system of legal basis of landownership involving more or less absolute proprietorship together with a system of revenue collection. The extension of governmental control over common land and its distribution among people faithful to colonial government together with an exploitative system of resource use disturbed the balance maintained by the traditional society. Evidences seem to support that the British created socio-economic order was decidedly unfavourable not only to long-term progress in agriculture but also to the management of

⁵⁵Mohiuddin Farooque , Supra Note -7, p-9

ecosystem. With the passage of time as liberal socio-economic and political developments made their impact round the world, the British introduced a few schemes of land reclamation through irrigation. Unfortunately the unlined canals constructed in these schemes sowed the seed of further environmental degradation through waterlogging and salinity.⁵⁶

The tradition of colonial bureaucracy exploits the law and the gap between public, public agencies and public properties has institutionalized.

4.10 Conclusion:

To sum up, the environmental policy during the British rule was not directed at the conservation of the nature but rather was directed at the appropriation and exploitation of common resources with a primary objective of earning revenue. Neither were there effective laws for the protection of environment. Health and the environment are the concern of a series of acts including the Public Parks Act, 1904, the Smoke Nuisances Act, 1905, Juvenile Smoking Act, 1919. Thus, it can be held hereby that some of the very strong steps were taken by the British in order to protect environment from degrading and to preserve it for the future generations. But, some of these laws showed their capability on paper and not on the practical grounds. Many laws and acts enacted by the British in our country proved out to be more useful for them (British) as compared to us. They made several laws so as to make their task easy as by that they were able to make use of the resources and degrade environment comfortably and lawfully. Some of the laws were so as to protect the resources from the natives itself, so that the British can utilize them

⁵⁶ Environmental Profile of Pakistan, Government of Pakistan (Environment & Urban Affairs Division of Islamabad), December-1988, Chapter-XII, p-206.

for their own needs which were to gain as much capital from sub-continent as possible. Introduction of Railways in Bengal is thought to be major reward for the Indians by the British and there is no doubt that it is one of the very valuable gifts of the British for India. But, the British never brought rail to India with the thought of benefiting us but for their own benefit. They introduced rail in our country so that the resources might present in India, especially environmental resources that they were harnessing, can reach easily and quickly to their destination. They made laws for conserving the forest and in the process marked much of the area as the property of the government so that no one could object as to the use of these forest by the British. Even if some laws were present which were beneficial for the environment conservation, then they were not implemented properly for them. The punishments prescribed under the laws were not very strict and so the offender was very easily allowed to escape. Moreover, most of the time, the British themselves depleted the resources. The theories like Sovereign Immunity always saved the government from being sued under public offence. The maxims like “King can do no wrong” were applied to its full extent. But still to say that the British always thought of their own benefit would be a wrong statement. The laws like Indian Penal Code 1860, and Criminal Procedure Code 1898, were very effective. Moreover, the laws made by the British paved a way for us to think and implement new laws in this field itself. These laws were one of the first lessons for us to make laws for the protection of the environment in a more polished fashion in the future.

Chapter 5:

Evolution of Environmental Laws & Policies in Pakistan Era (1947- 1971).

5.1 Introduction:

With the departure of the British, Pakistan emerged as an independent state in 1947. There was no major change in the legal system and administration of justice in East Bengal. Laws, structure and constitution of judiciary of the colonial period were adopted with some modifications.¹ There were several laws and policies introduced in Pakistan era to protect and conserve the environment and mitigating measures to minimize the environmental pollution and its impacts. Several laws were existed regarding environment passed before the independence of Bangladesh, Of them, 40 Acts enacted between 1947 and 1971.² This chapter aims at critically analyzing the evolution of the environment protection and preservation law and policy during the Pakistan period from the historical perspectives.

5.2 Environmental Policy Perspective in the Pakistan Period:

The governmental policy towards environment during this phase can broadly be divided into two periods. The first period lasted from 1947 to 1957 during which environmental problems by and large remained neglected. The second period lasted from 1958 to 1971. Environmental problems during this period were tackled in isolated and *ad-hoc* fashion and no attempt was made to see these problems in an ecosystem perspective. During the

¹ Kazi Ebadul Hoque, "Law and Society", in *History of Bangladesh 1704-1971 : Social and Cultural History* ed., Sirajul Islam (Revised New Edition) Dhaka: Asiatic Society of Bangladesh, 1997, p-640.

² Noor Mohammad, "Environmental Problems In Bangladesh: An Appraisal", *The Journal of Local Government*, Vol. 31 No.1 (January-June 2002), p-92-93

first decade after independence (1947-1957), the government of Pakistan was pre-occupied totally with the formidable problems of restoring normal economic, commercial and communication systems and channels of the new nation, as well as establishing new central and provincial government organizations. The government prepared its first six years development programme (July 1951 to June 1957) in great haste and it was incorporated into Colombo Plan.³ The programme, to be quite precise did not suggest any major administrative change, economic reform or environmental concern. It was actually a hasty grouping of schemes. In later years, the First Five Year Plan (1955-60) tried to initiate the concept of physical planning but it was still limited to housing in general and settlement of displaced families in particular.⁴

The second period (1958-1971) is marked by a considerable expansion in the country's industrial sector, introduction of green revolution in agricultural sector and completion and launching of mammoth irrigation projects.⁵ Nevertheless the emergence and expansion of environmental problems in the wake of exploitative use of resources and growing population did receive some acknowledgement. Remedial actions, though not in a concerted and systematic manner, were undertaken to combat the growing problem of soil pollution by water-logging and salinity. Considerable importance was also given to soil erosion. A soil survey department was added in the Ministry of Food and Agriculture by the Federal Government while soil conservation departments were established in the

³ Environmental Profile of Pakistan, Government of Pakistan (Environment & Urban Affairs Division of Islamabad), December-1988, Chapter-XII, p-206

⁴ Ibid,p-206

⁵ Mahabub Hossain, *Green Revolution in Bangladesh*, Dhaka: UPL-1989, pp-14-15.

provinces. A Forest Research Institute was also created to carry out studies on forest, range and wildlife management.⁶

5.3 Forest Preservation and Protection Law & Policy Perspectives:

Since the partition of India in 1947, the Forest Department (hereafter FD) as part of the Government of Pakistan and after 1971, as part of the Bangladesh Government has been preparing and executing management and working plans. The ownerships of forests changed with the abolition of *Zamindari* (feudal) system introducing the State Acquisition and Tenancy Act, 1950. The FD acquired a different enthusiastic shape since 1950s. It had been addressing different socio-legal-economic problems of various forests in Bangladesh.⁷ However, the objectives of forest management in different regions practically remained the same. The objectives are, broadly: a) Management of forests on a sustained basis; b) Ensuring supply of forest products to the population; c) Carry out operations to improve the quality of forest stock; d) To bring all poorly stocked and denuded forest areas under tree cover; e) To replace the existing trees with more valuable tree species (in hill forests); f) To maintain adequate forest cover for maintenance of an ecological balance and improved environmental condition; g) In consistence with the above objective to derive the maximum economic benefit out of these forests; h) To provide forest cover for the preservation and propagation of wildlife.

After the partition of India in 1947, the policy was not relevant for the new state of Pakistan which inherited forest cover for less than 2% of its territory. The existing policy neither contemplated the increase of forest area nor emphasized sustained harvest from

⁶ Supra Note 3, p-207

⁷ Mohiuddin Farooque, *Law & Custom on Forests in Bangladesh Issues and Remedies*, Dhaka: BELA, 1997, p-7.

existing forests. Furthermore, it excluded private forests from its territory. These deficiencies were recognized in the Pakistan Forestry Conference held in 1949.

In 1947, the forest resource of Pakistan was very poor. About 5% of the total land surface of Pakistan was under forest in the 1950s which was one of the lowest. In the then East Pakistan (Bangladesh) the coverage was 16% of her land surface.⁸ Pakistan depended mainly on forest for firewood requirements. To overcome the meager proportion of demand and supply the “Grow More Tree” campaign was started in 1949. Since then, a “National Tree Planting Week” has been observed each year in the month of July that continues even today. The conference guidelines provided improvement upon the Policy Statement of 1894 and a new Forest Policy was announced in 1955.⁹

The Forest Policy of 1955 was further revised and the Forest Policy of 1962 was introduced. The Forest Policy of 1955 and 1962 laid emphasis on the exploitation of forest produce, particularly from East Pakistan. The policies did not help the development of forestry in Bangladesh and were not very favorable for all round growth of forestry. In addition, increase in population and increase demand for food and other essentials resulted in heavy pressure on forestland, leading to ecological degradation.¹⁰

5.4 Forests Policy 1955:

In 1955, the forest policy depicted all characteristic manifestations of the colonial forest administrative.¹¹ The government of Pakistan declared its first forest policy in 1955. The policy aimed at increasing the area under forests in the unused government lands and

⁸ Annual Progress Report of Forest Administration for the Year 1955-56, Govt. of East Pakistan, Dacca, 1963.

⁹ Banglapedia, *Asiatic Society of Bangladesh*-2003-IV, page-259

¹⁰ *Ibid*

¹¹ N. A. Khan, Regional Study on Forest Policy and Institutional Reform, Final Report of the Bangladesh Case Study, Manila: Asian Development Bank, 2001.

extensive linear plantations to be established along roads, canals, and railways. But as the policy did not address the problems of hill and scrub forests, these continued to deteriorate. Forests could hardly meet right holders demands for timber and livestock grazing. The policy also ignored the pressing need to afforest denuded hills and to manage watersheds and rangelands.¹² Some important statements of the 1955 forest policy were: i) increased allocations should be made available to increase forest cover, ii) intangible benefits from forests should be recognized, iii) forests should be classified on the basis of their utility, iv) forests should be preserved carefully and managed scientifically, v) all forests should be managed under approved management plans.

5.5 Forests Policy 1962:

In 1962, a second forest policy was launched by the government of Pakistan. The policy had five foci, namely forestry, watershed management, farm forestry, range management and soil conservation. In this policy, some unconventional suggestions, including acquisition of rights of tree removal and grazing from public forests, compulsory growing of a minimum number of tree on private lands and encouraging farm forestry were made. Recommendations were also made in encouraging fast growing species with shortened rotation to boost forest production.¹³ Some other features of the 1962 forest policy were intensive management of forest for commercial purpose, plantation development in state-owned wastelands and soil conservation in forest and private lands. But the rights and demands of local people remained ignored as before.¹⁴ The Indian Forest Act, 1927 was

¹² Mahbububul Alam, "Evolution of Forest Policies in Bangladesh: A Critical Analysis", *International Journal of Social Forestry (IJSF)*, 2009, 2 (2), p-157.

¹³ Ibid, p-157

¹⁴ Mahbububul Alam, Supra Note-12, p-157.

amended in 1949 and 1962. New enactments and regulations or rules under the Act were made by Pakistan government.

Numerous rules and bye-laws have been framed or their applicability has been continued by the Government exercising its power under the 1927 Act. These legislations have been made to further elaborate the substantive provisions of the enabling law and to implement the purported objectives of the law functionally within the framework of the Government's institutions. These bye-laws include the following:

5.6 Sylhet Forest Transit Rules, 1951

The rules have been framed by the Government in exercise of the powers conferred by secs. 41, 42 and 76 of the 1927 Act, enforced in the Sylhet district under the Forest (Extension to Sylhet) Act, 1950. The purpose of the Rules is to regulate the transit by land or water of all timber or other forest produce, into or from the district of Sylhet. It applies to all timber and forest produce from reserved forest, unclassified state forest and private lands.

5.7 Dinajpur and Rangpur Forest Transit Rules, 1954

The rules were made exercising powers under secs.41 and 42 of the 1927 Act to regulate the transit by land and water of timber and other forest produce moving within, from or into the districts of Dinajpur and Rangpur. It extends to Government and private forests (managed or controlled by the Government) and to private lands.

5.8 Sylhet Forest (Protection from Fire) Rules, 1954

The Rules were formulated exercising powers conferred by clause (b) of sub-section (1) of sec.26 dealing with acts prohibited in reserved forest, clause (h) of sec.32 on protected forest and clause (d) of sec.76 of the 1927 Act. The Rules apply to: a) reserved forest

within the meaning of 1927 Act; b) vested forest and controlled forests within the meaning of Bengal Private Forests Acts, 1949, 1959; and c) other forest which is owned or in which the Government has proprietary rights or to whole or part of the forest produce to which the Government is entitled.

5.9 The Chittagong and Chittagong Hill Tracts Reserved Forests Fire Protection Rules, 1958

The rules were made under clause (d) of sec.76 of the 1927 Act. It prohibits activities with fire in certain areas outside the boundary of a reserved forest for the latter's safety.

5.10 Rules Regarding Powers of Forest Officers under the Forest Act, 1959

It prescribes rules, made under clause 2 of sec.2 and sec.76 of the 1927 Act, assigning powers of Forest Officers at various levels exercisable under the Act.

5.11 Prohibition and Rules Effecting Protected Forest in Sunderbans, 1959

The rules have been made exercising powers under clauses (a), (c), (d), (e), (f) and (g) of sec.32 and clauses (b), (c), (d) and (e) of sub-section (2) of sec.41 of the 1927 Act. It provides for rules on prohibition against clearing and cultivation and penalties for violation of the prohibition.

5.12 Forest Transit Rules of Chittagong and Comilla Districts, 1959

The rules have been framed exercising powers conferred by sec. 41, 42 and 76 of the 1927 Act read with sec.58 of the Private Forest Ordinance of 1959. It purports to regulate the transit by land or water of all timber or other forest produce within, into, or from the districts of Chittagong and Comilla coming from reserved and protected forests, land being the property of Government which has not yet been notified as reserved or protected forest and private lands.

5.13 Dhaka Forest Transit Rules, 1959

The rules have been framed exercising powers under sec. 41, 42 and 76 of the 1927 Act read with sec.58 of the Private Forest Ordinance, 1959. They apply in respect of all forest produce which may be moved by any route and manner within, into or from the reserved, protected, vested, controlled, acquired, and all other forests under Government management, and all privately owned forests and lands, not under Government management which is situated within the area delimited by the rules.

5.14 Mymensingh Forest Transit Rules, 1959

Made under powers conferred by sec. 41, 42 and 76 of the 1927 Act read with sec. 58 of the Private Forest Ordinance of 1959, the rules applies to all forest produce within the district of Mymensingh.

5.15 Rules on Hunting Shooting and Fishing, 1959

In exercise of powers conferred by clause (i) of sub-section (1) of section 26 and clause (j) of sec.32 read with sec.76 of the 1927 Act the rules have been framed to regulate hunting, shooting, fishing, the poisoning of water and setting of traps or shares within reserved and protected forests in Bangladesh.

5.16 The Private Forest Ordinance, 1959

Although the 1927 Act provided for the exercise of control necessary, no action was in fact taken until 1939 when a new bill was drafted on Private Forests. The enactment of the Bill was delayed by the World War II. Subsequently many of the Provinces passed separate acts, like, the Bengal Private Forest Act, (Act XI) of 1945. The 1945 Act was re-enacted in 1949 as Bengal Private Forest Act.¹⁵ However, the law was weakened by many operational shortcomings in the face of State acquisition of the feudal estates.

¹⁵ Mohiuddin Farooque, *Supra Note-7*, p-29

Hence, in 1959 the Private Forests Ordinance was promulgated repealing the earlier laws on private forest and ch. V of the 1927 Act.

The purpose of this Ordinance is to provide for the conservation of forests and for the afforestation of waste lands where such forests or lands are not the property of the Government or where it does not have any proprietary right over such forests or lands.

5.17 Sub-Ordinate Legislations:

Many sub-ordinate legislations or rules have been framed under the Private Forest Ordinance of 1959 (hereafter 1959 Ordinance). These include the following:

Rules on Powers of Forest Officers, 1959

These rules were made under clause (7) of sec.2 of the 1959 Ordinance to prescribe powers of various Forest Officers to exercise authority under the Ordinance including the appointment of the Regional Forest Officers.

Rules to Regulate Hunting, Shooting and Fishing within Controlled and Vested Forests, 1959

The rules were made exercising powers conferred by sec.57 of the 1959 Ordinance which were almost similar to those in public forest.

The Private Forest Management Rules, 1959

The rules were framed in exercise of the powers conferred by sec.57 of the 1959 Ordinance. It applied to all controlled and vested forests where the provisions of the 1959 Ordinance have been extended under sub-section (3) of sec.1. It provides for rules regarding the constitution and procedure of Appellate Committee and on forest loans.

The Vested Forests Costs and Profits Rules, 1959

It was made under sec.57 of the 1959 Ordinance for determining the costs and profits of vested forest for the purposes contemplated by the Ordinance.

The Private Forests Fire Protection Rules, 1959

Made under sec. 57 of the 1959 Ordinance, it purports to regulate activities with fire surrounding certain areas beyond the periphery of controlled and vested forests, camping and providing for prohibitions to ensure safety of private forests.

5.18 Fish Laws:

After the partition of British India in 1947, the Headquarter of the Directorate of Fisheries was shifted from Kolkata to Dhaka when the Directorate had to look after only fish marketing and fishermen's welfare. Since then the directorate started considering other aspects, such as conservation of fish, control of the fishing period, mesh size of the gears, etc and framed a set of laws which directly and positively influenced the development of the fisheries sector. The Protection and Conservation of Fish Act, 1950 was adopted to provide for the conservation of resources. Under this law the government may for a specified period prohibit the catching, carrying, transporting, offering or exposing or possession for sale or barter of fishes below the prescribed size of any prescribed species throughout Bangladesh or any part thereof.¹⁶

The East Bengal Protection and Conservation of Fish Act was passed in 1950 by the Provincial legislative, with a view to conserving young and brood stocks of specific species of fish and restricting certain fishing activities. The Act, which is still in force, empowers the government to promulgate laws and regulations to ensure conservation of

¹⁶ The Protection and Conservation of Fish Act, 1950 (Bengal Act XVIII of 1950)

fishery resources. The Act was subsequently amended in 1963, 1970, 1982 and 1985-1988.

The salient features of the Act are as follows fish means all cartilaginous and bony fishes, prawns, shrimps and other edible crustaceans, amphibians, tortoises, turtles, molluses, and echinoderms; capture of fish by fixed net, cage, traps, etc put across the river, canal and outlet *khal* or *beel* is prohibited; such fixed structures may be removed or seized; construction of temporary or permanent weir, dam, *bund*, embankment except for flood control, drainage and irrigation is prohibited; capture of fish by use of explosives, gun, bow and arrow in inland and coastal waters is prohibited; destruction of fish by poisoning water or by polluting water by industrial wastes or other means is prohibited; capture of shoals fry of shol, Gazar and Taki (snakheads) or their broods in the river, canal, *khal* and *beel* from 1st April to 31st August except for the purpose of culture, is prohibited; for the purpose of culture Rui, Catla, Mrigal, Kalibaus and Ghonia of any size may be caught in 27 selected rivers and khals after obtaining a license by the payment of prescribed fees to the District Fishery Officer; except for the purpose of culture, nobody is permitted to catch i) Rui, Catla, Mrigal, Kalibaus and Ghonia below the size of 23 cm from July-December, Jatka (young Hilsa) and Pangas from November to April every year and ii) Shillong and Air below the size of 30 cm from February to June every year; fishing with the help of current net/mosquito net having mesh size below 4.5 cm is prohibited; first time violators are to be jailed for 6 months or fined Taka 500 of both; second time violators are liable to be jailed for one year or fined Taka 1000 or both; violators may be arrested without warrant; all magistrates, sub inspectors of police at Upazila level, Deputy Rangers of the Sundarbans belonging to the Forest Department and Upazila

Fishery officer are empowered by the government to implement the Act. Nobody is permitted to appeal against a step taken under the Act.¹⁷ Much of the laws on fisheries have been developed by case laws.¹⁸

The first period of environmental law runs from 1958 to 1965. In this period six or seven specific environmental laws were promulgated.¹⁹

5.19 The Undesirable Advertisement Control Act, 1952:

The Undesirable Advertisement Control Act, 1952 shall cover any notice, sign, visible representation, announcement, bill, handbill, circular or pamphlet, whether pictorial or otherwise. This Act prohibits any advertisement for the treatment of any venereal disease, sexual disorder, irregularity of menstruation or any other prescribed disease, infirmity or abnormality, or offer to prescribe any remedy there of or give or offer to give any advice in connection with the treatment thereof.²⁰

5.20 The Pure Food Ordinance, 1959 covers food and food related matters. Food means any article used as food or drink for human consumption, other than water or any drug, and includes ice and aerated water and (a) any substance which is intended for use in the composition or preparation of food, (b) any flavouring matter or any spice or condiment and (c) any colouring matter intended for use of food. Section 6 of this ordinance prohibits trade in adulterated food. Section 19 states that no person shall publish or cause to be published an advertisement which is calculated to mislead the public as to the nature, substance or quality of an article of food.

¹⁷ The Protection and Conservation of Fish Act, 1950 (Bengal Act XVIII of 1950)

¹⁸ Mohiuddin Farooque, *Environmental Order the Security of Survival*, Dhaka: BELA, 2004, p-17.

¹⁹ Sohaib Qadar & Athar Rafique Dogar; *Pakistan's Environmental Laws and their compliance*, Islamabad: 2002, p-32.

²⁰ The Undesirable Advertisement Control Act (Act XV of 1952), 1952, Dr. Mohiuddin Farooque & S. Rizwana Hasan, *Laws Regulating Environment in Bangladesh*, Dhaka: BELA-2004, p-128.

This ordinance aims at preventing spread of disease and states that no person suffering from leprosy, tuberculosis or any other disease which may be notified by the government in this behalf, shall manufacture or sell any article or food, or willfully touch any such article which is for sale by any other person. One striking aspect of the ordinance is that it recognizes the people's right to question the standard of goods. In other words, consumers have a standing under the ordinance which states that a person who has purchased any article of food shall, on payment of a prescribed fee, be entitled to have a sample of such an article analyzed or otherwise examined by the public analyst appointed for the area in which the purchase was made, and to receive from such a public analyst a certificate in the form provided in the schedule, specifying the result of the analysis or examination.²¹ The Pure Food Ordinance, 1959 provides for the prevention of adulteration of food and prohibition of sale or distribution of food injurious to health. Bangladesh Standardization and Testing Institute is entrusted with the responsibility of checking and testing quality.

5.21 The Agricultural Pests Ordinance, 1962

The Agricultural Pests Ordinance, 1962 was promulgated to prevent the spread of agricultural Pests in Bangladesh. This law empowered the government to prohibit the employment of any method of cultivation that would spread agricultural pests either generally or with respect to any particular crops. With the same objective the government may also prohibit the transport or sale of any infested crop. The Agricultural Pesticides Ordinance, 1971 aimed to regulate the import, manufacture, sale, distribution and use of pesticides.²²

²¹ The Pure Food Ordinance, 1959 (E.P. Ordinance No. LXVIII of 1959) p-165.

²² The Agricultural Pesticides Ordinance, 1971.

5.22 The Factories Act 1965:

The Factories Act of 1965 requires effective arrangement for disposal of wastes and effluents resulting from manufacture process. Effective and suitable provisions shall have to be made by the factories for securing adequate ventilation by the circulation of fresh air and to maintain reasonably comfortable temperature inside the factory buildings in order to prevent injury to health. Effective measures are to be taken by every factory to prevent accumulation of dust or fume or other impurities of such a nature that may be injurious or offensive to health. Factories are also required to make effective arrangements to provide and maintain sufficient supply of wholesome drinking water.

5.23 Antiquities Act, 1968

An act to be consolidated and amended the law relating to the preservation and protection of antiquities.²³ This act is called the Antiquities Act, 1968.²⁴ It extended to the whole of Pakistan. Antiquity means- any ancient product of human activity, movable or immovable, illustrative of art, architecture, craft, custom, literature, morals, politics, religion, warfare, science or of any aspect of civilization or culture, and any ancient object or site of historical, ethnographical, anthropological, military or scientific interest. Antiquities Act, 1968 states in sec.10 (4) “Ancient monuments declared to be protected monuments under the Ancient Monuments Preservation Act, 1904 (VII of 1904), shall be deemed to be protected antiquities for the purposes of this Act.”

²³ Act No. XIV of 1968.

²⁴ The Gazette of Pakistan, Extra, Dacca: December, 14, 1968.

5.24 Conclusion:

There were several laws and policies introduced in Pakistan era to protect and conserve the environment and mitigating measures to minimize the environmental pollution and its impacts. But it was not adequate initiatives. During the Pakistani period, environment protection did not receive any serious attention though national programmes. In HYC, public health, nutrition, water supply, housing, economic growth found high priority in the planning process. The Protection and Conservation of Fish Act, 1950, the Forest Policy of 1955, the Forest Policy, 1962, the Agricultural Pests Ordinance, 1962, the Pure Food Ordinance, 1959, the Undesirable Advertisement Control Act, 1952 were promulgated but had various defects and failed in their objectives.

Chapter 6 :

Environmental Laws during the Post-Independence Era in Bangladesh (1971-2010)

6.1 Introduction: The advent of modern state with system of statutes witnessed a blend of “revenue” and “resources” oriented regime with some significant prohibit of acts dangerous to human environment and health and the ecology.¹ Hence, we find environmental provisions in the Penal Code of 1860, law reflecting natural phenomenon in the Bengal Alluvion and Diluvian Regulation, 1825, law to protect future generation in the Juvenile Smoking Act, 1919 and so on. Therefore, the provisions having direct, indirect and casual link with environment and ecology have been in place as regulatory regime in the forms of policies, legislations, institutions and traditions.² In tackling the environmental problems of the country, various environmental laws have been made from time to time in Bangladesh.³ There are more than 200 sectoral laws (excluding rules and bye-laws) that are in force dealing with environmental issues. They focus mainly on land use, air and water pollution, noise, toxic chemicals, solid waste, forest conservation, wildlife protection, mineral resources, coastal zone management, industry, environmental health and sanitation, etc., Some of these laws, now in force, such as Forest Act of 1927; Motor vehicle Ordinance of 1939; Bengal Smoke Nuisance Act of 1905, etc., are inherited. Others were enacted after 1947 due to changed scenarios. On the basis of broad objectives of environmental laws existing in Bangladesh, laws may be categorized as

¹ Mohiuddin Farooque, “Environment and Law”, Presented in the *Fifth SAARC Law Conference*, 27-29th December, 1996, Dhaka, Bangladesh. P-1.

² Mohiuddin Farooque, “Environment And Law”, *Selected Writings of Mohiuddin Farooque : Environmental Order the Security of Survival*, Dhaka: BELA, 2004, p-1.

³ Quamrul Islam Chowdhury (ed.), *Bangladesh State of Environment Report 2000*, Dhaka: FEJB-2000, p-327.

follows: i) Protection of Environmental health; ii) Control of Environmental pollution; and iii) Conservation of natural and cultural resources.⁴ The above objectives amply demonstrate that all environmental-related laws are intended to lead our acts toward sustainable development⁵. This chapter attempts to review and analyze evolution and development of environmental laws of Bangladesh from historical perspectives.

6.2 Historical Development of Environmental laws in Bangladesh:

The Stockholm Declaration, 1972; The Vienna Convention for the Protection of the Ozone Layer, 1985; The Montreal Protocol on Substances that deplete the Ozone Layer, 1987; The Report of the World Commission on Environment and Development ("The Brundtland Commission"), 1988; The Rio Declaration on Environment & Development, 1992; The U.N Convention on Biological Diversity, 1992; Agenda 21, 1992; The U.N Framework Convention on Climate Change, 1992, The Kyoto Protocol, 1998 etc. are the remarkable events of international environmental law. According to the world progress, Bangladesh has taken measures. Bangladesh did not attend the Stockholm Conference in 1972. Due to newly born state and then did not get membership of United Nations. Besides, Bangladesh maintained Soviet Union lobby. The Soviet Union and most of its East European allies refused to send delegations because East Germany has been invited to the Conference only as an observer.⁶ But in 1992, A S M Mostafizur Rahman, foreign minister, Abdullah Al Noman, minister for Environment and Forest and some other members of the Bangladesh delegation joined the Rio Summit. Foreign minister leads the

⁴ National Environment legislations, *Environment and Development Alliance*, see Quamrul Islam Chowdhury (ed.), *Bangladesh State of Environment Report 2000*, Dhaka: FEJB-2000, p-327.

⁵ The concept of sustainable development may be found expressly or implicitly in many environmental treaties and other instruments in the period prior to the publication of the Brundtland Report in 1987. The Brundtland Report defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' See, Rio Declaration, Principle 27, Agenda 21.

⁶ The Bangladesh Observer, June-5, 1972. p-1

Bangladesh delegation at the Summit.⁷ In the formulation of Environmental Law, different actors and factors played some direct and indirect roles.⁸ The actors were basically of two types, external and internal. Among external actors, United Nations General Assembly, international forum, international organizations, donor agencies (IDA, USAID, UNDP, ADB) were major players. Internal actors include, environmental NGOs (CARDMA, BCAS, IUCN, FEJB, ADAB) government agencies i.e. Ministry of Environment and Forest (MoEF), Department of Environment (DoE), Ministry of Law, concerned ministries, consultants, bureaucrats, civil society and so on. Although the MoEF was responsible for drafting the policy, in reality it will be drafted by an informally organized Task Force composed of the major actors.⁹ The Department of Environment (DOE) is responsible for conservation of environment and enhancing its quality through prevention and mitigation of pollution in Bangladesh. The DOE, under the Ministry of Environment and Forest (MoEF) is a special government body for environmental management in our country. The DOE is the authority with mandate to regulate and enforce various environmental activities which are assigned. Supporting laws under which the DoE perform its various programmes are Environment Conservation Act (ECA) of 1995, the Environment Conservation Rules (ECR) of 1997, the ECA has set a new standard for conservation of the environment. Conservation of Playing field, Open space, Garden and Natural Water Body Act, 2000 (enacted in Bengali) also contains provisions for environmental conservation, the Environment Impact Assessment (EIA) guidelines of 1997 for the industrial sector, the Environment Conservation Act

⁷ The Morning Sun, June-04, 1992, p-1

⁸ S. M. Aminuzzaman (2010), Environment Policy of Bangladesh : A case study of an Ambitious policy with Implementation Snag. Available from: http://www.monash.edu.au/research/Sustainability-institute/asia-project/paper_salahuddin_aminuzzaman.pdf [Accessed 24th December, 2010]

⁹ Ibid

(Amendment) 2000 and 2002, the Environment Conservation Rules (Amendment) 2000 and 2002, the Environment Court Act 2000 and the Environment Court Act (Amendment) 2002. More recently enacted Noise Pollution (Control) Rules, 2006, Medical Waste (Management and Processing) Rules, 2008, Environment Conservation (Amendment) Act, 2010, and Environment Court Act, 2010.

Beside, necessary amendments have been made in the existing legislation for establishment, operation and maintenance of kilns (Brickfield) around the city. A number of documentary films, telops, informative brochures, educative materials, poster etc. have been produced highlighting environmental aspects. These are being used in various seminars, symposiums, workshops, training programs as well as in generating public awareness on various environmental issues. As a technical arm of the Ministry of Environment and Forest, the DoE encompasses nearly everything related to environmental management and conservation in the country.¹⁰

Environmental Law, therefore, relates to the management of the environment and strategies for tackling the problems affecting the environment. It is provided that preventive and remedial measures to meet the hazards of pollution are also major concerns of environment of environmental law. The law embraces a wide spectrum of environmental issues. This may include the natural environment, namely physical conditions of land, health, social and other man made conditions affecting human beings on earth.

6.3 Why need environmental law?

¹⁰ Noor Mohammad, “The Role of Urban Local Government and Special Service Providers in Environmental Governance in Dhaka City”, *The Journal of Local Government*, Vol. 31 No.2 (July-December 2002), pp-31-33

Environmental law plays a critical role in promoting environmental protection through the sustainable use of natural resources, prevention of pollution and integration of environment and development. Environmental law assists governments in adhering to international regimes and building national capabilities to address major global, regional and national environmental issues and problems in the context of sustainable development. According to legal point of view the inter-relationship existing between physical properties of earth (water, air, and soil) and living organisms (human beings, plants, and microorganisms) defines as environment.¹¹ The law relating to the environment is derived from two principal sources, namely common law developed by courts, through judicial precedents, and the statutory law with regulations, or bye-laws made there under. The statutes and the constitution are the primary and formal sources of environmental law and the various forms of delegated legislation, such as regulations, rules, orders and schemes are the main pieces of legislation in environmental law and also discretion are the feature of the environment law. Environment law is a synthesis of principles, concepts and norms generated by other laws. It has now been accepted, with or without alteration, as concepts of civil liability, criminal liability, which had their origin in tort.¹² With the development of science and technology with the ever-increasing world population have come tremendous changes in the human behavior. These changes set up the eco-laws, shock the balance between human behavior and social transactions with new laws, designed to suit the changing conditions and values. The people of this subcontinent had a fascination and respect for the nature over the centuries. The evidences are available in Emperor Ashoka's edicts (272 to 232 BC) where protection of

¹¹ Environment Conservation Act, 1995, *Ref: Clause (d)*.

¹² Kailash Thakur, *Environmental Protection Law and Policy in India*, New Delhi: Deep & Deep Publications Pvt. Ltd., 2003, P-184.

wildlife and prohibition of forest burning were clearly spelled out.¹³ The environmental legislation in the Indian subcontinent was inherited from the British ruler and has developed gradually after the independence of India and Pakistan in 1947. Later on, Bangladesh has got independence from Pakistan after nine months war in 1971. So, the environmental laws and regulations in Bangladesh are originated from British and Pakistan rule. After independence, Bangladesh has gradually realized the environmental problems owing to population growth, unplanned infrastructure development, unwise resource utilization etc., and its importance. It is observed that Bangladesh has taken integrated environmental laws, policies and environmental action plan to conserve, develop and pollution mitigation measures after its independence especially after 1990, there are around 200 environmental laws of different sectors are regulating environment in Bangladesh.¹⁴

6.4 National Environment Management Action Plan (NEMAP) 1995:

National Environment Management Action Plan (NEMAP) 1995 is the major policy document that recognized links among environmental degradation, poverty, and population growth. National Biodiversity Strategy and Action Plan 2004 put due priority on the recovery and conservation of degraded ecosystems. Following the National Environment Policy 1992, the Bangladesh Environment Conservation Act, 1995 and the Environment Conservation Rules, 1997 were promulgated aiming at systematic industrialization to ensure sustainable development keeping the environmental cost minimal. But continuing environmental degradation indicates a missing link between environmental pollution control efforts and the laws and regulations.

¹³ P. B. Sahasranaman, *Hand Book of Environmental Law*, New Delhi: Oxford University Press, 2009, p 1.

¹⁴ Noor Mohammad, "Environmental Laws in Bangladesh: An Appraisal", *The Journal of Local Government*, Vol. 32 No.1 (January-June 2003), pp-36-38

6.5 Development of Environmental Law:

The Agricultural Pesticides Ordinance, 1971 aimed to regulate the import, manufacture, sale, distribution and use of pesticides.¹⁵ Pesticide Ordinance, 1971- was amended by the Agricultural Pesticides (Amendment) Act 1980 and the Agricultural Pesticides (Amendment) Ordinance, 1983. The Act provides for the regulation of import, manufacture, formulation, sale, distribution and use of pesticides in order to prevent injury to public health or to animals or vegetation.

The main provisions of the ordinance are as follows:

No person shall import, manufacture, formulate, repack, sell, offer for sale, hold in stock for sale or in any manner advertise any brand of pesticide unless the same has been registered, and a licence has been obtained from the Government for such dealing.¹⁶

The Bangladesh Wild Life (Preservation) Order, 1973 deals with game and protected animals. While game animals can be hunted, killed, or captured only subject to the terms and conditions of permits, issued by the relevant authority. Protected animals can not be hunted, killed or captured except for protecting life, crops or livestock.¹⁷ Bangladesh Wildlife (Preservation) Act 2010 was incorporated latest international conventions and laws for protecting endangered species.

The Marine Fisheries Ordinance, 1983 covers the territorial waters and economic zone of Bangladesh as declared by the government under the Territorial Waters Maritime Zone Act, 1974, and any other marine waters over which it has, or claims to have, jurisdiction under law with respect to the management, conservation and development of the marine living resources. This law has authorized the government to specify the types, classes and

¹⁵ The Agricultural Pesticides Ordinance, 1971 (Ordinance No. II of 1971)

¹⁶ It is incorporated Environmental Conservation Act, 1995 Ref: Clause (i) .

¹⁷ It is incorporated Environmental Conservation Act, 1995, Ref: Clause (g).

number of fishing vessels that can be deployed in Bangladesh waters having regard to the requirement of fisheries management and development plans. Under section 28 of the Ordinance the government may declare any area of Bangladesh waters and an adjacent or surrounding land to be a marine reserve.¹⁸

The Marine Fisheries Ordinance, 1983: The ordinance is generally known as the Marine Fisheries Rules, 1983, which were amended in 1992. The salient features of the rules are as follows a Director, posted at Chittagong shall be responsible for the survey, conservation, development and management of marine fisheries resources, enforcement of laws and licensing, etc; an annual fishing licence (January- December) is compulsory for every fishing trawler and mechanized boat and is obtainable after the payment of prescribed fees (Taka 200-1800).

Non mechanized boats were brought under licensing in 1995. Every licence-holder must furnish data on every catch and the sale of the fish to the Director at Chittagong. Entry of foreign trawlers in Bangladesh waters is banned. The government reserves the right of permitting to any trawler or person for scientific investigation in Bangladesh waters; an illegal trawler will be seized along with its crew.¹⁹

The Tank Improvement Act, 1939 Generally, the act is known as the Pond Development Act, 1939, which was amended in 1986. Under the Act, may unused pond may be brought under fish culture by the *Upazila Nirbahi officer* (UNO) after issuing proper notice and time to the owner of the pond.²⁰

¹⁸ The Marine Fisheries Ordinance, 1983.

¹⁹ Mohammad Shafi, , *Banglapedia- National Encyclopedia of Bangladesh* (ed) Sirajul Islam, Asiatic Society of Bangladesh-2003, vol-4, p-140-141.

²⁰ Ibid, p-140-141.

The Fish and Fish Product (Inspection and Quality Control) Ordinance, 1983 Generally, the ordinance is known as the Fish Quality Control Act, 1983, Which was amended in 1989. The salient features of the ordinance are as follows Freshly Caught fishes and shrimps may be processed in processing plants which fulfill the necessary terms and conditions and after payment of prescribed fees.

During processing use of any element affecting the quality is prohibited. Export is allowed only after receiving a good condition certificate from the government.

Shrimp Culture Tax Act, 1992 According to this Act the government can improve tax a shrimp culture area if anybody is benefited by the construction of an embankment and water control structures and the excavation of *khals*.

6.6 The Bangladesh Environment Preservation Ordinance 1989

The Department of Environment was established long back in 1977 as Environment Pollution Control Board following promulgation of Environment Pollution Control Ordinance of 1977. This Board was assisted by a “Pollution Control Cell” which ultimately grew into the Department of Environmental Pollution Control and subsequently the Department of Environment. The Ordinance of 1977 provides for the control, prevention and abatement of environmental pollution. The earlier law, namely, “The Water Pollution Control Ordinance, 1970” has been repealed by this ordinance.

Whereas for the well being of present and future generations to protect the environment including its components air, water, soil, flora and fauna, the Government Promulgated “The Environment Pollution Control Ordinance 1977” (Ordinance No. 13, 1977) to

provide for the control, prevention and abatement of pollution of the environment of Bangladesh.²¹

And whereas in addition to the provisions made in the Ordinance No. 13 of 1977, it has become necessary to expand the scope of the environment protection activity to effectively and comprehensively cover the various aspects and components of environment and to coordinate multi spectral development activity so as to ensure long-term economic-cum-environmental sustain abilities.

The chapter IV of the Bangladesh Environment Preservation Ordinance 1989, mentioned penalties as- (24.2) The person or undertaking found guilty under this ordinance shall be punishable with imprisonment for a term which may extend to one year or with fine which may extend to one hundred thousand takas or both and may in addition be punishable with a further fine which may extend to taka ten thousands for every day of the period during which the failure or negligence to comply continues.

(28) Offence due to pollution from source in coastal water and from other land source- when different sources from land and various water vessels discharge intentionally or non intentionally heavy oil, water mixed with oil or any other wastes to river, sea or coastal area of Bangladesh and thereby pollutes the sea and coastal environment, then in order to protect the environment and keep the ecological balance the Director General shall take appropriate measures including arresting the vessel and imposing a fine which may extend up to taka two hundred thousands only.

(29) Offence due to destruction of coral and natural habitat of flora and fauna- To detect the damage of any its source, the Director General or any authorized officer of the Department may require in writing and person or undertaking or government or

²¹ The Environment Pollution Control Ordinance 1977.

autonomous Organizations to permit any person of the Department to enter upon. The person or undertaking responsible for the above mentioned damage shall be guilty under this Ordinance and shall be punishable with imprisonment for a term which may extend to one year or with fine which may extend to one hundred thousand taka or with both.²²

6.7 The Bangladesh Environment Conservation Act, 1995

The Environment Conservation Act was enacted in 1995.²³ It took four years to go through the process of public consultation, stakeholders meeting and inter-ministerial meeting to finalize the draft.²⁴ DoE was the initiator of the process and author of the first draft. With modifications and changes, finally the parliament adopted the Act in 15 February, 1995²⁵ for the conservation, improvement of environmental standard and control and mitigates the pollution of the environment in Bangladesh and later on, this Act has been amended for several times²⁶ for effective conservation and development of the environment, Before enactment of this Act, there was an Ordinance named ‘the Environment Pollution Control Ordinance, 1977’ but did not take all aspects of environment into account.²⁷ The penal aspects were not strong enough. As a result, it became necessary to amend the Ordinance of 1977 and adopt a new one in consistence with the demands of the time. The earlier law, namely, *The Water Pollution Control Ordinance, 1970* was replaced by this Ordinance of 1977. So, we got a new Environment Conservation Act, which was duly passed by the parliament. In order to take quick and

²² The Bangladesh Environment Preservation Ordinance -1989.

²³ After modification of the National Environment Conservation Bill, 1994, it was passed by the parliament as The Bangladesh Environment Conservation Act, 1995.

²⁴ Supra Note-4, p-328.

²⁵ The Environment Pollution Control Ordinance, 1977 has been replaced in 1995 by the Environment Conservation Act, 1995 (Act No. 1 of 1995)

²⁶ Environment Conservation Act (ECA) Amended in 2000, 2002 & 2010.

²⁷ Liaquat Ali Siddiqui, “Bangladesh Environment Conservation Act, 1995: A Review,” *Bangladesh Asiatic Society Journal*, 14th part, June 1996, p-63-70.

necessary steps, natural resources and over-all environment have been brought under the broader purview of environment conservation act.

The Environmental Conservation Act, 1995 (ECA '95) is currently the main legislative framework document relating to environmental protection in Bangladesh. ECA-1995 and other related environmental laws, it appears, are 'polluter-pays-principle'²⁸ biased. Though ultimate objective of all the environmental related laws are the protection of environment, the issues of pollution control have received better attention than those of the resource conservation needs. The main objectives of ECA, 1995 are conservation and improvement, and control and mitigating pollution of environment.

The main strategies of the Act can be summarized as i) Declaration of ecologically critical areas, and restriction on the operation and process which can be carried or cannot be initiated in the ecologically critical areas, ii) Regulation in respect of vehicles emitting smoke harmful for the environment, iii) Environmental clearance, iv) Regulation of the industries and other development activities- discharge permit, v) Promulgation of standards for quality of air, water, noise and soil for different areas for different purposes, vi) Promulgation of standard limit for discharging and emitting waste, vi) Formulation and declaration of environmental guidelines.

The DoE is implementing the Act. DoE is headed by a Director General (DG), who has complete control over the Department. The power of DG, as given in the Act, may be outlined as follows: i) Identification of different types and causes of environmental degradation and pollution, ii) Instigating the investigation and research into information regarding environment conservation, development and pollution, iii) Power to close down the activities considered harmful to human life or the environment. The operator does

²⁸ The Polluter-Pays Principle is implicitly recognized in Principle 16 of The Rio Declaration.

have the right to appeal and procedures are in place for this. However, if the incident is considered an emergency, there is no opportunity for appeal, iv) Power to declare an area affected by pollution as an ecologically critical area. The type of work or process, which can be taken in such an area, is governed by DoE, v) Similar to an aforementioned clause, if any part of the environment is polluted/damaged by operations, the Director General can request or force the operator to make rectifying arrangement, vi) Operators must inform the Director General of any pollution incident or 'near miss'.

In the event of an accidental (pollution) event, the Director General may take control of an operation and the relevant operator is bound to help. The operator is responsible for costs incurred and (possibly) compensation.

Before new projects can go ahead as stipulated under the rules, they must obtain an Environment Clearance from the Director General. An appeal procedure does exist for those promoters who fail to obtain clearance. Failure to comply with any part of this Act may result in punishment by a maximum of 5 years imprisonment or a maximum fine of Taka 500,000 or both.²⁹

This act is closely related to the Department of Environment, pollution, environment pollutant, occupant, environment conservation, ecosystems, hazardous material, and wastage and the Director General for the execution of this act. This act has also given operational definitions of ecosystems, pollution, waste, and hazardous substance; previously such definitions did not exist in the legal regime. The act has given the Director General of the department of environment all the authority needed to deal with matters connected with protection of the environment. The act, among other things, contains the rules such as the rule of assessment of the environmental impact and

²⁹ The Environment Conservation Act, 1995 (Amendment 2010.).

issuance of necessary clearance certificates, the provision of rigorous penalty for those violating the act and making the process of implementation easier in the application of the act. The Bangladesh Environment Conservation Act states that if any area is threatened to reach an environmentally critical condition then the Government may declare it as ecological critical area through gazette notification. It is also made clear under section-2 of the Bangladesh Environment Conservation Rules, 1997. The act of 1995 also empowered the government to declare an area to be an ecologically critical area' if its ecosystem appears to be under serious threats of degradation or degraded. One of the salient feature of the Environment Conservation Act, 1995, is the government could declare Environmentally Critical Area depending on the status of degradation occurred in a particular area. In September 2009, the four rivers -- Buriganga, Sitalakhaya, Turag and Balu -- have been declared by the Department of Environment as ECAs.³⁰ It has been stated in Article 5 (1) of the Act, "If the Government is satisfied that an area is in an environmentally critical situation or is threatened to be in such situation, the Government may, by notification in the official Gazette, declared such area as an ecologically critical area."³¹ The Ministry of Environment and Forest has already declared nine areas³² as critical. These are Sunderbans, Cox's Bazar- Teknaf sea beach, St. Martin's Island, Shonadia Island, Hakaluki Haor, Tanguar Haor, and Marzat oxbow Lake. In these ECA's, a ban has been imposed on some activities that include felling or extracting trees; hunting and poaching of wild animals; catching or collection of snails, coral, turtles, and other creatures; any activities that may pollute soil, water, air and or

³⁰ "4 rivers around Dhaka city declared ecologically critical area"; The Daily Star, November, 25, 2009.

³¹ A Compilation of Environmental Laws administered by the Department of Environment, October 2002, p-7

³² See, Chapter-9, p-

create noise pollution; and any other activity that may be harmful for fish and aquatic life.³³

There are eleven areas such as human habitat, ancient monument, archeological site, forest sanctuary, national park, game reserve, wildlife habitat, wetland, mangrove, forest area; bio-diversity may be taken under consideration for declaration as ecological critical area for the restoration of the environment.³⁴

6.8 Environment Conservation Rules, 1997 (ECR-1997)

The Environment Conservation Rules, 1997 have been formulated to fulfill the objectives of 'The Bangladesh Environment Conservation Act 1995' for the conservation of environment, improvement of environmental standards and control and mitigation of environmental pollution. There are the first sets of rules, promulgated under the Environment Conservation Act 1995. Among other things, these rules set: i) The national Environment Quality Standards for ambient air, various types of water, industrial effluent, emission, noise vehicular exhaust, etc, ii) Requirement for and procedures to obtain environment clearance, iii) Requirement for IEE/EIA according to categories of industrial and other development interventions.

According to the rules, any project/ development intervention is to obtain Environmental Clearance in two steps- first to obtain site/ location clearance (based on the application along with necessary paper as per requirement against respective categories, including the initial environmental examination (IEE), IEE which will contain the scope of work of the proposed EIA and then to obtain Environmental Clearance (by submitting the application along with necessary papers and after obtaining the approval on the Environmental

³³ A Compilation of Environmental Laws administered by the Department of Environment, October 2002, pp-288-95

³⁴ Ibid, pp-181-82.

Impact Assessment Report, which is to be obtained in between). The DoE may take upto 60 days to issue the site clearance (from the date of receiving the application), 60 days to approve the EIA and 30 more days to issue the Environment Clearance.

This may be quite a lengthy process if DoE uses the full extent of the time limits. The rules, however, provide the Director General with a discretionary authority to grant 'Environmental Clearance' to an applicant exempting the requirement of site/ location clearance, provided he considers it appropriate.³⁵

No industrial unit or project will be established or undertaken without obtaining environmental clearance certificate from the Director General in the manner prescribed by the Rules of 1997. It is cited that for the purpose of granting environmental clearance certificate, industrial units and projects are divided into four categories such as a) Green, b) Orange-A, c) Orange- B, and d) Red which depends upon environmental impact and locations.³⁶ All existing industrial units and projects as well as industrial units and projects of green category shall be granted for environmental clearance. For proposed industries units and projects of Orange A, Orange B, and Red categories at first location and clearance and there after environmental clearance should be given. It is also provided that, upon application by an industrial unit of the project, if the Director General feels proper, he or she may grant Environmental Clearance to the same directly without first giving location clearance certificate. This would help the entrepreneurs and other relevant persons to find out necessary directives. Conservation as it has been defined in the Act of

³⁵ Section 7 (4), 2nd Paragraph, of the Gazette.

³⁶ Environmental Conservation Rules- 1997, A Compilation of Environmental Laws administered by the Department of Environment, October 2002, p-183.

1995 would require qualitative and quantitative improvement of different components of the environment and prevention of their degradation.³⁷

6.9 Conservation of Playing Field, Open Space, Garden and Natural Water Body Act- 2000

On 18 September, 2000 the official notification of the law on Conservation of Playing Field, Open Space, Garden and Natural Water Body Act was published. The law although enacted has not been brought into effect that has been left to the government to be done through a subsequent notification.

The law with a long title seeks to protect the playground, open space, uddyan and natural water bodies of the divisional headquarters and the municipal areas of the districts. It has identified the Rajdhani Unnayan Kartripakkha, Chittagong Development Authority, Khulna Development Authority, Rajshahi Development Authority, respective City Corporations and Paurashavas as responsible agencies for the protection of the defined spaces.

This particular piece of legislation was adopted at a time when many of the playgrounds and parks have diminished while the lakes faced severe threat of being filled up. The Act pointed at the fast disappearance of open spaces despite specific earmarking in the existing master plans and provisioned that any change in the nature of the defined open spaces must have prior authorization of the Government. Any violation might be visited with five-year imprisonment or a fine of Taka 50 thousand or both.

³⁷ Noor Mohammad, "Environmental Laws in Bangladesh: An Appraisal", *The Journal of Local Government*, Vol. 32 No.1 (January-June 2003), pp-39-41

Ban on Felling Trees at Reserved Forest: The Cabinet, on 9th April, 2001 reinforced the prohibition on felling trees from the reserve forests till 2005 to protect country's bio-diversity.

6.10 Common Law Aspects of Environmental Law:

The Penal Code 1860 (Chapter XIV of offences affecting the public health, safety, convenience, decency and morals)

Article 277: Failing Water or Public Spring or Reservoir-

Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose for which it is ordinarily used, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine which may extend to five hundred Taka or with both.

Article 278: Making Atmosphere Noxious to Health-

Whoever voluntarily vitiates the atmosphere in any place so as to make it noxious to the health of persons in general dwelling or carrying on business in the neighbourhood or passing along a public way, shall be punished with fine which may extend to five hundred Taka.

Article 284: Negligent Conduct with Respect to Poisonous Substance-

Whoever does, with any poisonous substance, any act in a manner so rash or negligent as to endanger human life, or to be likely to cause hurt or injury to any person, or knowingly or negligently omits to take such order with any poisonous substance in his possession as is sufficient to guard against probable danger to human life from such poisonous substance, shall be punished with imprisonment of either description for a term which

may extend to six months, or with fine, which may extend to one thousand Taka, or with both.

Article 285: Negligent Conduct with Respect to Fire or Combustible Matter-

Whoever does, with fire or any combustible matter, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any fire or any combustible matter in his possession as is sufficient to guard against any probable danger to human life from such fire or combustible matter, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand Taka, or with both.

Article 286: Negligent Conduct with Respect to Explosive Substance-

Whoever does, with any explosive substance, any act so rashly or negligently as to endanger human life, or to be likely to cause hurt or injury to any other person, or knowingly or negligently omits to take such order with any explosive substance in his possession as is sufficient to guard against any probable danger to human life from that substance, shall be punished with imprisonment of either description for a term which may extend to one thousand Taka, or with both.

6.11 Sustainable Development and Environment Conservation Act 1995

The concept of sustainable development or right to healthy was not incorporated of the passed two or five decades back laws. It is the out come of the very recent concerns about environment. Such back dated laws can not play any effective role in combating environmental pollution in today's Bangladesh, where over population; poverty and illiteracy are aggravating this crisis day by day. But if we consider the passed Bangladesh

Environment Conservation Act, 1995, we can observe that this Act includes all pollution control measures in order to achieve sustainable development. Under section 2 (a) of the Environment Act, 1995 “Pollution” reads as any contamination or alteration of the physical, chemical or biological properties of air, water, soil, including change of their temperature, taste, odour, density, or any other characteristic, or such discharge soil or any elements of the environment will be injurious, harmful or destructive to public health or to domestic, commercial, industrial, agricultural, recreational or other useful activity, as well as to air, water, soil, livestock, wild animal, bird, fish, plant or other forms of life.³⁸ If may include any solid, liquid, gaseous and radioactive substance, the discharge disposal and dumping of which may cause harmful change to the environment. “Hazardous material”- the material, which due to possessing chemical or biochemical properties, is such that its manufacture, storage, discharge or unregulated transportation can be harmful to the environment.³⁹ “Environment Pollutant”- means any solid, liquid, and gaseous substance, which causes harmful effect to the environment (heat, noise, radiation, smoke etc).⁴⁰ Bangladesh needs to implement stricter laws to control solid waste, industrial waste, medical waste, and sewage sludge disposal for sustainable development.⁴¹

6.12 DOE taken measures of pollution control by using environmental law:

The DoE is engaged in various programs toward ensuring the environmental conservation and development of our country. These are amendment of ECA 1995 to implement the

³⁸ Ref: Clause (b), The Bangladesh Environment Conservation Act, 1995 (Act No. 1 of 1995); A Compilation of Environmental Laws administered by the Department of Environment, October 2002, p-155.

³⁹ Ibid, Ref: Clause (j), p-155.

⁴⁰ The Bangladesh Environment Conservation Act, 1995 (Act No. 1 of 1995); A Compilation of Environmental Laws administered by the Department of Environment, October 2002, p-155.

⁴¹ Md. Khalequzzaman, “Environmental Philosophy in the Context of Bangladesh”, *Weekly Holiday*, Dhaka: 30 July, 1999.

government's ban on use, production, distribution, marketing and using polythene bags for any purpose from 1st January, 2002 in Dhaka city⁴²; revision of ECR, 1997 to make catalytic converter and diesel particulate filter mandatory to vehicles plying by petrol and diesel respectively; ban on vehicles with two-stroke engines to combat air pollution in the capital city and undertaking steps towards converting vehicles using petrol and diesel to CNG operating one by the ministry of Communication. Moreover, a continuous Air Quality Management Station has already been established in the parliament compound in Dhaka under the World Bank funded project which is being implemented by the DoE.⁴³ Lead pollution in the air was very high until the introduction of lead free petrol in the city since 1999.

To maintain ecological balance in the city, the DoE has also taken various steps like protection and conservation of wetlands and low-lying areas; compiling a number of reports based on analysis of samples of water/wastewater from various sources; controlling of traffic congestion and poisonous black emission from transports through conducting mobile courts with assistance of the magistrates and law enforcing agencies; filing cases against the law violators as per ECA and ECR; declaring Environmentally Critical Areas (ECA) in Gulshan and Baridhara lakes where the ecosystem has been degraded to a critical stage; imposing ban on import of reconditioned vehicles which are more than five years old; sound pollution has been controlled in Dhanmondi Residential Area declaring it as a 'silent area', implementing 'Save Buriganga Program'.

⁴² A study found that 90% of the total 5.5 millions polythene bags flow into the sewerage system everyday in Dhaka city. Banning of polythene bags might reduce drainage blocks (Ahmed and others-2002), see details Dhaka City: State of Environment-2005, published DoE, p-65.

⁴³ Md. Omar Faruque Khan, "World Environment Day and the Department of Environment", in DoE. Water- Two Billion people are Dying/ or It, Dhaka: Department of Environment, 2003. p-32

The main source of air pollution in Dhaka city is exhaust of poisonous vehicles. To contain and curb air pollution, the government has imposed ban on the import of the most air polluting vehicles, two-stroke three wheelers chassis and two-stroke three wheelers vehicles. Besides, the Government has imposed ban on playing of two-stroke three-wheeler in Dhaka city from 1 January, 2003. Restriction has been imposed on the playing of older buses and trucks in Dhaka city, which cause pollution. The Environment Conservation Rules 1997 has been revised making the use of Catalytic converter and Diesel particulate filter have been formally introduced in Dhaka city on 7 August, 2002. At present, instead of two stroke three wheelers, four strokes CNG run auto-rickshaws are playing in Dhaka city. The rule named 'Air Pollution (Control) Rules 2004' has been attached with the 'Bangladesh Environment Conservation Act, 1995. As various sources of creating sound such as myeck, loud speaker, vehicle, horn of vehicles, mechanism of breaking brick and stone, generators etc., which extracted sound which exceeds the limit of the friendly environment on which bring injurious to the physical and mental health for the people. For that reason, the government has enacted the Air Pollution (Control) Rules, 2004 as a supplementary of the Bangladesh Environment Conservation Act, 2000 and has included it in the section-20 of the Bangladesh Environment Conservation Act, 1995 for the regulation, conservation and sustainable development of the environment and environmental resources in Bangladesh.

6.13 The Environment Court Act, 2000

The Environment Court in Bangladesh is a new phenomenon for the protection of the environment and environmental resources. The Environment Court Act 2000 had been passed by parliament on April 6, 2000 for the establishment of environmental courts for

the trial of offences relating on the environment pollution and matters incidental thereto. In the case of violation of any provisions of the environmental conservation Acts and Rules, cases are to be entertained for the quick trial of the environmental offences. Under the Act, one Environment Court will be established in each Division. Besides, one or more Environment Appeal Courts will be established. Under this act, the government has already set up three Environmental Courts in three divisions such as Dhaka, Chittagong and Sylhet for the dispose of the offences relating to environmental pollution and the offences related to the probable accident, transportation, manufacturing, and other relevant activities, which may cause environmental degradation in any respect and also to make damage to ecosystem, and ecological and it will be liable for environmental degradation in Bangladesh.⁴⁴ An Appellate Court has also been set up in Dhaka. From 2005, 274 lawsuits have been instituted against polluting industries in the Environmental Courts, of which, 117 have been disposed off while the rest are under process for disposal.⁴⁵

It is observed that if any kind of pollution or injurious, harmful or destructive to agriculture and fish or any other sector is occurred, it will be treated as pollution and be liable for it under the Environmental Court Act, 2000. The Environmental Court may impose penalty and pass decree or proper compensation in appropriate cases for crimes committed under environmental law. But it would better to insert a provision namely “Polluter Pay Principle” for the conservation and development of the environment in Bangladesh.⁴⁶

⁴⁴ Noor Mohammad, Environmental Laws in Bangladesh: An Appraisal, *The Journal of Local Government*, Vol. 32 No.1 (January-June 2003), p-43

⁴⁵ Department of Environment, Annual Report-2007, p-12

⁴⁶ Noor Mohammad, *Supra Note- 40*, pp-41-43

6.14 Critics of Environment Court Act:

The Environment laws are a new and notable dimension for the protection of the environment in Bangladesh. At present, there are three environment courts working in the country in the divisional headquarters and an environment appeal court is also working at Dhaka. The functions of the court of Environment and the environment appeal court would have been better if it is shifted to the districts creating its new branch in the country. It is better to tell that the environment court act bears similarity with the Environment Policy and Action Plan framed in 1992 because the policy directs the concerned authority to enact and amend law for the present situation of the country. Presently, the court of Environment has been extended to its power and functions by the amendment-2002 and of 2003, which bears positive impact on the environment and development and especially for the judiciary in Bangladesh. It is observed that the Bangladesh Environment Conservation Act and the Bangladesh Conservation Rules and the Environment Court Act are entire related. At first, the Bangladesh Environment Conservation Act is almost depend on the executive body rather than the Judiciary because without written statement or certificate from the office of the Director General, Department of Environment, the environment court cannot proceed on or cannot take cognizance of any offence but later by the amendment, 2002, this power has been shifted to the court of Environment. The power of cognizance has been inserted to the Act for the judicial officers but later on it had been curtailed down by the amendment, 2000. This power has been shifted to the Director General, Department of Environment. Consequently, the independence of judiciary has not been ensured and has not yet been conserved the supremacy of the judiciary by this amendment. But by the amendment-

2002, it has been empowered of the court of Environment that if the case is a prima facie, the court may take it as of cognizance and the court can dispose of the cases giving the chance of hearing of the Director General, Department of Environment which bears positive impact of the judiciary and by the amendment 2003 of the environment court. It has been made the Environment Court more powerful, which is discussed earlier. It is admitted in all hands that the present environment is at on degradation. Consequently, the government of Bangladesh has enacted some environmental laws to meet the present derogatory situation of the country and has formulated environment policy, which is being implemented, and it is a requisite for the environment. The court of environment executes its activities depending on the Code of Civil and Criminal Procedure.⁴⁷ It is very traditional and the government should follow the updating procedure for the court of environment for speedy trial of the cases. Finally, it is stated that the laws relating to environment is at large updated and suitable for the protection and conservation of the environment in Bangladesh. Moreover, in aspect of environmental laws, the environment policy and action plan framed in 1992 has been given importance to protect the environment in Bangladesh. At present state, environmental policies and action plans are needed for implementation. The legal mechanisms such as environment courts should be empowered providing all logistic supports for the execution of the environmental offences in order to achieving sustainable environment and development of the country. It is also observed that the various departments of the government lacks in coordination for which the sustainable development is not possible to achieving. The government officials frequently complain that they have been suffering much for want of coordination. In this regard, the government should urgently enact the coordinating laws

⁴⁷ Code of Civil Procedure, 1908 (Act V of 1908) and Code of Criminal Procedure, 1898 (Act V of 1898)

named the Coordinating Act for bring about sustainable development and environment in Bangladesh.⁴⁸

6.15 Ozone Depleting Substances (Regulation) Rules, 2004:

Ozone Depleting Substances (ODS) (Regulation) Rules, 2004 has been enacted under which import and use of ODS are being controlled through licensing system. A plan has been drawn up and undertaken toward 100% reduction of CFC use in the form of CFC-11/12 in Refrigeration and Air-conditioning sector by 1 January, 2010 through the project National Phase-out Plan being implemented in the Department of Environment.⁴⁹

6.16 The Noise Pollution (Control) Rules, 2006

As per the provision of the Environment Conservation Act-1995 which has set limit on noise pollution, the government has formulated the Noise Pollution (Control) Rules 2006. Under these rules, it will be easier for the government to control noise pollution particularly the use of microphone and high level horn. Due to lack of enforcement of rules, noise pollution continues unabated especially in urban areas, worsening physical and mental health of the people.⁵⁰

The Noise Pollution (Control) Rules, provides for effective control of noise pollution. These rules provide for, inter *alia*, the following: i) Zoning of silent area by local government, ii) Admissible noise level in different area, iii) Restriction on pneumatic/multi-tuned horn, iv) Restriction on loud speaker, v) Restriction on noise generated from construction works, vi) Restriction on household noise generating devices, vii) Power to instruct and seizure by Department of Environment, viii) Assigning

⁴⁸ Noor Mohammad, *Supra Note-40*, pp-71-73

⁴⁹ Annual Report 2007, DoE, p-45.

⁵⁰ *The Daily Star*, 12 November- 2010.

an officer, by the Director General, to investigate, with the power of the officer in charge of a police station, into the offences or related matters.

6.17 Medical Waste (Management and Processing) Rules, 2008:

In the legal side of Medical Waste Management (MWM) issue, there was no formal legislation before 2004 except a manual compiled by the Directorate General of Health Services, Ministry of Health and Family Welfare in 2001. In 2004, the Ministry of Health developed a guide book named Hospital Waste Management Pocket Book for the nurse, medical technologist, ward master and other related staffs. But it has not been updated till today, with the changing technology in medical service and also changing strategy in the Medical Waste Management world wide.⁵¹ In 2008, Medical Waste (Management and Processing) Rule, 2008 was promulgated by the government. This Rule was prepared by the Department of Environment (DoE) through the participation of Ministry of Health and Family Welfare, Ministry of Law (MoL) and Ministry of Environment and Forest (MoEF) for processing and management of medical waste in Bangladesh.⁵²

6.18 Environment Conservation (Amendment) Act 2010:

Environment Conservation Act 1995 and its subsequent amendments (2000, 2002) were not strong enough and coping properly various environmental issues raised and which did not mentioned the existing environment conservation acts. As a result, it became necessary to amend the Environment Conservation Act 1995 and adopt a new one in consistence with the demands of the time. The earlier act, namely, the Environment Conservation Act 1995 was amended by the name of the Bangladesh Environment Conservation Act (Amendment) 2010. So, we got a new environment conservation act

⁵¹ See details, "Medical Waste: Ignored field of Environmental Management", *The Daily Star*, 24 December, 2011.

⁵² Abdul Hamid, "Medical Waste: An Ignored Phenomenon", *Dhaka Courier*, 15 December, 2011.

2010, which was duly passed on 5 October, 2010 by the parliament.⁵³ Environment Conservation Act (Amendment) 2010 has given new operational definitions of ‘hill or hillock’, ‘reservoir or water/tank,’ ‘hazardous waste,’ ‘ecologically critical area,’ previously such definitions did not exist in the legal regime. The Environment Conservation Act (Amendment) 2010 has also given new direction of ship breaking industries. It states that “every ship owner, importer or any person using ship-yard for ship breaking or cutting, such persons definitely compel with that, ship breaking or cutting not to cause any environmental pollution by hazardous waste or creating risk on health”.⁵⁴ Environment Conservation Act (Amendment) 2010 has given few restrictions as cutting and/or razing of hills; manufacture, import, stock, loading, transport of hazardous waste; reservoir of water. Only for national interest, hill or hillocks could be cut or razed with the permission of the Department of Environment. It has also given a direction of environmental clearance certificate as “in case of an industrial unit or project established before the enforcement of this act, such industrial unit or project must receiving Environmental Clearance Certificate (ECC) from the date of effective (Bangladesh Environment Conservation (Amendment) Act 2010)”.

According to the Act, the government can declare ‘Ecologically Critical Area’ if ecosystem of an area reaches critical stage due to environmental degradation and the government will prepare the management planning to overcome the situation. The Act banned filling up water bodies or change their nature. If the law is violated, aggrieved persons can file suit against the violators in the Environment Court.

⁵³ Environment Conservation Act (Amendment) 2010 (Act no 50 of 2010)

⁵⁴ Section 6D of Environment Conservation Act (Amendment) 2010 (Act no 50 of 2010)

Accordingly, necessary amendments to the ‘Bangladesh Environment Conservation Act-1995’ were made. ‘The Bangladesh Environment Conservation (Amendment) Act’ was passed by the parliament in the several times as 2000, 2002 and 2010.

6.19 Environment Court Act 2010:

Environment Court Act 2000 and Environment Court (Amendment) Act 2002 were not strong enough and coping properly. It became necessary to amend the Environment Court Act 2000 and Environment Court (Amendment) Act 2002, and adopt a new one in consistence with the demands of the time. The earlier Environment Court Acts was replaced by the Environment Court Act 2010. We got a new Environment Court Act 2010, which was duly passed on 12 October, 2010 by the parliament.⁵⁵ The Act provides for five years imprisonment or a fine of Tk. 5 lakh or both for environment polluters. The act also provides for setting up environment courts in all districts to prevent environmental pollution. The main objective of this Act is in case of violation of any provisions of the environmental conservation Acts and Rules, cases are to be entertained for the quick trial of the environmental offences.

The Environment Court Act 2010 also aims to ensure removal of bothersome obstacles in the implementation of environmental laws. It also allows setting up more than one court if required at the districts. At the same time it mentioned setting up a special magistrates court for processing such complaints. It also proposed setting up a deadline of 180 days within which special magistrates will have to complete the case procedures.

However, only four courts have been set up, with two in Dhaka and Chittagong, an Environment Appeal Court in Dhaka, a district additional judge has been carry out additional duty in an Environment Court in Sylhet.

⁵⁵ Environment Court Act 2010 (Act no 40 of 2010).

6.20 Sectoral Legal Mechanism:

The government of Bangladesh has enacted different laws in different laws in different period for conserving and developing the environments. There are around 200 different Acts and Ordinance in Bangladesh for environmental concerns. However, it is remarkable that some Acts and Ordinance has taken covering different sectors of environmental problems and its mitigating policies. Among them, Environment Policy 1992, Environmental Action Plan 1992, Bangladesh Environment Conservation Act, 1995, Bangladesh Environment Conservation Rules 1997, Environment Court Act, 2000 are the most noteworthy because it is first of its kind in Bangladesh covering all sectors of environmental problems as well as action plan and policy for mitigating environmental problems in Bangladesh. In this section, sectoral legal mechanism for dealing with and managing the environmental problems is discussed.

Air Pollution

There are seven Acts, one Ordinance and one Rule for controlling air quality, mitigating air pollution, maintains standard quality of air environment. These are Smoke Nuisance Act, 1905, Juvenile Smoking Act, 1919, Bengal Motor Vehicle Rules, 1940, Prohibition of Smoking in Show House Act, 1952, Factories Act, 1965, Vehicle Ordinance 1983, Brick Burning (Control) Act, 1989, Bangladesh Environment Conservation Act, 1995, and Bangladesh Environment Conservation Rules, 1997. Of them, there are three Acts in British colonial era, two Acts in Pakistan period and four Acts enacted after the independence of Bangladesh.⁵⁶ However, development of Air pollution control legal

⁵⁶ Appendix 1

mechanism is might be said that Bangladesh Environment Conservation Act is very important and significant for controlling and mitigating air pollution.

Water and Water Resources Management

There are five Acts, one Ordinance, two Rules, and one Order for conserving and maintaining watersheds, controlling and regulating water pollution, sustainable planning and use of water resources, conservation of aquatic biodiversity etc. These are Embankment and Drainage Act, 1952, Bangladesh Water Development Board Order 1972, Territorial Water and Maritime Zones Act, 1974, Territorial Water and Maritime Zones Rules 1977, Ground Water Management Ordinance, 1985, Water Resources Planning Act, 1992, Coast Guard Act, 1994, Bangladesh Environment Conservation Act, 1995, Bangladesh Environment Conservation Rules, 1997.⁵⁷ Most of these laws, except one Act, are enacted after the liberation of Bangladesh.

Noise Pollution

There are one Act, seven Ordinances and one Rule for controlling and regulating noise pollution originated from vehicles, industries in urban areas and other sources. There Acts and Ordinances ensure fitness of vehicle run in urban area and give registration certificates of the vehicles maintaining the requirements given in Environmental Rules to controlling noise pollution. Paurashava Ordinance 1977, Chittagong, Dhaka, Khulna and Rajshahi City Corporation Ordinance 1982, 1983, 1984 and 1987 respectively, Motor Vehicle Ordinance 1983, Bangladesh Environment Conservation Act 1995, Bangladesh Environment Conservation Rules 1997 are engaged in controlling and regulating noise pollution in urban areas of Bangladesh.⁵⁸ The Noise Pollution (Control) Rules, 2006

⁵⁷ Appendix 1

⁵⁸ Appendix 1

provides for effective control of noise pollution. Most of these legislations are passed after the liberation of Bangladesh.

Food and Consumer Protection

There are two Acts passed for preventing and controlling fraudulent marks on merchandise, grading and marking of agricultural produce, import and exports, trade and commerce, manufacture and sale of goods, storage and keeping of goods, standards of service and facilities in hotels, restaurants, etc. These are Merchandise Marks Act 1889, Agricultural Produce (Grading and Marking) Act 1937 passed during the British period and other three Acts such as Essential Commodities Act 1957, Pure Food Ordinance 1959, Agricultural Produce Markets Regulation Act 1964 enacted in Pakistan period.⁵⁹ These laws are still in enforcement in Bangladesh to control and maintain food standard and consumer protection.

Public Safety and Dangerous Substances

There are six Acts passed for regulating manufacture, possession, use, sale, transport, import and export of explosives, explosive and poisonous substances etc; for ensuring public safety and maintenance of public order, suppression and prejudicial activities endangering communal harmony or safety, and for maintaining supplies and services essential to the life of the community. These Acts are Explosives Act 1884, Explosive Substances Act 1908, White Phosphorous Matches Prohibition Act 1913, Poisons Act 1919, Public Safety Ordinance 1953 and Dangerous Cargoes Act 1953.⁶⁰

Land use Administration and Management

⁵⁹ Appendix 1

⁶⁰ Appendix 1

There are five Acts, one Ordinance and an Order for regulating, conserving and planning for sustainable use of land and land administration. These Acts are Transfer of Property Act, 1882, Non-Agricultural Tenancy Act, 1949, State Acquisition and Tenancy Act, 1950, Acquisition of Waste Land Act, 1950, Culturable Waste Land Utilization Ordinance, 1959, Bangladesh Land Holding Limitation Order, 1972, Land Reforms Ordinance, 1984, Land Use Manual, 1990, Environment Conservation Act, 1995, Environment Action Plan, 1992.⁶¹

Forest Conservation

The Forest Act, 1927 has been further amended in 1974. A substantial change was brought in 1989 through the Forest (Amendment) Ordinance XI.⁶² In the Bangladesh Perspectives, the 1927 Act is a pre-constitution enactment and that was enacted to consolidate law relating to forests, the transit of forest produce and the duty leviable on timber and other forest produce. The 1927 Act was enacted to preserve and safeguard forest in general, both public and private.⁶³ There are three Acts passed for the conservation and development of the forest and forest resources, wild life etc., and controlling and regulating exploitation of forest and forest resources for preventing deforestation and biodiversity degradation, conservation and development of watersheds in forestland such as rivers, canals and other water reservoir, and all flora and fauna of forestland in Bangladesh. These Acts with a few amendments such as Forest Act 1927,

⁶¹ Appendix 1

⁶² Mohiuddin Farooque, *Law and Custom on Forests in Bangladesh : Issues & Remedies*, Dhaka: BELA, April, 1997, p-21.

⁶³ Private includes community forest. However, Ch.V of the 1927 Act dealing with control over forests and land not being the property of the Government has been repealed and replaced by the Private Forest Ordinance of 1959.

Private Forest Ordinance, 1959, Forest Industries Development Corporation Ordinance, 1959 and Environment Conservation Act 1995, Environment Action Plan 1992.⁶⁴

Wildlife and Domestic Animal Conservation

These laws are passed to conserve and develop wildlife and domestic animals, prevention of cruelty to animals, restriction on hunting and slaughters, control of consumption of meat, create wildlife sanctuary, livestock diseases and treatment, livestock research, cattle trespass, etc. These laws are Cattle Trespass Act, 1871, Livestock Importation Act 1898, Farcy Act 1899, Cruelty to Animals Act 1920, Glanders and Bengal Diseases of Animals Act 1944 passed by the British ruler. Laws passed by the Pakistani ruler are Protection and Conservation of Fish Act 1950, Animal Slaughter Restriction and Meat Control Act 1957, Cattle (Prevention of Trespass) Ordinance 1959, Society for Prevention of Cruelty to Animals Ordinance 1962. Laws passed by the Bangladesh Government are Bangladesh Wildlife (Preservation) Order 1973, Bangladesh Veterinary Practitioners Ordinance 1982, Livestock Research Institute Ordinance 1984, Environment Conservation Act 1995 and Environment Action Plan 1992.⁶⁵ The wildlife (protection and safety) Act 2012 passed in Parliament. The Act would facilitate commercialization and social forestry by dividing natural forests into parts, thus putting wildlife and the forests at stake. Though the act has been formulated for the conservation and safety of wildlife, it appears to have been enacted only to manage the protected areas.

Coastal Resources Management and Marine Pollution

There are three Acts and Rules for regulate and develop coastal resources, ensure optimal level of harvest, prevent and control marine pollution from different sources and conserve

⁶⁴ Appendix 1

⁶⁵ Appendix 1

and develop marine resources in Bangladesh. These Acts are Territorial Water and Maritime Zones Acts 1974 and Rules 1977, Bangladesh Environment Conservation Act 1995, Bangladesh Environment Conservation Rules 1997.⁶⁶

Mineral Resources Development and Management

There are five Acts and Ordinance for exploration of mineral resources and for conservation, regulation, and development of mineral resources in Bangladesh. There are two Acts such as Mines Act 1923 and Petroleum Act 1934, Which are enacted by the British ruler and after the liberation of Bangladesh, three Act and Ordinances such as Bangladesh Petroleum Act 1974, Bangladesh Petroleum Corporation Ordinance 1976, Bangladesh Oil, Gas and Mineral Corporation Ordinance 1985 are passed by Government of Bangladesh.⁶⁷

Cultural and Natural Heritage

Bangladesh is rich in diversified cultural and its heritage. There are many important documentary evidence of cultural heritage such as manuscript, architecture and monuments, cultural and religious festival, craft and art, traditional uses goods etc. which bears historical significance of culture and civilization. Bangladesh is also rich in its natural resources and its beauty such as Sundarban forest, Chittagong Mill tracks, different plants and animals, great rivers and its soil etc. Sunderban has been declared “World Heritage Site” by UNESCO on 6th December, 1997. There some laws passed by the Government of Bangladesh for collection, preservation, maintenance, display and administration of records and archives of the cultural and natural assets of the country.⁶⁸

⁶⁶ Appendix 1

⁶⁷ Appendix 1

⁶⁸ Noor Mohammad, “Environmental Laws in Bangladesh: An Appraisal”, *The Journal of Local Government*, Vol. 32 No.1 (January-June 2003), pp-45-53

There are three Ordinances such as National Archives Ordinance 1983, Bangladesh Jatiya Jadughar Ordinance 1983 and Antiquities Ordinance 1976 passed.⁶⁹

Biodiversity Conservation

As subtropical country, Bangladesh is very rich with its diversified wild and domestic animals and various plants species than other area of the earth. However, this rich and valuable biodiversity is degrading due to population growth, human interventions etc. It is disappointing that some of species of flora and fauna are in endangered situation and some of them are going to be extinguished. There are some laws prevailing Bangladesh to conserve and develop the rich bio-diversity and ecological balance in Bangladesh. There are Forest Act 1927, Protection and Conservation of Fish Act 1950, Wildlife Preservation Order 1973, Agricultural Research Institute Ordinance 1976, Bangladesh Jute Research Institute Act 1996, Bangladesh Agricultural Research Council Ordinance, 1996, Bangladesh Environment Conservation Act, 1995 and Environment Action Plan, 1992.⁷⁰

Occupational Rights and Safety

There are 10 acts for ensuring the occupational rights and safety at work, control and prevent accident arises in the factories, industries, mining or any other place of work. The laws prevailing for such purposes are the Bengal Mining Settlement Act 1912, Mines Maternity Benefit Act 1914, Coal Mines Labour Welfare Fund Act 1927, Workmen's Compensation Act 1934, Dock Laborer's Act 1934, Employer's Liability Act 1938,

⁶⁹ Appendix 1

⁷⁰ Appendix 1

Maternity Benefit Tea Estate Act 1950, Factories Act 1965, Shops and Establishment Act, 1965, Dock Worker's Regulation Employment Act, 1980.⁷¹

Radiation Control and Management

There is one Act, named 'the Nuclear Safety and Radiation Control Act, 1993 to control radiation originated from chemical and engineering activities, control and prevent pollution from radiation for the purposes of protecting environment and environmental pollution, maintaining and ensuring sound and sustainable public health in Bangladesh.⁷²

Solid Waste Management

The government has passed two Acts, nine Ordinances and one Rule for proper and sustainable management of urban solid waste in Bangladesh and keep urban environment clean and healthy. These Acts are passed except two Ordinances, just after the independence of Bangladesh. These Acts are Chittagong, Dhaka, Khulna, and Rajshahi City Development Authority Ordinances 1959, 1961, 1976, 1987 respectively and Dhaka Metropolitan Police Ordinance 1976, Paurashava Ordinance 1977, Chittagong, Dhaka, Khulna and Rajshahi City Corporation Ordinances 1982, 1983, 1984, 1987 respectively. Local Government Union Parishad Ordinance 1983, Bangladesh Environment Conservation Act 1995, Water Supply and Sanitation Authority Act 1996, and Bangladesh Environment Conservation Rules 1997 passed.⁷³

Displacement, Relief and Rehabilitation

There are three Acts such as the Bengal Rural Poor and Unemployed Relief Act 1939, Displaced Persons Compensation and Rehabilitation Act 1958 and Displaced Persons

⁷¹ Appendix 1

⁷² The Nuclear Safety and Radiation Control Act, 1993 (No. of 21 Act in 1993); Laws Regulating Environment in Bangladesh, BELA-2004, p-522

⁷³ Appendix 1

Land Settlement Act 1958 for providing relief to the rural poor and unemployed, payment of compensation, permanent settlement of displaced persons in Bangladesh.⁷⁴

Properties Dedicated for Religious Purposes

There is an Act for the declaration the rights of Mussalmans to make settlements of property by way of wakf in favour of their families, children and descendants. These Acts are Mussalman Wakf Validating Act 1913. Restriction imposes on lands and properties that are environmentally important and for public use. This Act shall imply with other laws such as Hindu Laws, Muslim Laws, Government Laws relating to land and land administration and other local government laws.

Local Government Laws

For regulating the local government institutions in urban areas like the Paurashava, the government has initiated and firstly formulated and passed the Paurashava Ordinance in 1977. Later on, the government upgraded some Paurashava into the City Corporation such as Dhaka, Chittagong, Khulna and Rajshahi in 1978, 1982, 1984 and 1989 respectively through the Dhaka City Corporation Ordinance, 1978, Chittagong City Corporation Ordinance, 1982, Khulna City Corporation Ordinance 1984 and Rajshahi City Corporation 1989.⁷⁵ It is worthwhile mention that all the City Corporation Ordinances contain the identical provisions. City Corporation Ordinances are passed in order to consolidate and amend the law relating to the municipal administration of the different city corporations mentioned above. Under this Ordinance, drain, infections disease, nuisance, vehicle, drug, dwelling house, dairy, building, public place, food,

⁷⁴ The Displaced persons (Compensation and Rehabilitation) Act, 1958 (Act no. XXVIII of 1958) ,and The Displaced persons (Land Settlement) Act, 1958 (Act No. XLVII of 1958); Laws Regulating Environment in Bangladesh, BELA-2004, p-276-78.

⁷⁵ Appendix 1

streets etc. have defined and has carries significance in respect of environment and development in the execution of this Ordinance for those city corporations. This Ordinance includes the activities and measures for promotion and development of public health, slaughterhouse, public vehicles and streets, dangerous and offensive trades, sanitation and drainage, public bathing and washing place, public burial and burning places, street lighting water supply, site development schemes, registration of births, deaths and marriages, disposal of carcasses services etc. Moreover, City Corporation maintain the law and order such public nuisance pertaining to trees and plantation and other, promotion of the animal husbandry, prevent from the encroachments, regulation of buildings construction etc, In addition, social and cultural development activities such as establishment of welfare homes, asylums, orphanages, widow homes and other institutions for the relief of the distressed, trial and disposes of the offences etc. are included in the Ordinance for sustainable urban development.⁷⁶

6.21 The Constitutional (15th Amendment) Act of 2011:

The Constitutional 15th Amendment is also significant from environmental protection point of view as it was through it that the national commitment of environmental protection and improvement was explicitly incorporated into our constitution. The overriding concern for environmental protection with this amendment has now been steered in fundamental principles of state policy. The newly added Article 18 A declares, “The State shall endeavour to protect and improve the environment and to preserve and safeguard the natural resources, bio-diversity, wetlands, forests and wild life for the

⁷⁶ Noor Mohammad, “Environmental Laws in Bangladesh: An Appraisal”, *The Journal of Local Government*, Vol. 32 No.1 (January-June 2003), pp-45-53

present and future citizens”. The environment protection now gets a constitutional mandate after its amendment by the 15th Amendment Act in 2011. The amendment makes twofold provisions on environmental protection and improvement, the duty of the state. Together, these provision highlights to preserve and safeguard the natural resources, bio-diversity, wetlands, forests and wildlife for the present and future citizens. It is also the foundation for jurisprudence of this important area of law.

The above Article of the Bangladesh constitution is inserted under the heads Part II of the “Fundamental Principles of the State Policy” which is distinct from fundamental rights. There is no fundamental right for the people to clean and unpolluted environment under the Bangladesh constitution. Fundamental Principles of State Policy are not enforceable by constitutional courts by issuing a writ to enforce them. In case of a conflict between Fundamental Rights and Fundamental Principles of State Policy, the former always prevail. In short, Fundamental Principles of State Policy are always subservient to Fundamental Rights. It is because of the said limitation that High Court can issue directions to protect the environment by invoking the power conferred on them for the enforcement of the right to life, which is a fundamental right. In a judgment dated 1 July, 1996 the Supreme Court has given judicial recognition that “right to life” includes right to sound environment.⁷⁷

6.22 Case Laws regarding Environmental Laws in Bangladesh

The statutory laws and bye-laws are the primary sources of environmental legislations. The principles of tortious liability, e.g., strict liability, nuisance, etc., are common law principles of tort and would be well accepted by the Courts, If actions are brought. There

⁷⁷ Dhaka Law Reports (DLR) 48.

are case laws, which operate as mandatory precedents in some sectors, e.g., much of the law on fisheries have been developed by case laws.⁷⁸ The Supreme Court of Bangladesh has dealt a good number of environmental related cases for the conservation and development of the environment and environmental jurisprudence in Bangladesh. The courts may exercise its powers and functions depending upon the constitution, treated as fundamental rights conferred by part –III of the constitution.⁷⁹ The court can ensure these rights through the public interest litigation. The first environmental litigation, in the form of writ petition was filed in 1994 against four authorities of the government responsible for the enforcement of various civic rights. The Bangladesh Environmental Lawyers Association (BELA) has been leading in this regard.⁸⁰ This organization has filed more than 100 cases, some cases as are discussed below.

Dr. Mohiuddin Farooque Vs Election Commission and Others, WP No. 186 of 1994

This case related to public nuisance, encroachment of public properties, destruction of private properties and noise pollution in the name of election campaign. This case was the first judgment in which the desire of the Court to mitigate the environmental pollution was written down in a reported judgment (46 DLR)

Dr. Mohiuddin Farooque Vs Bangladesh and Others, WP No. 891 of 1994

In this actions against 903 industries have been sought upon direction of relevant statutory authorities. The High Court Division decided the in favour of the petitioner vide judgment on 15 July, 2001 (BLD 22). The Court has directed the agencies to adopt corrective measures.

⁷⁸ Mohiuddin Farooque, “Some Quick Reflections on Environmental Legislations in Bangladesh”, in Environmental Order the Security of Survival, S. Rizwana Hasan (ed.), Dhaka: BELA, 1994, p-17

⁷⁹ The constitution of the peoples republic of Bangladesh, December, 1998, p- 8-14

⁸⁰ Noor Mohammad, Supra Note-73 , p-59

Sekander Ali Mondol Vs Bangladesh and Others, WP No. 1576 of 1994

In this case, the legality of a so-called development project in the name of Flood Action Plan has been challenged on the ground of destructive to environment and non-involvement of the people. The Court directed the authorities vide judgment dated 28 August 1997 to implement the project only in compliance with the laws on environment and compensation.

Dr. Mohiuddin Farooque Vs. Bangladesh and Others, CA No. 24 of 1995

Judgment on 25 July 1996. In this case, the petitioner as Secretary General of BELA filed the petition. The Appellate Division of the Supreme Court, by a consensus judgment (one main judgment and three additional judgment in agreement), resolved the question of *locus standi* in PIL or PIEL in the affirmative. The Court in length discussed the issue and the constitutional phrase within the entire scheme of the Constitution and analyzed various issues, notions and principle from many countries. Finally, the scope of “any person aggrieved” has been expanded to, *inter alia*, having “sufficient interest” with a caution to bar busybodies, interlopers and those having oblique motives. The judgment also recognized the right to a healthy environment within the existing environmental guarantees.

Dr. Mohiuddin Farooque Vs. Bangladesh and Others, WP No. 300 of 1995

In this case resort to High Court Division has been made to prevent the vehicular pollution of Dhaka City. The High Court Division has given judgment on 27 March, 2002 (BLD 22) setting out eight directions for the agencies to comply with. The writ is a continuous mandamus and the parties are regularly reporting to the court on compliance.

Dr. Mohiuddin Farooque Vs. Bangladesh and Others, WP No. 92 of 1996

In this case “right to life” has been expanded by the High Court Division to include everything supportive to an expected normal longevity include right to clean air and water. The petitioner was a potential consumer and attempted to prevent the importation of highly radiated skimmed milk powder (DLR 48).

Dr. Mohiuddin Farooque Vs. Bangladesh and Others

A Division Bench of the High court Division has issued a rule in ‘an environmental petition filed in 1997 against the implementation of an agreement called the “Banani, Gulshan, Baridhara Lake Development Project Agreement” signed between RAJUK and Indus Valley Investment Pvt. Ltd to undertake a huge construction in the constructional and legal requirements. The Court directed them to show cause as to why “the agreement and the subsequent agreements to lease out a total area of 220 acres of public land should not be declared to have been entered or undertaken without lawful authority in violation of law and the constitution against public interest and as such be declared null and void and of no legal effect.”

Nijera Kori Vs. Bangladesh and Others

The petition is filed against the allotment of government owned Khas land to shrimp cultivations in Sudharam P.S. of Noakhali District in contravention of the provision of the Land Management Manual, 1991 and Articles 15, 19, 31 and 32 of the Constitution depriving thereby the landless people. The Court on two occasions restrained the respondents from disturbing the peaceful possession of the landless families.

Bangladesh Environmental Lawyers Association Vs. Bangladesh and Others

The unlawful filling up of Gulshan, Banani, and Baridhara Lake for creating housing plots is challenged by another writ petition No. 2482 of 1998 filed by BELA. Following

the petition a Division Bench of the High Court directed RAJUK to take measures for suspending all construction and or filling up of the water body and lakeside areas of Gulshan, Banani and Baridhara Model Town in specific areas.

Khushi Kabir vs. Bangladesh and Others

A Division Bench of the High Court Division comprising Mr. Justice Mohammad Gholam Rabbani and Justice Begum Nazmunara Sultana has issued a rule nisi on 6 June, 2000 upon the Secretary and Assistant secretary, Ministry of Fisheries and Livestock, Director General, Fisheries Directorate, District Commissioner, Khulna, and the Fisheries Officers, Khulna to show cause as to why the impugned order for utilizing the land of Polder No. 22 for shrimp cultivation under Deluti Union Paikgacha P.S. of Khulna district dated 9 May, 2000 shall not be declared to have been issued.

Bangladesh Environmental Lawyers Association (BELA) vs. Bangladesh and Others

BELA filed a petition on the date 19th of April, 2003 before the Honorable High Court division to check pollution of coastal or marine ecosystem caused by the disposal of hazardous ship wastes as taking place in the ship breaking operation in Sitakunda of Chittagong seeking relief against violation of legal provisions on environment and labour protection, the petition has been filed, amongst others, against the Secretaries, Ministry of shipping, industries and Commerce, Labour and Employment, Environment and Forest. The Director General, Department of Environment, Fire Service and Civil Defense, Chief Inspector of Factories and Establishments, Department of Explosives, Collector of Customs, Chittagong, Mercantile Marine Department and the president of Bangladesh Ship Breakers Association are amongst the other respondents. According to the petitioners, the available records suggest that no ship breaking agencies have

environmental clearance certificates despite the clear requirement to have such clearance as a hazardous industries or factories. Moreover, the persistent violation of labor-related laws in the ship breaking agencies has resulted in some major explosions in the past three years. Upon hearing the petitioner, the Division Bench of the High Court Division comprising Mr. M. M. Ruhul Amin and Mr. Justice Mohammad Bazlur Rahman has issued a rule nisi calling upon the respondents to show cause why they should not be directed to ensure that ship breaking operation is undertaken only after obtaining certificates of environmental clearance as required under Section 12 of the Environment Conservation Act, 1995 and on adopting detailed and appropriate safety and labor welfare measures as required under the Factories Act, 1965. The Court has also asked the respondents to show cause as to why ship breaking shall not be undertaken only after obtaining gas free certificates from the Custom Department to prevent dangerous explosion and protect the workers or laborers from the risk of death and grave injuries. In this regard, the respondents would also show because why import of ship for breaking purposes shall not be regulated in line with the requirements of the Basal Convention, 1989.

Bangladesh Environmental Lawyers Association (BELA) vs. Ministry of Land and Others

Under this case it is held that the Justice of the High Court seeking special protective measures to protect and conserve the 4916 hectars of Sonadia Island as an Ecologically Critical Area (ECA). The petitioner for the first time has relied on the principle of polluters pay. The petitioner stated that the declaration of the total of 4916 hectars of land of the Sonadia Island as ecologically critical area (ECA) establishes the facts that the mangrove forest of the said land area has special ecological significance in protecting and

preserving the char land of Sonadia Island from erosion and also to save the people living nearby from being inundated and swept by the tidal bore during natural disaster. The declaration was withdrawn by the Ministry of Environment and Forest on the erroneous ground that the said forest was once declared reserve and hence following specific management guidelines as developed by the Department of Forest. BELA's investigation revealed that the forest was never declared reserve and hence withdrawal of its status as ECA has virtually left it unprotected.

Bangladesh Environmental Lawyers Association (BELA) vs. Bangladesh and Others

Under this case, it is held in this case that the Honorable Justice directed to the seven government agencies such as the Secretaries of the Ministries of Industries and Commerce, Environment and Forest, the Director General and the Director of DOE, member of the planning commission, Chairman of RAJUK, BSCIC and Tanners Association and BFLLE and two tannery associations to relocate within 18 months from date the tannery units from Hazaribagh area of the city to suitable location as contemplated in the Master Plan prepared under the Town Improvement Act, 1953 and ensure that adequate pollution fighting the devices are developed in the new location or site as required under the Environmental Conservation Act, 1995 and the Factories Act, 1965 and the rules made there under.

Bangladesh Environmental Lawyers Association (BELA) vs. Bangladesh and Others

Under this case, it is held that the Honorable Justice directed the Mayor Dhaka City Corporation (DCC), Chief Engineer, Public Works Department and Chairman, RAJUK to ensure proper maintenance and protection of open spaces of the city (10 playgrounds and 61 parks of the city) as required under and with the compliance of the provisions of

the Town Improvement (amendment) Act, 2000 and the Town Improvement Act, 1953 and the Dhaka City Corporation Ordinance, 1983.

In addition to those mentioned above, there are many other cases which are pending for final disposal are under consideration for legal action. The Supreme Court of Bangladesh deserves especial appreciation for its positive response shown so far by various Benches. Within a very short span of about of two and a half years, the Court has shown remarkable progression and laid the foundation stone of environmental jurisprudence.

6.23 Conclusion:

In brief, there are enough laws to start the process of environmental and ecological protection and conservation which has been proved to be true through various legal actions, not only because the nation have incorporated the British common law system but also that we have a rigid written Constitution under which various writs to protect fundamental rights and the writs of *mandamus*, *certiorari* and prohibition are available. The existing laws are not mutually exclusive. It is obvious that many of the laws falling in one category are bound to relate to objectives falling in the other categories. This is only natural because of the fact that environment protection is a multi-sector phenomenon not limited to any particular aspect of nature. However, it may be mentioned here that an elaborate law for the conservation of environment is in the process of being enacted by the Government of Bangladesh. Nevertheless, having a law does not resolve a problem unless appropriately enforced, with good policy guidelines, by suitable institutional set-up.

Chapter 7 :

Development of Environmental Policies during the post independence era in Bangladesh (1971-2010)

71. Introduction: In early years of independence, there was not any precise of environmental policy in Bangladesh. But it does not mean that the environment absolutely remained as a neglected field. The concerns for environment protection were, however, reflected on the national planning process and several policies. Like all other nations of the world, Bangladesh also acted to the global call for the protection and conservation of natural environment and ecology¹. In 1989, the Ministry of Environment and Forests was established to address the emerging environment related issues.² The government started to take measures, drafted the National Conservation Strategy, adopted the National Environment Policy, 1992 and revised the old law by enacting the Bangladesh Environment Conservation Act, 1995 which has also restructured the Department of Environment. Moreover, National Environment Management Action Plan has also been prepared is being implemented. A research in the regulatory regime shows that there are around 200 laws that have bearing on environment, directly, indirectly and

¹ The English word 'ecology' is taken from the Greek *oikos*, meaning house, the immediate human environment. In 1870, the German Zoologist Ernst Haeckel first gave the word its broader meaning, the study of the natural environment and of the relations of organizations to each other and to their surroundings. General use of the word came only in the late 1800s, when European and American scientists began to call themselves ecologists. The first societies and journals explicitly devoted to ecology appeared in the early decades of this century. Since that time, ecology has under gone immense devoting their professional lives to ecology now number in the tens of thousands. With the dual crises of rapid growth of human population and accelerating deterioration of the earth's environment, ecology has taken on the utmost importance to everyone. Man is an integral part of the ecology of the world. Pressure of population and reduce of the forest and ecological component led to an ecologically unsound decision and to an economic, social and environmental disaster. Local forests are being cut rapidly for firewood. See for details, Robert E. Ricklefs, *Ecology* Third Edition, New York: W. H. Freeman & Company. 1990;, P-3.

² Mohiuddin Farooque, *Environmental Order : The Security of Survival*, Dhaka: BELA, 2004. p-2.

causally.³ These laws provide for measures relevant for environment conservation, offer protection against various environmental offenses and by prescribing or prohibiting certain activities, lay down rights and duties. Bangladesh is a signatory to as many as forty four international conventions, treaties, and protocols in connection with the conservation and protection of environment and ecology.⁴ Some of them have been ratified. But there are some others which are yet to be ratified. I have attempted to examine how gradually incorporated the environment conservation issues on the National Planning policy in Bangladesh. This chapter attempts to review and analyze evolution and development of environmental protection and preservation policies of Bangladesh from historical perspectives. The following two sections in this chapter give an overall account of environmental protection and preservation through the several Five Years National Planning process. The next section gives a relevant policy and legal instruments that have direct or indirect impacts on environment policy implementation.

7.2 Environmental Policy during the Seventies and Eighties (Post-Independence Era):

Any complete system of pollution control will include at least four elements, as formulation of pollution policies, administration of the scheme of control, enforcement of controls, and research.⁵ In the early years of the independence, there was not any precise environmental policy in Bangladesh. But it does not mean that the environment absolutely remained as a neglected field. The concerns for environment protection were, however, reflected in the national planning process as 1st, 2nd, 3rd, 4th, 5th and 6th Five

³ Mohiuddin Farooque & S. Rizwana Hasan, *Laws Regulating Environment in Bangladesh*, Dhaka: BELA, 2004, Prelude-xvi.

⁴ See, Annual Report- 2007 of Department of Environment, Ministry of Environment and Forest, Government People's Republic of Bangladesh, Dhaka: DoE (2007), p-63.

⁵ J. McLoughlin and E. G. Bellinger, *Environmental Pollution Control: Introduction to Principles and Practice of Administration* (International Environmental Law & Policy Series), London, UK: Graham & Trotman Ltd., 1993, p-21.

Year Plans. This section aims to critically analyze the evaluation of the environment protection and preservation policy through the several national policies from the historical perspectives. The national planning process was started in 1973 in Bangladesh with the formulation of First Five Year Plan. The First (1973-78), Second (1980-85), Third (1985-90) Five Year Plans laid thrust on the promotion of agriculture and industrialization. Environment-related issues pertaining to the improvement of human environment such as sanitation, public health, nutrition, water supply and housing got due priority in national programs under the first three five year plans. However, environment protection did not receive any significant recognition under the development planning except the forest, fisheries, and agriculture etc. developments.

7.3 Environmental Policy Perspective in the First Five Year Plan (1973-78):

When Bangladesh emerged as a sovereign state in 1971, environmental issues and consideration were not in focus as it is today. Economic development was the main target for all planning activities. Thus in the successive development plans, environmental issues were not included as an integral part of development approach. Different sectorial strategies addressed themselves to some of the major environmental considerations.⁶

The *First Five Year Plan (FFYP)* (1973-78) showed maximum concern about agriculture and water sector including rural institutions, irrigation and flood control has the highest share of resources, that is, about quarter of the total. This sector included crop production, livestock, forestry, fishery, irrigation, flood control and works program.⁷

⁶ M. Q. Mirza & Ainun Nishat, "Development and Environment in Bangladesh: Past Approach, Present Concerns and Future Issues", in *Bangladesh: Past two decades and the current decade*, ed., Q. K. Ahmed, Dhaka: BUP, 1994, p-86.

⁷ The First Five Year Plan (1973-78); Planning Commission, Govt. People's Republic of Bangladesh, November 1973, p-73

In the first Five Year Plan, the objectives in fisheries sector is to be maximized the utilization of fishery resources, both inland and marine. The fisheries activities of the public sector was, by and large, limited to inland waters until 1964 when the Fisheries Department Corporation was created for exploiting marine resources.⁸

In the plan, for protecting crops from pests and diseases as enactment of Pesticide Act⁹ to regulate manufacture, formulation, labeling and use of pesticides and consolidation of all existing plant protection agencies and wings under a single central authority.¹⁰

Bangladesh is a country where there are numerous tanks fulfilling the multipurpose water requirement in rural areas. It indicates not only re-excavation of existing tanks but also excavation of new tanks has a promising future in Bangladesh.¹¹

Flood control program during the plan period included flood protection embankment to protect low lying areas from floods and coastal embankments to protect land from saline inundation and also to develop polders for irrigation and drainage. Besides, protecting the land from damages to crops, flood protected areas will provide improved social security, communication, commerce and trade, land value and environmental condition to the people inhabiting the area.¹²

Large scale destruction of rural and urban houses has taken place during the War of Liberation in 1971. This has resulted in heavy felling of trees in rural areas. The situation has been further aggravated by banning timber and firewood extraction from Government forests since early 1972. During the Five Year Plan demarcated and reserved of those areas of unclassified state forests in Chittagong Hill Tracts (CHT) which are earmarked for

⁸ Ibid, p-112-13

⁹ The Agricultural Pesticides Ordinance, 1971 (Ordinance No. II of 1971)

¹⁰ Ibid, p-133

¹¹ Ibid, p-145

¹² Ibid, p-149

forestry according to the recommendation of the committee set up for implementation of findings of the land use survey.¹³

In the twelve broad objectives of the FFYP, the main focus was on reduction of poverty. At present time some term poverty as the principal polluter of the environment. Natural resources management was not directly addressed to in the plan.¹⁴ The Plan included massive flood control programme and their impact on environment were not foreseen. However, there was a small sub-chapter on natural resources which focused mainly on its development.

7.4 Environmental Policy Perspective in the Two Year Plan (1978-80):

The strategy of the *Two Year Plan (1978-80)* reflected the political programme of the party in power. The plan states that “the plan takes specific cognizance of the socio-economic objectives of the President’s Nineteen Point Programme.”¹⁵ One of these points is “to strengthen the economy by according top priority to agricultural development”.¹⁶ For this purpose, President Zia-Ur Rahman adopted a campaign of digging canals across the country. The main focus of the plan was to achieve higher economic growth. Environmental aspects of the large scale fertilizer and pesticide use were not evaluated. The Plan encouraged use of groundwater through expansion of shallow and deep tubewells.¹⁷

¹³ Ibid, p-118

¹⁴ M. Q. Mirza & Ainun Nishat ,Supra Note 6, p-86.

¹⁵ The Two Year Plan (1978-80); Planning Commission, Govt. People’s Republic of Bangladesh, March 1978, p-29.

¹⁶ 30th April, 1976 President summed up his policies through the nineteen points.

¹⁷ M. Q. Mirza & Ainun Nishat , Supra Note 6, p-88.

The *Two Year Plan* recommended that the practical measures will be taken to rationalize and enforce the Fish Conservation Act.¹⁸ The total areas of 52,000 acres were planted in the old forest areas against the target of 55,000 acres.¹⁹

Management of natural resources was not included in the main objectives of the plan as before. The plan underscored the need of flood-control projects and measures required for combating the drought problems. During the plan priority was given to some major flood control drainage and irrigation project like Chandpur Irrigation Project, Barisal Irrigation Project, Karnafuli Irrigation Project and Manu Project. These projects did not incorporate environmental considerations. Recently many questions have been raised about adverse environmental impacts of these projects.²⁰

7.5 Environmental Policy Perspective in the second Five Year Plan (1980-85):

The first objective of the *Second Five Year Plan (SFYP)* was “to bring about a noticeable improvement in the standard of living by ensuring adequate supplies of the basic needs”.²¹ During the 2nd FYP (1980-85), forestry development strategies were re-structured and reoriented. Emphasis was laid on the development of forest with the participation of people. In 1980, there was 3.25 million acres (9% of total area) forest managed by the Forest Department.²² There was a little scope for expansion of production from the Sunderbans, the inland Sal forests and the home stead forests in the

¹⁸ The Two Year Plan (1978-80) Supra Note- 15, p-98

¹⁹ Ibid, p-107

²⁰ M. Q. Mirza & Ainun Nishat, Supra Note 6, see details, Monirul Quader Mirza, *Environmental Impact Evaluation of Water Resources Development Project. A Case Study of Chandpur Irrigation Project*. BUET, 1991.

²¹ See, The Second Five Year Plan (1980-85); Planning Commission, Govt. People’s Republic of Bangladesh, May 1980, Chapter II.

²² The Second Five Year Plan (1980-85); Planning Commission, Govt. People’s Republic of Bangladesh, May 1980, p-xii-41

short term and this plan emphasizes replenishment of the productive capacity of these resources.²³

Forest Plantation included replanting of exploited hill forests (94,000 acres), Coastal (100,000 acres) and USF (Unclassed State Forests) (100,000 acres) afforestation, and rehabilitation of denuded forest areas (65,000 acres). It has been emphasized in Apparent Consumption above that considerable increases in supply will be necessary in order to avoid wood fibre raw material constraints on economic development in future. Furthermore, the environmental effect of deforestation which has already occurred, in particular as this affects the overall productivity of the land, also calls for a large scale approach to reforestation.²⁴

Beginning of eighties inland fisheries were in real danger due to rapid environmental changes, both natural and man-made. *Second Five Year Plan* adopted an intensify training of field staff (in the form of workshops, seminars, regular training programs) to enhance their professional efficiencies so that they can contact, motivate and train the fish farmers and local youths in scientific methods of fish farming and conservation practices.²⁵ Like other development plans, the management of natural resources and environment were kept out of the objectives of the plan.

In the forestry sector, the plan expressed concern about Unclassified State Forest (USF) in the Chittagong Hill Tracts. “This land is completely denuded due to repeated shifting cultivation by local people.”²⁶

7.6 Environmental Policy Perspective in the Third Five Year Plan (1985-90):

²³ Ibid, p-xii-45

²⁴ Ibid, p-xii-46

²⁵ Ibid, p-xii-57

²⁶ The Second Five Year Plan, Chapter II, p-xii-41.

While the First and Second Plans identified “poverty alleviation” and “improvement of standard of living” as prioritized objectives, the *Third Five Year Plan*’s priority was a significantly different from the previous two. Population growth reduction was the prime objective of the Third Plan.²⁷

In *Third Five Year Plan* is mentioned that encroachment on forest land has reduced the forest area to a critical level (8% of area) to threaten the whole environment. Scarcity of arable land will grow further. Therefore a forward looking land use policy is of great importance in order to avoid creeping environmental entropy. A national level use and settlement study is on progress at the Directorate of Urban Development and its recommendations will deserve careful consideration for early action. Decentralization of administration and development of upazila headquarters will prove to be a powerful tool not only for implementation of a national land use policy at local level but also for redistribution of human settlements at selective places, relieving thereby pressure on agricultural land.²⁸ One of the major objectives of the Third Five Year Plan (1985-90) was to improve general environment and public health.²⁹ It also incorporated the Upazila Afforestation and Nursery Development Project.

Although the plan admitted the illegal encroachment in the forest areas, it did not suggest an strategy for effective legal action against illegal encroachment.

As in the previous plans, wildlife is also a neglected aspect of the forestry-management programme. But the plan recognizes, “it is of utmost importance to set aside suitable forest areas for adequate protection of animal and plant life particularly those species

²⁷ The Third Five Year Plan (1985-90); Planning Commission, Govt. People’s Republic of Bangladesh, December 1985, P-37

²⁸ The Third Five Year Plan, p-172.

²⁹ The Third Five Year Plan, p-194.

which are threatened by extinction.” The plan did not suggest any particular work-plan or propose to make inventory of threatened or extinct wildlife species of Bangladesh.

The Third Five Year Plan was the first to discuss the cyclone-warning system of the coastal area. It stated that “the objective of such a programme is to minimize effect of such natural calamities on human life and property.”³⁰

7.7 Development of Environmental Policy During the Nineties and Next:

The Nineties marks the beginning of the history of environmental policy in Bangladesh. The developments taking place during this decade gave a new direction to the policy concerns in the field of environment protection. The following Five Year Plan, emphasis was made for the first time on environmentally desirable integrated development. During the Nineties, the environmental policy in Bangladesh had taken shape. The policy perspectives were reflected in the Fourth Five Year Plan, Fifth Five Year Plan and next plans. A brief survey of the policy perspectives is made hereunder.

7.8 Environmental Policy Perspective in the Fourth Five Year Plan (1990-95):

The Fourth Five Year Plan³¹ a chapter was incorporated for the first time on “Environment and Sustainable Development”.³² A number of important factors have been identified which would affect environment in now and near future. The environmental activities in Bangladesh were organized by the Department of Public Health Engineering (DPHE) through the Water Pollution Control Ordinance of 1973. Municipal bodies in different towns were also involved in some environmental management activities. The promulgation of Environment Pollution Control Ordinance, 1974 and creation of a

³⁰ The Third Five Year Plan, P-51

³¹ The first draft of the Fourth Five Year Plan was brought out in June 1990. The revised draft of the Plan was published in October, 1990.

³² Chapter IX, The Fourth Five Year Plan (1990-95), Planning Commission, Ministry of Planning, Govt. People’s Republic of Bangladesh, June 1995. p-1-4

Department of Environment Pollution Control (DEPC) were significant steps in environmental promotion in this country.

In the Fourth Five Year Plan environmental aspects have been considered directly on many sectors of plan owning, probably, to growing global environmental concern. The Fourth Plan has identified environmental degradation as number eleven constraint for achieving the development goal. Although the plan has identified environmental degradation as one of the constraints for economic development, the strategy for considering this particular constraint has not been discussed in the main strategy of the plan in any form. The management of natural resources has not included as a priority agendum in the plan.³³

The main focus of this chapter, however, is not to evaluate the successive plans but to make an analysis of policies directly or indirectly relating to environment. Poverty is one of the main factors of environmental degradation in a developing country. Poverty alleviation has been in focus in all the successive plans but the country had different experiments to face in different plans.³⁴

7.9 Environmental Aspects in the Fourth Five Year Plan

Agriculture: The plan has a distinct difference from other plans in respect of development plans in the agriculture sector. It recognizes the environmental impacts of the irrigation facilities, application of chemical fertilizer, insecticides and pesticides, and introduction of High Yielding Varieties (HYV). The plan recognized the need of indigenous research for environmentally sustainable planning. For this purpose, it

³³ M. Q. Mirza & Ainun Nishat, Supra Note 6, p-93.

³⁴ M. Q. Mirza & Ainun Nishat, Supra Note 6, p-93.

considered so far made arrangement between the researchers and planning to be of *ad hoc* nature.³⁵ However, no strategy is set for achieving this goal.

Flood Control and Water Resources: The plan considered water resources as one of the crucial elements for achieving agricultural production and productivity. For the first time it was recognized that “ the construction of embankments along with the major rivers and the control of flood levels within adjoining flood-plain compartments undoubtedly have socio-economic as well as environmental implications.”³⁶ In 1995, a law concerning flood management was enacted, which requires clearance of the Department of Environment for development projects. A bottom-up procedure for project approval attempts to integrate inter departmental coordination and environmental considerations.

Fishery Development: It covers major environmental concerns of fishery development. The enforcement of the existing laws relating to conservation of fishery resources of the country is a major impediment for its development. The plan recognizes the “defective fish conservation laws and inadequacy of proper processing” are two major factors that affect proper development”.³⁷ But the plan does not include any strategy or policy-option either to implement the existing laws or to formulate new laws or to make necessary amendments in this regard.

Forestry: The plan considered various aspects of the forestry sector development. It envisaged “to rehabilitate or reforest the denuded and degraded national forest lands”³⁸ as a principal objective. All past plans focused on forest resources exploitation rather than afforestation or reforestation.

³⁵ The Fourth Five Year Plan (1990-95), Planning Commission, Ministry of Planning, Govt. People’s Republic of Bangladesh, June 1995, p-1-13.

³⁶ Ibid, p- V. B.-11.

³⁷ Ibid, p- V. C. 2-3.

³⁸ Ibid, p- UE-7.

Wildlife conservation was not included in the list of objectives. However, the plan recognized the need of establishment of protected areas in order to maintain biodiversity, genepool and habitats of rare and endangered plants and animals. It gave importance to protection and preservation of wildlife through strict enforcement of existing laws and establishment of game sanctuaries.

Although the plan envisaged the need of protection and preservation of wildlife, no institutional arrangement was formulated. Nothing was mentioned about the effectiveness of the existing laws for forest conservation.

Industry: Industrial pollution has become a major area of concern in Bangladesh; but the plan ignores it. In fact no attempt has been made to control the quality of industrial effluents and wastes that are causing adverse environmental impacts.

Energy: The plan suggested setting up of bio-gas plants, briquetting plants and solar thermal energy conversion. It also envisaged utilization of solar energy, wind energy and mini hydropower on small scale basis. But actual actions towards these alternative energy sources are still to be seen. The plan recognizes that deforestation within Bangladesh as a catalytic factor for flooding, erosion and siltation.

In order to promote environmental consciousness and arrest degradation, the following measures have been undertaken:

A National Environment Policy has been finalized in 1992 as a guide to long term sustainable environment friendly development. The environment policy 1992 spelt out the following objectives: 1) Preservation and improvement of ecological balance; 2) Identifying and controlling all environment polluting and degrading activities; 3) Minimizing the impact of natural disaster on environment; 4) Ensuring environment

friendly development in all sectors; 5) Ensuring long term sustainable/ environmentally sound utilization of natural resources; and 6) Active promotion and participation in all international initiatives for the improvement of global/regional environment.

To achieve these objectives in the long-run, the Environment Policy 1992 identifies possible remedial measures to be taken up by the concerned Ministries/Agencies:

- a) The government has attached high priority to environmental promotion, protection and preservation. This has been highlighted in national and international forum.
- b) A separate Ministry of Environment and Forests and Department of Environment have been established.
- c) A National Conservation Strategy is under formulation.
- d) The year 1990 was observed as “Year of Environment” and the following decade has been identified as “The Decade of Environment”.
- e) Environmental concerns have duly been recognized by the development planners and decision-makers. This has been reflected through inclusion of environmental issues in all development projects. Besides, Environmental Impact Assessment (EIA) by the Ministry of Environment and Forests has been undertaken. In order to consider the environmental impacts of the public sector development projects, the Ministry for Environment and Forests has been included as a permanent member of the Executive Committee of the National Economic Council;
- f) Formulation of a comprehensive and updated ordinance named “Bangladesh Environment Preservation Ordinance” is in the process of finalization. Two other

new laws relating to radiation control and protection of marine environment are under preparation;

- g) Major ecologically critical areas of environmental pollution have been spotted and environmental up-gradation programs have been undertaken by the Department.
- h) Major polluting industries/ establishments have been identified and remedial measures are being pursued. Establishment of new industries either in public or private sector requires the clearance of the Ministry of Environment.
- i) Programmes for creation of environmental awareness have been undertaken through the mass media. As a part of educational curricula, “Environment” has been introduced at school level and higher degrees are also being offered on this subject;
- j) Uses of fuel-wood in brick burning and cutting forest reserves have been banned. Social Forestry Program has been undertaken on a priority basis;
- k) In order to maintain ecological balance, preservation of wildlife is being emphasized and killing or exporting frogs, lizards and all kinds of birds and animal species have been banned;
- l) Use of improved varieties of oven/stove and installation of low latrines and tube-wells in rural areas have been undertaken in the public sector which are being complemented by the NGOs;
- m) A Master Plan Organization has been established to effectively manage and improve water resources taking due consideration of environmental issues;
- n) A Coastal Environment Management Plan for Bangladesh has been prepared;
- o) Import of toxic waste and its recycling have been banned;

- p) An International Institute for Environmental Studies and Disaster Management has been established in Dhaka;
- q) The Montreal Protocol for Protection of ozone layer has been ratified by the Government; and so forth.³⁹

The environment and sustainable development program are spread over across the different sectors such as Agriculture, Rural Development, Water Resources, Physical Planning, Education, Health, Family Welfare, Social Welfare, Labour and Manpower etc. The environmental issues, policies and programs pertaining to various sectors have been discussed in respective sectoral chapters. Besides, around TK. 700.00 crore invested for environment improvement activities directly under the Department of Environment and Forest Department during the *Fourth Five Year Plan* period.⁴⁰

7.10 Environmental Policy Perspective in the Fifth Five Year Plan (1997-2002):

The two years (1995-97) till June-1997 has been a sort of plan holiday period for the country meaning that the annual development programs of the country were prepared and implemented outside the frame of a five year plan.⁴¹ *The Fifth Five Year Plan (1997-2002)* was the most important planning and policy document of the government covering all major sectors of development and intervention. The *Fifth Five Year Plan* emphasized on 'environment and sustainable livelihood.' After the independence the growth of industries in the country has generally been unplanned without keeping the issue of environmental protection in careful consideration. There are many industries in the residential area causing pollution of air and water through smoke emitting chimney and

³⁹ The Fourth Five Year Plan (1990-95), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, June 1995. Chapter IX, p-1-4

⁴⁰ Ibid. Chapter IX, p-1-4

⁴¹ The Fifth Five Year Plan (1997-2002), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, June 1997, Foreword.

dumping of untreated effluent. Industrial wastes have polluted the water of the Buriganga, the Shitalakhya, the Karnafuli and the Rupsha rivers. Effluents from tanneries are extremely harmful to human beings since they contain high concentration of chromium compounds. About 250 tanneries in Hazaribagh area⁴² within the Dhaka city are causing serious environmental pollution and health hazard making the area virtually unsuitable for human habitation.⁴³

In order to promote, nurture, protect and expand nature and natural resources and link all development activities with environment towards improving the quality of life, the Fifth Plan enunciates the following objectives:

“i) promoting sustainable livelihood by alleviation of poverty; ii) ensuring active participation of the poor, especially women, in environment protection activities; iii) promoting environment-friendly activities in the development interventions; iv) preserving, protecting and developing the natural resource base; v) strengthening the capabilities of public and private sectors to manage environmental concerns; vi) controlling and preventing environmental pollution and degradation related to soil, water and air; vii) creating public awareness for participation in environment promotion activities; and viii) conserving non-renewable resources and sustaining auto and equi-generation of renewable resources.”⁴⁴

⁴² Leather industry in Bangladesh causes horrendous environmental pollution. Of the 270 tanneries in the whole country 90 % are located in Hazaribagh, a densely populated residential area of Dhaka. Of these, tanneries in Hazaribagh alone generate 7.70 million liter liquid waste and 88 MT solid wastes everyday. See details, Preface, *Leather Industry Environmental Pollution and Mitigation Measures* (ed) Philip Gain, Shishir Moral, SEHD, Dhaka-2010.

⁴³ The Fifth Five Year Plan (1997-2002), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, June 1997, p- X-3.

⁴⁴ Ibid, p- X-4

The plan mentioned ‘Polluters Pay Principle’ and it will be followed in order to ensure strict compliance of environmental legislation; incentives, in the form of tax rebate, tax holiday etc. will be provided and the incremental cost incurred by the environment-friendly entrepreneurs will be met in various forms/sources. Although the Environment Conservation Act, 1995 is based on this principle, there is lack of broad-based standards about the potential and actual damage.⁴⁵ So these standards are required to be set. The plan also mentioned of ‘National Environment Fund’, and it will be established in order to provide assistance to the victims of environmental degradation caused due to natural disasters and anthropogenic activities.⁴⁶ The Fifth Plan provides for expansion of the infrastructure of the Department of Environment engaged in the conservation and upliftment of the overall environment of the country in order to make it capable of performing its activities in extended perimeters. It has also made provision of establishing the local offices of the Department in 18 greater districts⁴⁷. Necessary orders were issued toward opening Divisional offices of the Department in Barisal and Sylhet Divisions.⁴⁸

7.11 Environmental Policy Perspective in the PRSP-I

The government in April, 2003 designated the general Economic Division of the Planning Commission as the National Poverty Focal Point (NPPF) and entrusted it with the task of preparing a full-blown Poverty Reduction Strategy Paper (PRSP) for

⁴⁵ Jesmul Hasan, “Environmental laws in Bangladesh: In search of a regulatory framework”, in *Bangladesh State of Environment Report 2000*, ed. Quamrul Islam Chowdhury Dhaka: FEJB-2000, p-301.

⁴⁶ The Fifth Five Year Plan (1997-2002), Planning Commission, Ministry of Planning, Govt. People’s Republic of Bangladesh, June 1997, p- X-7

⁴⁷ In 2010, DoE has extended its offices in 21 districts due to all industries and projects under Environment Conservation Act.

⁴⁸ Department of Environment, Ministry of Environment & Forest, Government of the People’s Republic of Bangladesh, World Environment Day, Dhaka: DoE, 2001,p- 29-30.

Bangladesh. A National Steering Committee, headed by the Principal Secretary to the Hon'ble Prime Minister and consisting of the Secretaries of nineteen relevant Ministers, was also formed in September, 2003 to provide overall guidance to the task of preparing the PRSP.⁴⁹

The completion of the Interim Poverty Reduction Strategy Paper (I-PRSP) titled *A National Strategy for Economic Growth, Poverty Reduction and Social Development*, in March 2003, marked an important milestone in the process of renewing the national goal of policy ownership over the formulation of poverty reduction strategies (PRSs). While the commitment to poverty reduction since then continued to be pursued through a wide range of concrete actions, Government also undertook specific steps to ensure a comprehensive participatory process by which to deepen policy ownership in the formulation of a full-blown PRS.⁵⁰

PRSP-I mentioned the environment as the major thrust of the thematic-group report on the environment has been that resources like land, water, air and biodiversity must be kept pollution-free for sustainable development. Pollution affects health, education, energy, livelihood, amenities and heritages and in this way increases poverty as well as the severity of poverty. Hence, environmental balance should be ensured in all sorts of development activities. Importance of proper waste management and recycling activities, as initiative and an action plan to save endangered animals, fish and plants, planned use of land, an environment-friendly energy policy and social forestation are emphasized in

⁴⁹ Unlocking the Potential, *National Strategy for Accelerated Poverty Reduction*, General Economic Division, Planning Commission, Government People's Republic of Bangladesh, October, 2005, Forward.

⁵⁰ Ibid, p- xi-xii.

the report.⁵¹ Environmental issues, as stated in the PRSP, are mostly to be seen as a cross-cutting issue and integrated into national poverty alleviation strategy.

7.12 Environmental Policy Perspective in the PRSP-II

In October 2008, Caretaker Government published PRSP-II on “Moving Ahead *National Strategy for Accelerated Poverty Reduction II (FY 2009-11)*.” It has a chapter on *Caring for Environment and Tackling Climate Change*.

PRSP-II (Revised):

After the general election of 2008, the new government revised the previous PRSP-II. It is called “*Steps Towards Change: National Strategy for Accelerated Poverty Reduction II (Revised) (FY- 2009-11)*”. It has a chapter on ‘Environment and Development.’

Department of Environment (DoE) implements government environment policy and development. DoE has extended its offices in 21 districts⁵² due to all industries and projects under Environment Conservation Act, 1995 (ECA).⁵³ DoE makes mobile court in order to implement action against ECA violator. Government makes Environment Conservation (Amendment) Act-2010, Environment Court Act, 2010.

Accordingly, between FY 1973 and FY 2002 Bangladesh implemented 5 successive Five Year Plans and an interim Two Years Plan (1979-80). From FY 2003 to FY2010, there was a deviation from the five year plan to a process of shorter term Poverty Reduction Strategy Paper (PRSP). PRSP emphasizes the conservation and expansion of natural resource base so that the poor and vulnerable communities can depend upon the natural

⁵¹ Unlocking the Potential, *National Strategy for Accelerated Poverty Reduction*, General Economic Division, Planning Commission, Government People’s Republic of Bangladesh, October, 2005, p- 38

⁵² 21 districts are Dhaka, Gazipur, Narayanganj, Narsingdi, Mymensingh, Tangail, Munshiganj, Faridpur, Manikganj, Chittagong, Cox’s Bazar, Noakhali, Brahmanbaria, Feni, Comilla, Chadpur, Jessore, Kushtia, Bagherhat, Rajshahi, Rangpur.

⁵³ Bangladesh Economic Review- 2011, Economic Department, Ministry of Finance, Government People’s Republic of Bangladesh, p- 230.

resources on a sustainable basis. This objective corresponds to that of National Programme of Action (NPA) particularly, the enhancement of livelihood opportunities in the coastal areas through the conservation and sustainable use of coastal natural resources. The Strategic goals set forth by the PRSP include, the reduction in the rate of deforestation, conservation of biodiversity, solid waste management and improvement of water quality of particular significance is the PRSP's strategic action to improve the coastal water quality by the installation of Effluent Treatment Plants (ETP) in industries and introduction of environmental audit for the ship breaking industry.⁵⁴

7.13 Environmental Policy Perspective in the Sixth Five Year Plan (2011-15):

The *Sixth Five Year Plan (SFYP)* has three parts as 1) Strategic Directions and Policy Framework, 2) Sectoral Strategies, Programs and Policies, and 3) Statistical Annex and Technical Framework. It has a slogan of “*Accelerating Growth and Reducing Poverty.*” On its first part, a chapter is included on “Environment, Climate Change and Disaster Management for Sustainable Development.”⁵⁵

While perceiving the long-run consequences of environmental degradation to the country's ecosystem and citizen's welfare, the Government has set a number of goals to attain a sustainable environment and to address the fallout of climate change. With a view to attaining these goals, the main objectives relating to environment and climate change under the Sixth Five Year Plan can be described in the following manners as 1) To monitor, control and prevent environmental pollution and degradation related to soil, water and air, 2) To strengthen the capability of public and private sectors to manage

⁵⁴ Annual Report 2006, DoE, p-111.

⁵⁵ The Sixth Five Year Plan (2011-15), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, (Part-I), Dhaka: July 2011.

environmental concerns, 3) To ensure active participation of the poor, especially the women in environment management activities at all levels, 4) To promote cooperation with regional and international institutions/ organizations to address local, regional, and global environmental problems, 5) To improve air quality in major cities through monitoring and prevention measure.⁵⁶ According to the Plan will take a number of initiatives to strengthen environmental capacities. In the public sector efforts will continue to strengthen the Department of Environment and other ministries dealing with environment including Agriculture, Land, Water, Energy, Industry and Local government.⁵⁷

With a view to achieving the goal of sustainable development, the SFYP is focusing in integrating poverty, environment and climate change into the process of planning and budgeting. In this context, appropriate policy and institutional capacity building for sustainable land-water management, biodiversity conservation and climate resilient development are crucial. Environment, climate change adaptation and mitigation, and disaster risk reduction must be addressed in a broader development context, recognizing climate change as an added challenge to reduce poverty, hunger, diseases and environmental degradation.⁵⁸

The DoE is formulating and implementing policies and programs that ensure a realistic balance between the existing livelihood requirement of the people and sound environmental resource management. A major part its activities include environmental impact assessment carried out through the Environment Conservation Rules promulgated

⁵⁶ The Sixth Five Year Plan (2011-15), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, (Part-I), July 2011, p- 193.

⁵⁷ Ibid, p-195.

⁵⁸ Ibid, at-421.

under the Environment Conservation Act 1997. These programs will be continued and would be strengthened during the SFYP. Programs undertaken by the GOB include raising awareness on environment, environmental management and its monitoring, implementation of the international conventions and protocols signed by the government and programs to implement existing environmental laws of the country.⁵⁹

7.14 Policy initiatives of Bangladesh Government:

Environment issues are considered through the policies, which have been discussed below.

The concern about environmental issues, however, has been reflected in different policy initiatives taken by the government of Bangladesh. The major policy initiatives, strategies and plans emphasized environment and natural resources management to achieve sustainable development. Extreme pressure of a huge population of more than 170 million on a limited resource base, including land, has strained the country's carrying capacity- in terms of both the source and sinks functions of the environment. In such an all-pervasive predicament, the importance of sound environment policy-making cannot be overemphasized.⁶⁰

The art of environmental policy-making in a developing country like Bangladesh is a new domain, without much of past experience. There are two steps in the formulation of an environmental policy: the choice of an overall goal and the selection of a means to achieve that goal. In practice, these two steps are often linked with the political process

⁵⁹ The Sixth Five Year Plan (2011-15), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, (Part-II) July 2011, p- 423.

⁶⁰ Mizan Khan, "Environment Policy-making in Bangladesh", in *Bangladesh State of Environment Report-1999*, ed., Quamrul Islam Chowdhury Dhaka: FEJB, December, 1999. p-217

because both the choice of a goal and the selection of a mechanism for achieving it have important political ramifications.⁶¹ The problem is compounded by inter-linkages in the conditions of air, land and water resources, and the time gap between actions as well as effects on the environment. This obviously requires inter-disciplinary and multi-disciplinary expertise, which are lacking in Bangladesh.

In nineties, environmental management has become a priority issue in Bangladesh. Already, successive governments have developed detailed policy frameworks. This includes the National Environment Policy- 1992, National Tourism Policy- 1992, National Forestry Policy-1994, New Agriculture Extension Policy-1995, The Energy Policy-1995, Private Sector Power Generation Policy of Bangladesh-1996, Policy Guideline for small Power Plants in Private Sector-1997, National Fisheries Policy-1998, National policy for safe water and sanitation- 1998, National Agricultural policy-1999, National water policy- 1999 (National Water Management Plan, 2004), Industrial policy- 1999, National Health Policy-1999, National Shipping policy-2000, Integrated Pest Management Policy-2000, National Land Use policy 2001, National Integrated Pest Management Policy- April, 2002, Renewable Energy Policy of Bangladesh-2008, Bangladesh Climate Change Strategy and Action Plan- 2009, Bangladesh Rubber Policy- 2010, National Bio-safety Framework-2010⁶² all aimed to ensure development in harmony with the natural environment. The Wetland policy (draft) ⁶³puts special

⁶¹ Ibid. p-217

⁶² Abul Kalam Azad, Integrated Coastal Zone Management in Bangladesh: A Case for Peoples Management, *biss papers* 20, Dhaka: December-2003, section- III, p-87-88

⁶³ Mizan Khan, "Environment Policy-making in Bangladesh", in *Bangladesh State of Environment Report-1999*, ed. Quamrul Islam Chowdhury, Dhaka: FEJB- December, 1999. p-218

emphasis on the conservation of wetlands.⁶⁴ However, all these array of policies need to be armed by effective policy instruments for their proper implementation.⁶⁵ These policies are often hard for elected politicians to sell to a population which is already faced with financial hardship.⁶⁶

A sound policy-making requires through and up-to-date knowledge of the available policy instruments. Such instruments can be categorized into three groups: a) Government regulation and control, b) market mechanisms and, c) social instruments. In Bangladesh, the regulatory regime, with about 200 environment related laws, is protecting the environment, both direct and indirect. But studies around the world have shown that government regulation as an instrument is difficult, ineffective and costly, in most of the cases.⁶⁷ The policies sound more mission-like, with statements of pious objectives, rather than real policy directions. The sectorial polices and guidelines prescribe Do's and Don'ts, rather than showing how to do or why not to do. There is a chapter in the Industrial Policy (1991) on financial incentives to industries, but no incentive provision for industrial pollution control has been mentioned.

In the formulation of Environmental Policy, different actors and factors played some direct and indirect roles.⁶⁸ The actors were basically of two types, external and internal. Among external actors, United Nations General Assembly, international forum, international organizations, donor agencies (IDA, USAID, UNDP, ADB) were major

⁶⁴ Md. Sohrab Ali, *The Development-Environment Conflict: Lessons learnt*, The Daily Star (13/02/2010), p-13

⁶⁵ Mizan Khan, Supra Note 57. p-218

⁶⁶ Md. Khalequzzaman, "Environmental Philosophy in the Context of Bangladesh", *Weekly Holiday*, Dhaka: 30 July, 1999.

⁶⁷ Mizan Khan, Supra Note 57. p-218

⁶⁸ S. M. Aminuzzaman (2010), *Environment Policy of Bangladesh : A case study of an Ambitious policy with Implementation Snag*. Available from: http://www.monash.edu.au/research/Sustainability-institute/asia-project/paper_salahuddin_aminuzzaman.pdf [Accessed 24th December, 2010]

players. Internal actors include, environmental NGOs (CARDMA, BCAS, IUCN, FEJB, ADAB) government agencies i.e. Ministry of Environment and Forest (MoEF), Department of Environment (DoE), Planning Commission, concerned ministries, consultants, bureaucrats, civil society and so on. Although the MoEF was responsible for drafting the policy, in reality it will be drafted by an informally organized Task Force composed of the major actors.⁶⁹ Besides the Policy, a National Conservation Strategy (NCS), which has identified all the sectoral issues, the strategies and actions required. Moreover, a National Environment Management Action Plan was made with expert and grass-root level input in its methodology in identifying the problems and priorities. The Bangladesh Country Report to UNCED, Brazil 1992 is a useful source of information. Other materials on this topic include the Task Force Report, 1991 and published documents prepared by donors on the 'State of Bangladesh Environment' e.g., DANIDA, CIDA, SIDA, USAID, etc.⁷⁰

7.15 The salient features of the above Policies are appeared as below.

The Cabinet adopted this Policy in November 1992 that provides some general guiding statements and then goes on describing sectoral policies following the Ministries. The objectives of the Environment policy, 1992 are:

- Maintaining ecological balance and ensuring sustainable development of the country through protection and conservation of the environment
- Protecting the country from natural disasters
- Identifying and regulating all activities that pollute and destroy the environment
- Ensuring environment-friendly development in all sectors
- Ensuring sustainable and environmentally sound management of the natural resources

⁶⁹ Ibid

⁷⁰ Mohiuddin Farooque, "Reflections on the State of Environment and Environmental Law in Bangladesh", in *Environmental Order the Security of Survival*, S. Rizwana Hasan (ed.) Dhaka: BELA, 2004, p-10.

- Maintaining active association, as far as possible, with all international initiatives related to environment.⁷¹

Environmental activities encompass all geographical regions and development sectors of the country. The Policy details various specific policies and principles of their implementation for 15 various sectors⁷². It also provides for an environmental action plan toward ensuring its goals and objectives. The action plan is presented under the head 'Implementation Program' in tabular form for each of the 15 sectors.⁷³

It would be worth to note the topics being briefed in the said Policy under its Articles- 4 and 5. Article-4 of the Policy talks about the legal framework. It says that-

- Amend all laws and regulations related to protection of environment, conservation of natural resources, and control of environment pollution and degradation, to suit the needs of present time.
- Frame new laws in all necessary sectors to control activities related to environmental pollution and degeneration.
- Ensure observance of all clauses of relevant laws/regulations and create widespread mass awareness in this regard.
- Ratify all environment related international laws/conventions/protocols those Bangladesh considers to be ratified and amend/modify existing laws/regulations in line with the ratified laws/conventions/protocols.⁷⁴

Articles- 5 of the Policy contains Institutional Arrangements that says as follows:

- The Ministry of Environment and Forest would coordinate the implementation of this Policy.
- A National Environment Committee with the Head of Government as the Chairperson be constituted to give overall direction for implementation of the Environment Policy.
- The Ministry of Environment and Forest would take timely steps for appropriate amendment and adjustment of this Policy on the backdrop of changes in the state of environment and socio-economic and other needs of the country.

⁷¹ The Environment Policy- 1992, A Compilation of Environmental Laws Administered by the Department of Environment, Dhaka: BEMP-2002, p- 322.

⁷² 15 sectors are as Agriculture, Industry, Health & Sanitation, Energy & Fuel, Water Development, Flood Control and Irrigation, Land, Forest, Wildlife and Bio-diversity, Fisheries and Livestock, Food, Coastal and Marine Environment, Transport and Communication, Housing and Urbanization, Population, Education and Public Awareness, Science, Technology and Research.

⁷³ Annual Report 2006, *Environment for Sustainable Development*, Department of Environment, Ministry of Environment & Forest, Government People's Republic of Bangladesh, p- 8.

⁷⁴ Environment Policy, 1992.

- Department of Environment will make final review and approve all EIAs.⁷⁵

7.16 The National Environment Management Action Plan (NEMAP), 1995:

Formulated in 1995, NEMAP envisages identification of the key environmental issues of immediate concern for Bangladesh and the actions to halt or reduce environmental degradation, improve the natural and man-made environment, conserve biodiversity and its habitat, promote sustainable development and improve the quality indicators of human life. It was developed for a period of 10 years (1995 to 2005) still likely to have influence in shaping policy directives regarding the environmental issues.⁷⁶ To this end, it has grouped all the relevant necessary actions under four heads: institutional, sectoral, location specific and long-term issues.

The institutional aspects reflect the need of inter-sectoral cooperation to tackle environmental problems that need new and appropriate institutional mechanisms at national levels.

The sectoral aspects reflect the way the Ministries and agencies are organized and make it easier to identify the agency to carry out the recommended actions. The location-specific aspect focuses on particularly acute environmental problems at local levels that need to be addressed on a priority basis. The long-term issues include environmental degradation of such degree that it might become more serious and threatening than they seem to be if their cognizance is not immediately taken.⁷⁷

⁷⁵ The Environment Policy- 1992, *A Compilation of Environmental Laws Administered by the Department of Environment*, Dhaka: BEMP-2002, p- 327.

⁷⁶ ADB (2004), Country Environmental Analysis : Bangladesh. Available from: http://www.adb.org/Documents/CEA_s/BAN/ BAN-CEA-Jul 2004.pdf [Accessed 24th December, 2009]

⁷⁷ Annual Report 2006, *Environment for Sustainable Development*, Department of Environment, Ministry of Environment & Forest, Government People's Republic of Bangladesh, p- 8.

A National Conservation Strategy (NCS) and a National Environment Management Action Plan (NEMAP) have been formulated. Both NCS and NEMAP contain national strategies and national programs for conservation of sites important from biodiversity consideration. The Sustainable Environment Management Programme (SEMP) had a total of 26 components of which three components were directly concerned with the conservation of biodiversity in the wetlands and in the floodplains of the country through community participations.⁷⁸

7.17 Environmental Policy Perspective in the National Energy Policy- 1996, (15 January):

The objectives of the National Energy Policy (NEP) mentioned that to ensure environmentally sound sustainable energy development programs causing minimum damage to environment.

The environmental consideration of the NEP is as environmental issues will be considered for all type of fuels and in each and every step of fuel cycle; namely, exploration, appraisal, extraction, conversion, transportation and consumption.

It may be reiterated that at present per capita emission of carbon dioxide gas is very low. It is envisaged that in foreseeable future, emission of carbon dioxide gas would not exceed the existing average emission of low income developing countries.

Legal issues (11) Environmental issues to be considered under National Energy Policy are to be mandated under National Environment Policy and Environment Act.

Environment Policy on the issue of Energy: a) Environmental Impact Assessment should be made mandatory and should constitute an integral part of any new energy

⁷⁸ Annual Report 2006, DoE, p-69.

development project. b) Use of economically viable environment friendly technology is to be promoted. c) Use of fuel wood is to be discouraged and replacement fuels are to be made available at an affordable price. d) Popular awareness to be promoted regarding environmental conservation. e) In case of coal based power plants, disposal of ash and reduction of environmental emission are to be considered in technology selection. f) In case of nuclear power plant, internationally acceptable criteria on radiation emission are to be observed. Abandoned hard rock mine faces may be considered for final disposal of such wastes. g) Use of lead free⁷⁹ petrol will be encouraged.

- i) Petroleum Policy⁸⁰ mentioned its objectives as promote measures for environmental impact assessment in this sector.
- ii) Environment Impact Assessment (EIA) shall be mandatory for any project of electricity generation. Clearance of projects from environmental point of view shall be accorded without undue delay so as to avoid cost and schedule over runs.
- iii) The Department of Environment shall prescribe standard contents and formats of EIA to be submitted on electricity projects and also define other regulatory codes, guides and standards on emission and thermal pollution from generating plants. Some environmental standards shall be applicable to the new plants in the private and the public sectors.
- iv) Provisions under the Nuclear Safety and Radiation Control Act⁸¹ and its regulations in addition to environmental standards of the Department of

⁷⁹ Lead pollution in the air was very high until the introduction of lead free petrol in the city since 1999.

⁸⁰ As approved by the Cabinet in its meeting held on 18.07.1993.

⁸¹ Act 21 of 1993, the Government of Bangladesh.

Environment shall be mandatory in installation, operation and maintenance of nuclear power plants.

Article (V.2.13) of National Energy Policy said of Environment Impact Assessment for possible future power plants build by the PBS/REB are to be conducted in the same line as applicable for any other power plant.⁸²

7.18 National Water Policy- 1999:

Water resource is of immense importance for socio-economic development of the nation. Bangladesh is endowed with a good number of water bodies scattered all over the country. Regional cooperation is indispensable for water management and protection of water resources and rational use of water. In accordance with election pledge, government is taking initiative to formulate a coordinated water policy involving Bangladesh, India, Nepal and Bhutan and to establish regional water security for tackling the prevailing water crisis so as to ensure water resource conservation, Bangladesh's share and proper use in future. An agreement on Ganges water sharing was concluded with India in 1996.⁸³ According to the agreement, Ganges water available at Farrakha is being distributed between two countries through joint review team for the period of 1 January to 31 May in every year's dry season. In accordance with the article- iv of the said agreement, an India-Bangladesh Joint Committee was formulated for implementing and monitoring of the flow distribution measures at Farakkah and near Hardings Bridge.⁸⁴ An all out effort has been continuing for formulating water sharing agreement

⁸² Bangladesh Gazette- 1996

⁸³ See, Shah Alam, "Ganges Water-Sharing Treaty : How Much is the Scope for Criticism or Opposition?" *The Daily Star*, Dhaka: 16, March, 1997, p-4.

⁸⁴ Shah Alam, *Shomokalin Antorjatik Ain (Contemporary International Law)*, Dhaka: New Warsi Book Corporation, September-2000, p-68-71.

for rest of the 53 rivers, especially for relatively important Tista, Dhorla, Dud Kumar, Monu, Khoai, Gomuti and Muhuri rivers on a priority basis.⁸⁵

7.19 National Land Use Policy- 2001:

Optimum use of land and water depends on planned use of land, water resources and natural environment which are the important sources for growth. It is possible to ensure optimum use of scarce land resources by way of integrating the uses of these three natural resources. With this end in view, the Government has approved ‘National Land Use Policy, Bangladesh’. The Government has adopted various other national policies and measures to prevent land depletion. These include ‘The National Environment Policy’, ‘National Environment Act and Rules’, ‘National Forestry Policy’ and ‘The National Plan for Agricultural Research’.⁸⁶

7.20 Industrial Policy, 1986:

Industrial Policy, 1986 considered the environment pollution that pollution control- All sanctioning agencies will ensure that in the case of projects involving pollution and health hazards, the project proposals contain adequate measures for affluent treatment/disposal and other pollution control devices. All existing industrial units involving pollution and health hazards shall take appropriate measures for pollution control within the period specified by the Government.⁸⁷

7.21 Forest Policy:

⁸⁵ Bangladesh Economic Review 2010, Finance Division, Ministry of Finance, April-1011, p- 243-244

⁸⁶ Bangladesh Economic Review 2010, Finance Division, Ministry of Finance, April-1011. p- 243

⁸⁷ Industrial Policy 1986, Chapter- xv.

The Forest policy of Bangladesh has been highly influenced by political changes that have occurred in the country over a long period of history.⁸⁸ The most widely known forest related law was enacted in 1927. Since then the Forest Act has been amended many times; the last amendment was in 2000. A private Forest Act was introduced in 1945 which was followed by the promulgation of the Private Forest Ordinance (1959), to regulate forest management on privately owned land. The first forest policy of independence of Bangladesh was enacted in 1979. The latest forest policy came in force in 1994⁸⁹. In 1989, the forest act was amended to strengthen forest protection by providing for stiffer penalties for offenders and restricting the discretionary powers of the forest officials and local magistrates. The revised act relied on traditional forest protection and did not favour social forestry. The strict provisions did not, however, achieve the desired results. To accommodate social forestry, the act was amended in 2000.

7.22 Conclusion:

Bangladesh has a long past legacy of environment related policies. Huge numbers of policies are targeting the environmental issues. For that reason some over lapping may be observed. On the other hand, over lapping among different policies creates the confusion about different institutional role and responsibilities. Since the early 1980s environmental issues have started drawing attention of the policy planners in Bangladesh. Some international and national level organizations initiated a number of studies among which

⁸⁸ Mahbububul Alam, "Evolution of Forest Policies in Bangladesh: A critical Analysis", *International Journal of Social Forestry (IJSF)*, 2009, 2(2), p-149-166.

⁸⁹ The first forest policy was enacted in 1894 during the colonial era.

the reports prepared by DANIDA (1989), Department of Environment (1989), CIDA (1989), ADAB (1990), USAID (1990), NORD (1990), SIDA (1991) etc. are notable. Almost in all reports, similar concerns have been expressed. Some reports analytically discussed the policy-options mostly at the national level with less importance on regional and international environmental changes development and its implications for Bangladesh. In this section some of the major environmental issues highlighted. The Nineties marks the beginning of the history of environmental policy in Bangladesh. The developments taking place during this decade gave a new direction to the policy concerns in the field of environment protection. *The Fourth Five Year Plan* a chapter was incorporated for the first time on “Environment and Sustainable Development.” *The Fifth Five Year Plan* emphasized on environment and sustainable livelihood. The *Sixth Five Year Plan* emphasized on Environment, Climate Change and Disaster Management for Sustainable Development. The major policy initiatives, strategies and plans emphasized environment and natural resources management to achieve sustainable development. This chapter described the environment related policy history in Bangladesh. At the same time, it highlights the formulation process of the National Environment Policy 1992.

Chapter 8 :

Institutional Development of Environmental law in Bangladesh

8.1 Introduction: Directly environment law excising government organizations are Ministry of Environment and Forest (MoEF), Department of Environment (DoE), Department of Forest (DoF), Department of Fisheries, Ministry of Agriculture, Ministry of Commerce, Ministry of Disaster Management & Relief, Ministry of Energy & Mineral Resources, Ministry of Fisheries & Livestock, Ministry of Food, Ministry of Industries, Ministry of Law, Justice & Parliamentary Affairs, Ministry of Water Resources, Local Government Institutions/ Agencies, Division/ District Level Departments/ Agencies/ Offices of the concern Ministries. Department of Environment formulates environment law and Bangladesh Environmental Lawyers Association pursues, research and policy formulating the environment law. Above two organizations has evolution history. How to evolve two organizations have been analyzed below. This chapter analyses the response of the Bangladesh Supreme Court and High Court of public interest litigation and their interpretation of environment protection as an extension of the fundamental right to life. It is critically examined the concept of PIL evolved by the Supreme Court of Bangladesh. This chapter also attempts to review and analyze evolution and development of environmental organization of Bangladesh from historical perspectives.

8.2 The Evolution of DoE (Department of Environment):

The expressed concern on the continued global environmental degradation and the consequent resolution of the UNCHE in 1972 for undertaking effective steps, both at governmental and non-governmental levels, toward prevention and alleviation of such

phenomena had been the main impetus behind the creation of the present day Department of Environment. Steps that followed the 1972 UNCHE had, chronologically, been taking up a project by the Government of Bangladesh with a manpower of 27 under the aegis of the Department of Public Health Engineering (DPHE) primarily aiming at water pollution control with the promulgation of the *Water Pollution Control Ordinance* in 1973, setting up of a 16-member *Environment Pollution Control Board* headed by a Member of the Planning Commission and, within DPHE, *Environment Pollution Control Cell* in 1977 comprising a manpower of 26 headed by a Director and, simultaneously, undertaking *Environment Pollution Project* with a manpower of 118 in 1977, *Department of Environment Pollution Control* (DEPC) in 1985 and, finally, in 1989, the renamed and restructured Department of Environment with a manpower of 173 headed by a Director General under the newly created Ministry of Environment and Forest.¹ The ministry of Agriculture and Forests created two individual departments as Agriculture department and Forest department in January 15, 1987.² Subsequently, The Department of Forest flourished full ministry in July 19, 1989.³ Reconstructed Ministry of Forest renamed as Ministry of Environment and Forest (MoEF) in August 3, 1989.⁴ The Department of Environment, as it stands today, comprises manpower of 244⁵ and discharges its responsibilities through the headquarters located at Dhaka along with six Divisional offices located at Dhaka, Chittagong, Khulna, Bogra, Barisal and Sylhet.

¹ Environment for Sustainable Development, DOE Annual Report 2006, p-3

² Activities & Success of Ministry of Environment and Forest, May-2001, p-17

³ Ibid at 17.

⁴ Ibid at 17.

⁵ Environment for Sustainable Development, DOE Annual Report 2006, p-3

The chronology of events leading to creation of the Department appears in the following

Table 1:

Chronology of Events toward Creation of DOE

Year of Events	Project/ Cell/ Department	Responsibility
1972	United Nations Conference of Human Environment Resolution on alleviating global Environmental concern through government and non-government initiatives.	
1973	Promulgation of Water Pollution Control Ordinance and undertaking water pollution control project (under DPHE with a manpower of 27) as follow up action of the above Conference.	Water Pollution Control
1977	Formation of a 16-member Environment Pollution Control Board under the Chairmanship of a Member of the Planning Commission Environment Pollution Control Cell (EPCC) headed by a Director with a manpower 26	Advisory service on and formation of policies for control and prevention pollution. Implementation of the recommendation of the Board.
1978	Environment Pollution Control Project (EPCP) (Manpower: 118)	Field-level Implementation of the programme of the Cell.
1985	Department of Environment Pollution Control (DEPC)	Environment Pollution Control
1989	Department of Environment (DOE) headed by a Director General with manpower of 173	Environment conservation, pollution control and management of environment in its totality.

Source: DOE Annual Report 2006

8.3 The Vision of DOE

Among the basic provisions of the fundamental State Principles of Bangladesh has been that of '*Right to Life*'. Toward ensuring such a fundamental and vital provision, the primary objective of the Bangladesh Environment Conservation Act (Act No. 1 of 1995) underscores the necessity and expedience 'to provide for conservation of the environment, improvement of the environmental standards, and control and mitigation of

environmental pollution'. The vision of the Department of Environment has, hence been to create necessary conditions for worthy sustenance of human lives through protecting, upgrading and facilitating the quality of the various ecosystems vital for healthy human living through conservation of the environment, improvement of the environmental standards and control as well as mitigate of environmental pollution and, thus, make Bangladesh free of pollution and environmental hazards.

8.4 The Mission of DOE

The two main thrusts of the Department of Environment have been *strategic environmental management for ecosystem protection with emphasis on the prevention and control of pollution and performing a facilitating role in contributing to the efforts of the various GOB agencies to promote sustainable use of land, biodiversity and other natural resources.*

The mission statement of the Department of Environment has, thus, been '*to help secure a clean and healthy environment for the benefit of present and future generations, through the fair and consistent application of environmental requirements, supported by direct action on critical environmental problems that demonstrate practical solutions and that galvanize public support and involvement.*'

The key words point to an active role of DOE in solving environmental problems with public involvement and support through enforcement of the environmental laws and regulations and their compliance.

8.5 Regular Activities of DoE:

The routine and regular activities performed by the DoE are as environmental quality monitoring, award of environmental clearance to industries and development projects,

compliance and enforcement of environmental regulations, survey of industrial pollution, ecologically critical areas (ECAs) and natural resource management, disposing environmental complaints, undertaking legal measures against production and marketing of banned polythene bags, controlling import and use of ozone depleting substances (ODSs), undertaking specific programmes toward abatement of greenhouse effect, making comments on various projects and initiatives undertaken at governmental and non-governmental levels, coordination with committees of various ministries, departments and agencies, creating mass awareness on environmental issues, undertaking steps to fulfill commitments under various ICTPs.⁶

The activities of the Department of Environment transcend and cross-cutting issues in every sector of the national socio-economic system have direct or indirect influence on the environment in Bangladesh.⁷ The mandate of the Department of Environment is, broadly, to ensure conservation of the environment, improvement of the environmental standards and control as well as mitigation of environmental pollution has been provided for in the Bangladesh Environment Conservation Act, 1995 (Act no 1 of 1995). In particular, the Department is mandated, through the power and function of the Director General, to take such measures as may be necessary and expedient for the purpose of implementation of the Act.⁸

Environmental quality monitoring has been among the primary functions of the DoE since its inception. Activities in this core area presently includes monitoring of surface water, groundwater and drinking water qualities, air quality, and noise level on a regular basis as well on request from interested quarters. Surface water quality monitoring is

⁶ Environment for Sustainable Development, DOE Annual Report 2006, p-22

⁷ Annual Report 2007, DoE, p-13

⁸ Ibid, p-16

done at some specific points along major river systems of the country in connection with the Global Environmental Monitoring System (GEMS), the main component of the Earth-watch Programme, the environmental assessment arm of UNDP.

Surface water quality monitoring is performed in three ways: 1) Ambient monitoring (on a periodic basis at some fixed points along major river systems), 2) Investigative monitoring (on the basis of specific complaints on water pollution and spot monitoring of effluents discharged by polluting industries or ensuring post treatment effluent quality of different industries), and 3) Surveillance monitoring (toward ensuring compliance to ECA, 1995 and ECR, 1997 by water supply system, industries and various other activities).

Air quality monitoring has a special feature. The officials of the Department perform this activity on regular basis both in isolation and in collaboration with the World Bank supported Air Quality Monitoring Project (AQMP).

Noise level monitoring is principally done along the main thoroughfares and road-junctions of major cities and towns of the country.

Laboratory facilities for analysis of various samples for ascertaining the qualities of the environment pertaining to a specific location, effluents/emissions from industries/automobiles, water qualities of various waterbodies/wetlands/ lakes, etc., are available in all six divisional offices of the Department. From quite a rudimentary stage, these laboratories, over the years since the creation of the Department, have gradually been developed to a moderately functional stage as they stand at present.⁹ The DoE inherited two laboratories in Dhaka and Chittagong from its parent Department of Public Health Engineering (DPHE) in 1974. These laboratories were installed for DPHE by M/S

⁹ Ibid, p-23

Camp-Dresser & McKee in 1966 under US AID grant.¹⁰ The department installed two more laboratories at Khulna and Bogra towns, in 1981, transferring some of the chemicals and equipment from Dhaka laboratories and, in 1982, got some equipment and bacteriological test support from the Dutch Government. During 2000 and years immediately prior to 2000, the Department received some more chemicals and equipment from WHO and other projects for its 4 Divisional laboratories at Dhaka, Chittagong, Khulna and Bogra. During the last decade after raising the number of Divisional offices from 4 to 6 with the creation of 2 new Divisional offices at Barisal and Sylhet, the 6 Divisional laboratories were raised to the present working level through inclusion of equipment received from the Bangladesh Environment Management Project (BEMP). Laboratory analysis is being performed in the 6 Divisional laboratories through common equipment and appliances.

8.6 Environmental Clearance and Certification:

The Environment Conservation Act, 1995 and the Environment Conservation Rules, 1997 prescribe that all sectoral programmes and projects are subject to the environmental assessment (EA) process and must obtain environmental and site clearances. The process is critical to ensuring that potentially negative impacts on the environment are avoided, and if that is not possible, mitigated.

According to the provisions laid down in the Environment Conservation Act, 1995, no industrial unit or project shall be established or undertaken without obtaining, in the manner prescribed by rules, an Environmental Clearance Certificate (ECC) from the Director General of the Department. As specified in clause 7 of the Environment Conservation Rules, 1997, all new industries and projects, including the existing ones

¹⁰ Annual Report, 2006, DoE, p-13-14

which operate without any clearance from the Department, are under legal obligation to apply for Environmental Clearance Certificates. Industries and projects are classified into four categories- Green, Orange-A, Orange-B, and Red depending upon their location and potential impact on the environment. Schedule- I of the Environment Conservation Rules, 1997 lists the types of industries and projects falling under the above four categories. The Rules provides a prescribed form of application for Environment Clearance Certificate (Form- 3 of ECR, 1997). Green industries are easily granted clearance certificates. Orange categories need to submit considerable further information and plans, and may be subject to field inspection. Industries belonging to moderately polluting Orange- B and highly polluting Red categories, must in addition, conduct detailed Environmental Impact Assessment and prepare appropriate environmental management plans.¹¹

The Department of Environment is regularly visiting the industrial units, identifying the polluting industries and keeping the industries in pressure to comply the environmental regulations. Environmental Clearance Certificate is issued only when the proponent comply the environmental regulation. Enforcement teams are being formed to monitor the industries comply of environmental regulation. As a part of the implementation of this policy, the tannery industries of Hazaribug are going to be shifted to Harindhara of Savar with a central treatment plant.¹²

8.7 Environmental Complaints and Disposal:

The Department also receives and makes disposal of complaints on environmental issues made by individuals and individual agencies as well as acts on the basis of news items appearing in local and national dailies. The nature of such complaints as well as the news

¹¹ Annual Report 2007, DoE, p-34

¹² Ibid, p-38

Table-2

Case filed in Environment Court (2002- 2012)

Activities	2002- 2006	2007- 2008	2009- May 2012
Industrial Pollution	98	83	98
Brick Kilns	12	07	60
Hill Cutting	14	40	161
Polythene	16	22	184
Others	4	6	167
Total Cases	142	158	670

Source: At a glance, activities of DoE, 5 June, 2012.

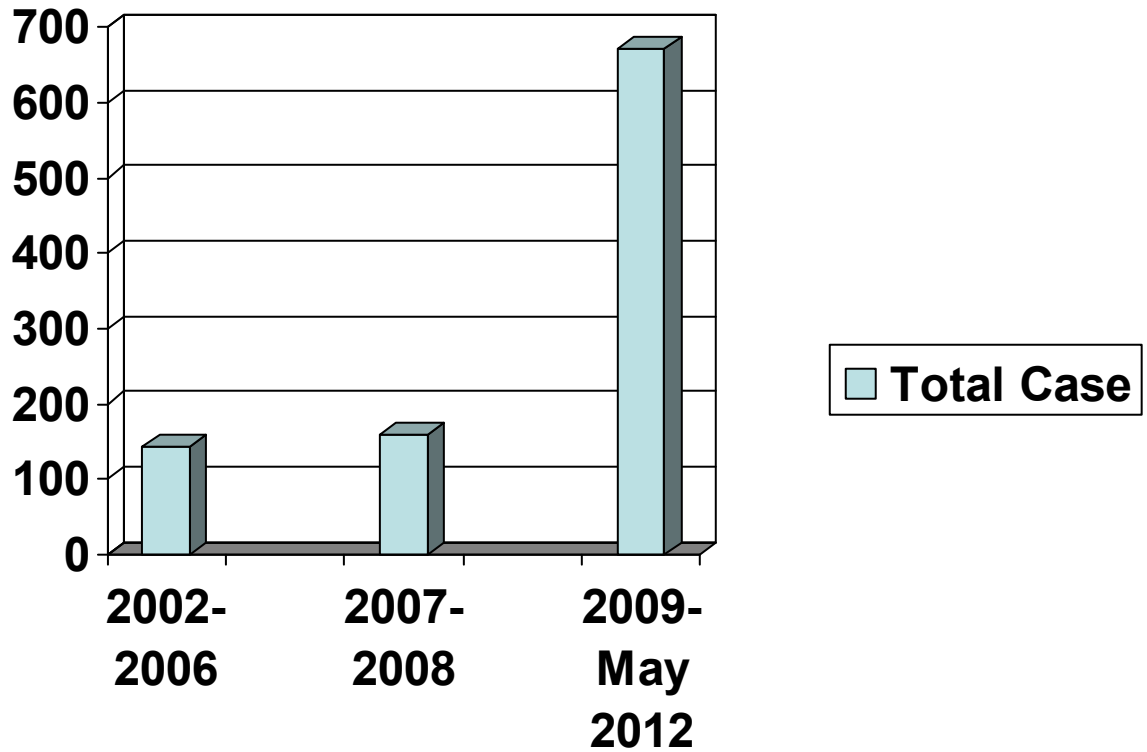


Figure-1

DoE has filed cases in Environment Court against the polluters. Above issues are very vital to degrade the environment. The figures of cases have been increased of last three successive governments.

items which the Department responds to and acts upon is varied comprising air pollution (odour, dust, smoke, etc), water pollution (dumping of household, municipal, industrial or other types of wastes into lakes, ponds, etc., causing inconvenience to people of adjoining areas), noise pollution, etc. Upon receipt of the complaints, the Department, in its regular enforcement meetings, takes their due consideration and decides upon investigating the spots on which they are made. The results of these spot investigations then lead to serving notice to concerned quarters and agencies, withdrawal of clearance (if any) earlier made to the activities or filing cases against polluters.

Department of Environment (DoE) has filed 380 cases since 1994. In 1990s cases were filed 24 and gradually uplift in last decade. Last decade DoE filed 356 cases. Above chart showed that gradually uplift from 1994 to 2010. In 2003, cases have been filed many for brick kilns. Till September 2011, total 426 writ cases were filed with the related of environment law, 105 have been disposed off while the rest are under process for disposal, 97 have been dismissed by court.

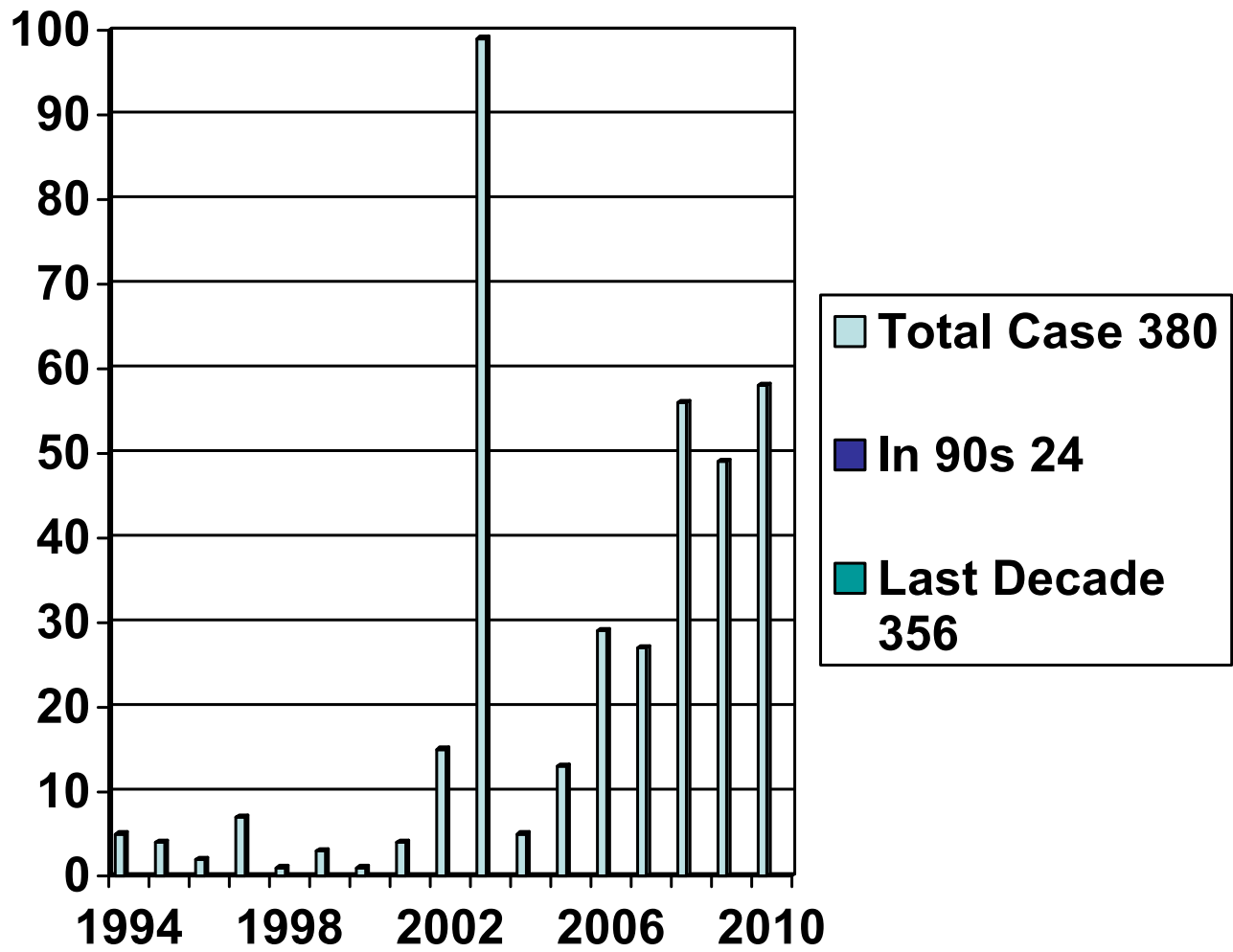


Figure-2

Gradually developed the environmental case in Bangladesh

Table-3

DoE serve notices (2002- 2012)

Activities	2002-2006	2007- 2009	2009- May 2012
Notice Serve	2873	5872	15552

Source: At a glance, activities of DoE, 5 June 2012.

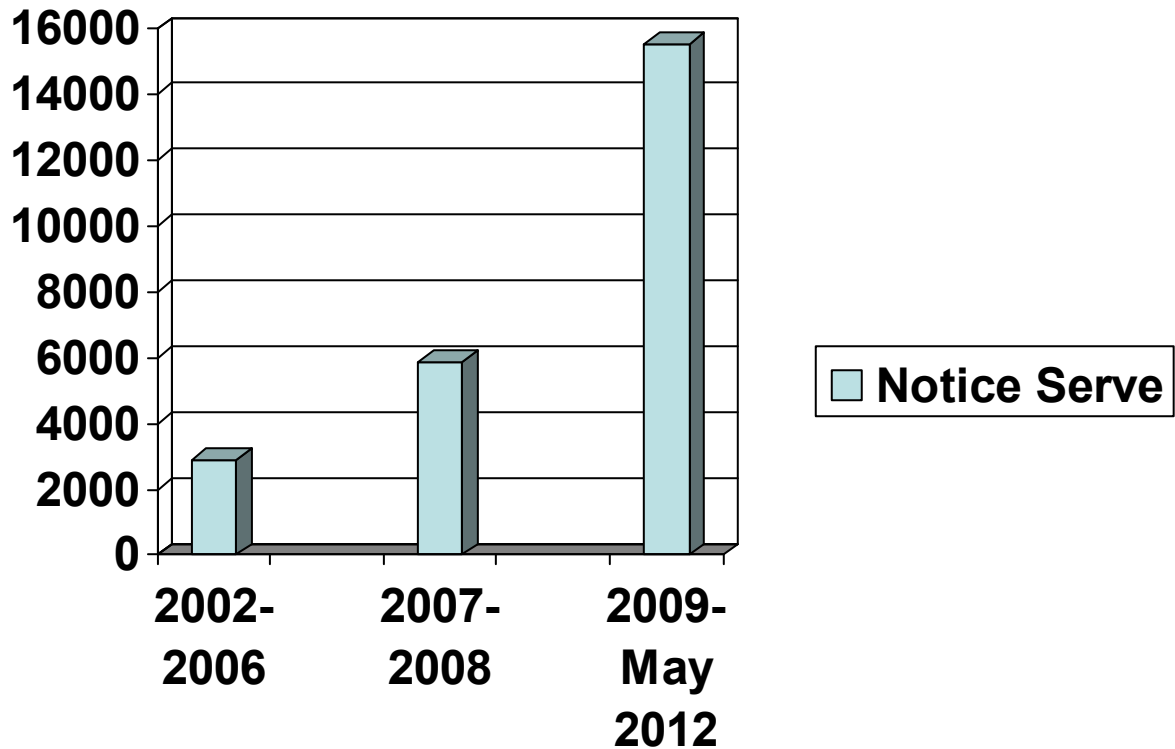


Figure-3

Above table shows the number of notices served the last three successive governments.

8.8 The Policy and Legal Base of DOE:

Department of Environment has been created to ensure the process of sustainable development and, to that effect, to conserve and manage the overall environment of Bangladesh. Creating public awareness toward environmental conservation, prevention of

activities that vitiate and pollute the environment and authority in handling polluters are firmly supported by relevant Policy, Acts and Rules to facilitate the activities of the Department through providing its much needed Policy and Legal base. The Policy, Plan, Acts and Rules supporting the activities of the Department are as under:

- i) The Environment Policy, 1992 and Implementation Programme;
- ii) The National Environment Management Action Plan (NEMAP), 1995;
- iii) The Environment Conservation Act, 1995 and its subsequent amendments;
- iv) The Environment Conservation Rules, 1997 and its subsequent amendments;
- v) The Environment Court Act, 2000 and its subsequent amendments
- vi) The Environment Conservation (Amendment) Act, 2010;
- vii) The Environment Court Act, 2010.

8.9 The salient features of the above Policy, Plan, Act and Rules appear as below

The Environment Policy, 1992 and Implementation Programme

The objectives of the policy are:

- Maintaining ecological balance and ensuring sustainable development of the country through protection and conservation of the environment
- Protecting the country from natural disasters
- Identifying and regulating all activities that pollute and destroy the environment
- Ensuring environment-friendly development in all sectors
- Ensuring sustainable and environmentally sound management of the natural resources
- Maintaining active association, as far as possible, with all international initiatives related to environment.

The Policy details various specific policies and principles of their implementation for 15 various sectors.¹³ It also provides for an environmental action plan toward ensuring its goals and objectives. The action plan is presented under the head ‘Implementation Programme’ in tabular form for each of the 15 sectors.

8.10 The National Environment Management Action Plan (NEMAP), 1995

Formulated in 1995, NEMAP envisages identification of the key environmental issues of immediate concern to Bangladesh and the actions to halt or reduce environmental degradation, improve the natural and man-made environment, conserve biodiversity and its habitat, promote sustainable development and improve the quality indicators of human life. To this end, it has grouped all the relevant necessary actions under four heads: institutional, sectoral, location specific and long-term issues.

The institutional aspects reflect the need of inter-sectoral cooperation to tackle environmental problems that need new and appropriate institutional mechanisms at national levels.

The sectoral aspects reflect the way the Ministries and agencies are organized and make it easier to identify the agency to carry out the recommended actions. The location-specific aspect focuses on particularly acute environmental problems at local levels that need to be addressed on a priority basis. The long-term issues include environmental degradation of such degree that it might become more serious and threatening than they seem to be if their cognizance is not immediately taken.

8.11 The Environment Conservation Act, 1995 (Amended 2000, 2002 & 2010)

¹³ 15 sectors are as Agriculture, Industry, Health & Sanitation, Energy & Fuel, Water Development, Flood Control and Irrigation, Land, Forest, Wildlife and Bio-diversity, Fisheries and Livestock, Food, Coastal and Marine Environment, Transport and Communication, Housing and Urbanization, Population, Education and Public Awareness, Science, Technology and Research.

The Act underwent amendment in 2000, 2002 and 2010. The provisions of the Act authorize the Director General to undertake any activity he deems fit and necessary to conserve and enhance the quality of environment and to control, prevent and mitigate pollution.

The Act also authorizes the Government to declare an area, through notification in the official gazette, as ecologically critical area if the ecology of that area becomes critical or is under threat of being critical as a result of environmental degradation.

As per other provision of the Act, the Director General, after making proper assessment of the environmental damage caused by various activities, may direct the concerned person (s)/ agencies/ organizations to take corrective measures and ensure that such person (s)/ agencies/ organizations comply with such directives.

Other provisions of the Act are, *inter alia*, as under:

In case where emissions or effluents have been caused by an accident or any other unforeseen activity or event, exceed the amount specified by rules, the person (s)/ agencies/ organizations responsible for such an accident or unforeseen activity or event, the responsible person is bound to control or mitigate such emission or effluent.

No industry shall be established and no project shall be undertaken anywhere without obtaining environmental clearance.

The Government may, from time to time through notification in the official gazette, formulate and issue environmental guidelines in realizing the objectives of the Act.

Any person(s) violating the Act shall be subject to a maximum of five years imprisonment or a penalty of a maximum of one hundred thousand taka (approximately US \$ 2,000), or both. At this stage, it is sufficient to note that the ECA reflects, in large

measure, the Stockholm Declaration. The ECA is an umbrella legislation, under which most of the pollution control regulations were framed.

8.12 The Environment Conservation Rules, 1997 (Amended in 2003)

The Environment Conservation Rules, 1997 are the first set of rules promulgated under the Environment Conservation Act, 1995. The Rules provide for, inter alia, the following:

- i) The national Environmental Quality Standards (EQS) for ambient air, surface water, groundwater, drinking water, industrial effluents, emissions, noise and vehicular exhaust;
- ii) Categorization of industries, development projects and other activities on the basis of actual (for existing industries/ development projects/ activities) and anticipated (for proposed industries/ development projects/ activities) pollution load;
- iii) Procedure for obtaining and according environmental clearance;
- iv) Requirement for undertaking Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) as well as formulating Environmental Management Plan (EMP) according to categories of industries/ development projects/ activities;
- v) Procedure for damage-claim by persons affected or likely to be affected due to polluting activities or activities causing hindrance to normal civic life.

8.13 The Environment Court Act, 2000 (Amended in 2002 & 2010)

The Environment Court Act, 2000 provides for effective and expeditious disposal of law suites in respect of all types and sources of environmental pollution. Consisting of an all together of fourteen sections, The Act provides for, inter alia, the following:

Set up of a Court in each Administrative Division and an Appellate Court in Dhaka with the rules of business as laid down in the Criminal Procedure Code (CrPC) and Civil Procedure Code (CPC).

Assign an officer, by the Director General, to investigate, with the power of the officer in charge of a police station, into the offences or related matters.

The Environment Court Act, 2000 was enacted to ensure quick and efficient disposal of various law-suits related to environmental pollution. From 2005, 274 lawsuits have been instituted against polluting industries in the Environmental Courts, of which, 117 have been disposed off while the rest are under process for disposal.¹⁴

8.14 The Noise Pollution (Control) Rules, 2006

The Noise Pollution (Control) Rules, provides for effective control of noise pollution.

These rules provide for, inter alia, the following:

- Zoning of silent area by local government
- Admissible noise level in different area
- Restriction on pneumatic/multi-tuned horn
- Restriction on loud speaker
- Restriction on noise generated from construction works
- Restriction on household noise generating devices
- Power to instruct and seizure by Department of Environment

¹⁴ Environment for Sustainable Development, DOE Annual Report 2007, p-12

- Assigning an officer, by the Director General, to investigate, with the power of the officer in charge of a police station, into the offences or related matters.

8.15 Staffing of DOE:

The staff of an organization is the heart and soul of that organization through which the aims and objectives of an organization are achieved. Moreover, an optimum and adequate strength of staff comprised of properly qualified persons significantly helps an organization fulfill its mandate and meet its objectives on a sustained basis. It is widely recognized that the staffing level in the Department is far from being adequate and needs to be increased with increased number of persons having proper qualification and enhanced competence levels. As mentioned in foregoing paragraph, the Department offices.

Bangladesh is one of the most densely populated countries in the world the environmental problems in the country are enormous. It is generally considered that the number of officers and staff in the Department is too small to properly address these issues. Hence, in consideration of ensuring a sound management to conserve the environment and, to that effect, toward enhancing the strength as well as the levels of staffing, a fresh proposal has been submitted to the Government for increasing the manpower of the Department from 244 to 1783.¹⁵

The Department of Environment has started its journey as a department with a new hope and aspiration in 1989 headed by a Director General with 173 manpower. The scope of activities of DOE transcends into every sector of the socio-economic system and spreads through the length and breadth of the country. To administer the process, there are, at present, six regional offices situated in six administrative divisions. The present

¹⁵ Environment for Sustainable Development, DOE Annual Report 2006, p-10

manpower of DOE is 267.¹⁶ In addition to this DOE is trying to expand its activities to the district level from the divisional level. The government has considered expansion of DOEs regional offices from six divisional levels to 21 district level with 735 manpower.

8.16 National Environment Committee (NEC)

Environment is considered as an important issue in the development process. With this view, the Government of Bangladesh has given priority to address environmental impacts of climate change as well as human derogatory activities and formed National Environment Committee headed by the Honorable Prime Minister, Government of the People's Republic of Bangladesh in 1997. This committee provides policy guidelines for environmental conservation, mitigation and adaptation. The National Environment Committee consists of members from other concerned ministries as follows:

The National Environment Committee is consisted of 59 members¹⁷ including convener and member-Secretary. The Prime Minister is convener and secretary, ministry of Environment & Forest is member-secretary of the NEC.

Table-4

National Environment Committee (NEC)

1	Prime Minister	Convener
2	Secretary, Ministry of Environment & Forest	Member- Secretary
3	Minister, Ministry of Local Government, Rural Development and Cooperative	Member
4	Minister, Ministry of Finance	Member
5	Minister, Ministry of Education, Primary & Mess Education	Member
6	Minister, Ministry of Water Resources	Member
7	Minister, Ministry of Commerce & Industry	Member
8	Minister, Ministry of Power, Energy and Mineral Resources	Member
9	Minister, Ministry of Agriculture & Food	Member
10	Minister, Ministry of Communication	Member
11	Minister, Ministry of Shipping	Member

¹⁶ Environment for Sustainable Development, DOE Annual Report 2007, p-21

¹⁷ Environment for Sustainable Development, DOE Annual Report 2007, p-19

12	Minister, ; Ministry of Environment and Forest	Member
13	State Minister, Ministry of Fisheries and Livestock	Member
14	State Minister, Ministry of Land	Member
15	State Minister, , Ministry of Planning	Member
16	Cabinet Secretary	Member
17	Principal secretary, Prime Minister Office	Member
18	Members, Parliamentary Committee, Ministry of Environment and Forest	Member
19	Member (Programmes & Socioeconomic Infrastructure) of Planning Commission	Member
20	Secretary, Ministry of Health and Family Welfare	Member
21	Secretary, Local Government Division	Member
22	Secretary, Ministry of Industry	Member
23	Secretary, Ministry of Fisheries and Livestock	Member
24	Member (Physical Infrastructure), Planning Commission	Member
25	Secretary, Planning Division	Member
26	Secretary, Finance Division	Member
27	Secretary, Ministry of Roads & High ways Division	Member
28	Secretary, Ministry of Water Resources	Member
29	Secretary, Ministry of Agriculture	Member
30	Secretary, Ministry of Establishment	Member
31	Secretary, Ministry of Education	Member
32	Secretary, Ministry of Power, Energy and Mineral Resources	Member
33	Secretary, Ministry of Shipping	Member
34	Secretary, Ministry of Jute	Member
35	Secretary, Ministry of Land	Member
36	Executive Chairman, Board of Investment	Member
37	Secretary, Ministry of Science & Technology	Member
38	Secretary, Housing & Public Works	Member
39	Member (GED), Planning Commission	Member
40	Executive Vice President, Bangladesh Agriculture Research Council	Member
41	Chairman, Bangladesh Science & Industrial Research Council	Member
42	Dean, Science Faculty, All Universities	Member
43	Director General, Bureau of NGO Affairs	Member
44	Chief Conservator of Forests, Forest Department	Member
45	Director General, Department of Environment	Member
46	Chairman, Atomic Energy Commission	Member
47	Chairman, SPARSO	Member
48	Director, Department of Metrology	Member
49	Chairman, ADAB	Member
50	Chairman, Bangladesh Industry & Commerce Association	Member
51	Chairman, Bangladesh Chamber of Commerce and Industry	Member
52	Representative from Bangladesh Federal Union of Journalist	Member
53	Representative from Bangladesh Federation of	Member

	Environmental Journalist	
54	Representative from Bangladesh Medical Association	Member
55	Representative from Engineers Institution of Bangladesh	Member
56	Representative from Economic Association of Bangladesh	Member
57	Representative from Botanical Society of Bangladesh	Member
58	Representative from Bangladesh Zoological Society	Member
59	Representative form Bangladesh Chemistry Society	Member

Terms of Reference of NEC:

- i) Analyzing the implementation of environmental policy and environmental programmes.
- ii) Taking necessary action for implementing the decision taken in the UK conference of Environment and Development.
- iii) Identifying inter ministerial problems for Implementation of environment policy and provide necessary direction.
- iv) Others environmental matters.

8.17 Executive Committee for National Environment Committee:

The main responsibility of this Committee is to provide necessary support to National Environment Committee. The committee had been formed in 1995¹⁸ and the formation of the committee as follows:

Table-5

1	Minister, Ministry of Environment & Forest	Convener
2	Secretary, Ministry of Environment & Forest	Member-Secretary
3	Minister/ State Minister of Concern Ministry	Member
4	Minister, Ministry of Planning	Member
5	Concern Member, Planning Commission	Member
6	Secretary, Finance Division	Member
7	Secretary, Concern Ministry	Member
8	Director General, Department of Environment	Member
9	Environmental Specialist (If necessary)	Member

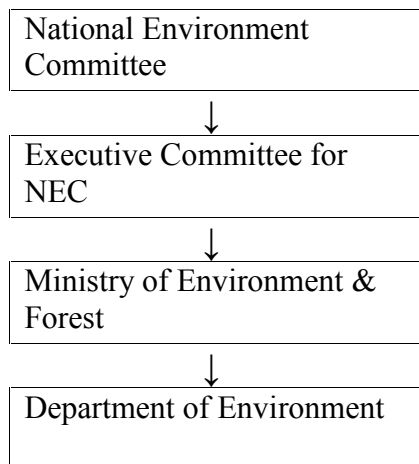
Term of Reference of the Executive Committee for NEC:

¹⁸ Environment for Sustainable Development, DOE Annual Report 2007, p-20

- i) To analyze and review the programmes of the different ministry that has been taken for implementing Bangladesh Environment Policy.
- ii) To provide necessary suggestion for amendment of policy for proper implementation of environment policy.
- iii) To take necessary action of the inter-ministerial environmental problems and present it to the National Environment Committee if necessary.
- iv) Other environmental issues.

8.18 Environmental Management Structure in Bangladesh

Ministry of Environment and Forest is responsible to formulate policy guidelines, and enact rules and regulation of environmental matters in the country. It implements its policy guidelines mainly through the Department of Environment (DOE) and Forest Department (FD). Institutional framework of environmental management in Bangladesh has been stated below:



Above boxes is the Hierarchy of Environmental Management in Bangladesh.¹⁹

¹⁹ Environment for Sustainable Development, DOE Annual Report 2007, p-20

8.19 Conclusion: Department of Environment (DoE) has been entrusted with the responsibility of enforcing the Environment Conservation Act of 1995 and the Rules of 1997. The mandate of the Department has expanded over time, evolving from an exclusive focus on pollution control to intensive action-oriented responsibilities of management of still broader environmental areas comprising the various ecosystems and natural resources. In the process, DoE is also expected to contribute to the efforts of other Government agencies in promoting sustainable use of land, water, biodiversity and other natural resources, and to facilitate and catalyze the work of all stakeholders concerned with the environment- government agencies, private sector, NGOs, and the general public. The other institutions involved in the enforcement of the sector-wise laws are the Department of Forest, Bangladesh Water Development Board, Department of Fisheries, Department of Agriculture, Public Works Department, Housing and Settlement Directorate, City Corporations, Directorate of Health, Local Government Division, BRTA, Bangladesh Police, etc. The DoE has been working not only for protection of environment of the country but also formulating requisite laws and responsible the implementation of the conventions, protocols and agreements signed on environmental protection at international and national level. With this end in view, the above policies and laws have been framed.

8.20 NGO Activities for Conservation of Environment:

In alliance with the Government, a good number of NGOs have been working to address environmental problems and to improve environmental system of the country since 1980s. The NGOs play an important role in motivating people at the grass root level to

protect environment and to take coordinated efforts in solving environmental problems. There are NGOs which are playing commendable role in projecting environment. Including among them are: International Union for the Conservation of Nature (IUCN), Centre for Sustainable Development (CSD), Bangladesh Centre for Advanced Studies (BCAS), Environmental Conservation Management Centre, Waste Concern, Bangladesh Paribesh Andolon (BAPA), and Bangladesh Environmental Lawyers Association (BELA). Only BELA deals with environmental law.

8.21 BELA

Bangladesh Environmental Lawyers Association (BELA) is a society of lawyers active in the field of environment for establishing a sound ecological order using legal mechanism as a tool. It has already created wide sensation for obtaining a number of important decisions in cases affecting the interest of the greater public. Judicial recognition of the need of a sound environment was first made in the writ petition filed by the organization. A group of academic researchers and practicing lawyers and environmental activists have established the BELA in 1992. It is a non-political and non-profit organization which believes that country's lawyers can contribute significantly in implementing and instituting a sustainable environmental ecological order with equity as the underlying principle. BELA is registered under the Society Registration Act, 1860 on 18 February 1992. It is also registered under the Foreign Donation Registration Law on 13 June 1993.

8.22 History of the Organization:

The Bangladesh Environmental Lawyers Association began in 1992 as a non-governmental organization looking to protect and assert the environmental laws laid down in our constitution. It was in July 1993 however, more than a year later, that it

started functioning with moderate logistical and institutional support. Present executive director of BELA said, ‘When BELA was registered in 1992 we did not have a single staff other than the founder of the organization Dr. Mohiuddin Farooque’. It was in 1993, when Dr. Farooque got a commitment from some international donors, that he started organizing logistics and recruiting staffs. Dr. Atiq Rahman, executive director of BCAS (Bangladesh Centre for Advanced Studies said, ‘For a long time, even before BELA was formed, we had been involved in environmental research and had been trying to organize a group of lawyers who would work actively in this field.’²⁰

BELA initiatives research in the field of environment and subsequently disseminate the results of the research amongst the numbers of society, in the form of journals, newsletters and awareness campaigns. Every year, a large number of seminars, workshops, debates and lectures are organized, ranging from training on “Environment and Environmental Law” to a special workshop designed for journalists for “Investigative Reporting on Environmental Issues”. There well development awareness package includes a component called ‘Street Law’ through which high school students, NGO workers, school teachers and the general public are made aware of the fundamental rights enshrined in the constitution and the environmental rights mentioned in the local government laws and the police laws.

BELA has also conducted extensive research on traditional land right issues, wetlands, water sector laws and conflicts between environment and development. Their publications include books on the *laws regulating environment in Bangladesh, the role that political parties can and should be playing in protecting the environment and the issues and remedies facing the vastly depleted forests of Bangladesh.*

²⁰ The Daily Star, Star Magazine, July 2, 1999, p-9

But by far the most important component of their activities is that BELA is the first organization in our country to provide legal assistance and services to individuals and organizations involved in protecting the environment.²¹

BELA started its war against the ship-breaking industry in Bangladesh. On behalf of BELA, Rizwana²² took the first judicial account against ship-breaking industry due to the unsafe environment of work for the workers, unhealthy workspace and environmentally unsafe garbage of this industry. Then took another three accounts demanding- rights for the workers and the ban in Bangladesh of ships carrying poisonous substances. And in 2003 Court judged the rules to decision that, no ship will be allowed for ship-breaking without the 'Environmental Clearance'.²³ And that was a notable achievement of BELA.

Beside that, BELA took initiative where environment is under threat, including housing by covering wetlands, unnecessary usage of polythene, cutting of hills, deforestation, shrimp cultivation, unlawful construction in St. Martin's Island etc.²⁴ BELA also took the judicial compensation account against Naiko after the Tengratila Explosion, in 2006.²⁵

BELA has got many national and international prestigious awards as to provide judicial assistance in saving environment, and achieved the 'Global 500 Roll of Honour' under United Environmental Program (UNEP) in 2003²⁶, and the 'Environment Award' in 2007 from the Government of Bangladesh for its contribution in the field of environment

²¹ Mahtab Haider, *The Legacy of a Green Spirit*, The Daily Star, Star Magazine, July 2, 1999, p-6

²² Sydea Rizwana Hassan is a chief executive of BELA since 1997.

²³ Iqbal Hossain Chowdhury (October 10, 2009). "Syeda Rizwana Hasan: friend to environment" (in Bangla) (Print). Chutir Dine 509, The Daily Prothom Alo (Karwan Bazar, Dhaka): p. 5

²⁴ http://en.wikipedia.org/wiki/Bangladesh_Environment_Lawyers_Association.

²⁵ http://en.wikipedia.org/wiki/Bangladesh_Environment_Lawyers_Association.

²⁶ <http://www.global500.org>

education and awareness, and the ‘Goldman Award’ in 2009.²⁷ Chief executive of BELA got Magsaysay Awards 2012.²⁸

BELA became the member of IUCN (World Conservation Union), Environmental Law Alliances World wide (E-Law) and South Asian Watch on Trade Economics and Environment (SAWTEE), Coalition of Environmental NGOs (CEN) to organization its activities.²⁹

BELA has a national office in capital, Dhaka, five divisional headquarters³⁰ across Bangladesh and two liaison offices in Tangail and the coastal area of Cox’s Bazar. Divisional offices started since 2003.

8.23 The Mission of BELA

To ensure a sound and sustainable ecological order in the country using legal mechanism, and to ensure proper observation of vast regulatory regime on environment, as well as to make people aware of their environmental rights and duties.

To achieve the objectives, BELA has drawn up a “Plan of Action” where the major areas of activities include study polices, strategies laws, case laws, institutional and traditional norms having direct or indirect bearing on environment and ecology, survey and examine legal, quasi-legal and non legal issues and aspect of environment and ecology and to formulate necessary policy, legal and institutional recommendations. BELA is to organize and undertake legal or administrative actions and measures to protect, preserve environmental ecological systems, and organize legal measures to protect

²⁷ <http://www.belabangla.org>.

²⁸ Bangla News 24.com, 25 July, 2012.

²⁹ http://en.wikipedia.org/wiki/Bangladesh_Environment_Lawyers_Association.

³⁰ Khulna, Rajshahi, Barishal, Chittagong, Sylhet.

environmentally sensitive and fragile eco-system including protection of vulnerable groups, biological diversity, natural and cultural heritage and values.

Table-6**A selection of PIL cases filed by BELA**

S. N.	Writ Petition Number/ Year	Parties	Issue
1.	WP No. 186/1994	Dr. Mohiuddin Farooque Vs Election Commission and Others	Nuisance during Election Campaign
2.	WP No. 891/1994	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Industrial Pollution Case
3.	WP No. 998/1994 WP No. 1576/1994	Dr. Mohiuddin Farooque Vs Bangladesh and Others Sekandar Ali Mondol Vs Bangladesh and Others	Challenging Flood Action Plan-20
4.	WP No. 1783/1994	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Doctor's Strike Case
5.	WP No. 300/1995	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Vehicular Pollution Case
6.	WP No. 466/1995	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Partial Propaganda in BTV
7.	WP No. 937/1995	Sharif Nurul Ambia Vs Bangladesh and Others	Unlawful Construction
8.	Civil Appeal No. 24/ 2995	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Case on Standing of the Flood Action Plan 20 at Tangail
9.	WP No. 92/1996	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Radiated Milk
10	WP No. 278/1996	Master Issa N. Farooque & Others Vs Bangladesh and Others	Use of Children as Camel Jockey
11	WP No. 867/1997	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Contaminated Drink
12	WP No. 948/1997	Do	Uttara Lake Fill-up
13	WP No. 1252/1997	Do	Unregulated Operation of Brick Field
14	WP No. 2541/1997	Mr. Iqbal Hossain Vs Bangladesh and Others	Participation by the Blinds in BCS
15	WP No. 6020/1997	Dr. Mohiuddin Farooque Vs Bangladesh and Others	Hill Cutting Case
16	WP No. 6105/1997	Do	Gas Explosion at Magurchara
17	WP No. 7422/1997	Do	Gulshan Lake Fill-up

18	WP No. 1162/1998	Nijera Kori Vs Bangladesh and Others	Allotment of Land for Shrimp Cultivation
19	WP No. 1840/1999	Biplob Kumar Roy Vs Bangladesh and Others	Nabaganga River
20	WP No. 2482/1999	BELA Vs Bangladesh and Others	Gulshan Lake
21	WP No. 4098/1999	Do	Buriganga Encroachment
22	WP No. 3091/2000	Khushi Kabir Vs Bangladesh and Others	Illegal Shrimp Cultivation
23	Contempt Petition No. 33/ 2001 WP No. 4098/1999	BELA Vs Bangladesh and Others	Buriganga Encroachment
24	WP No. 631/2001	Quazi Faruque, Secretary General CAB Vs Ministry of Shipping and Others	Launch Casualty
25	WP No. 1691/2001	Do	FAP Case
26	Civil Revision no. 2873/2001	Md. Shahjahan Mondol and Others Vs Executive Engineer CPP Division Water Development Board Tangail & Others	FAP
27	WP No. 3336/2002	BELA Vs Bangladesh and Others	Filling up of Ashulia Flood Flow Zone
28	WP No. 4685/2002	BELA Vs Bangladesh and Others	Protection of Fuldi River from Unlawful leasing
29	WP No. 1430/2003	BELA Vs Bangladesh and Others	Tannery Case
30	WP No. 2911/2003	BELA Vs Bangladesh and Others	Ship breaking to be regulated by law
31	WP No. 3475/ 2003	BELA Vs Bangladesh and Others	Protection & Maintenance of Parks & Playgrounds of Dhaka
32	WP No. 4286/2003	BELA Vs Ministry of Land & Others	Protection & Conservation of Sonadia Island
33	WP No. 7248/2003	Nijera Kori Vs Bangladesh & Others	Shrimp Cultivation
34	WP No. 2224/2004	BELA Vs Bangladesh and Others	Protection & Conservation of Sunderbans
35	WP No. 2459/2004	BELA & Global Village, Rangamati Vs Bangladesh & Others	Construction of a community center in

			the Sole Municipal Park of Rangamati
36	WP No. 4244/2004	BELA & TMSS Vs Bangladesh and Others	Illegal Sand Extraction from River Korota
37	WP No. 4604/2004	BELA Vs Bangladesh and Others	Metro Makers/ Modhumoti
38	WP No. 5194/2004	Nijera Kori & Others Vs Bangladesh and Others	Illegal Shrimp Cultivation and Settlement of Land in favour of Landless People
39	WP No. 3566/2005	Sramik Nirapatta Forum & Others Vs Bangladesh and Others	Collapse of Spectrum Sweater Factory Building
40	WP No. 4962/2005	BELA Vs Bangladesh and Others	Illegal Operation of a Brick Field in Naodaboga, Bogra
41	WP No. 5732/2005	Gaurang Proshad Roy & BELA Vs Bangladesh and Others	Illegal Shrimp Cultivation at Dakop, Khulna
42	WP No. 6025/2005	BELA Vs Bangladesh and Others	Prevention of the unlawful operation of Akij Bidi Factory
43	WP No. 6911/2005	BELA & Others Vs Bangladesh and Others	Gas Blow Out at Tangratila
44	WP No. 8603/2005	BELA Vs Bangladesh and Others	Stone Crushing Mill in Residential Area at Jaflong
45	WP No. 8815/2005	BELA Vs Bangladesh and Others	Illegal Operation of Brick Fields in Lalpur, Natore
46	WP No. 9089/2005	BELA Vs Bangladesh and Others	Construction of Jetty in Cox's Bazar
47	WP No. 488/2006	BELA Vs Bangladesh and Others	Protection of Rajshahi Town Protection Embankment from encroachment
48	WP No. 586/2006	BELA Vs Bangladesh and Others	Construction of CNG Station in the Protected Batali Hill of Chittagong
49	WP No. 2019/2006	Sramik Nirapotta Forum Vs Bangladesh and Others	Fire at KTS Garments
50	WP No. 3055/2006	BELA Vs Bangladesh and Others	Protection of Molgiri Khal

51	WP No. 3916/2006	BELA Vs Bangladesh and Others	MT Alfaship not to be Allowed to Proceed Further
52	WP No. 6097/2006	Abdul Hamid & BELA Vs Bangladesh and Others	Polluting residential area by M/s. Bonoful Bread Factory
53	WP No. 7123/2006	BELA & BLAST Vs Bangladesh and Others	Water Logging in Jessore
54	WP No. 7465/2006	BELA & Others Vs Bangladesh and Others	Dumping Waste in Savar Amin Bazar by DCC
55	WP No. 7466/2006	BELA Vs Bangladesh and Others	Protection of Kalibari Pukur, a Public Water body in Sunamgonj
56	WP No. 7466/2006	BELA Vs Bangladesh and Others	Saw Mill within the Reserved Forest at Kuakata
57	WP No. 8893/2006	BELA Vs Bangladesh and Others	Shrimp Cultivation at Botiaghata, Khulna
58	WP No. 9216/ 2006	BELA Vs Bangladesh and Others	Maintenance of Jalalabad Shishu Park, Sylhet
59	WP No. 10260/2006	Md. Sarwardi Chowdhury Vs Bangladesh and Others	Meridian Washing Plant in Badda
60	WP No. 11594/ 2006	BELA Vs Bangladesh and Others	Pollution caused by a polythene factory at Keranigong
61	WP No. 12025/2006	BELA Vs Bangladesh and Others	Gulshan Lake
62	WP No. 506/ 2007	BELA Vs Bangladesh and Others	Ghorashal and Urea Fertiliser Industries
63	WP No. 2013/2007	BELA Vs Bangladesh and Others	Brick fields in agricultural lands in Barisal
64	WP No. 3802/2007	BELA Vs Bangladesh and Others	Feroja Dyeing in Sirajgong
65	WP No. 23/2008	BELA Vs Bangladesh and Others	Protect workers in the ship breaking yards, Sitakunda
66	WP No. 1859/2008	BELA Vs The Ministry of Public Works and Others	Suharawardi Uddyan Land
67	WP No.	BELA Vs The Secretary, MoEF and Others	Pollution of Narod

	1908/2008		River
68	WP No. 7260/2008	BELA Vs Bangladesh and Others	M. T. Enterprise
69	WP No. 9245/2008	BELA Vs The Secretary, Ministry of Public Works and Others	Khilgaon Shishu Park
70	WP No. 1207/2009	BELA Vs The Secretary, MoEF and Others	Sonaichari
71	WP No. 3618/2009	BELA Vs Bangladesh and Others	Khulna City Interim Water Supply Project
72	WP No. 4399/2009	BELA Vs Bangladesh and Others	Jugi Tila, Sylhet
73	WP No. 4400/2009	BELA Vs Bangladesh and Others	Royal City Housing
74	WP No. 4795/2009	BELA Vs Bangladesh and Others	Jadukanta River, Sylhet
75			
76	WP No. 4958/2009	BELA Vs Bangladesh and Others	Boma Machine
77	WP No. 5873/2009	BELA Vs Bangladesh and Others	Shah Arpin Tila, Sylhet
78	WP No. 6848/2009	BELA Vs Bangladesh and Others	St. Martin's Island
79	WP No. 7578/2009	BELA Vs Bangladesh and Others	Construction over Bashuri Khal and Cutting of adjacent hills
80	WP No. 8483/2009	BELA & Others Vs Bangladesh and Others	Aila affected areas as "distressed areas"
81	WP No.57/2010	BELA Vs Bangladesh and Others	Shrimp Cultivation
82	WP No. 1834/2010	BELA, Joyenshahi Adivashi Unnayan Parishad and Jatiya Adhibasi Parishad Vs Bangladesh and Others	Salban, Modhupur
83	WP No. 2393/2010	BELA Vs Bangladesh and Others	Ramnabad river of Barisal
84	WP No. 4039/2010	BELA Vs Bangladesh and Others	Lal Deeghi, Chittagong
85	WP No. 4218/2010	BELA Vs Bangladesh and Others	Nabinagar Khal of Brahmanbaria
86	WP No.	BELA Vs Bangladesh and Others	Nimtolli-Fire, Dhaka

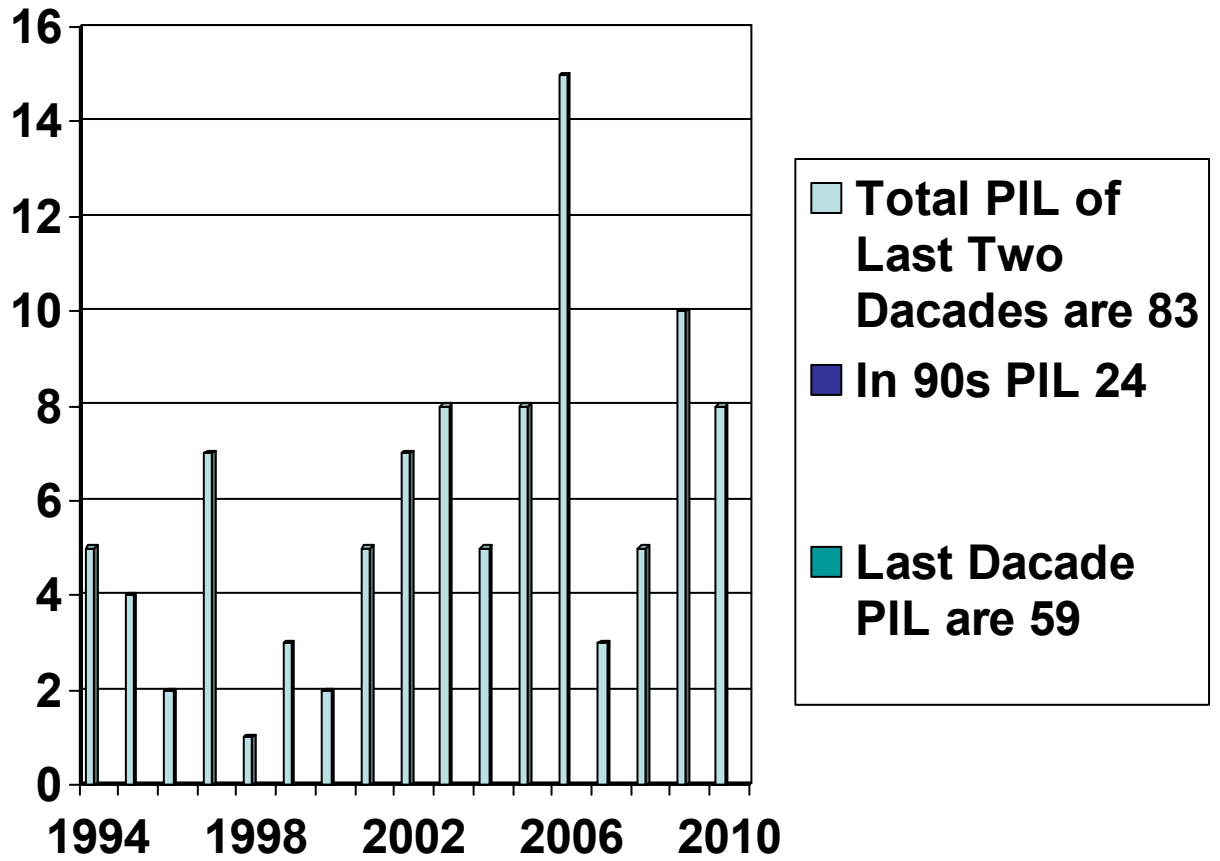
	4919/2010		
87	WP No. 6072/2010	BELA Vs Bangladesh and Others	Housing
88	WP No. 8265/2010	BELA Vs Bangladesh and Others	Sand extraction from Meghna at Bancharampur

Since 1994, BELA has filed 83 Public Interest Litigation (PIL) cases, covering river, air, and industrial pollution plus protecting natural resources and the removal of polluting industries from residential areas. BELA has also successfully sued organizations involved in improper use of polythene, hill cutting, deforestation, shrimp farming and building illegal establishments. In 90s PIL were 24, and last decade were 59. More PIL filed by BELA in 2006.

8.24 Public Interest Litigation (PIL)

Environmental law and public interest environment litigation being an emerging subject, it may be proper to say that the principles are functionally developing on identical and oriented approach. How to draw a balance between the so-called 'economic growth'

Figure-4



mostly implying industrialization given the western experience and ‘conservation of environment’.³¹ BELA has achieved the most effective and remarkable success in the field of Public Interest Litigation (PIL). The use of legal mechanism as a tool produced various means and ends. The agenda of PIL were mainly based on strategic issues to generate awareness amongst the common people and all the actors including the judiciary for developing a realistic regulatory framework and environmental jurisprudence. BELA has expanded the idea of PIL by focusing it to the environmental matters and has initiated some (more than 83)³² land mark Public Interest Environment Litigation (PIEL). It has widened the scope of right to file case on behalf of others who are debarred because of their various inabilities of getting access of justice. The Higher Court in Bangladesh seems to be very proactive in upholding environment rights, the directives in the ship breaking yards, reviving the Buriganga, replacement of tannery from Dhaka city etc being the recent examples. A concept of Public Interest Environmental Litigation (PIEL) has developed and moulded over the last two decades.³³ As an environmental organization, it has to date filed 88 cases of which most have been decided in favour of the cause while the rest are pending.

8.24 History of PIL in Bangladesh:

Litigation is generally filed by a person aggrieved by an action or inaction. But activities causing pollution differ in the sense that they adversely affect the entire public. Is it necessary that each individual files a separate petition before the court to stop the

³¹ Mohiuddin Farooque, Presented in the Fifth SAARC Law Conference, 27-29th December, 1996, Dhaka, Bangladesh. P-6.

³² <http://www.belabangla.org>. BELA’s PIL list.

³³ The Daily Star, June, 12, 2010, Law & Our Rights

offending activity? The Constitution of Bangladesh confers power on all citizens to approach the High court and Supreme Court of Bangladesh in cases of violation of fundamental rights.³⁴ PIL is a crucial concept in a country like ours where 65% of the total populace have no or less access to judiciary although the constitution commits for equality before law, justice, right to life and equal enjoyment of fundamental rights by all citizens.³⁵ With obvious socio-economic constraints and a long history of feudal past, the realization of legally recognized rights is still subject for movement by various social and pressure groups. In last two decades the movement for enjoyment of rights took a new dimension as the potential of judiciary is being increasingly emphasized by the activists and the courts are dealing with cases seeking relief against administrative anarchy and ignorance. It is interesting to note that the concept of PIL is developing in Bangladesh as a performance of public duty by some citizens groups holding or advocating in support of progressive ideologies. Thus in 1994 a petition was first taken before the High Court by a national non-governmental organization called Bangladesh Environmental Lawyers Association (BELA) on behalf of the people of a locality where a disputed development action was being implemented. The petition was at first rejected by the court on the ground of standing of the organization. An appeal was preferred from that rejection where the BELA with dedicated and sincere record of activism can claim to have acquired sufficient interest to seek judicial redress against anarchy in its own field of action. The question was vital as it was a constitutional requirement under Article 102 that it is only “a person aggrieved” who can file petitions for enforcement of fundamental

³⁴ Article 102, of the constitution of Bangladesh. It states that “The High Court Division on the application of any person aggrieved, may give such directions or orders to any person or authority, including any person performing any function in connection with the affairs of the Republic, as may be appropriate for the enforcement of any of the fundamental rights conferred by part III of this Constitution.

³⁵ Part III of the Constitution of the People’s Republic of Bangladesh.

rights. Being responded by the Supreme Court in the positive this became the turning point in the history of PIL in Bangladesh.

In Bangladesh, the most important case so far decided on the question of *locus standi* is Dr. Mohiuddin Farooque V. Bangladesh case.³⁶ In this case, Dr. Mohiuddin Farooque, an advocate and Secretary General of a private lawyers association named BELA challenged construction of certain embankments in the District of Tangail on the ground that the said embankments would disturb the ecological balance and thus cause floods and other calamities. His challenge was met by the respondent by a challenge of his *locus standi*, as admittedly, he being a lawyer living in Dhaka, had not even the remotest connection with Tangail. The High Court Division relied on a decision of the Appellate Division, the Bangladesh Sungbad Patra Parishad case³⁷ and threw Dr. Farooque out of the Court saying that he had no locus standi. Dr. Farooque went to the Appellate Division only on the question of locus standi. Happily, the highest court said the case was in the nature of public interest litigation and Dr. Farooque must be heard in the matter.

The verdict of the Court in cases filed by BELA have added new dimension to the interpretation of a number of constitutional provisions. For example, the constitutional right to life³⁸ has been broadened to include right to safe environment when the importation of radiated milk was challenged.³⁹ From the perspective of public interest litigation, the most notable success is perhaps the landmark decision of the High court division of the Supreme Court granting standing to BELA enabling it to take up

³⁶ 49 DLR (1997), writ petition number (998/1994) filed by BELA

³⁷ 43 DLR AD 126.

³⁸ Article 32 of the Constitution states "Protection of right to life and personal liberty."

³⁹ This writ petition was filed by Dr. Mohiuddin Farooque as a potential consumer seeking redress against the failure of the authorities in taking effective and efficacious measures in dealing with the consignment of 125 metric tons Skimmed Milk Powder which was imported to Bangladesh and was found by the Atomic Energy Commission to be containing high concentration of radioactivity. Writ petition number (92/1996).

environmental matters for judicial redress on behalf of third parties. This judgment is considered a milestone in the judicial history of Bangladesh through which the judiciary has in fact allowed representation of disadvantaged people who for various reasons are unable to present their grievance.

8.25 Legal notice: All litigation begins with a legal notice to point out the violations explaining legal provisions that were breached. Copies of such notices are sent to statutory authorities for information which acts as a psychological pressure.

8.26 Mediation: Some of the legal notices ended up with a process of mediation and not proceeding. In some cases the parties preferred to go for an amicable solution where BELA acts as mediator using its good office at the instance of the complainant the accused and sometimes the responsible public or statutory authority.

8.27 Court Cases: BELA attained cent per cent success in court cases so far instituted. The strategy was to use the writ jurisdiction of the High Court Division of the Supreme Court for prompt and efficacious remedy for establishing the rights of the citizen as well as to ensure the compliance of law by public statutory bodies.

8.28 Land mark Cases of BELA:

Unlawful strike or work absent from statutory and public duties by the physicians/doctors. After filing the case the court directed them to resume their duties immediately.

Violations of rules and regulations by the candidates in the City Corporation Areas in the name of election campaign, The court ordered the Corporation to prevent the unlawful activities.

Unlawful import of highly radioactive milk powder of Danish Condensed Milk: In this case the Court expanded the expression “Right to Life” by including right to healthy environment and also ordered the authority to adopt fool proof mechanism to initiate future tests.

Right to file cases on behalf of others who are debarred by various disabilities, The Court by interpreting the term “Person Aggrieved” declared that persons who have “Sufficient Interest” to uphold the other’s right and have proven track record have standing to initiate cases in public interest.

Illegal lake fills up at Uttara in violation of Master Plan. The Court directed the authority to stop such illegal activities till disposal of the case.

The legal validity and environmental implications of Compartmentalization Pilot Project of Flood Action Plan in Tangail district, The Court ordered the authority to abide by all requirements provided by law to implement the project.

It was in 1994 the BELA filed the first ever environmental litigation in our country, in the High Court Division, against the four government agencies responsible for the enforcement of the various civic rights. Dr. Farooque’s petition protested the disruption of public life caused by the election camps set up on the streets and the incessant use of loudspeakers during the municipal elections of 1994. The court reacted promptly and issued a notice asking the relevant agencies to show cause as to why they should not be directed to comply with the laws issued by the Election Commissioner. The notice was only disposed following an assurance from the Attorney General that government would take all necessary steps to implement the directives of the Election Commission.

BELA triumphed yet again, only a few months later, this time appealing for intervention against a country wide strike by the doctors of Bangladesh Medical Association (BMA) causing a disruption in public health care services for over two months. The petitioner, once again Dr. Farooque, challenged the continuation of the strike, on the grounds that medical services in the government hospitals and become completely paralyzed, causing a great deal of suffering to the thousands of patients who were denied treatment. Once again the court was prompt to react and issued a notice asking the respondents why their abstention from their statutory and constitutional duties should not be declared illegal. Pending, hearing, the respondents were directed through mandatory injunction, to resume their duties within 24 hours, which they did.

In 1994, BELA had filed a petition in the High Court on behalf of the people of Tangail, challenging the Flood Action Plan-20 being implemented there, causing damage to huge tracts of land owned by the local people, with no provision for their compensation. The petition was dismissed by the court on the grounds that BELA had no legal standing to file a case as none of the members of BELA had directly been affected by the FAP-20 project. In legal terms, the petitioner had to qualify as an “aggrieved person” and the court stated that BELA’s interests were not justified.

When the case was taken to the Appellate Division, Dr. Farouque argued that a person or group of persons can be identified as being “aggrieved” in ways beyond the strictly traditional concepts. Since BELA had been working with a commitment and sincerity in the field of environment- which was a public duty, they also laid a claim to certain rights, one of them being- to be able to represent the greater interest of the public in matters related to environment.

25th July 1995, in a landmark verdict, the Appellate Division granted a standing to BELA, thereby identifying Public Interest Litigation as a permissible legal mechanism.⁴⁰ Public Interest Litigation (PIL) has become one of the mechanisms instrumental in the proper functioning of the judiciary.

BELA itself has till date (December, 2010) taken the cause of over 83 public interest litigations which include the famous case against RAJUK for land fills in the Gulshan lake, a case against Petrobangla and Occidental for the gas-explosion at Magurchhara that is pending hearing, and a case against Danish Condensed Milk for the import and marketing of radiated milk in the country. It was also BELA who first took the cause of the people in the ongoing debate over the Osmany Udyan, serving a legal notice to the Government that was subsequently followed up by the media and a civil society movement.

But regardless of public interest litigation, BELA's impact on the field of environment is no mean feat. Following a petition against various government agencies for negligence in reducing the effects of air pollution from faulty vehicles in the city, the government has decided to ban the import of leaded fuel from the 1st of July 1999 with a similar fate for the imported two stroke engine tempos that play the city roads.

8.29 Activities of BELA:

Being a lawyers group, BELA is particularly enthusiastic about unearthing and making known all laws related to the environment. In that view BELA initiates training programme on "Environment and Environmental Law", workshop on "Investigative Reporting on Environmental Issues" and different open discussions, workshops, lectures, seminars and debates. BELA launched educational programme for the school student

⁴⁰ The Daily Star, Star Magazine, July 2, 1999, p-9

about their environmental rights and duties. Special programmes were undertaken to train the teachers of educational institute as training of trainers.

Research, studies, and consultancy in the field of environmental law is one of the core corporate functions of BELA. It has conducted a through research into the regulatory regime on environment. Researchers have been undertaken on traditional land right issues, status of customs in law, wetlands, water sector laws including structural measures, conflict of environment and development, hazardous substances, international water issues, environmental interventions and security. Besides, it has in-depth studies on forestry and fisheries sectors. Other activities undertaken by BELA in Bangladesh include: research into legal documents to minimize the gap between provisions of the law and people's expectations, including laws on compensation, on regulating environment and customs on forest and intellectual property rights.

Ignorance of law is no excuse but there had been no attempt especially from the government sectors for creating awareness about the legal duties and rights existing under various laws. Hence, one of the priority of BELA is to create awareness amongst the populace of their legal obligations and rights using the programmes stated below:

8.30 Street Law: Under this programme BELA has taken active initiative to disseminate the fundamental rights enshrined in the constitution and the environmental rights mentioned in the local government laws and police laws among the high school students, NGO workers, school teachers.

Folk Culture: Disseminating selected proverbs, idioms, phrases, usage etc. which are appropriate for presenting environmental law to the common people. Using different media including drama, songs and publications the messages have been publicized.

Billboards: Laws and warnings on environment protection is being displayed through billboards in four Metropolitan cities using cartoons and illustrations.

Wall booklet: Fundamental Rights and City Corporation Laws are being displayed with interesting cartoons in a wall booklet.

Constitution in Circle: Through this circle any one can find the fundamental rights and fundamental Principles of State Policies.

Environmental Songs: Using folk culture and lyrics, songs on protecting the environment and messages on preservation were recorded in a cassette titled “Thakte Haow Shacheton (beware in time)”.

Cinema slides: Messages containing prohibition of laws have been displayed through cinema slides.

BELA's has many publications as *Laws Regulating Environment in Bangladesh*, *Law & Custom on Forest in Bangladesh: Issues & Remedies*, *Environmental Regulatory Regime*, *Poribesh : Rajnoitic Daler Bhumica*, *Paribesh O Onushandani Sangbadikota*, *Loko Shahitye Poribesh*, *International Rivers: Rights of the Riparian States*, BELA Newsletter etc. BELA quarterly publishes two newsletter, in English and Bangali, called BELA Newsletter and BELA Barta, and two quarterly bulletins, in English and Bengali, called BELA Bulletin. These publications report current environmental actions and events with legal analysis.⁴¹

8.31 Conclusion:

The worldwide movement for the conservation of environment quite justifiably hit Bangladesh in 90s of twentieth century. Indiscriminate violation of environmental

⁴¹ <http://www.belabangla.org>.

regulations was common phenomenon. The private sector promptly acted to protect environment. In the process of universal awareness, the absence of an advocacy group to monitor and pursue implementation and observance was strongly felt. In such a background, the Bangladesh Environmental Lawyers Association (BELA) started its mission in 1991 as an advocacy group of young lawyers working out techniques and strategies with the legal regime for the protection of environment. The organization has adopted various means to create awareness amongst major actors and the common people and activate the great bulk of environmental legislation. The legal process and methods of handling the issues were at least three, namely, legal notices, mediation and court cases. In a number of instances the service of legal notice upon the violator of law could create enough pressure and bring in necessary changes. Some of the legal notices ended up with a process of mediation, not court proceedings, where parties preferred to go for amicable solution. BELA being the mediator succeeded in solving the dispute using its good office at the instance of the complainant, the accused and sometimes the responsible statutory authority.

Chapter 9 :

Environmental Pollution Issues in Bangladesh and Its legal Mechanisms

9.1 Introduction: Environmental problems in Bangladesh are increasing every year due to over population, over harvest, degradation of resources, unplanned industrial development, management, indiscriminate use of pesticides, herbicides, chemical fertilizer, improper management of solid waste in urban areas, unwise use of ground water etc., causing the different pollution such as air, water, soil and food etc, deforestation, soil degradation, biodiversity, loss of ecosystems, draught etc. To cope with those situations, the government as well as the experts put to thoughts on environmental law. Later on, the Government of Bangladesh has adopted many initiatives for the regulations, conservation, promotion, mitigation of the pollution of the environment and environmental resources in the country. In this respect, after the Independence of Bangladesh, the Government has passed a few legal mechanisms such as the enactment of new laws, policies or initiatives etc., to cope with the environmental pollution but the environmental consideration gets priorities in nineties. The Government has initiated many ways such as formulation of the Environment Policy, 1992; Environment Action Plan, 1992 enactment of the Bangladesh Environment Conservation Act, 1995, the Environment Conservation Rules, 1997 and the Environment Court Act, 2000 along with some amendments as Environment Conservation (Amendment) Act 2010, Environment Court Act 2010. Government also enacted Conservation of Playing field, Open space, Garden and Natural Water Body Act, 2000 (enacted in Bengali), Ozone Depleting Substances (ODS) (Regulation) Rules, 2004, Noise Pollution (Control)

Rules, 2006, Medical Waste (Management and Processing) Rules, 2008, Ship breaking and Hazardous waste management Rules- 2010 etc. Bangladesh faces acutely environmental problems. This chapter attempts critically review of the environmental issues, problems of Bangladesh and its legal mechanisms.

9.2 History of Environmental issues evolving in Bangladesh

Man is totally dependent on Environment. There is a close relationship between man and the environment.¹ Until the 1960s, the territory of Bangladesh was mostly agro-based and very disappointingly industrialized. But this situation became developed in 1970s and some remarkable changes were taken place. By the year 1970s, it is found that some agro industries like jute, cotton and sugar mills were established. Contaminants were insignificant. Only the sugar mills had local pollution with their wastes. The recent growth of apparel industries with their backward linkages like textile mills, dyeing, printing and finishing units, tannery and lather processing units² have resulted in the use of substantial quantities of highly toxic dyes and chemicals. Only the tannery units all over the country generate 8.47 million liter liquid wastes and 98 MT solid wastes everyday.³ Only two tanneries out of 270 in the whole country have waste treatment plant.⁴ Those situated close to the river are disposing of their wastes therein. While those situated in the land locked areas are posing increasing pollution problems to their surroundings. Some large industries like urea fertilizer, pulp, paper, leather etc., are creating more pollution by their gaseous emissions and untreated effluents discharged

¹ Kailash Thakur, *Environmental protection Law and Policy in India*, Deep & Deep publication Pvt. Ltd., 2003, p-1.

² Leather industry in Bangladesh causes horrendous environmental pollution. Of the 270 tanneries in the whole country 90 % are located in Hazaribagh, a densely populated residential area of Dhaka. Of these, tanneries in Hazaribagh alone generate 7.70 million liter liquid waste and 88 MT solid wastes everyday.

³ Preface, *Leather Industry Environmental Pollution and Mitigation Measures* (ed) Philip Gain, Shishir Moral, SEHD, Dhaka-2010.

⁴ Ibid

into the adjoining rivers threatening aquatic animals and human lives. All the industries have been generating enormous pollution and poisoning a serious threat to the country. It is observed that with the change of time, the former environment has been changed and has formed a new dimension and it has already been on degradation due to various problems.

The situation of Bangladesh was in bad shape in all aspects from the very birth of the country. The then people face famine and a significant number of people die without any food and shelter. People in the urban areas could see easily the heavy pollution caused by environmentally unregulated industrial processes; smoky and dusty air and streets etc, and the environmental problem was acute at that time in rural areas natural conditions degraded. This hazardous situation makes the people life threatened and unhealthy. Ultimately, It hinders the economic development of the country. Since independence in 1971, the environmental situation of Bangladesh was not good, in condition but it was developed gradually. In 1977, the remarkable environment pollution control ordinance was passed in 1977 for the purpose of environmental protection and sound management practice for long-term sustainable development. Moreover, some major initiatives were taken for the development and conservation of the environment in 1980s.

The environmental protection effort in its past industrial sense is of recent origin in Bangladesh, But it gets priorities in 1990s. From the beginning of the human civilization, it is observed that science and technology was not developed but it is gradually developed with the change of time. It is noted that with the advancement of science and ending of the industrial revolution, the environment gets polluted. Consequently, the whole world especially Bangladesh has to face serious different sorts of environmental degradations.

The country possesses a limited stock of renewable natural resources and it is almost dependent on agriculture. The agriculture output has increased largely since independence under high yielding varieties (HYV) of crops. It has been possible due to the huge application of fertilizers and pesticides. But it has created serious problems for land, soil, and water. Rapid introduction of HYV of crops causes loss of indigenous gene banks. In addition, some factors are affecting the Bangladesh environment and these factors make the environment vulnerable and it is increasing day by day. Moreover, there are many kinds of pollution causing a pollution threat to our development. The country is largely affected by environmental degradation and depletion of its resources. The main environmental concerns in this country have been suffering severely due to air pollution, water pollution, soil pollution, noise pollution, solid waste disposal, deforestation, bio-diversity degradation, climate changes, ozone layer depletion, chemical pollution, extinction of species, mal-nutrition and land degradation, degradation of land resources, wetland and coastal ecosystems shrinkage, depletion of forest, declining ground water, unplanned urbanization, shrinking biodiversity, uncontrolled environmental pollution, threats of natural disasters and sea level rise by global warming, dengue etc. The other major environmental concerns are also soil erosion, salinity, sedimentation, sand deposition, deforestation, shifting cultivation, faulty cultivation practice, improper irrigation practices, fragmentation of land, embankments, shortage of electricity in the rural areas, unplanned use of water and rapid expansion of ground water irrigation, the drying of beels, haors etc. These problems are classified under several heads. These sectoral environments are categorized as water, air, soil, noise, sound etc., worth mentioning. The environmental problems exist in various forms and ways. The unplanned expansion

of the capital city and other towns has brought tremendously pressure on natural environment. Rapid urbanization and industrialization are adding to the problem. These areas are suffering from lack of proper sanitation and water supply. Industrial pollution is already serious around industrial belts. Extension pollution caused by chemical industries. Paper mills, tanneries, sugar mills degrades environment. Present practice of brick burning with wood is another source of pollution and cause of land degradation.⁵ World's worst air pollution problem could be the wood smoke inhaled by women while cooking as in African and South Asian countries including Bangladesh.⁶ As wood becomes scarce, women turn to animal dungs (specially, cow dung) which generate even more pollution.⁷

9.3 Major Environmental Issues in Bangladesh and Legal Mechanisms:

The situation of the world as well as Bangladesh is becoming worse day by day for habitations. At present, many parts of the country have been reached on the unworthy of living. Because the climate of those areas has already been changed and turned into degradation. Especially, north part of the country is being drought prone area, south part of the country salinity prone area. To cope with those situations, the government as well as the experts put to thoughts on environmental law. Later on, the Government of Bangladesh has adopted many initiatives for the regulations, conservation, promotion and mitigation of the pollution of the environment and environmental resources in the country. In this respect, after the Independence of Bangladesh, the Government has passed a few legal mechanisms such as the enactment of new laws, policies or initiatives

⁵ Noor Mohammad, "Environmental Problems In Bangladesh: An Appraisal", *The Journal of Local Government*, Vol. 31 No.1 (January-June 2002), p-51-59

⁶ Curb Transport Growth to Control Pollution; *The Tribune*, May 27, 1992, p- 9.

⁷ Kailash Thakur, *Supra Note 1*, p-15

etc., to cope with the environmental pollution but the environmental consideration gets priorities in nineties. The Government has initiated many ways such as formulation of the Environment Policy, 1992; Environment Action Plan, 1992 enactment of the Bangladesh Environment Conservation Act, 1995, the Environment Conservation Rules, 1997 and the Environment Court Act, 2000 along with some amendments.

Bangladesh faces acutely environmental problems. The Impact of this hazardous environment is very injurious for all living being of this world. In these regards, the various legislations are passed to cope with the environmental hazards in different periods⁸. It is observed that the environmental laws were almost enacted in the year of 1855⁹ and it is gradually begun from 1855 to 2010 by various names in the different forms. The Government of Bangladesh inherited most of the environmental laws. Since independence, the major environmental laws were passed in 1990s due to the increasing environmental problems of Bangladesh. During this period, the environment has become unworthy of living and has turned into degradation. To get rid of this situation, the Government of Bangladesh has taken many initiatives for the conservation development of the environment. In this respect, the Government has formulated the Environment Policy in 1992 and Environment Action Plan in 1992 as well as subsequent enacted acts, rules and regulations.

Causes and effects of Environmental pollution and its controlling laws:

9.4 Agrochemical Pollution:

The agro environment is degraded through the application of chemical fertilizers and pesticides and pesticides include insecticides, fungicides, herbicides, arcicide,

⁸ Different periods means- British period (1757-1947), Pakistan period (1947-1971) and Bangladesh period (1971-2010)

⁹ Appendix-1

rodenticides or any other chemical that has biocidal action. Moreover, the agricultural land is affected with the agricultural pests and the fertility of the agricultural land is diminished. With the attack of the agricultural pests, the agriculture biodiversity is hampered. The almost peasant community uses pesticides indiscriminately to their agriculture fields. They use it excessively. Over doze of pesticides brings on public health or workers or users.

A total twenty-three laws have been identified which contain provisions regarding conservation of environment and control of environmental pollution from various sources.¹⁰ Of these, the Bangladesh Environment Conservation Act, 1995, the Penal Code of 1860, the Fisheries Conservation Act, 1950, the Bangladesh Wild Life Preservation Order, 1973 are dealing with pollution and conservation of the environment. Besides, various other legislations contain provisions to address pollution of air, soil, water and other component of the environment. Moreover there are some laws related to the collection of tolls on canals, irrigation, construction of drainage, improvement of the tanks and imposition.¹¹

9.5 Air Pollution:

Fresh air is one of the most indispensable gifts of nature without which mankind cannot survive. It is essential to keep air and the atmosphere free of pollution if the organisms living are to survive. This natural resource may be interfered by the human activities. Bangladesh is a predominately agro based and a least developed country. Its industrial base is not developed. Industries are mainly concentrated in major urban areas, particularly capital city Dhaka, the port city Chittagong and the divisional towns etc.

¹⁰ Appendix 1

¹¹ Noor Mohammad, Supra Note- 5, p-59-65

Dhaka is the most densely populated city in the world and its situation is alarming, mainly due to heavy vehicular emission. Air pollution is accordingly concentrated mainly in those cities and towns. This air is polluted in many ways such as different industrial pollutions, greenhouse gas, and human and animal's wastage and dead bodies, gases of vehicles, and ozone layer depletion etc. The impacts of air pollution are very alarming. Air pollution badly affects the respiratory tract, causes irritation of eyes, noise and annoyance to the human sense, headache, fatigue, asthma, high blood pressure, heart diseases and even cancer, causing damage to both plant and animal life. Evidence accumulated over the past several decades has already demonstrated that both the Integrity and life support system ecosystems can be adversely affected by air pollution.

There are several Acts such as the Smoke Nuisance Act, 1905, Bangladesh Environment Conservation Act, 1995, Bangladesh Environment Conservation Rules, 1997, the Juvenile Smoking Act, 1919, the Prohibition of Smoking in Show House Act, 1952, the Factories Act, 1965, the Vehicle Ordinance, 1983, the Bengal Motor Vehicle Rules, 1940 and the Brick Burning (Control) Act, 1989 passed for the conservation, improvement of quality standard and control through mitigation of pollution of the environment in Bangladesh.

9.6 Water Pollution:

All human beings need safe and pure water for drinking purposes. Water resource is one of the main issues of the environment in Bangladesh, Industrial pollution is contained but untreated, industrial waste is dumped into rivers causing pollution of both the earthly and aquatic environments. The causes of water pollution such as- arsenic contamination of ground water, chemical wastage, industrial wastage, human and animal's dead bodies and

wastage, industrial pollution, rainfall, gases of engines, modern irrigation practices, pesticides, chemicals fertilizers, natural calamities etc., are the worthy of mentioning. It has been estimated that nearly 80 percent of our available water is polluted. The four rivers around Dhaka are most polluted. The same is true of other rivers.

There are several laws such as the Bangladesh Environment Conservation Act, 1995 and its Rules, 1997, the Embankment and Drainage Act, 1952, The Ground Water Management Ordinance, 1985, the Territorial Water and Maritime Zones Act, 1974 and its Rules, 1977, Bangladesh Water Development Boards Order, 1972, Water Resources Planning Act, 1992 and Coast Guard Act, 1994 passed for regulating water pollution and management of water resources in Bangladesh.

9.7 Sound and Noise Pollution:

Noise pollution is at present, increasing in the country due to different kinds of huge vehicles and it bears fierce impacts on human environment of Bangladesh. There are some causes of noise pollution such as over population, hydraulic horns, loud speakers, construction drills, autorickshaws engines, industries, rail engines, aero-planes and a million other things etc. It can cause people completely deafness, high blood pressure, headaches, indigestion peptic ulcers, insomnia, nervous breakdown, fatigue etc.¹²

In this regard, some laws such as the Bangladesh Sound Pollution (Control) Rules, 2006, Environment Conservation Act, 1995 and its Rules, 1997, the Motor Vehicle Ordinance, 1983, Chittagong, Dhaka, Khulna and Rajshahi City Corporation Ordinance of 1982, 1983, 1984, 1987, Pauraslava Ordinance, 1977 and the Local Government (Union Parishad) Ordinance, 1983 passed to protect environment and its development of Bangladesh context.

¹² Mahbuba Zannat, "Dhaka too Noise", *The Daily Star*, 28 August, 2010.

9.8 Industrial Pollution:

Bangladesh is not a rich in industrialization rather a good number of industries are set up for meeting up the present needs of the country. Most of these industries in Bangladesh have generally been developed in unplanned way without considering the environmental consequences. Moreover, there are many industries in residential areas, causing unhealthy environment through smoke emission, air and water pollution and commercial wastes. A study identified the special distribution of the most polluted “hot spots” in Bangladesh as Dhaka, Gazipur, Chittagong, Khulna etc.

In this regard, the ECA, 1995 and the Environment Conservation Rules, 1997 prescribe that all sectoral programmes and projects are subject to be environmental assessment (EA) process and must obtain environmental and site clearances. The process is critical to ensuring that potentially negative impacts on the environment are avoided, and if that is not possible, mitigated.¹³

9.9 Radiation Pollution:

A kind of invisible pollutant, radiation can cause serious harm to people. The source of radiation is the sun and outer space, from where it reaches the earth. Most of the effects of radiation are due to radioactive materials especially from the fall out of nuclear weapons, nuclear power plants and various electronic devices. Among this laser ray, x-ray machine, coloured television set, microwave ovens are worth mentioning. It affects the human beings with serious diseases such as sterile, mental derangement, cancer etc. It has raised anxieties all over the world and there is a need for mobilizing public opinion against the use of nuclear power in order to ensure the safety of human being and animals

¹³ Annual Report-2007, DoE, p-33.

at large. In this regard, government has enacted ECA-1995, Environment Conservation Rules-1997 etc.

9.10 Coastal Pollution:

The pollution in the coastal area has several sources, one of them being in effluent from pulp mills and other industrial plants at upstream locations. Most of the industries not having planned pollution treatment facilities discharge their untreated wastes directly into the rivers and finally go into the Bay of Bengal, threatening thereby the aquatic life and the estuarine ecosystem.¹⁴

These Acts are Territorial Water and Maritime Zones Acts 1974 and Rules 1977, Bangladesh Environment Conservation Act 1995, Bangladesh Environment Conservation Rules 1997, Ship breaking and Hazardous Waste Management Rules-2010 etc.

9.11 Biodiversity Degradation:

Biodiversity is affecting due to deforestation, forest conservation, agricultural and industrial pollution, irrigation, flood control developments, shifting land use and over exploitation of biological resources. Besides, human beings occupy almost all the terrestrial land, therefore, the habitats of other lives are seriously hampered and they have to started decline. Some of the salient causes for the degradation of biodiversity in both the terrestrial and aquatic ecosystems are as follows: 1) human interference for agriculture and settlement 2) unsustainable use of natural resources, 3) hill clearing, cutting and destruction, 4) destruction of habitats of organisms, 5) illegal hunting animals, 6) traditional management projects, 7) encroachment, 8) short sighted

¹⁴ Abul Kalam Azad, "Integrated Coastal Zone Management in Bangladesh: A Case for Peoples Management", *biss papers* 20, December 2003, Section III, p-44-45.

development efforts, 9) overexploitation 10) loss of indigenous species by introduction of exotic species.

Bangladesh has signed the UN Biological Convention but very few practical steps have been taken to protect biodiversity use of biotechnology, genetically modified varieties, genetically engineered seeds, use of pesticides and chemical fertilizers impact of green house revolution etc. creates biodiversity degradation.¹⁵

Some laws related to biodiversity conservation such as the Agricultural Research Institute Ordinance, 1976, the Bangladesh Jute Research Institute Act, 1996, Bangladesh Agricultural Research Council Ordinance, 1996, the Forest Act, 1927 and the Protection and Conservation of Fish Act, 1950 and the Wildlife Preservation Order, 1973 passed for conducting research on different varieties for developing the biodiversity conservation in Bangladesh.

9.12 Land degradation:

Land degradation is a serious problem for Bangladesh due to natural and human activities. Natural degradation is caused by floods, steep slopes, high rainfall, strong leaching in both humid and dry situations. Human activities causing degradation are mainly inappropriate land management practices.¹⁶ The land use pattern and intensity of land use have changed over time involves a number of processes such as 1) conservation of forest to crop land, 2) the conversion of wetlands to agricultural and urban uses, 3) the

¹⁵ Bangladesh has taken necessary measures toward conservation and sustainable management of biological diversity for her present and future generations in the line, with the objectives of CBD. A national conservation strategy (NCS) and a National environment management action plan (NEMAP) have been formulated, containing therein national strategies and national programmes for conservation of sites important from biodiversity consideration. Bangladesh incorporated an article of her constitution to protect and improve of environment and bio-diversity through the fifteen amendment.

¹⁶ Moving Ahead, *National Strategy for Accelerated Poverty Reduction II* (FY 2009-11), General Economic Division, Planning Commission, Government People's Republic of Bangladesh, October, 2008, at- 178.

conversion of other types of land for urbanization, infrastructures development for transportation, energy production and irrigation structures 5) the functional capabilities of the land have deteriorated due to unbalanced use of agrochemical, unplanned land use, encroachment on forest, ineffective implementation of existing laws and guidelines, improper disposal of hazardous industrial effluents, urban sprawling and infrastructure development. Excessive use of chemicals fertilizer and pesticides, earthquake, natural calamities, over population, fragmentation of land creates problems in the land management and administration of Bangladesh. Much land is being abused, and overuse has resulted in land degradation. The problem, however, lies with the implementation of the principles of optimum land use. The major consequences of changes in land use and land cover are resource depletion, loss of rural land, land degradation, deforestation, desertification, soil loss, salinity, loss of wetlands, loss of biodiversity and loss of cultural diversity¹⁷.

In this connections, there are some laws such as the Bangladesh Land holding Limitation Order, the Transfer of Property Act, 1882, the State Acquisition and Tenancy Act, 1950, the Non-Agricultural Tenancy Act, 1949, the Acquisition of Waste Land Act, 1950, the Culturable Waste Land Utilization Ordinance, 1959 and the Land Reforms Ordinance, 1984 passed to administer the land and its resources management conservation in Bangladesh.

9.13 Solid Waste Management:

Solid waste management is a problem in the human habitation of Bangladesh. Because, tons of solid waste is being generated everyday. In Dhaka city, around 3,000 to 4,000 tons of waste is produced. But its management system is inadequate and unhealthy.

¹⁷ As ancient monument, archeological site etc.

Uncollected wastes are burned improper way and illegally dumped into rivers and canals. Industrial waste and medical waste are not properly treated and are disposed with other general wastes. In this regard, a few laws are enacted to manage the solid wastages. The management responsibilities are almost imposed on the local government bodies such as City Corporation, Pauraslava etc. The laws relating to solid waste managements such as are the Chittagong, Dhaka, Khulna and Rajshahi City Corporation Ordinance of 1982, 1983, 1984, 1987, Poushava Ordinance, 1977, the Local Government Union Parishad Ordinance 1983, Water Supply and Sanitation Authority Act, 1996, Chittagong, Dhaka, Khulna and Rajshahi City development Authority Ordinance of 1959, 1961, 1976, 1987, the Dhaka Metropolitan Police Ordinance, 1976 and the Bangladesh ECA, 1995 and its rules of 1997.

9.14 Deforestation and Desertification:

There are many causes of deforestation in Bangladesh such as population pressure of overpopulation, wide-range of poverty, settlement or mitigation of land less people in the forest areas, shifting cultivation, inappropriate exploitation of forest resources, grazing, illegal filling, use for fuel wood, uncontrolled and wasteful commercial exploitation, lack of awareness of the value of forests and partition of the sub-continent and transfer of the forest to the forest department. There are several impacts of deforestation such as the loss of habitats, loss of biodiversity, changes in local ecology, loss of carbon sink, soil erosion, less water retention and increased flooding prevailing in the country. Tragically, total forest cover in the country today stands at 6.7% against the requirement of 25% of total land area.¹⁸

¹⁸ Md. Asadullah Khan, "Create Awareness, Save the Environment", *The Daily Star*, Dhaka: 22, December, 2012, p-15.

Three Acts such as the Forest Act, 1927, the Private Forest Ordinance, 1959 and the Forest Industries Development Corporation Ordinance, 1959 passed for the conservation of forest environment in Bangladesh. To accommodate social forestry, the act was amended in 2000.

9.15 River Bank Erosion and Siltation:

The river bank erosion is one of the major environmental hazards in Bangladesh. There are three Acts such as the Bengal Rural Poor and unemployed Relief Act, 1939, the Displaced Persons Compensation and Rehabilitation Act, 1958 and the Displaced Persons Land Settlement Act, 1958 passed for the relief of the rural poor and unemployed, payment of compensation, permanent settlement of displaced persons on land.

9.16 Human Physiological Problems:

Victims of different types of rapes, sexual abuse and assault and forced prostitution forced marriages and forced pregnancies, often cause problems of the human community. The health hazards are increasing day by day. The Government has enacted a set of considerable laws and policies to protect the human environment of Bangladesh. These laws such as the Public Health Ordinance, 1944, Eye Surgery Registration Ordinance, 1960, Medical Qualifications Information Ordinance, 1960, Bangles College of Physicians and Surgeon Order, 1972, Medical and Dental Council Act, 1980, Medical Practice and Private Clinics and Laboratories Regulation Ordinance, 1982, Bangladesh Homeopathic Practitioners Ordinance, 1983, the Bengal Dentists Act, 1939 etc.

9.17 Ship-breaking: In 1974, Karnafully Metal Works Ltd. bought it as scrap, introducing commercial ship-breaking in Bangladesh. The industry flourished during the 1980s. There are a number of environmental and human health hazards. Ship-breaking

activities are a threat to both the terrestrial and marine environment as well as to public health.¹⁹ The Government has enacted Ship breaking and Hazardous waste management Rules- 2010, Labor Law Act- 2006 etc.²⁰

9.18 Development vs. environment:

The conflict between development and environment still remains unresolved. Industrial revolution in the 1770s, Green revolution in the 1960s gave great prosperity to humankind but snatched away many things of importance and in some cases caused irreversible damages. Environmental problems of today are of complex character as industrialization has been diversified in quality and by regions. Environmental pollution depends on various factors like type of industry, raw materials, production technologies, location of industries, etc. For a particular type of industry, change in energy source e.g. shifting from coal to petrol/diesel, and raw materials as well, caused significant change in types of diseases as well as magnitude of damages.²¹

Despite the fact of environmental problems, still many countries are promoting industrialization to secure employment for the population and other developmental factors characteristic of the country. Bangladesh is not exceptional to this. Bangladesh faces serious problems of overpopulation, extreme poverty, illiteracy, and environmental pollution. Over the decades, she has undergone processes of environmental degradation with natural resources depletion at a faster rate. All those factors combine to multiply the scale of socio-economic setbacks, imposed by recurring natural disasters, often of exceptional magnitude.

¹⁹ <http://www.shipbreakingbd.info/>

²⁰ Appendix 1

²¹ Md. Sohrab Ali, *The development- environment conflict: Lessons learnt*, The Daily Star, Dhaka- 13 February, 2010, p-13.

Till 1962 the number of industries in Dhaka was about 100, most of them of small to medium scale and located mostly in present old Dhaka area establishment of so many industries started mostly after independence. The important industries in the country are textile and dyeing, leather, paper and pulp, fertilizer, sugar, steel, oil refining, chemical and pharmaceuticals and other small scale agro-based and agro-allied industries and of course the readymade garments.²² Most steel re-rolling mills in and around the capital has been running without necessary air pollution control system posing risk of air pollution and health hazard.²³

Bangladesh is basically an agrarian country. The government of Bangladesh promotes rapid industrial development to increase export earnings and employment opportunity for the growing population and to relieve pressure on the available agricultural lands. But present performance of the industrial sector is disappointing with enormous environmental problems due to inferior technology, lack of treatment facilities of industrial waste, etc. The growth of industries has generally been unplanned without keeping the issue of environmental protection in careful consideration.

In 1996, DoE identified 903 industries as most polluting that swelled to 1176 in 1997.²⁴ Currently the list of polluting industries is expected to be much longer. Many industries are located on the banks of the natural streams or rivers while many others in the residential areas causing air and water pollution through smoke emission and dumping of untreated effluent. Monitoring results by the Department of Environment (DoE) and other research organizations indicated alarming level of the localized air and water pollution by

²²,Ibid, p-13.

²³ DoE report, 90 percent of steel mills lack air pollution control system, Fumes containing metals like lead and chromium are emitted from steel mills. *The Daily Star*, 17 June, 2012, p-5.

²⁴ Md. Sohrab Ali, *Supra Note-21* , p-13

those industries. The condition of Buriganga, Balu, Turag, Shitalakshya, Karnafuli, Bhairab rivers are a glaring examples of deteriorating environment.

The DoE recently conducted drives at 17 re-rolling mills in the capital's Demra area, and found that about 90 percent of the mills are running without mandatory "fume extraction system". As per the environment conservation laws, the mill owners must inform the DoE about any malfunctioning of the system, and suspend operation of the mills until the system is installed but they do not comply with the rule. Fumes containing metals like lead and chromium are emitted from steel mills. DoE survey proved that capital's Demra area's air contains 735 microgram lethal particles in per cubic metre, while the tolerable level in Bangladesh is 200 micrograms. Highly toxic fumes can cause respiratory problems among the locals and destroy biodiversity.²⁵

Additionally, though not well documented, the use of agrochemicals has significant contribution to water pollution. Commercial marketing of pesticides in Bangladesh began in 1956 with 03 tons that increased to 37,712.20 MT in 2007.²⁶ From 1960 onward, green revolution accompanied by HYV crops, high dose of chemical fertilizers and pesticides subsequently brought stagnation in yield of crops. Improper and increased use of agrochemicals, disposal of industrial waste into water bodies contributed to fisheries habitat degradation. During the last decade the country has lost at least 24 species of inland fishes. The residual effects of agrochemicals hit the aquatic organisms and ultimately affect human health through food chain.

Dhaka is now the eighth largest city in the world, and with current trend in urban growth rate continuing for the new next 10-15 years, it will become the second largest city in the

²⁵ *The Daily Star*, 17 June, 2012. p-5.

²⁶ Md. Sohrab Ali, *Supra Note-21*, p-13

world, growing to about 580 km² and 23 million people. With current infrastructure Dhaka is perhaps capable of effectively handling only 5-10 million people. Rapid and unplanned urbanization, commercial development along with very high population pressure have made Dhaka an environmentally polluted city in the world. The number of tanneries has been increased over 250²⁷ from 26 in 1975 (Rizvi 1975).²⁸ Nearly 2000 garments industries have been established all over the city since the early 1980s. Rapid and unplanned establishment of industries in different places of the city are responsible for receiving huge amount of untreated sewage and industrial liquid waste as well as municipal waste. As a result, water of those surrounding rivers and lakes have already exceeded the national standard limit in pollution.²⁹

9.19 The Major Environmental Problems of Bangladesh

A number of critical environmental issues have been identified, some of which need immediate action and some others may permit some lead time to counter actions. Most of the relevant issues are mutually interactive and overlapping and the degrees of their criticality vary from place to place.³⁰ The following issues appear relevant to environmental management in Bangladesh:

- * Deforestation, soil erosion, flooding, and siltation
- * Desertification tendencies and salinity intrusion
- * Degradation and depletion of fresh water
- * Urbanization as well as social and economic impoverishment

²⁷ Over 300 tanneries in the city's Hazaribagh area discharge chromium-rich effluents that ultimately find their way into those rivers. See details, Md. Asadullah Khan, "Create Awareness, Save the Environment", The Daily Star, Dhaka: 22 December, 2012, p-15.

²⁸ Supra Note-3, Preface

²⁹ Md. Sohrab Ali, Supra Note-21, p-13

³⁰ A new pledge for a greener Bangladesh, published External Publicity Wing, Ministry of Information, GoB, September- 1992, Chapter-1, p-9.

- * Deterioration and erosion of top soil
- * Contamination of water, air, soil etc.
- * Disruption and destruction of the ecosystem including disruption of biogeochemical cycles and loss of genetic diversity
- * Depletion of biomass and insufficiency of renewable energy sources
- * Deleterious development of physical infrastructure
- * Climate change and deterioration of atmospheric quality

Except what can be mitigated by conservation practices and technological innovations, all these issues become more critical with expanding population, increasing poverty and natural disasters like floods, cyclones and tidal bores etc.³¹

Because of its geographical location, Bangladesh suffers from a range of environmental problems, arising from drought, flood and other natural hazards. Frequencies of hazards are on the increase day by day. The quality of soil has deteriorated due to reckless use of agrochemicals, unplanned land use, undesirable encroachment on forest areas for agriculture and settlements and indiscriminate disposal of hazardous industrial wastes. Unplanned land use and intrusion of saline water are causing degradation of soil in the coastal area. The surface water of the country is polluted through capricious disposal of untreated industrial effluents and municipal waste water, runoff pollution from chemical fertilizers and pesticides and oil and lubes spillage in the coastal area from the operation of sea and river ports and ship wreckage. Now in Bangladesh, presence of high-level arsenic contamination in ground water is a national problem especially at Chadpur,

³¹ A new pledge for a greener Bangladesh, published External Publicity Wing, Ministry of Information, GoB, September- 1992, Chapter-ii, p-13.

Shatkhira, Noakhali, Gopalganj and other districts.³² A few years ago, arsenic contamination of groundwater was detected in 44 of the country's 64 districts.³³

Bangladesh has 57 trans-boundary rivers, of which 54 are shared with India and 3 with Myanmar. A significant quantity of water flow is withdrawn and diverted upstream by neighboring countries for irrigation and other purposes and thereby reducing normal flow of water. The Farakka Barrage on the river Ganges is a notable example. Desertification prevails in some northwestern areas of Bangladesh due to withdrawal and diversion of upstream water in the dry season by India. Besides, the proposed inter-basin river link project of India, if implemented, the annual water flow of Bangladesh will drastically decrease which will have profound negative impact on economy, society and environment of Bangladesh.³⁴

Air pollution is one of the man-made environmental disasters that is creating environmental hazard all over the world. There are two major sources of air pollution in Bangladesh, namely vehicular emissions and industrial emissions, which are mainly concentrated in the cities. There are also numerous brick-making kilns working in dry season all over Bangladesh, which is another source of air pollution. Almost all of these kilns use coal and wood as their source of energy, resulting in the emissions of sulfur-dioxide and volatile organic compounds. An emerging issue of great concern in the cities and towns is the high concentration of lead in the air from vehicular exhausts. The high level of concentration of lead is very harmful for human health especially for child health.

³² Annual Report-2007, "Environment for Sustainable Development," *Department of Environment*, MoEF, Dhaka, 2007, p-5.

³³ World Bank Report- 2006.

³⁴ See details, Md. Mokarrom Hossan, "Bharoter Anthonodee Sonjog Prokolpo", in *Bharoter Anthonodee Sonjog: Bangladesher Biporjoy*, (ed.) Benjin Khan, February, 2009.p- 17-27.

The depletion of biodiversity is the result of various kinds of human interventions that impinge on it through destruction and degradation of land, forest and aquatic habitats. These activities encompass the sectors of agriculture, forestry, fisheries, urbanization, industry, transport, tourism, energy, chemicals and minerals etc. In the fisheries sectors, unplanned shrimp cultivation has negative impact on environment. These activities are responsible for destruction of fisheries diversity. The exponential type of population increases necessarily means more houses, more food grains, clothing, increased production of vehicles, increased consumption fuels, more drinking water, health care and other basic amenities of life.³⁵ Hence, as the ecological demands are increasing, there has been a great pressure on land, forests and water resources.³⁶

Bangladesh has three broad types of landscapes: floodplains, terraces and hills. Floodplains are composed of recent alluvial deposits and occupy 80 percent of the total area of the country. The terraces, occupying about eight percent of the area, include the Madhupur tracts in the centre and the Barind tracts in the north-east. The hills occupy the remaining 12 percent of the area in the south-eastern Chittagong Hill Tracts (CHT) and northeastern Sylhet districts. The three broad types of landscapes can be divided into 20 physiographic units,³⁷ each with its own characteristics of land capability and land use. Each year the net cropped area continues to shrink due to the loss of cultivable land to alternative uses like urbanization, housing, industries and other infrastructure development.³⁸

³⁵ For overall impact of population growth on resources; see, Ehrlich, *Population Resources, Environment Issues in Human Ecology* (San Fransisco, 1970); And A Ehrlich and P. Ehrlich, *The Population Explosion* (Simor and Schuster, New York, 1990) p-58.

³⁶ Ibid

³⁷ FAO Report, 1998.

³⁸ State of Environment Repost 2000, Bangladesh : the environment scenario; (ed) Quamrul Islam Chowdhury, FEJB-2000, p-6-7.

Regional basis global key environmental issues in Bangladesh:

Name of Area	Atmosphere	Biodiversity	Coastal & Marine	Disasters	Forests	Freshwater	Land	Urban Areas	Man made
Centre Area of Bangladesh or Dhaka division	*Air pollution *Stratospheric ozone depletion *Green house gas emissions *Ozone depleting substances *Climate change	*Habitat degradation & loss *Forest loss & degradation *Alien Species * Genetically modified organisms *Over exploitation of resources	*River area erosion & degradation *Pollution *Encroachment rivers & urbanization	*Floods *Drought *Earth quakes *Human-caused disasters	*Deforestation *Loss of natural forests	*Water scarcity *Water quantity & quality *Decreasing water available per capita *Over exploitation of ground water	* Wetlands loss * Soil pollution * Land use change	*Rapid urbanization *Solid waste *water supply & sanitation *Air & noise pollution	
North-western part of Bangladesh or Rajshahi & Rangpur division	*Climate Variability & vulnerability to climate change *Air pollution	* Habitat degradation & loss *Forest loss & degradation *Alien Species	*River area erosion, degradation & siltation *Pollution *Encroachment rivers & urbanization	*Drought *Earth quakes *Human-caused disasters *Floods	*Deforestation *Loss of natural forests	* High-level arsenic *Water scarcity *Water quantity & quality *Decreasing water available per capita *Over exploitation of ground water	*Degradation & desertification * Land use change * Soil erosion *Pesticides	*Rapid urbanization *Solid waste *water supply & sanitation *Air & noise pollution	
South-western part of Bangladesh or Khulna	*Stratospheric ozone depletion *Green house gas emissions	*Habitat degradation & loss *Forest loss &	* Climate change & sea-level rise *River area erosion &	*Cyclone * Hurricanes *Floods	*Deforestation *Loss of natural forests	* Salinity intrusion * High-level arsenic *Water	*Degradation & desertification * Land use	*Rapid urbanization *Solid waste *water	

& Barishal division	*Climate Variability & vulnerability to climate change *Air pollution	degradation *Alien Species * Genetically modified organisms *Over exploitation of resources	degradation *Pollution *Coastal development & urbanization * Overexploitation of fisheries	* Tidal bores		scarcity *Water quantity & quality	change * Soil erosion *Pesticides	supply & sanitation *Air & noise pollution	
South-east part of Bangladesh or Chittagon g divison	*Air pollution *Stratospheric ozone depletion *Green house gas emissions *Ozone depleting substances *Climate change	*Habitat degradation & loss *Forest loss & degradation *Alien Species * Genetically modified organisms *Over exploitation of resources	*Encroachment rivers & urbanization *River area erosion & degradation *Pollution	*Cyclone *Earth quakes *Human-caused disasters *Floods * Tidal bores	*Deforestation *Loss of natural forests	*Water scarcity *Water quantity & quality	*Hill cutting * Land use change * Soil erosion *Pesticides	*Rapid urbanization *Solid waste *water supply & sanitation *Air & noise pollution	
North-east part of Bangladesh or Syllhet division	*Stratospheric ozone depletion *Green house gas emissions *Climate Variability & vulnerability to climate change *Air pollution	*Habitat degradation & loss *Forest loss & degradation *Alien Species * Genetically modified organisms *Over exploitation of resources	*Encroachment rivers & urbanization *River area erosion & degradation *Pollution	*Earth quakes *Human-caused disasters *Floods	*Deforestation *Loss of natural forests	*Water scarcity *Water quantity & quality	*Hill cutting * Land use change * Soil erosion *Pesticides	*Rapid urbanization *Solid waste *water supply & sanitation *Air & noise pollution	

9.20 GoB has taken few initiatives to protect and conserve of environment:

The National Environment Management Action Plan (NEMAP) was developed in 1996. The Plan has prioritized 57 actions on the environmental front.³⁹ The Sustainable Environment Management Programme (SEMP) was a national umbrella programme for the implementation of environment projects. This environmental programme consisted of 26 projects (components) executed by the MoEF.⁴⁰

Air Pollution Control:

There exists a regulatory framework to combat air pollution in the country. The Department of Environment is implementing a number of projects to control air pollution. A ban was imposed on the plying of two stroke three-wheelers in Dhaka city since January 1 2003; instead of environment friendly 4-stroke three wheeler was introduced. Initiatives are being undertaken to promote CNG in petrol driven cars.

Five Continuous Air-quality Monitoring Stations (CAMS) have been set up in the country under Air Quality Management Project (AQMP) being implemented by the Department of Environment with financial assistance of the World Bank. Two of such CAMS are located in the city of Dhaka, while of the rest three, one each in the cities of Chittagong, Rajshahi and Khulna. Besides, a number of mobile Air-Quality Monitoring Stations have also been procured for measuring air pollution at localized areas. To improve the quality of air, the Department of Environment has conducted research under 'Clean Air and Sustainable Environment' project on issues like i) Pedestrian

³⁹ Moving Ahead, *National Strategy for Accelerated Poverty Reduction II* (FY 2009-11), General Economic Division, Planning Commission, Government People's Republic of Bangladesh, October, 2008, p-175.

⁴⁰ Moving Ahead, *National Strategy for Accelerated Poverty Reduction II* (FY 2009-11), General Economic Division, Planning Commission, Government People's Republic of Bangladesh, October, 2008, p-175.

Infrastructure and Traffic Engineering, ii) Brick-kiln Emission Management, iii) Pre-feasibility Study for Bus Traffic Transit and iv) Media Consultancy for Clean Air.

The 7th Meeting of the Governing Council of the South Asia Cooperative Environment Programme (SACEP) held in 1998 adopted the 'Male Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia'. The Department of Environment has been in the process of implementing the Male Declaration in stages. Under this implementation programme, a Transboundary Air Pollution Monitoring Station has been set up in upazilla Shyamnagar of the district of Satkhira and the monitoring programme is being run on a regular basis.

Setting up of a second, Transboundary Air Pollution Monitoring Station is now underway. The Bangladesh Agricultural University, Mymensingh is implementing a research project on 'Impacts of Ozone (O₃) on Crops' under this monitoring programme. The above research project has revealed the adverse impacts of (O₃) on crops. There is yet another research programme in operation which is devoted to 'Assessment of Impacts of Air Pollution on Child Health' and is being run in three schools in the city of Dhaka. Publicity materials have been prepared for print and electronic media towards creating mass-awareness in checking air pollution. For public awareness, a web site is open about air pollution information (www.doe-bd.org). 'Schedule-2' of environment conservation role 1997 has been amended to replace the air quality range.

Control of Pollution from Brick Kilns:

To contain air pollution and environment-friendly 'Block Bricks' are encouraged instead of traditional bricks. Attempts have been made for demonstration and publicity of environment-friendly brick-burning technologies under the project 'Clean Air Sustainable

Environment (CASE)' being implemented by the Department of Environment. A Draft Brickfield Policy has been formulated keeping in view the effective implementation of the Brick-burning Act 1989 (Amended in 1992 and 2001) and conservation of the environment simultaneously to meet the demand of bricks in the country. Besides, steps are also underway towards implementing the decision to ban conventional brickfields by March, 2013.⁴¹ Each traditional Brickfield burns approximately five hundred tons to one thousand tons coal within a year. On other hand, tons of wood burns illegally. Brickfield engulfs agriculture top soil. Nearly, 30 Metric tons carbon emits Each Brickfield within a year.⁴²

To implement Brick Burning Control Act 1989, Brick Burning (Control) Rules 2004 have been framed.

Conservation of Ecology:

Considering the importance of hills in protecting ecology of the country, the Government issued a notification in March 2002 banning hill razing.⁴³ Awareness about the importance of hills in protection of ecology is increasing and the illegal attempts of cutting/razing of hills are on the decline.

Control of Industrial Pollution:

In compliance with the Environment Conservation Act, 1995 and the Environment Conservation Rule, 1997 the mechanism for issuance of environmental clearance certificate has been introduced for the new industries or projects after assessing project area and pollutants to be emitted or discharged by the industries or projects to be set up. For the highly polluting industries, environmental clearance is given after setting up

⁴¹ *The daily Prothom-Alo*, 15 November 2012,p-12.

⁴² *The daily Prothom-Alo*, 15 November 2012,p-12

⁴³ Added (Section 6 B) by Act No. 50 of 2010; Environment Conservation Act (Amendment) 2010.

effluent treatment plant (ETP).⁴⁴ Steps have been taken to set up effluent treatment plants for the existing industries with the support of chamber and the concerned sector-associations.

Against this background, an International ETP Fair was organized in Dhaka in September, 2007 for raising awareness and encouraging the various industrial entrepreneurs about constructing and establishing ETPs within their respective industrial premises. During FY 2002-05 the department of environment and conducted a survey a covering 11,149 industrial units. Out of them 524 units had identified as Red Category as per Environment Conservation Rules (ECR), in 1997. Among the above-identified 524 red-listed industrial units, 419 were found to have constructed their ETPs at their own initiative while 105 had no ETP at all.⁴⁵ Besides, four enforcement terms constituted by the Department of Environment, since November, 2006 have been inspecting various industrial units and taking legal measures against the polluting ones. Till now, the teams have inspected about 945 industrial units.⁴⁶

Currently, a UNDP assisted project, titled, ‘Survey and Mapping of Environmental Pollution From Industries in Greater Dhaka and Preparation of Strategies for its Mitigation’ is being implemented. This project has been undertaken with a view to formulating and undertaking an action plan on accurate assessment of the number of pollution loads of the various industrial units operating in the greater Dhaka district and controlling pollution by them. The project has been designed to provide information regarding exact location of various industrial units, their types, dimensions, waste

⁴⁴ Section 7 (6) (c) (iii), The Environment Conservation Rules, 1997.

⁴⁵ The Sixth Five Year Plan (2011-15), Planning Commission, Ministry of Planning, Govt. People’s Republic of Bangladesh, (Part-II) July 2011, p-426.

⁴⁶ Till July, 2011.

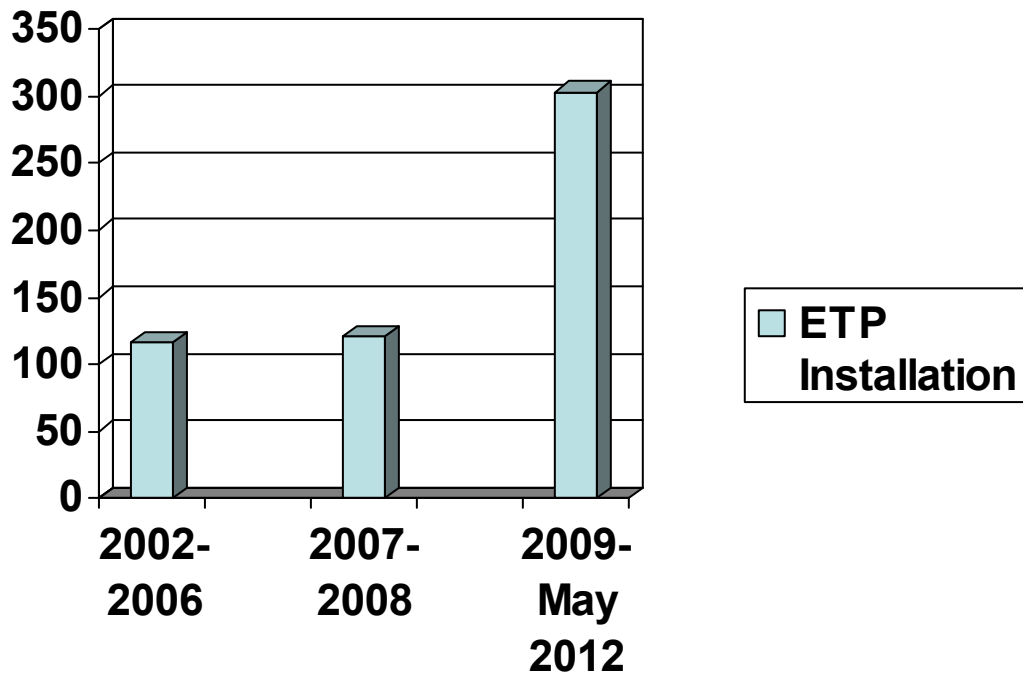
characteristics and whether or not they are being operated conforming the existing Acts, Rules and Regulations. Such type of information is very important to prepare strategy for controlling industrial pollution.

Increasing of ETP installation to control of Industrial Pollution

Activities	2002- 2006	2007-2009	2009- May 2012
ETP Installation	116	121	303

Source: At a glance, activities of DoE, 5 June 2012.

Figure-5



ETP installation is increasing day by day. Above table shows the development of ETP establishing of three successive governments.

Control of Noise Pollution:

As per the provision of the existing Environment Conservation Act 1995 which has set limit on noise pollution, the Government has formulated the Noise Pollution Control

Rules 2006.⁴⁷ Under these rules, it will be easier for the Government to control noise pollution particularly the use of mike and loud speakers. The Ministry of Environment and Forest has set a target of reducing the noise pollution level of Dhaka City of 45-55 decibel from 90-110 decibel by 2009-10 FY. Recently Dhaka Metropolitan Police (DMP) has prohibited the use of horns on several city streets to check sound pollution.⁴⁸

Conservation of Biodiversity:

Bangladesh signed the Biodiversity Convention at Rio in 1992.⁴⁹ There is a focus on biodiversity in the forest and environment policy. Under the Bangladesh Wildlife Preservation Act, 1974 (amendment Act, 1994, 2010), three categories of protected areas have been identified as national parks and wildlife sanctuaries. With an aim to conserve the biodiversity, conserve and develop natural environment and eco-tourism (environment friendly tourism) and to facilitate research, the Government has declared 19 protected areas in different parts of the country. Moreover, the Government has declared 12 areas viz. Cox's Bazar, Teknaf Sea Beach, St. Martin's Island, Sonadia Island, Sundarban reserve forests, Gulshan-Baridhara Lake, Hakaluki Haor, Tanguar Haor and Marjat Baor as Ecologically Critical Area (ECA) under ECA, 1995. According to Ramsar Convention, the Government has undertaken major development activities to conserve the biodiversities of wetlands including Tanguar Haor.⁵⁰

Protected Area (PA):

There are 16 Protected Areas in Bangladesh, of which 7 are National Parks, 8 Wildlife Sanctuaries and 1 Game Reserve. The total area of PA is 2,44,182 hectares which is 9.7

⁴⁷ Bangla text of the Noise Pollution (Control) Rules was published in the Bangladesh Gazette, Extra-ordinary Issue of 3 September, 2006.

⁴⁸ Schedules 1 & 2 of Noise Pollution (Control) Rules 2006.

⁴⁹ www.moef.org

⁵⁰ Bangladesh Economic Review 2009, Chapter 15, Environment and Development, p-243-257

percent of the country's total forest area. Out of 16 Protected Areas, 15 are notified under the Bangladesh Wildlife Order 1973. The biggest protected area in Bangladesh is the Sundarbans (a World Heritage Site).⁵¹ West Wildlife Sanctuary with an area of 71502.13 hectares and the smallest Protected Area is the Ramsagar National Park with an area of 27.76 hectares. There are 4 Marine protected areas, of which 3 are wildlife sanctuaries situated in the Sunderbans and one is the Nizhum Dweep National Park situated in the mangrove forests in Noakhali. The biological zoning approach has been adopted in PA to ensure the protection of wildlife species and floral habitats.⁵² Government of Bangladesh has declared 24 eco-parks.⁵³

Ecologically Critical Areas (ECA):

The Government of Bangladesh has declared 12⁵⁴ areas as Ecologically Critical Areas (ECA) under the Environmental Conservation Act-1995.⁵⁵

Table-8
Ecologically Critical Areas (ECAs) in Bangladesh

ECAs	Districts	Total area in Hectares
The Sundarbans (19/4/1999)	Bagerhat, Khulna, Satkhira	762,034
Cox's Bazar (Teknaf, Sea beach) (19/4/1999)	Cox's Bazar	10,465
St. Martin Island (19/4/1999)	Cox's Bazar	590
Sonadia Island (19/4/1999)	Cox's Bazar	4,916
Hakaluki Haor (19/4/1999)	Maulavi Bazar	18,383
Tanguar Haor (19/4/1999)	Sunamganj	9,727
Marjat Baor (19/4/1999)	Jhinaidah	200
Gulshan, Banani, Baridhara Lake (26/11/2001)	Dhaka	200
River ECA (Buriganga, Turag, Balu and Sitalakha) (1/9/2009)	Dhaka, N, gang and Gazipur	Buriganga, Turag, Balu and Sitalakha rivers and river shore

Source: Gazette, Ministry of Environment & Forest, The People's Republic of Bangladesh.

⁵¹ Declared UNESCO in 1999.

⁵² National Strategy for Accelerated Poverty Reduction II (FY 2009-11); General Economics Division, Planning Commission, Government of the People's Republic of Bangladesh, October 2008, p- 177.

⁵³ December 2011, Bulletin, www.askbd.org

⁵⁴ The Sixth Five Year Plan (2011-15), Planning Commission, Ministry of Planning, Govt. People's Republic of Bangladesh, (Part-II) July 2011, p-426.

⁵⁵ National Strategy for Accelerated Poverty Reduction II (Revised) (FY 2009-11); General Economics Division, Planning Commission, Government of the People's Republic of Bangladesh, October 2008, p- 91

9.21 Conclusion:

Environmental degradation may be attributed to various factors such as, poverty, ignorance, customs and practices, over consumptive life style, adverse climatic and geographic influences, insufficiencies in technology and industrialization itself. Poverty is undoubtedly the worst form of pollution, and contributes to ravages of the environment including deforestation, erosion, overuse of land and other resources, water pollution etc. The causes are often irreversible, they not only affect the quality of life but threaten life itself. While damages caused to the environment through industrialization may not always be too difficult to be avoided or corrected, the matter of eradication of poverty is much too complex and hard to attain. Endemic poverty in the country is causing fast depletion of the major environmental resources. Government of Bangladesh has taken few initiatives to protect and conserve our environment as well as try to implement the Environment Conservation Act, 1995, Environment Conservation Rules, 1997, Environment Court Act, 2000 and subsequent amendments as Environment Conservation (Amendment) Act 2010, Environment Court Act 2010. Government also enacted Conservation of Playing field, Open space, Garden and Natural Water Body Act, 2000 (enacted in Bengali), Ozone Depleting Substances (ODS) (Regulation) Rules, 2004, Noise Pollution (Control) Rules, 2006, Medical Waste (Management and Processing) Rules, 2008, Ship breaking and Hazardous waste management Rules- 2010 etc.

Chapter 10 :

Conclusion, Findings and Suggestions

10.1 Introduction: Bangladesh has had a philosophy of environment management dating back to the ancient period. Under the Hindu, Buddhist, Janie culture we had a great tradition of environmental conservation which taught us to respect nature and to take cognizance of the fact that all forms of life, human, animal and plants are closely interlinked and that disturbance in one give rises to an imbalance in the other's. Moral injunctions acted as guidelines towards environmental preservation during the ancient period. Such injunctions were initially propagated by the religious scriptures, seers and later enforced by the rulers. Under the Mauriyan regime and Ashoka's rule, Gupta regime, Pala, Sena and others regime in ancient Bengal, forest conservation and wildlife protection received the utmost attention. It was during that period that detailed and perceptive law provisions as contained in Kautalay's *Arthashastra* were followed and enforced.

In Islam, there is close harmony between man and nature. Bangladesh has had an Islamic philosophy of environment management during the medieval Muslim period. Under the Islamic law and Muslim philosophy we had a great tradition of environmental conservation which taught us to respect nature and to take cognizance of the fact that all forms of life, human, animal and plants are closely interlinked and the disturbance in one give rises to an imbalance in the other's. Moral injunctions acted as guidelines towards environmental preservation during the medieval period. Such injunctions were initially propagated by the religious faith and customs as well as later enforced by the legend rulers. However, during the medieval period, the contribution of Sultan, Shahi, Sur,

Mughal emperors have been the establishment of magnificent gardens, fruit orchards and green parks, which were used as holiday resorts, palaces of retreat or temporary headquarters during the summer season. Under the Sultan Ghiyasuddin Azam Shah, Shamsuddin Yusuf Shah, Alauddin Husain Shah, Sher Shah, Akbar, Jahangeer, Shahajan's regime, forest conservation and wildlife protection received the utmost attention.

During the British Rule, the environmental concern took a new shape with the enactment of forest legislations and other legislations pertaining to pollution control and the first forest policy of 1894 whereby the state controlled forest administration initiated in sub-continent. The British period by far had not been a good period in the environmental protection and preservation history. British-India as it was during this period the natural resources were ruthlessly appropriated and exploited with a primary objective of earning revenue. The policy ignored the environment conservation.

During the Pakistani period, environment protection did not receive any serious attention. Though national programmes in High Yielding Varieties of Crops (HYC), public health, nutrition, water supply, housing, economic growth found high priority in the planning process. The Protection and Conservation of Fish Act, 1950, the Forest Policy of 1955, the Agricultural Pests Ordinance, 1962, the Pure Food Ordinance, 1959, the Undesirable Advertisement Control Act, 1952 were promulgated but had various defects and failed in their objectives.

The development of environmental law is mainly based on the principles developed in international conventions, protocols and treaties. The environmental law and policy in Bangladesh is increasing day by day. The overall global environment is declining fast and

it has been doing so more rapidly during the last few decades for Bangladesh, because of many obvious reasons. However, the environmental problems of the country are becoming acute because of population explosion, lack of adequate forest areas and nearly complete absence of any controlling measure on the part of the industry or the transport systems, non-enforcement of law. One of the serious problems in respect of non-enforcement and effectiveness of law in third world countries is lack of knowledge about the law at the operational level. The legal measures for the conservation and protection of the environment and ecology in Bangladesh are not developed much and the effectiveness of those laws in protecting environment are not satisfactory. Environmental laws were in existence in the country right from the 19th century; although they remained either unenforced to a long extent or were vaguely known to the people and responsible public agencies. The prevailing traditional practices were not favorable to environmental protection or conservation of resources. Some laws are also become redundant, as the conditions for which these were enacted don't exist any longer. A study shows that there are around 200 laws that have either a direct or an indirect bearing on the environment. An Ordinance was passed in 1974 to control pollution of water but subsequently it was replaced due to ineffectiveness of the provisions of this Ordinance, The provisions currently in place for environmental protection are mostly ineffective. The main causes are 1) inadequacy of legislation, 2) inconspicuous organization for implementation and coordination 3) lack of technical knowledge 4) poor financial and political support 5) shortage of skilled man power 6) sluggish judicial procedure. At the present state of implementation, the environmental legislation is a document in black and white only. Later, the Government enacted the Bangladesh Environment Conservation Act in 1995 in

order to deal with environmental pollution. This Act covers all sectors such as air, water, agriculture, fisheries, forestry etc., including remarkable operational definitions such as ecosystems, environment, ecologically critical area, hill or hillock, hazardous waste etc. In 1997, the government formulated and passed the Bangladesh Environment Conservation Rules, 1997 for smooth functioning of the Act of 1995. For the effective implementations of the provisions and rules of the Act of 1995 and 1997 respectively, the government passed the Environment Court Act, 2000 and at present under this Act of 2000, there are three environmental courts (Dhaka, Chittangong, Shyllet) established for the disposes of the environment and environmental related cases in Bangladesh. But procedural matters of the court almost depend on the foregoing court systems. These courts should be guided through separate and updating systems for the improvement and effectiveness of this court. The government can follow the systems of developed countries such as New Zealand, Canada, and China etc. These courts have already functioning in the three divisions such as Dhaka, Chittagong and Shylet. Finally, it may be told that these courts have just begun and passed a decade, but its effectiveness and evaluation cannot be measured within this limited study. Notwithstanding, it is observed that the present environmental legal mechanisms are almost good and it will perform well if it gets proper logistic supports. Moreover, the principles of ‘polluter pays principle’ for damages, application of principles of tortuous liabilities, liberalization the concept of *locus standi* are very important for the effectiveness of the environmental legislations which might be incorporated in the Bangladesh Environment Conservation Act, 1995.¹

¹ Noor Mohammad, “Environmental Problems In Bangladesh: An Appraisal”, *The Journal of Local Government*, Vol. 31 No.1 (January-June 2002), pp-86-87

10.2 Findings:

i) During ancient and medieval periods, environmental law and policy was in existence with the customs and religious faiths. Under the Mauriyan, Gupta, Pala, Sena regime and Ashoka's rule, as well as Sultan, Shahi, Sur, Mughal regime and Sultan Ghiyasuddin Azam Shah, Shamsuddin Yusuf Shah, Alauddin Husain Shah, Sher Shah, Akbar, Jahangeer, Shahajan's rule forest conservation and wildlife protection received the utmost attention.

Most of the laws were introduced during the colonial rule and so were the basic social and public institutions. Although Bangladesh has been 'independent' twice, the feudal legacy continues through the legal regime.

ii) DOE is yet to establish offices in all districts and it is not possible for the department alone to address all the issues related to environment without an active participation of local communities.

iii) Bangladesh Environmental Lawyers Association (BELA) first initiated Public Interest Litigation (PIL) writ petition was filed in 1994 on environmental issues and has been successful in bringing some positive changes.

iv) *Common Property Rights*: Public commons include natural resources such as land, open water resources in wetlands, forests, grasslands, grazing land, reed land, khas land, peat land, rivers, estuaries and the open seas. About 80 percent of the population depends directly or indirectly on the utilization of these resources.

River and other water body encroachment: Around 80 percent people of rural areas are dependent on the river and surface water sources, but due to severe encroachment and pollution of these water bodies, they cannot fulfill their daily demand. Several fish

species and their breeding grounds have already been lost and many others are shrinking drastically. As the destruction process increases the concerned stakeholders such as fishermen, potters, boatmen and boat makers are shrinking in numbers and becoming jobless and poor.

Park Management: A Park is a common property and should be managed in an environmental friendly manner. But in reality, most of the country's parks are threatened because of encroachment, destruction and mismanagement.

Wetlands: Wetlands in Bangladesh include ox-bow lakes, haor, beel and jheel, which are rich in vegetation, aquatic plants, reeds, algae and other aquatic fauna including a diversity of fisheries. The rural poor mostly depend on these habitats for their livelihood through fisheries, tourism activities, extraction of reeds, harvesting of edible aquatic vegetation and their products, medicinal herbs and shells. Over the past 40 years, fisherman's yields have decreased by 40 percent due to disappearing water sources.²

v) At present the environmental courts are not effective due to a number of factors. First, the jurisdiction of the court is not clear. Second, since the court is at the lower judiciary, for a final result of a case the litigant may have to cross at least four tiers. This will discourage ordinary litigants to approach the system. Third, the court is primarily meant for the department of environment (DoE). Ordinary citizens can file cases only on receiving a report from the Director, DoE and for that one has to wait for 60 days. This frustrates the litigants as well the purpose of the law, which is to ensure "speedy trial". Again, the DoE is reluctant to file cases and as the jurisdiction of the court is limited only to offences under the Environment Conservation Act, 1995 a large number of

² Moving Ahead, *National Strategy for Accelerated Poverty Reduction II* (FY 2009-11), General Economic Division, Planning Commission, Government People's Republic of Bangladesh, October, 2008, at- 176.

environmental issues cannot be tried by the existing courts. Hence to avoid complications, litigants would prefer higher judiciary. Fifth, although required, not all the divisions have environmental courts. This forces the litigants to move to the higher court that has wider jurisdiction and mandate to grant relief. Apart from these legal reasons, there are other socio-economic reasons for which the sufferers of environmental pollution who are mostly poor are not enthusiastic about filing cases against their all powerful opponents. In most cases people are not aware of their legal rights and do not automatically place confidence in the system to deliver.

v) Although environment today is recognized as an important element in development, one critical aspect that is often overlooked in development planning concerns the mainstreaming of common people's perspective in the management of the environment.³

vi) Environment introduces a new dimension in the development discourse. The 1970s and 1980s saw a qualitative change in the development paradigm with mainstream policy makers exploring and questioning the true value of 'development' interventions. Questions began to be raised whether such interventions constituted development or eco-disaster. The introduction and large-scale adoption of hybrid, HYV and cloned varieties have enhanced agricultural output no doubt. But as challenged in recent literature and alternative approaches, these have also contributed in a complex way to the ecological degradation, not only in terms of affecting bio-diversity but also the fertility of croplands, polluting water bodies, depleting fish resources and putting the bio-cycle itself at serious risk.⁴

³ Atiur Rahman & Mahboob Hassan (ed.) People's Report 2004-2005 : Bangladesh Environment, preface.

⁴ Tracking the Poverty- Environment Nexus, Atiur Rahman & Mahboob Hassan (ed.) People's Report 2004-2005 : Bangladesh Environment, Overview, p-3.

vii) The preamble of the Wetland Act, 2000 (Act No. 36 of 2000) enumerates the objective of the Act as to protect the playgrounds, open space, park and natural wetland for conserving the environmental components of those conserved areas. Although the enactment contemplates to conserve the areas, no evidence is available that public right is legally asserted.

Environmental law is now a focal feature of the legal science, but it still lacks visible boundaries which are left to be established as foundation stone by judicial decisions as the law developed. Hence, where immediate and just decisions are needful, there are often no easy options for preserving the 'status quo' on pending the resolution of the dispute. The uncertainty of the opinions, especially scientific opinion relating to environment, creates serious problems for the Court. The US Supreme Court observed in a case [(1993) 113 SC 2786]: "... there are important differences between the quest for truth in the Courtroom and the quest for truth in the laboratory. Scientific conclusions are subject to perpetual revision, Law, on the other hand, must resolve dispute finally and quickly."⁵

Therefore, it is not fair that those opposing the degradation of the environment would be compelled to shoulder the evidentiary burden. It is necessary to consider that the party attempting to preserve the status quo of environment should not carry the burden of proof and the party who wants to alter it must bear the burden.

The goals of maintaining the sustainability of environment cannot be achieved by any government at its own level until the public has a participatory role. The Wetland Act, 2000 (Act No. 36 of 2000) and the Brick Burning Control Act, 1989 (Act No. 8 of 1989) in the sections 12 and 8 respectively debar the direct participation of public. Along with

⁵ *The Daily Star*, March 20, 2010. Law & Our Rights Page

this, the 'neighbour principle' should be enshrined in the short title of our environmental laws. The 'neighbour principle' was propounded by Lord Atkin in an English case (1932 AC 562). In the case he stated the duty of care: "You are to love your people becomes in law, you must not injure your people... . . . You must take reasonable care to avoid acts or omissions, which you can reasonably foresee, would likely to injure your neighbour."⁶

viii) The DoE is engaged in various programs toward ensuring the environmental conservation and development of our country. For this reason, it is difficult for DoE to fulfill its mandatory programmes with its limited staffs and financial constraints.

ix) All existing laws need to be enforced before throwing them away for being obsolete. The laws are hardly used in consonance with their objectives but abused and mis-used to suit various purposes.

10.3 Development of Environmental Law:

There are several laws and policies introduced in different times to protect and conserve the environment and mitigating measures to minimize the environmental pollution and its impacts. Several laws were in existence regarding environment passed before the independence of Bangladesh, Of them, one Act enacted between 1757 and 1857, around 57 Acts enacted between 1857 and 1947, 40 Acts enacted between 1947 and 1971 and 111 Acts enacted between 1971 and 2012 for the protection of different sectoral environments in Bangladesh. Besides, Bangladesh has already ratified, signed and accessed about 44 international conventions, treaties, protocols (known as ICTP) to protect the environment in Bangladesh.⁷

10.4 Environment in the Constitution of Bangladesh

⁶ Ibid

⁷ Noor Mohammad, Supra Note-1, pp-92-93

The constitution of a country safeguards the fundamental rights of its citizens and lays down the directive principles of state policy. It is reflective of the administrative priorities of respective government and is a live document of people's solemn will and aspiration. All national laws are required to be in line with the constitutional spirit and any inconsistency therewith is to be struck down to uphold justice and basic expectations of the citizens from the state organs. Following the Stockholm Conference and of course the Rio, most nations with an exception of few have adopted national legislation on environment as part of their commitment to "think globally, act locally". Principle 11 of the Rio Declaration requires the State parties to enact effective environmental legislation and to reflect environmental standards, management objectives and priorities in development context. To ensure environmental justice, Principle 13 of the Declaration requires the State parties to develop national law regarding liability and compensation for the victims of pollution and other environmental damage.⁸ Many countries have also started responding to such trend resulting in significant change in domestic regulatory regime and also the Constitution, the supreme law of the land. Accordingly, many states have made a move to change their national legal regime to incorporate the changing and progressive value of mankind.

Bangladesh like other south Asian countries have been struggling with age-old laws enacted during the colonial era for protection and conservation of various natural resources. Long after the fall of British, some of these laws in the region were amended

⁸ See, Philippe Sands, *Principles of international environmental law* I published Manchester University Press-1995, pp-49-54

in respective legal arena to reflect the needs of the constituent populace and acknowledge their stake and participation in management.⁹

At least 116 countries¹⁰ of the world have incorporated provision in the Constitution on protection of environment and/or right of the people to enjoy clean and healthy environment. Sri Lanka (1978)¹¹, India (1976)¹² and Nepal¹³ have made a steady move ahead; Constitutional recognition of environmental protection is being strengthened, the basis of environmental jurisprudence in Bangladesh, and it is setting motion to the process of environmental justice that equally affects all the sixteen crore people of the country. Thirty nine years later, the constitution amendment (15th Amendment)¹⁴ committee has incorporated 'Environment' in our constitution.

In the past we have seen amendments to our Constitution on various occasions. All the major political parties of Bangladesh have included environment in their party manifesto. Unfortunately, Bangladesh has incorporated 'protection and improvement of environment and bio-diversity'¹⁵ [(Article 18(A))¹⁶ her constitution of the fundamental principles of

⁹ Editorial, *Environment in the Constitution*, Bangladesh Environmental Lawyers Association (BELA), Newsletter, Vol-8, June2000- May, 2001.p-1.

¹⁰ Ibid

¹¹ The 1978 Constitution of Sri Lanka requires the State to protect, preserve and improve the environment for the benefit to the community [Article 27 (14)]. The exercise and enjoyment of rights and freedoms is inseparable from the performance of duties and obligations and accordingly it is the duty of every person in Sri Lanka to protect nature and conserve its riches. [Article 28 (f)].

¹² Four years after the Stockholm Conference the 42nd amendment to the Constitution of India added certain significant provisions relating to environment. Under the new provisions as added to the body of directive principles, which guide the state in molding its law, the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country [Article 48 (A)]. Among the fundamental duties of the citizens incorporated by the 42nd amendment, the duty to protect the environment is significant. It is provided that every citizen shall have a fundamental duty to protect and improve the natural environment including the forests, lakes, rivers and wildlife and to have compassion for living creatures [Article 51 (G)].

¹³ In Nepal, some new Articles have been incorporated as Directive Principles of State Policy to preserve the environment and reduce adverse impact on environment due to physical development activities.

¹⁴ 1 July, 2011, Parliament amendment the bill.

¹⁵ The Constitution of the People's Republic of Bangladesh, October, 2011, p-6.

¹⁶ Article 18A was inserted by the Constitution (Fifteen Amendment) Act, 2011 (Act XIV of 2011), section 12.

state policy instead of fundamental rights. Protection and improvement of environment and bio-diversity should be incorporated of fundamental rights like others countries of the world.

Thirty nine years after the Stockholm Conference¹⁷ the Article 18A (Protection and improvement of environment and bio-diversity) amendment to the constitution of Bangladesh added certain significant provision relating to environment. Under the new provision is as “The state shall endeavor to protect and improve the environment and to preserve and safeguard the natural resources, bio-diversity, wetlands, forests and wild life for the present and future citizens”.¹⁸ Some may argue that a poor country like Bangladesh should not recognize environment as a right. Let me inform you that poverty should not bar us from recognizing peoples’ right to sound environment. Like many developed countries, most of the African constitutions have recognized environment as right. The fact that 80 percent of our people earn their livelihood from nature justifies it all the more that environment is recognized in our constitution as right.

10.5 Environment and Education:

Education is essential for the development of human personality. It strengthens respect for human rights and fundamental rights.¹⁹ The Stockholm Conference on Human Environment in 1972 heralded the efforts, both national and international, to establish programmes of environmental education, interdisciplinary in approach, in school and out of school encompassing all levels of education, and directed towards the general public in particular the ordinary citizens living in rural and urban areas, youth and adult alike, with a view to educating him as to simple steps he might take, within his means to manage and

¹⁷ Stockholm Conference held 1972

¹⁸ Fifteen Amendment 2011, It is amended 30th June 2011 by the parliament.

¹⁹ P. B. Sahasranaman, *Hand Book of Environmental Law*, New Delhi: Oxford University Press, 2009, p-8.

control his environment.²⁰ Educational institutions are considered to be the ‘seed beds of culture’, in which the future will be schooled and trained.²¹ Article 17 and sub-section a, b, c of the Constitution of Bangladesh provides free and compulsory education. It is also fundamental principles of the state policy (Part II), which is stated, “The State shall adopt effective measures for the purpose of- a) establishing a uniform, mass-oriented and 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 society and producing properly trained and motivated citizens to serve those needs; c) removing illiteracy within such time as may be determined by law.” Awareness of environment, problems related to pollution, environmental law should be taught as a compulsory subject in the school, college and university levels.

10.6 Recommendations:

Bangladesh has incorporated ‘protection and improvement of environment and bio-diversity’ [(Article 18(A)] her constitution of the fundamental principles of state policy instead of fundamental rights.²² Protection and improvement of environment and bio-diversity should be incorporated of fundamental rights like others countries of the world. Fundamental rights must impose by the court. It’s the people inherent right. The question is vital as it is a constitutional requirement under Article 102 that it is only “a person aggrieved” who can file petitions for enforcement of fundamental rights. Environmental law is a rapid growing field of jurisprudence arena. Only Dhaka University has incorporated that subject at master level for optional course. All the universities should be opened the subject of environmental law at honours course. It also should be

²⁰ Article 26 (1) and (2) of Universal Declaration of Human Rights, 1948.

²¹ P. B. Sahasranaman, *Supra Note-19*, p-8.

²² Fifteen Amendment 2011, It is amended 30th June 2011 by the parliament.

comprehensive with the LLB (pass) course. Many LLB graduates obtain degree from Law Collages. But they do not know about environmental law. ‘Environment & Environmental law’ titled training course should be compulsory among teachers, judges, practitioners and media personnel. The recent movement towards a strengthening of legal education, including a restructuration of LLM programs, should include clinical education, committed to human rights approaches to environmental law.²³ The government must make environmental awareness and duties a top educational campaign right from the primary school to the highest university level.

The government of Bangladesh may take some initiatives such as campaign against environmental degradation through radio, television, and leaflet for the purposes of developing environmental resources for the well being of the people of Bangladesh. The concerned implementing officers should be given more training for the enforcement and effectiveness of the laws. In this regard, frequent monitoring system should be introduced. Moreover, the government may give trainings to the union parishad’s chairman, member, gram sarker’s member through the proper channel of the government for the purposes of developing and building awareness to the common people of the country which will very much helpful for developing and conserving our environment of Bangladesh.²⁴ Natural disasters are also of major environmental concern. Two common natural disasters which cause heavy wounds to our fragile ecosystem almost every year are floods and cyclones. The environmental damage of these two natural disasters is enormous. Effective disaster management and mitigation programmes are essential for

²³ Knut Fournier, “International Law and the Environmental Challenge in Bangladesh: the role of the Law Schools”, in *ICEAB 12 Proceeding 5*, October, 13-14, 2012, p-107; <http://benjapan.org/iceab 12/ICEAB12 Proceeding 5Pdf> (Accessed 02, February, 2013)

²⁴ Noor Mohammad, *Supra Note-1*, p-98

proper environment management. Bangladesh Environment Policy 1992 needs modification in the context of the modern world policy. Separate environment court should be established in every administrative district, and to assign separate magistrate for Bangladesh Environment Conservation Act 1995 in every district. The achievement of these efforts would be greatly facilitated by the establishment of a BCS “Environmental Cadre”. The existence of such a cadre would provide career paths to talented individuals within the environment sector, and help strengthen the government’s endeavour toward safeguarding the environment. It should be satisfactory coordination with other line ministries. There is a need for special training and research institute within DoE itself. It should be make necessary amendment of the environment acts, rules and regulations to cope up with the changing nature of pollution and human activities.

10.7 Concluding Remarks:

Environmental problems followed by industrialization are a historical truth. The history of industrialization and environmental problems gave a very important lesson to the humankind that industrialization must not be at the cost of environment. Bangladesh is yet to be an industrialized country and whatever industrialization happened is largely unplanned and consolidated. Industrial waste already poses a serious threat to the environment. Hopefully the history would help in rethinking and give impetus to develop an integrated functional environmental management plan including pollution load reduction, research and development of pollution control technologies, human resources development, establishment of industrial zones and harmonization of sectoral policies and rules. Provision for necessary budget allocation should be kept for effective

implementation of the plan. All concerned must act in a responsible manner because environmental damages are often slow but irreversible. The application of these principles is possible only when the public is aware and educated and after all, these principles are reflected in our Act. Subsequently, people can comprehend that if we make other a victim by degrading environment, we are actually harming our own selves. It is all the more important to acknowledge the people on environmental concepts and make them realize that sometimes the adverse impact of environment would not be confronted until a threshold is reached and we may be entrapped by a disaster. Hence, we have no other option to make the people environmentally educated and indeed, to make the enactments more concept-bound. We hope combining human rights with human duties with same emphasis and status for safer environment as an intergenerational equity. In short, the trends in environmental degradation in Bangladesh are ominous unless the root causes are addressed with intensive education and mass awareness backed by strict regulatory regime for protecting the environment through well coordinated accountable institutional framework.

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3. The Bangladesh Observer
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5. The Daily Star Magazine
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7. The Daily Prothom-Alo
8. The Daily New Age
9. The Holiday
10. The Independent
11. The Morning Sun
12. The Tribune

D. Website

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**Appendix-1 :
Year wise List of Legislation**

Serial No.	Year of enacted	Name of Law
01	1855	The Fatal Accidents Act, 1855
02	1860	The Penal Code, 1860
03	1861	The Police Act, 1861
04	1864	The Canals Act, 1864
05	1871	The Cattle Trespass Act, 1871
06	1876	The Irrigation Act, 1876
07	1880	The Vaccination Act, 1880
08	1881	The Obstructions in Fairways Act, 1881
09	1882	The Transfer of Property Act, 1882
10	1884	The Explosives Act, 1884
11	1885	The Ferries Act, 1885
12	1889	The Merchandise Marks Act, 1889
13	1889	The Private Fisheries Protection Act, 1889
14	1890	The Railways Act, 1890
15	1894	The Prisons Act, 1894
16	1897	The Epidemic Diseases Act, 1897
17	1898	The Lepers Act, 1898
18	1898	The Code of Criminal Procedure, 1898
19	1898	The Live-stock Importation Act, 1898
20	1899	The Glanders and Farcy Act, 1899
21	1904	The Public Parks Act, 1904
22	1905	The Smoke Nuisances Act, 1905
23	1908	The Ports Act, 1908
24	1908	The Explosives Substances Act, 1908
25	1912	The Lunacy Act, 1912
26	1912	The Bengal Mining Settlements Act, 1912
27	1913	The White Phosphorus Matches Prohibition Act, 1913
28	1913	The Mussalman Wakf Validating Act, 1913
29	1914	The Destructive Insects and Pests Act, 1914
30	1916	The Medical Degrees Act, 1916
31	1919	The Juvenile Smoking Act, 1919
32	1919	The Poisons Act, 1919
33	1920	The Agricultural and Sanitary Improvement Act, 1920
34	1920	The Cruelty to Animals Act, 1920
35	1923	The Mines Act, 1923
36	1923	The Boilers Act, 1923
37	1923	The Workmen's Compensation Act, 1923
38	1925	The Highways Act, 1925
39	1927	The Vehicles Act, 1927
40	1927	The Forest Act, 1927
41	1929	The Child Marriage Restraint Act, 1929
42	1933	The Places of Public Amusement Act, 1933
43	1933	The Suppression of Immoral Traffic Act, 1933
44	1933	The Children (Pledging of Labor) Act, 1933
45	1934	The Petroleum Act, 1934

46	1934	The Dock Laborers Act, 1934
47	1935	The Development Act, 1935
48	1936	The Bengal Water Hyacinth Act, 1936
49	1937	The Agricultural Produce (Grading and Marking) Act, 1937
50	1938	The Employers Liability Act, 1938
51	1938	The Employers Liability Act, 1938
52	1939	The Bengal dentists Act, 1939
53	1939	The Bengal Rural Poor and Unemployed Relief Act, 1939
54	1939	The Tanks Improvement Act, 1939
55	1940	The Drugs Act, 1940
56	1941	The Mines Maternity Benefit Act, 1941
57	1943	The Bengal Vagrancy Act, 1943
58	1944	The Public Health (Emergency Provisions) Ordinance, 1944
59	1944	The Bengal Diseases of Animals Act, 1944
60	1947	The Coal Mines Labor Welfare Fund Act, 1947
61	1949	The Non Agricultural Tenancy Act, 1949
62	1950	The State Acquisition and Tenancy Act, 1950
63	1950	The Acquisition of Waste Land Act, 1950
64	1950	The Imports and Exports Control Act, 1950
65	1950	The Maternity Benefit (Tea Estates) Act, 1950
66	1950	The Protection and Conservation of Fish Act, 1950
67	1952	The Undesirable Advertisement Control Act, 1952
68	1952	The Provision of Smoking in Show-Houses Act, 1952
69	1952	The Embankment and Drainage Act, 1952
70	1952	The Building Construction Act, 1952
71	1953	The Town Improvement Act, 1953
72	1953	The Public Safety Ordinance, 1953
73	1953	The Dangerous Cargoes Act, 1953
74	1957	The Essential Commodities Act, 1957
75	1957	The Animals Slaughter (Restriction) and Meat Control Act, 1957
76	1958	The Inland Water Transport Authority Ordinance, 1958
77	1958	The Displaced Persons (Compensation and Rehabilitation) Act, 1958
78	1958	The Displaced Persons (Land Settlement) Act, 1958
79	1959	The Cattle (Prevention of Trespass) Ordinance, 1959
80	1959	The Pure Food Ordinance, 1959
81	1959	The Government Fisheries (Protection) Ordinance, 1959
82	1959	The Culturable Waste Land (Utilization) Ordinance, 1959
83	1959	The Chittagong Development Authority Ordinance, 1959
84	1959	The Private Forest Ordinance, 1959
85	1959	The Forest Industries Development Corporation Ordinance, 1959
86	1960	The Eye Surgery (Restriction) Ordinance, 1960
87	1960	The Medical Qualifications (Information) Ordinance, 1960
88	1961	The Agricultural Development Corporation Ordinance, 1961
89	1961	The Khulna Development Authority Ordinance, 1961
90	1962	The Tea Plantations Labor Ordinance, 1962
91	1962	The Bangladesh Society for the Prevention of Cruelty to Animals Ordinance, 1962
92	1962	The Prevention of Interference with Aids to Navigable Water Ways Ordinance, 1962

93	1962	The Allopathic System (Prevention of Misuse) Ordinance, 1962
94	1962	The Agricultural Pests Ordinance, 1962
95	1963	The Indecent Advertisement Prohibition Act, 1963
96	1964	The Agricultural Produce Markets Regulation Act, 1964
97	1965	The East Pakistan Shops and Establishment Act, 1965
98	1965	The Control of Employment Ordinance, 1965
99	1965	The Factories Act, 1965
100	1969	The Customs Act, 1969
101	1971	The Agricultural Pesticides Ordinance, 1971
102	1972	The Bangladesh College of Physicians and Surgeons Order, 1972
103	1972	The Bangladesh Malaria Eradication Board Order, 1972
104	1972	The Bangladesh Land Holding Limitation Order, 1972
105	1972	The Bangladesh Water and Power Development Boards Order, 1972
106	1972	The Bangladesh Shipping Corporation Order, 1972
107	1972	The Bangladesh Inland Water Transport Corporation Order, 1972
108	1973	The Removal of Wrecks and Obstruction in Inland Navigable Water-ways Rules, 1973
109	1973	Bangladesh Fisheries Development Corporation Act, 1973
110	1973	The Bangladesh Wild Life (Preservation) Order, 1973
111	1973	The Essential Commodities (Storage, Keeping and Disposal) Order, 1973
112	1973	The Bangladesh Rice Research Institute Act, 1973
113	1974	The Jute Research Institute Act, 1974
114	1974	Territorial Water and Maritime Zones Act, 1974
115	1974	The Bangladesh Petroleum Act, 1974
116	1974	The Children Act, 1974
117	1975	The Bidi Manufacture (Prohibition) Ordinance, 1975
118	1976	The Pharmacy Ordinance, 1976
119	1976	The Bangladesh Agricultural Research Institute Ordinance, 1976
120	1976	The Bangladesh Petroleum Corporation Ordinance, 1976
121	1976	The Rajshahi Town Development Authority Ordinance, 1976
122	1976	The Dhaka Metropolitan Police Ordinance, 1976
123	1976	The Inland Shipping Ordinance, 1976
124	1976	The Chittagong Port Authority Ordinance, 1976
125	1976	The Mongla Port Authority Ordinance, 1976
126	1976	The Chittagong Hill Tracts Development Board Ordinance, 1976
127	1976	The Rajshahi Division Development Board Ordinance, 1976
128	1976	The Chittagong Division Development Board Ordinance, 1976
129	1977	The Rural Electrification Board Ordinance, 1977
130	1977	The Paurashava Ordinance, 1977
131	1977	The Seeds Ordinance, 1977
132	1977	The Territorial Water and Maritime Zones Rules, 1977
133	1978	International Centre for Diarrhoea Diseases Research, Bangladesh Ordinance, 1978
134	1978	The Prevention of Malaria (Special Provision) Ordinance, 1978
135	1978	The Chittagong Metropolitan Police Ordinance, 1978
136	1980	The Medical and Dental Council Act, 1980
137	1980	Dock Workers' (Regulation of Employment) Act, 1980
138	1982	The Medical Practice and Private Clinics Laboratories (Regulation) Ordinance, 1982

139	1982	The Drugs (Control) Ordinance, 1982
140	1982	The Bangladesh Hotels and Restaurants Ordinance, 1982
141	1982	The Acquisition and Requisition of Immovable Property Ordinance, 1982
142	1982	The Attia Forst (Protection) Ordinance, 1982
143	1982	The Bangladesh Veterinary Practitioners Ordinance, 1982
144	1982	The Chittagong City Corporation Ordinance, 1982
145	1982	The Chittagong District Development Board Ordinance, 1982
146	1982	The Bangladesh Rural Development Board Ordinance, 1982
147	1982	The Comilla, Noakhali and Sylhet Districts Development Boards Ordinance, 1982
148	1983	The Fish and Fish Products (Inspection and Quality Control) Ordinance, 1983
149	1983	The Dhaka City Corporation Ordinance, 1983
150	1983	The Local Government (Union Parishads) Ordinance, 1983
151	1983	The Motor Vehicle Ordinance, 1983
152	1983	The Bangladesh Unani and Ayurvedic Practitioners Ordinance, 1983
153	1983	The Bangladesh Homeopathic Practitioners Ordinance, 1983
154	1983	The Bangladesh Irrigation Water Rate Ordinance, 1983
155	1983	The Marine Fisheries Ordinance, 1983
156	1983	The National Archives Ordinance, 1983
157	1983	The Bangladesh Merchant Shipping Ordinance, 1983
158	1983	The Bangladesh Jatiya Jadughar Ordinance, 1983
159	1984	The Khulna City Corporation Ordinance, 1984
160	1984	The Fisheries Research Institute Ordinance, 1984
161	1984	The Livestock Research Institute Ordinance, 1984
162	1984	The Breast milk Substitutes (Regulation of Marketing Ordinance, 1984)
163	1984	The Land Reforms Ordinance, 1984
164	1984	The Bangladesh Institute of Nuclear Agriculture Ordinance, 1984
165	1985	The Bangladesh Standards and Testing Institution Ordinance, 1985
166	1985	The Khulna Metropolitan Police Ordinance, 1985
167	1985	The Ground Water Management Ordinance, 1985
168	1985	The Bangladesh Oil, Gas and Mineral Corporation Ordinance, 1985
169	1985	The Jumuna Multipurpose Bridge Authority Ordinance, 1985
170	1987	রাজশাহী সিটি কর্পোরেশন অধ্যাদেশ, ১৯৮৭
171	1988	ভামাকজাত সামগ্রী বিপন্নন (নিয়ন্ত্রণ) আইন, ১৯৮৮
172	1989	আয়োডিন অভাবজনিত রোগ প্রতিরোধ আইন, ১৯৮৯
173	1989	আদালত অন্তর্ভুক্তি নিষেধাজ্ঞা আদেশ আইন, ১৯৮৯
174	1989	ইট পোড়ানো (নিয়ন্ত্রণ) আইন, ১৯৮৯
175	1989	রাঙামাটি পার্বত্য জেলা স্থানীয় সরকার পরিষদ আইন, ১৯৮৯
176	1989	খাগড়াছড়ি পার্বত্য জেলা স্থানীয় সরকার পরিষদ আইন, ১৯৮৯
177	1989	বান্দরবন পার্বত্য জেলা স্থানীয় সরকার পরিষদ আইন, ১৯৮৯
178	1990	মাদকদ্রব্য নিয়ন্ত্রণ আইন, ১৯৯০
179	1990	The Forest (Amendment) Act, 1990
180	1992	পানি সম্পদ পরিকল্পনা আইন, ১৯৯২
181	1992	
182	1993	পারমাণবিক নিরাপত্তা ও বিকিরণ নিয়ন্ত্রণ আইন, ১৯৯৩
183	1993	Municipal Ordinance, 1993
184	1994	কোস্ট গার্ড আইন, ১৯৯৪
185	1995	বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫

186	1995	যমুনা বহুমুখী সেতু প্রকল্প (ভূমি অধিগ্রহণ) আইন, ১৯৯৫
187	1996	বাংলাদেশ কৃষি গবেষণা কাউন্সিল আইন, ১৯৯৬
188	1996	বাংলাদেশ ইক্ষু গবেষণা ইনস্টিটিউট আইন, ১৯৯৬
189	1996	পানি সরবরাহ ও পয়ঃনিষ্কাশন কর্তৃপক্ষ আইন, ১৯৯৬
190	1996	ইমারত নির্মাণ বিধিমালা, ১৯৯৬
191	1997	পরিবেশ সংরক্ষণ বিধিমালা,
192	1998	পার্বত্য চট্টগ্রাম আঞ্চলিক পরিষদ আইন, ১৯৯৮
193	1998	
194	1998	কড়া রপ্তানী নীতিমালা, ১৯৯৮
195		(লাইসেন্স)
196	1999	মানবদেহ অঙ্গ প্রত্যঙ্গ সংযোজন আইন, ১৯৯৯
197	2000	আইনগত সহায়তা প্রদান আইন,
198	2000	
199	2000	উল্লেখ্য স্থান, উদ্যান এবং প্রাকৃতিক জলাধার সংরক্ষণ আইন, ২০০০
200	2000	নি উন্নয়ন বোর্ড আইন, ২০০০
201	2000	নারী ও শিশু নির্যাতন দমন (সংশোধিত) আইন, ২০০০
202	2000	Wetland Protection Act, 2000
203	2000	The Forest (Amendment) Act, 2000
204	2001	পার্বত্য চট্টগ্রাম ভূমি বিরোধ নিষ্পত্তি কমিশন আইন, ২০০১
205	2001	বাংলাদেশ প্রতিবন্ধী কল্যাণ আইন,
206	2001	Urban Water Body Protection Law, 2001
207	2001	Brick Burning (Control) (Amendment) Act-2001
208	2002	শিশু মাতৃ স্বাস্থ্য ইনস্টিটিউট আইন, ২০০২
209	2002	এসিড নিয়ন্ত্রণ আইন, ২০০২
210	2002	
211	2002	দ্রব্য রক্ত পরিসঞ্চালন আইন, ২০০২
212	2003	গ্রাম সরকার আইন, ২০০৩
213	2003	অগ্নি প্রতিরোধ ও নির্বাণ আইন, ২০০৩
214		ওজনস্বল্প ক্ষয়কারী দ্রব্য (নিয়ন্ত্রণ) আইন, ২০০৩
215	2005	ধূমপান ও তামাকজাত দ্রব্য ব্যবহার (নিয়ন্ত্রণ) আইন
216		ত দ্রব্য ব্যবহার (নিয়ন্ত্রণ) আইন, ২০০৫
217		শব্দদূষণ (নিয়ন্ত্রণ) আইন, ২০০৫
218		মেডিকেল বর্জ্য ব্যবস্থাপনা বিধিমালা, ২০০৮
219	2008	Medical Waste Management Rules, 2008
220	2009	Bangladesh Climate Change Strategy and Action Plan, 2009
221		
222	2010	Social Forestry (Amended) Rules- 2010
223	2010	Climate Change Trust Act- 2010
224	2010	Draft Ship breaking & Hazardous Waste Management Rules- 2010
225	2010	Environment Conservation Act (Amendment)-2010
226	2010	Draft Radio Active & Electronic Waste Management Rules-2010
227	2010	Draft Bangladesh Rubber Board Act-2010
228	2010	Bangladesh Bio-safety Rules-2010
229	2011	Transit Rule for Bangladesh-2011
230	2012	Bangladesh Biological Diversity Act, 2012
231	2012	Bio-safety Rules, 2012
232	2012	Saw-mill (License) Rules-2012
233	2012	Wildlife (preservation & Security) Act-2012

Appendix-2 : List of Rulers

S.L No.	Start to govern	Name of Ruler	
1	1848 (January)	Earl (Marquess) of Dalhousie	Governor General of India (Charter Act of 1833)
2	1856 (February)	Viscount (Earl) Canning	
3	1858 (1 st November)	Viscount (Earl) Canning	Governor General and Viceroy
4	1862 (March)	8 th Earl of Elgin (1)	
5	1863	Sir Robert Napier (Baron Napier of Magdala)	
6	1863	Sir William T. Denison	
7	1864 (January)	Sir John (Lord) Lawrence	
8	1869 (January)	Earl of Mayo	
9	1872	Sir John Strachey	
10	1872	Lord Napier of Merchiston	
11	1872 (May)	Baron (Earl of) Northbrook	
12	1876 (April)	Baron (1 st Earl of) Lytton (1)	
13	1880 (June)	Marquess of Ripon	
14	1884 (December)	Earl of Dufferin (Marquess of Dufferin and Ava)	
15	1888 (December)	Marquess of Lansdowne	
16	1894 (January)	9 th Earl of Elgin (ii)	
17	1899 (6 th January)	Barron (Marquess) Curzon of Kedleston	
18	1904 (April)	Lord Ampthill	
19	1904 (December)	Barron (Marquess) Curzon of Kedleston (reappointed)	
20	1905 (November)	4 th Earl of Minto (ii)	
21	1910 (November)	Baron Hardinge of Penshurst (ii)	
22	1916 (April)	Baron Chelmsford	
23	1921 (April)	Earl of Reading	
24	1925	2 nd Earl of Lytton (ii)	
25	1926 (April)	Lord Irwin	
26	1929	Lord Goschen (during the absence of Lord Irwin on leave)	
27	1931 (April)	Earl of Willington	
28	1934 (May-August)	Sir George Stanley (Offg.)	
29	1934	Earl of Willington	
30	1936 (18 th April)	Marquess of Linlithgow	
31	1937 (31 st March)	Marquess of Linlithgow	Governors- General & Crown Representatives Act of 1935
32	1938 (June-October)	Baron Brabourne (Offg.)	
33	1938	Marquess of Linlithgow	

34	1943	Viscount (Earl) Wavell	
35	1945	Sir John Colville (Offg.)	
36	1947 (March-August)	Viscount (Earl) Mountbatten	Last Viceroy of United India, First Governor General of the Indian Dominion (1947-48)
37	1947	Qaid-i-Azam M A Jinnah	Governor General
38	1948 (September)	Khawaja Nazimuddin	
39	1951	Ghulam Mohammad	
40	1955	Major General Iskander Mirza	
41	1956	Hussain Suhrawardy	Prime Minister
42	1958	Malik Feroz Khan Noon	
43	1958	Field Marshal Mohammad Ayub Khan	Military Ruler
44	1969	General Yahya Yahya Khan	
45	1971	Sheikh Mujibur Rahman	President
46	1975	Khondokar Mostak Ahmed	
47	1976	Major General Zia-ur Rahman	
48	1881	Major General Ershad	
49	1991	Begum Khaledia Zia	Prime Minister
50	1996	Sheikh Hasina	
51	2001	Begum Khaledia Zia	
52	2007	Dr. Fakaruddin Ahmed	Caretaker Government Chief
53	2009	Sheikh Hasina	Prime Minister

[N.B : Temporary and officiating in Italics]